

Texas Outdoor Recreation Plan

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Outdoor Recreation in the Urban Areas of Texas

Part I: An Overview

Texas Parks and Wildlife Department
Comprehensive Planning Branch





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Outdoor Recreation in the Urban Areas of Texas

Part I: An Overview

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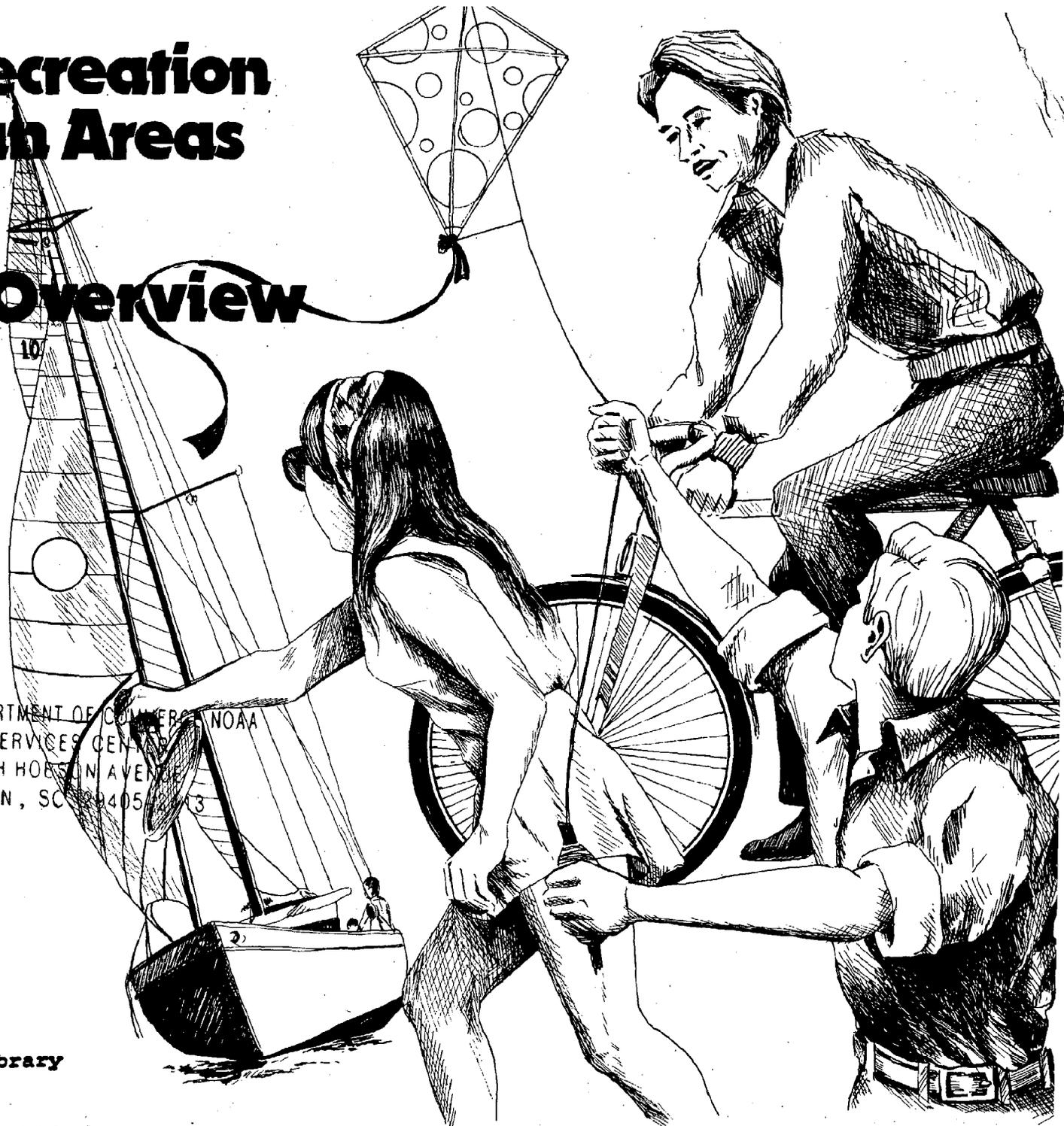
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OFFICE OF THE GOVERNOR
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DOLPH BRISCOE
GOVERNOR

Mr. James G. Watt
Director
Bureau of Outdoor Recreation
Department of the Interior
Washington D. C. 20240

Dear Mr. Watt:

Outdoor recreation has long been an important element in the lives of Texans. In this respect, citizens of Texas are fortunate to live in a State endowed with abundant natural resources and blessed with a rich variety of recreational resources. In the future, dependence on these resources will increase as the demand for recreation opportunities continues to grow.

The future holds many challenges for Texans. Among these, along with maintaining a viable economy and an agreeable standard of living, is the challenge of insuring that a sufficient quantity of diversified outdoor recreation opportunities is available for present and future generations of Texans. In accomplishing these ambitious goals, the importance of careful planning for the wise use of the State's natural and fiscal resources is a matter of concern for all Texans. The Texas Parks and Wildlife Department has recognized its responsibility for assuring that adequate land, water and facilities for recreation are available to every region of the State.

The ten volume Texas Outdoor Recreation Plan will serve as a guide for action in providing needed recreation opportunities throughout the State. With the completion of this plan, an important new source of information is available for input into the comprehensive planning process.

I am pleased to submit to you this volume of the Texas Outdoor Recreation Plan.

Sincerely,

DOLPH BRISCOE
Governor
State of Texas

DB/jc



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CHANGES TO
OUTDOOR RECREATION IN THE URBAN AREAS OF TEXAS, PART 1: AN OVERVIEW

Please make the changes listed below and file this change sheet for future reference. For the convenience of users only those changes determined to be of significance in interpreting this volume are listed.

Page	Column	Paragraph	Line	Figure/ Table	CHANGE		ACTION
					From	To	
3	2	...	4	...	1969	1960	
3	2	...	20	...	32	31	
5	1	...	...	...	...	...	Add "Recreation and Transportation Program... 121" between lines 9 & 10
5	1	...	20	...	139	141	Add page number "84"
7	2	...	20	4.4	...	...	Miscellaneous, Total for All Urban Areas
7	2	...	24	...	1975	1970	Add 21,711,678 under Cities for Child's Play
23	...	...	...	1.6	381	391	Add Legend: dots - Towns, lines - Cities, white - Metros, black - Total
25	...	...	...	1.7	...	...	Figure 1.12 Legend same as Figure 1.11
26	...	...	...	1.9	...	...
30	...	...	...	1.12	...	...
43	8	...	7	2.7	475,356	475,356	Region 10
45	...	...	...	2.3	C-1	C-1	Region 25
45	...	...	...	2.3	T-2	T-3	
54	1	4	2	...	statewide	urban household	
55	...	...	...	3.5	...	...	Change title from "Reference" to "Preference"
59	...	...	...	3.7	.02	.01	Surfing
62	...	...	...	3.10	...	...	Walking, 0.4 Yrs., is "10.27"
65	...	...	...	3.11	128,513	128,518	Walking, Metros, 1990
65	...	...	...	3.11	21,400	21,408	Tennis, Metros, 1975
65	...	...	...	3.11	260	268	Tennis, Towns, 1975
66	...	...	...	3.11	6,831	6,381	Freshwater Boating, Metros, 1980
68	3	...	...	...	...	...	Lines 1, 2, and 3 should follow line 12
71	...	...	...	3.15	1.81	1.22	Freshwater Skiing, Metros, 1990
71	...	...	...	3.15	1.62	1.22	Freshwater Skiing, Towns, 1990
72	...	...	...	3.16	...	...	Title - should read "Projections of Current..."
72	...	...	...	3.16	48	4.8	2000. Under Total for All Urban Areas
79	2	1	2.4	...	...	...	Should read "... The 70:30 ratio is not a proposed TORP guide-line, but assuming the relative levels to be a reasonably..."
81	2	2	17	...	in	the	
85	1	1	11	...	Table 4.1	Table 4.2	Number of Facility Units Required, Cities Cumulative Column, Combined Walking, Bicycling, and Nature Study, 2000
86	2	3	8	...	1,604	1,064	Delete line 26, add "trails total to 110 miles; and the requirement for football/soccer fields was incremented by bringing the 1975 total to 26 fields, Freshwater boat ramp requirements for the..."
88	...	...	...	4.5	241	471	Title line
90	1	1	26	...	...	...	Following "publicly administered", insert "park or recreation area providing opportunities for their residents. There were 149 publicly-administered..."
92	...	...	...	4.6	1975	1970	Should read "Unlike resource requirements, there are many aspects of urban outdoor recreation which could not be easily quantified for analysis. However, the importance of several of..."
94	2	3	4	...	...	...
94	3	3	1	...	this	it is	
98	3	1	3.5	...	...	...
108	3	3	14	...	334	321	Change "returning the" to "returning to the"
112	3	1	22	...	...	...	Delete "and bikeways associated with Federal Aid Highway Act"
116	3	3.a.	38.4	...	...	...	Region 27
140	...	...	...	C.1	T 4	T-3	Legend
141	...	...	...	C.2	201,300	201,500	Legend
141	...	...	...	C.2	Less than 30	Less than 50	
147	1	3	11	...	iterate	iterate	
147	2	2	1	...	iteration	iteration	
147	2	2	5	...	iterations	iterations	
147	2	2	5	...	iterated	iterated	
147	2	3	10	...	originating	originating in	
149	2	3	1	...	DPNHH 1968 CS	DPNHH 1968 CS	
149	3	2	3	...	DPNHH 1968 CS	DPNHH 1968 CS	
156	...	...	...	C.8	...	...	Footnote c should have "=" sign after the second 1980 and a "1/2" after the third 1980
158	...	...	...	C.9	17.29 .69	17.25 + .69	Footnote b
172, 205	...	...	...	C.9	5.6 .7181	5.6 + .7181	Footnote c
240, 275	...	...	...	...	Odessa	Midland	Footnotes *, line 2
278	2	1	11	...	entent	extent	Special Programs for the Aging, add X under State, delete X under Educational Institutions
286	...	...	...	...	...	...	Economic Development Planning Grants, delete X under Individuals.
287	...	...	...	...	...	...	Economic Development Technical Assistance, add X under State.
290	Topographical Surveys and Mapping Services, delete X under Non-Profit Organizations and Research Organizations, and add X under Private Enterprises and Individuals.
296	
299	3	2	7	...	34	22	Title line
301	F.2	...	1967-1975	1967-1975 ^b	



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Division of Planning Coordination
Office of Information Service
Texas Department of Health Resources
Texas Department of Mental Health and Retardation
Texas Education Agency
Texas Health Data Institute
Texas Historical Commission
Texas Rehabilitation Commission

Local-Regional Agencies

Municipal Governments
Regional Councils of Government
County Governments

Universities

Texas A&M University

University of Texas at Austin
Bureau of Business Research
Computation Center
Population Research Center

Private Organizations

Texas Natural Areas Survey Committee
Local Chambers of Commerce

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Legal Authority

The development of the **Texas Outdoor Recreation Plan** is authorized by Article 6081r, V.T.C.S. (Chapter 112, Acts of the 59th Legislature, Regular Session, 1965.)

Section 1 of this Act designates the Texas Parks and Wildlife Department as

"...the State Agency to cooperate with the Federal Government in the administration of the provisions of any federal assistance programs for the planning, acquisition, operation, and development of the outdoor recreation resources of the State..." In addition, the Parks and Wildlife Department is "...authorized and directed to cooperate with

the proper departments of the Federal Government and with all other departments of the State and local governments...in the enforcement and administration of the provisions of this act..."

Section 2 authorizes the Texas Parks and Wildlife Department

"...to prepare, maintain, and keep up-to-date a state-wide comprehensive plan for the development of the outdoor recreation resources of the State of Texas; to develop, operate, and maintain outdoor areas and facilities of the State and to acquire land, waters, and interests in land and waters for such areas and facilities."

Section 3 states that in order for other State or local agencies

"...to obtain the benefits of any such programs (under the Land and Water Conservation Act of 1965), the Parks and Wildlife Department shall coordinate its activities with and represent the interests of all agencies and political subdivisions of the State of Texas...having interests in the planning, development, acquisition, operation, and maintenance of outdoor recreation resources and facilities."

Attorney General's Opinion No. C-518 issued September 30, 1965, supports the authority that the Department is the proper agency of this State authorized to allocate funding and to carry out the State recreation planning requirements of the Federal Land and Water Conservation Fund Act (Public Law 88-578).

The above legislation and related guidelines have been adhered to both with regard to development and implementation of the **Texas Outdoor Recreation Plan**. The various volumes of the Plan are based on a careful assessment of what was necessary to fulfill the provisions and intent of the planning requirements of the legislation. Basically, two aspects were identified as necessary: (1) a careful determination of the type and quantity of resources necessary to meet the State's recreation needs and, (2) assessment of steps needed to properly utilize resources.

In summary, the Parks and Wildlife Department serves as the primary State Agency authorized to (1) coordinate, develop, and implement the **Texas Outdoor Recreation Plan** for the people of Texas and (2) regulate the allocation of federal aid from the Land and Water Conservation Fund to all political subdivisions of the State in accordance with the priorities set forth in the Plan.



Foreword

In recent years, the demand for outdoor recreation opportunities has rapidly increased throughout Texas. Changes in factors such as population, urbanization, leisure time, buying power and recreational preferences have created a tremendous pressure on public agencies and private entities to provide more outdoor recreational opportunities. Faced with the increased demand, decision makers and planners in Texas have responded in a commendable manner, recognizing the requirement each of us has for recreation in our everyday lives.

In 1958, an act of the Federal Government, (Public Law 85-478, 72 Stat. 238), created the Outdoor Recreation Resources Review Commission, charging it with the massive task of recommending courses of action to insure that the necessary outdoor recreation opportunities are provided for the citizens of this country now and in the future. The result of the Commission's work, a report entitled, **Outdoor Recreation in America**, was published in 1962, and

contained many recommendations for action. Responding to the recommendations in the report, Congress and the President began enacting legislation which expanded the outdoor recreation responsibilities in several federal agencies, created the Bureau of Outdoor Recreation under the U.S. Department of the Interior, and established the Land and Water Conservation Fund.

The Land and Water Conservation Fund's intent was to increase outdoor recreation opportunities for the American people by providing matching grants for state and local land acquisition and development. In order for state and local governments to receive benefits from the Fund, certain eligibility requirements had to be satisfied. One of these requirements was that each state must develop, maintain, and keep up-to-date a statewide comprehensive outdoor recreation plan. In response to this requirement, the 59th Texas Legislature directed the Texas Parks and Wildlife Department to

assume responsibility for the Texas Outdoor Recreation Plan. In accordance with this direction, the Department embarked on a continuing course of action designed to provide a strong, viable program to guide outdoor recreation development in Texas.

The first outdoor recreation plan for Texas was published in 1965, and marked the initial effort of the Department to provide a meaningful program and guidelines for Texas. Accepted and recognized by federal, state and local agencies, the Plan served to guide outdoor recreation development in the state and certify Texas eligible to participate in the Land and Water Conservation Fund from 1965 until 1968.

Under the provisions of the Land and Water Conservation Fund Act, each state desiring to participate in the program must update its plan periodically. In 1968, responding to this provision, and with experience gained in the initial planning effort, the Department issued an updated plan which extended Texas' eligibility to participate in the

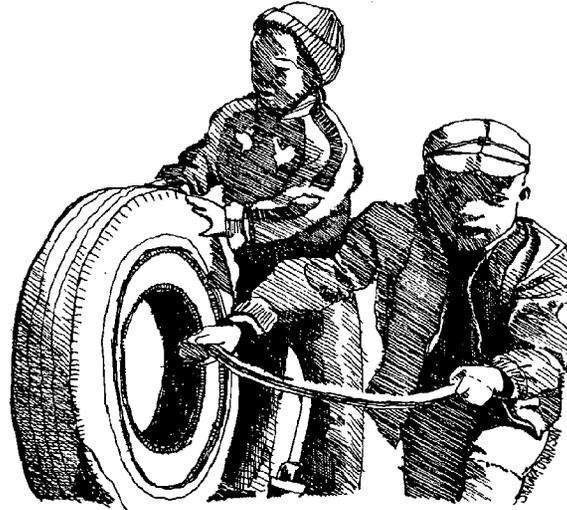
funding program until 1972. However, in 1967 the Department and the Bureau of Outdoor Recreation, after long and careful considerations, concluded that more complete and accurate information and techniques were necessary to accomplish a further refined and major updating of the Plan. The Bureau agreed with Department proposals to conduct a more extensive program than had been conducted by any state at that time. Extensive statewide data collection efforts were undertaken and sophisticated analytical techniques developed to further refine the Plan.

These efforts are realized in the updated 1975 Texas Outdoor Recreation Plan which consists of ten volumes as follows:

- I. State Summary
- II. Regional Summary
- III. Outdoor Recreation in the Urban Areas of Texas
- IV. Outdoor Recreation in the Rural Areas of Texas
- V. Outdoor Recreation on the Texas Gulf Coast
- VI. A Regional Environmental Analysis
- VII. Outdoor Recreation Activities
- VIII. The Roles of the Public and Private Sectors
- IX. A Statewide Recreation Information System
- X. Techniques of Analysis

Although each volume of the Plan presents specific information regarding various aspects of outdoor recreation in Texas, the Plan is organized into three parts: summary volumes, major volumes and volumes of an informational nature. The essence of the Plan is contained in the two summary volumes, the **State Summary** and the **Regional Summary**. All users of the Plan are urged to become familiar with these two volumes.

Major volumes include Volumes III, IV and V, which contain detailed statewide and regional analysis of the recreation opportunities, participation and resource



requirements of the urban areas, rural areas and Gulf Coast region of Texas. Also included is Volume VI which addresses the problems of resource conservation.

The informational volumes include Volumes VII, VIII, IX and X, which provide information relating to recreation activities, roles of the public and private sectors, and, an information system and planning methodology.

A brief description of the content of each of these ten volumes is presented below to help the user understand the Plan and more effectively utilize the respective volumes to address particular problems or needs.

Volume I, the **State Summary**, summarizes the major elements of the other nine volumes of the Plan. This volume contains broad information, recommendations, and policy statements to guide the current and future development of outdoor recreation resources in Texas.

“Volume II, the **Regional Summary**, summarizes pertinent recreational planning data relevant to the rural and urban areas of Texas, as provided in detail in Volumes III and IV. This volume contains data on existing and future resource requirements, as well as data on existing resources with recreation potential, recommendations and priorities for each of the 37 planning regions.

Volume III, **Outdoor Recreation in the Urban Areas of Texas**, analyzes outdoor recreation in those areas of Texas with an urban environment. This volume contains specific data on existing recreation opportunities, participation, and existing and future resource requirements for metropolitan areas, cities, and towns within each of the 37 planning regions. The volume also contains suggested recreational resource requirements for small communities with a 1969 population from 200 to 2,499 and identifies areas of special concern and associated problems in the urban areas.

Volume IV, **Outdoor Recreation in the Rural Areas of Texas**, analyzes outdoor recreation in areas having a rural environment and in towns with less than 200 population in Texas. This volume contains specific data on existing recreation opportunities, participation, and existing and future resource requirements in each of the 37 planning regions. This volume also identifies areas of special concern and associated problems in rural areas.

Volume V, **Outdoor Recreation on the Texas Gulf Coast**, analyzes saltwater related outdoor recreation in both the urban and rural areas along the Gulf Coast, defined as those seventeen counties contiguous to the Gulf of Mexico or associated bays. This volume contains specific data on each county with respect to existing saltwater related recreation opportunities, participation, and resource requirements, and also identifies areas of special concern and associated problems along the Gulf Coast.

Volume VI, **A Regional Environmental Analysis**, focuses on the problems of conserving wildlife and other recreational resources for present and future recreational use in the face of rapid urban and other development. This study focuses on the 8-county Houston-Galveston Region, with appropriate findings and recommendations projected statewide.

Volume VII, **Outdoor Recreation Activities**, analyzes participation patterns and examines factors significantly influencing participation for the most significant of the more than 70 recreational activities identified in Texas. Factors such as participation by the time of day, seasons of the year, distances travelled, expenditures of time and money, ability to participate, and facility preferences are examined.

Volume VIII, **The Roles of the Public and Private Sectors**, compares the roles and influences of public agencies and private entities in providing recreational opportunities for public use.

Volume IX, **A Statewide Recreation Information System**, describes the functions of communication, coordination, and cooperation with the framework of the statewide recreational planning process. This volume also examines the data collection instruments and methodologies used in the past, and presents alternatives for future updates.

Volume X, **Techniques of Analysis**, describes the methodology used in the TORP to determine recreational demand, recreation facility standards, opportunities, resource requirements, and recreation priorities in Texas.

With this information and frame of reference in mind, it is important to understand the goal and objectives of this Plan, the recreational planning philosophy of the State, and the major efforts necessary in order for Texas to remain an enjoyable place to live, work and recreate.

The overall goal of the Texas Outdoor Recreation Plan is to provide a framework to guide the allocation of outdoor recreation resources in Texas. Specific objectives of the Plan are to:

- Provide outdoor recreation data and information on a statewide and regional basis to all levels of government and the private sector. Guide and assist recreational planning entities in the development of outdoor recreation plans and programs at the state, regional and local levels.
- Provide an official state recreation plan that can be used by non-recreational planning entities to anticipate, identify, accommodate or integrate the interests and resource needs of recreation, within the scope and objectives of such planning endeavors.
- Provide a more effective guide for the allocation of Land and Water Conservation Funds and other outdoor recreation resource related funding programs in Texas.
- Strengthen the ability of all levels of government and the private sector to better coordinate, plan and provide quality outdoor recreation opportunities for Texans and their visitors now and in the future.
- Bring about the expansion of efforts to protect and conserve those resources that have special scenic, historic, scientific, educational or other value to outdoor recreation.
- Provide general information regarding the characteristics of outdoor recreation in Texas.

The development of this Plan in itself cannot solve the recreation problems facing Texas. In attaining the Plan objectives, there are four major efforts that must be accomplished at all levels of government and the private sector:

- There must be sincere concern on the part of decision-makers in the public and private sectors to meet this objective.

- Adequate data and information must be available to aid decision-makers in fully understanding the alternatives available and the long term effects of decisions affecting outdoor recreation.
- Adequate funds must be available from all levels of government and the private sector to insure that necessary recreation opportunities are provided in a timely manner.
- The various government and private sector entities should coordinate and cooperate if the State's problems are to be solved. Better coordination and cooperation in data gathering, analysis, and implementation must be achieved.

The philosophy of the State of Texas toward statewide planning for outdoor recreation should be clearly understood. A plan is not a static document but an ongoing process. Various pieces of technical information are out-of-date by the time they are published; therefore, the document should be used as an aid in decision-making rather than a document containing cookbook decisions for every circumstance. Our society is dynamic and our problems are too specialized and complex to depend solely on a static document to guide the development of our outdoor recreation resources. Evaluation of projects for compliance with the State Plan will consider this reality.

Upon completion and distribution of the Plan, the planning staff of the Texas Parks and Wildlife Department will continue working with various government entities and the private sector in efforts to insure that the Plan is kept up-to-date and useful. With the help of all levels of government and the private sector, the people of Texas will continue to have high quality environments in which to live, work and recreate. The staff of the Texas Parks and Wildlife Department is dedicated to this end and welcomes any constructive suggestions or comments pertaining to this effort.



Chapter 1

URBAN OUTDOOR RECREATION IN TEXAS—A PERSPECTIVE

Photo by Parks and Recreation Department, City of Austin.

INTRODUCTION¹

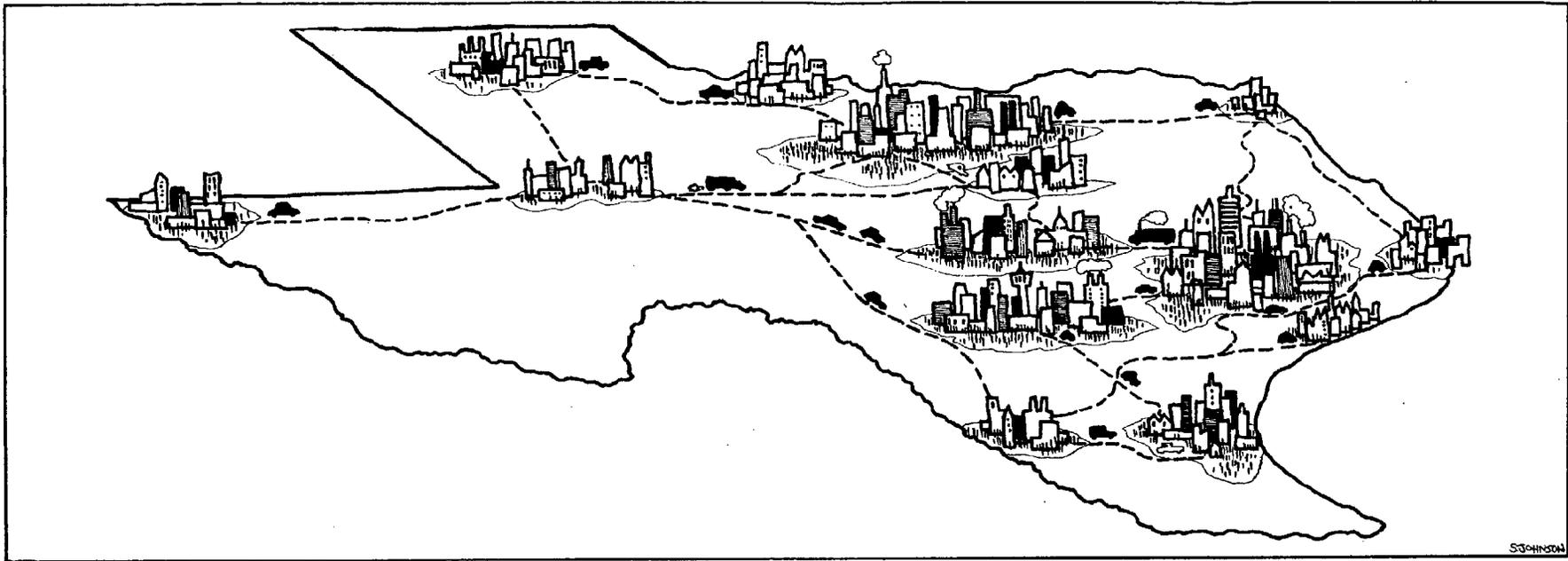
The first settlers in Texas, who began to arrive during the early part of the 19th century, found themselves in a wide-open, untamed territory. The land was harsh, as was life itself. The struggle for existence was primary, and providing food and shelter demanded practically all of a man's time and energy. Leisure and recreation were some of life's pleasures that could only be permitted occasionally. Society was typified chiefly by the family unit and its rural character, for the teeming metropolitan areas of today were, at that time, no more than small towns or villages, and most did not even exist. However, these patterns began to change, slowly at first, and then more quickly, accelerated by technology, the growth of industry, and several wars. Today, life is easier than it was for previous generations, and society has become a predominantly urban one. Texans have become more isolated from nature as a result, and they now seek to re-discover the outdoors and associate closely with nature in their recreational pursuits. And in recent years, the growth of recreation participation has been tremendous. Along with the growth of recreation is the increased urbanization taking place in Texas, which forms the background for the need for urban outdoor recreation opportunities.

URBANIZATION IN TEXAS, 1836—1960

In 1836, at the time of the Texas Declaration of Independence from Mexico, the population of Texas was estimated at only about 35,000 to 50,000 persons, although by the time of Texas' entrance into the Union nine years later, the population is estimated to have grown to between 125,000 to 150,000. During this period, three of the major metropolitan areas of today were founded—Dallas, Fort Worth, and Houston—while San Antonio, El Paso, and Galveston had already existed for some time.

¹Sources: *Texas Almanac and State Industrial Guide, 1974-1975.*

Urban Texas: Past—Present—Future, A Report Prepared for the Texas Urban Development Commission by Joe B. Harris, Commission Staff.



The Civil War and Reconstruction, transportation and communication improvements, and immigration served to swell the population enormously during the latter half of the 19th century. As the major cities began to attract more residents, the urban areas continued to grow, although slowly, during the late 19th century. In 1850, for example, only 3.6% of the population was considered urban and by 1900, this percentage had increased to 17.1% of a total population of some 3 million people. By 1900, Texas ranked sixth in population among all the states, and some urban centers were beginning to achieve quite respectable sizes. San Antonio was the top-ranked city in population with over 50,000. Not far behind were Dallas and Houston with over 40,000 each, and four other cities exceeded 20,000, including Galveston, Fort Worth, Austin, and Waco.

In the 1920's, four cities, San Antonio, Dallas, Houston, and Fort Worth, surpassed the 100,000

population mark. A fifth major city, El Paso, was not far behind with over 75,000. While more urban areas were coming into existence, others came to be regarded among the major urbanized areas of Texas. In this category were Beaumont, Austin, Galveston, Wichita Falls, Laredo, Port Arthur, and Waco, all of which exceeded 20,000 people by 1920. The urban population now composed about 30% of the total, and the absolute increase in urban population exceeded the increase in rural population for the first time ever.

Within the next two decades, Texas' population surged ahead to a total of about 6.4 million by 1940, of which nearly half was classified as urban. By 1940, Houston had become the State's largest city with over 400,000, and 14 additional cities had surpassed the 20,000 mark.

Marked changes continued in the population distribution between 1940 and 1960. Houston still remained in first place with over 900,000 residents, and San Antonio and Dallas reached over 500,000, but now suburban cities began to appear among the state's larger urban places, including such cities as Pasadena, Irving, and Arlington. Rapid population growth began to appear elsewhere across the State. There were now 11 cities with populations exceeding 100,000, 10 cities over 50,000, and 50 cities over 20,000 in population.

By 1960, the total population in Texas amounted to approximately 9.6 million. In 1950, for the first time in history, the urban population exceeded the rural, and this trend continued through 1960. Continuing the great movement of people from rural to urban areas which occurred during and after World War II, the urban population by 1960 made up fully 75 percent of the total.

RECENT URBAN GROWTH TRENDS IN TEXAS, 1960-1970

With a 1970 population of nearly 11.2 million in 1970, Texas became the fourth most populous state in the United States. The proportion of this population that was urban continued to increase, amounting to nearly 80 percent. However, 1970 marked the emergence of new patterns and trends. Population growth became concentrated in a few of the state's major metropolitan areas (Figure 1.1). Six of the 24 Standard Metropolitan Statistical Areas (SMSA's) accounted for over 90% of the state's growth between 1960 and 1970. These six included the Houston, Dallas, San Antonio, Fort Worth, El Paso, and Austin Metropolitan Areas. Examination of the growth of these metropolitan areas reveals that these population increases resulted from continued central city growth, especially Austin and Houston, as well as suburban growth. Some idea of this pattern of concentrated growth is evident from Figure 1.2. On the other hand, striking pattern changes were evident, as more than a third of the cities of 5,000 or more in population lost population from 1960 to 1970, and three of these exceeded 100,000 in 1960. Many rural areas, as well as small to medium-sized cities, lost population, as 57% of Texas' 254 counties showed decreases in population for the 1960-1970 period.

PROJECTED URBAN GROWTH TRENDS IN TEXAS, 1970-2000

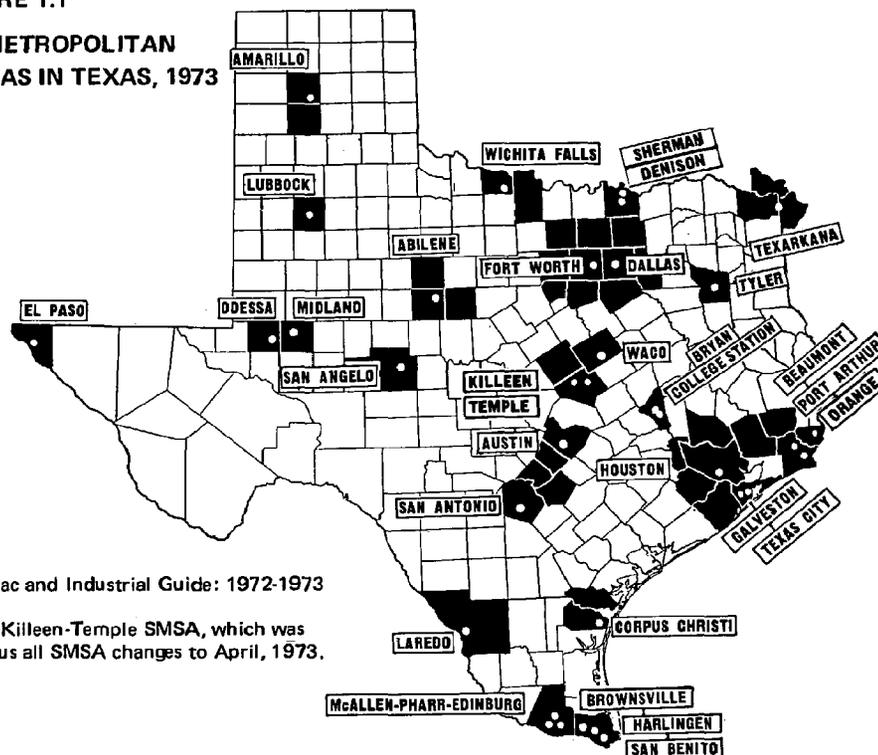
Texas is projected to remain one of the nation's fastest growing states both in absolute population and in percent of population increase. Only California and Florida are expected to exceed Texas in total population growth from 1970-2000. In 1970, Texas accounted for about 5.5% of the nation's population. It is estimated that this percentage will increase to 6.0% by 1980, 6.5% by 1990, and over 7.1% by 2000², when the total population of Texas is projected to reach 17.8 million (3.5 million rural and 14.3 million urban).

The trend toward urbanization is expected to continue in the future. The largest gains in total population increases are projected to occur in the metropolitan areas in Texas. This increase may not establish itself in the metropolitan core areas, but rather the contiguous areas, to be near financial and business opportunities while retaining the fresh air and open space atmosphere of the rural life. The proportion of the State's total population residing in urban areas is expected to be about 80% in the year 2000, the same as in 1970. This relatively constant percentage figure is explained by the fact that while many urban areas are projected to reflect population increases others are expected to decline in population.

The six major metropolitan areas which expressed large growth rates from 1960-1970 are also expected to increase significantly from 1970 to 2000, accounting for almost 87% of the State's total population growth. Dallas, Houston, and Fort Worth are projected to more than double in population over that time, increasing 141%, 120%, and 106% respectively. Population increases for San Antonio, El Paso, and Austin for the 1970-2000 projection period are projected to be, in order, 68%, 70%, and 55%.

2. U.S. Department of Commerce, Bureau of the Census, 1972.

**FIGURE 1.1
STANDARD METROPOLITAN
STATISTICAL AREAS IN TEXAS, 1973**

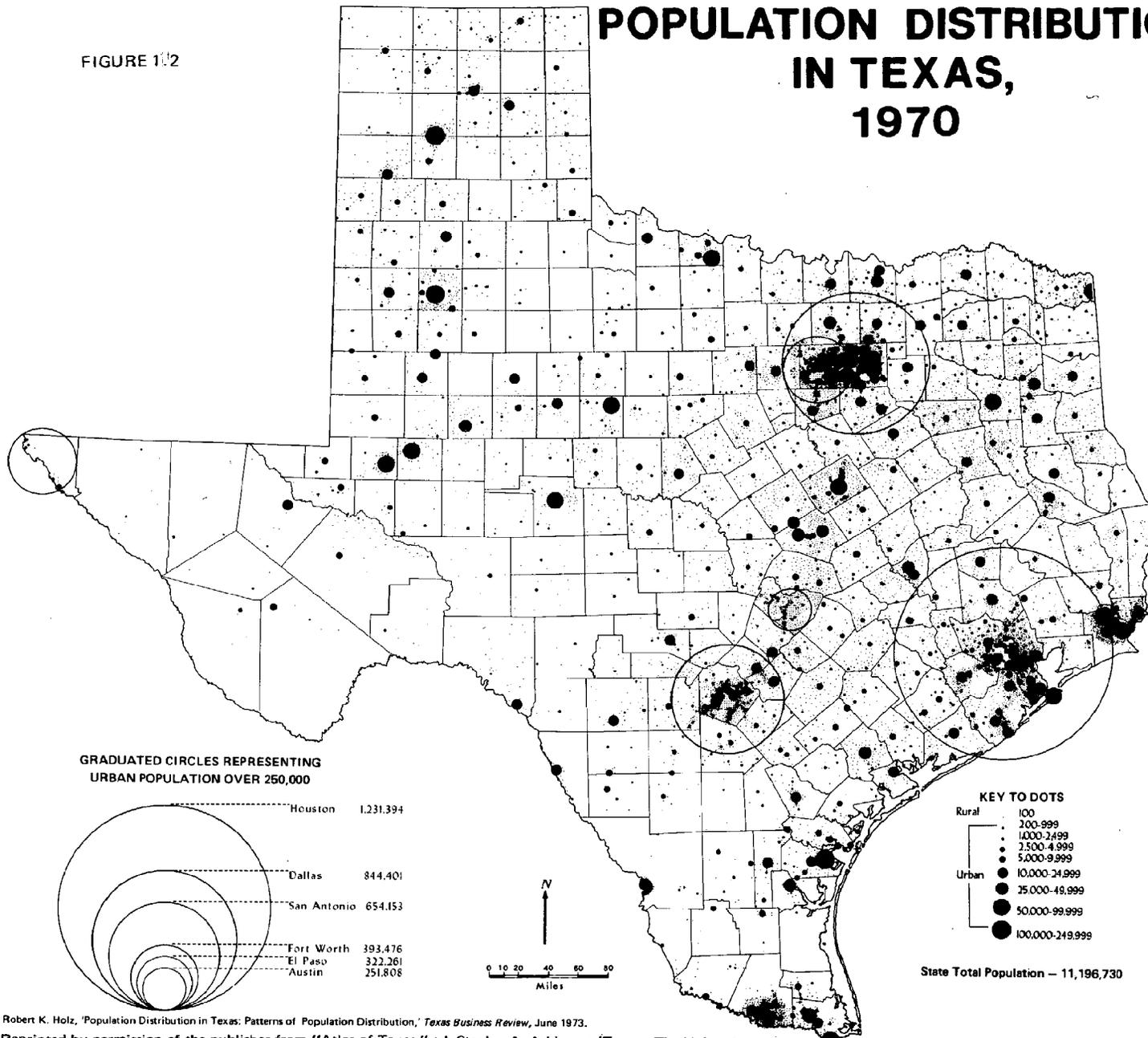


SOURCE: Texas Almanac and Industrial Guide: 1972-1973

NOTE: Map shows the Killeen-Temple SMSA, which was designated in 1972, plus all SMSA changes to April, 1973.

FIGURE 1-2

POPULATION DISTRIBUTION IN TEXAS, 1970



Source: Robert K. Holz, "Population Distribution in Texas: Patterns of Population Distribution," *Texas Business Review*, June 1973.

Note: Reprinted by permission of the publisher from "Atlas of Texas," ed. Stanley A. Arbingast (Texas: The University of Texas), p. 24 © 1973 by the Board of Regents, The University of Texas System.

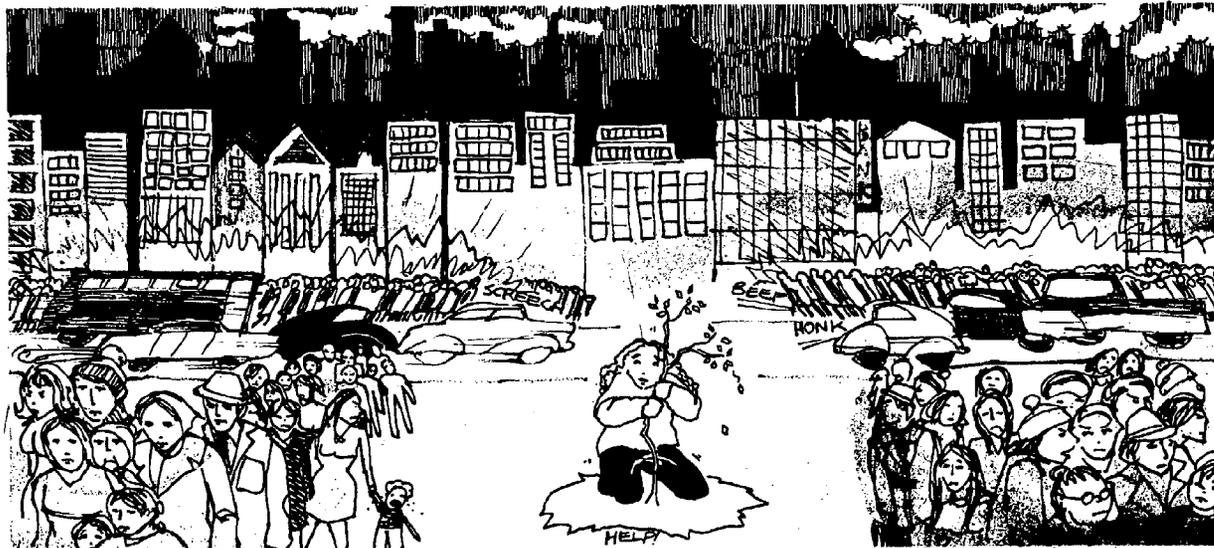
URBANIZATION AND OUTDOOR RECREATION

The great population surge in the urban areas of Texas, particularly the metropolitan areas, has brought prosperity to many, but has also resulted in many problems. More people concentrated in fewer areas bring more pressures, traffic congestion, noise, pollution and crime. Mushrooming cities demand more land, space, and resources, and unfortunately, these are rapidly disappearing in many places. At the same time, however, people are demanding recreation more than ever to relieve the daily pressures of civilization and re-acquaint themselves with nature and the outdoors for their spiritual, as well as physical, well-being. Recreation can, and does, serve as a kind of safety-valve for society. It can help individuals to overcome frustration and tension, and it can provide alternatives for those whose lives might ordinarily be led toward crime, drugs, or both.

A major solution to providing recreation and overcoming such problems as these is coordinated planning. If those concerned with the quality of life in Texas join together to establish reasonable standards, goals, and criteria for the development of park, recreational, and open-space areas, it will be possible to make our cities more pleasant places to live, work, and recreate. This is where all levels of government, federal, state, and local, as well as private enterprise, must work together.

SCOPE

Toward the goal of achieving coordinated planning for recreation, the **Texas Outdoor Recreation Plan (TORP)** was developed. This volume, **Outdoor Recreation in the Urban Areas of Texas**, is one of the ten volumes which comprise the TORP. It focuses on urban outdoor recreation, or recreation taking place in the State's metropolitan areas (population of 50,000 or greater, according to the 1970 Census, plus all incorporated and unincorporated urbanized areas



contiguous to the core city/cities), cities³ (population of 10,000 to 49,999), and towns³ (population of 2,500 to 9,999). It deals with outdoor recreation taking place in these three types of urban areas by Texans (excludes out-of-state visitors). Complementing this study of urban recreation is another volume of the TORP titled **Outdoor Recreation in the Rural Areas of Texas**, which focuses on rural recreation, or recreation taking place outside of the metros, cities, and towns. This delineation was made because of the differing nature and characteristics of urban and rural recreation. Thus, these two volumes together form a complete picture of outdoor recreation in Texas.

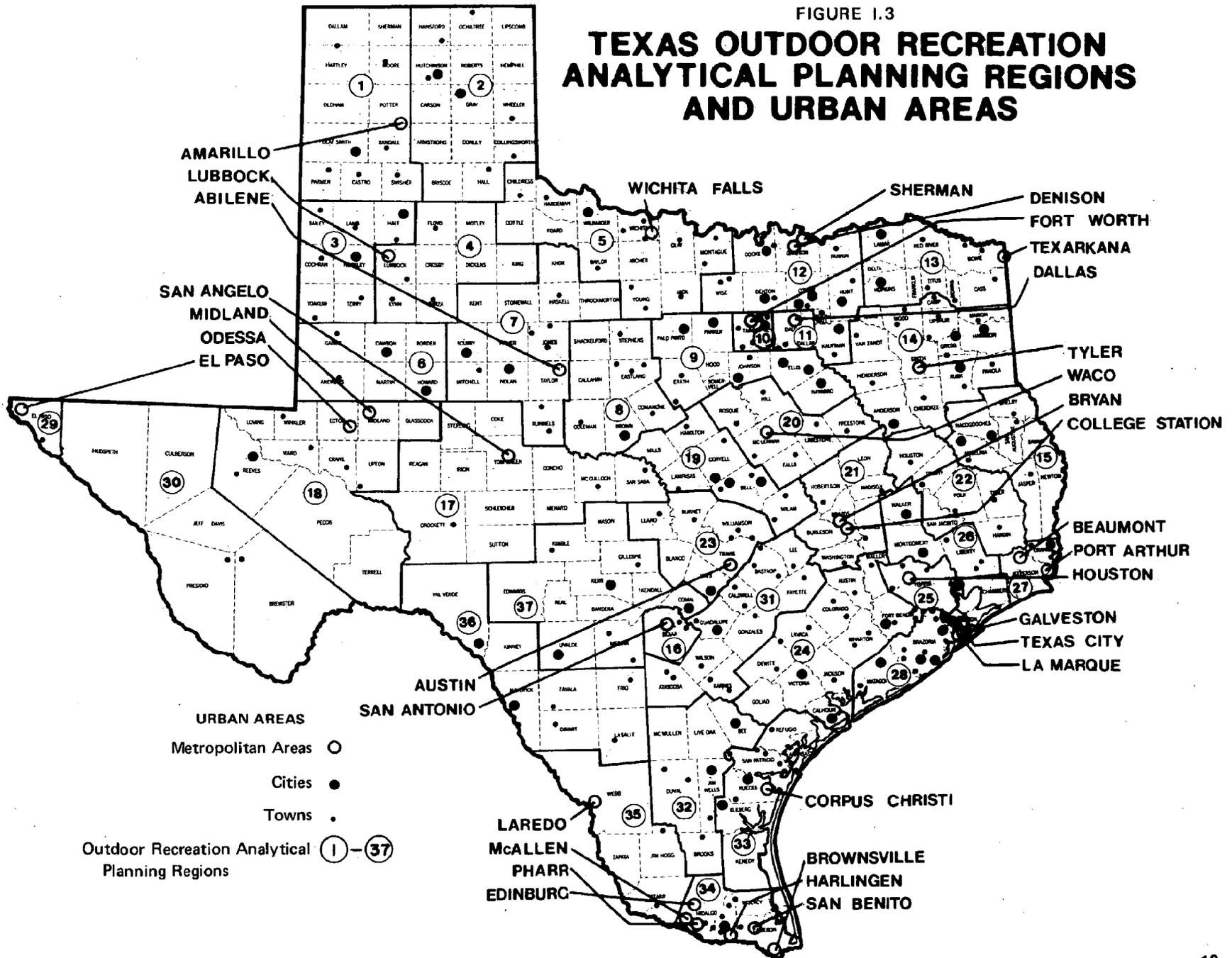
Urban outdoor recreation is analyzed on a statewide basis, on the basis of city size, and analytical planning region, with all of the cities of the same size within a particular region combined for purposes of analysis. The analysis of the State and of the various city sizes examines the supply of recreational areas and facilities, recreation opportunities, the demand for various activities, and the resource requirements for land, water, and facilities for each of the 37 regions.

Demand and resource requirements are projected for the years 1970, 1975, 1980, 1990, and 2000. General recommendations, recommended responsibilities for meeting future urban recreational land and facility requirements, and priorities for facility development for each of the 37 regions are presented in the **Regional Summary**, and in the **State Summary** for the entire State of Texas.

Part 1: An Overview of Outdoor Recreation in the Urban Areas of Texas is a statewide summary of the analysis of urban outdoor recreation in metropolitan areas, cities, towns, and these three city-size categories combined. **Part 2: Metropolitan Areas** deals with outdoor recreation in each of the 24 metropolitan areas in Texas located in 22 different planning regions. **Part 3: Cities** examines outdoor recreation occurring in the 27 regions having one or more cities. **Part 4: Towns** focuses on urban outdoor recreation taking place in the towns within all 37 regions, since all regions have at least one or more towns.

3. Cities and towns by definition are urbanized areas not contiguous to a metropolitan area.

FIGURE I.3
**TEXAS OUTDOOR RECREATION
 ANALYTICAL PLANNING REGIONS
 AND URBAN AREAS**



GOALS AND OBJECTIVES

In the past, many outdoor recreation planning efforts in Texas have been disjointed and uncoordinated. Consequently, the primary goal of the **Texas Outdoor Recreation Plan**, as stated in the "Foreword," is to provide a framework to guide the allocation of outdoor recreation resources in Texas. Serving as a guide, the **TORP** will assist decision-makers of all types at every level in coordinating and planning the most efficient use of resources available to meet the recreational needs in Texas. In consonance to the **TORP's** overall goal, the primary goal of this volume may be stated as providing a framework for guiding the allocation of outdoor recreation resources in the urban areas of Texas. To accomplish this goal, three specific objectives have been established for this volume.

- Provide data to assist local recreation planners to solve their present and future outdoor recreation problems.
- Provide information concerning the outdoor recreation problems in the urban areas to better enable federal and state governmental entities to plan their outdoor recreation programs to meet the needs of our urban areas.
- Serve as a document which can be used to more efficiently allocate money from the Land and Water Conservation Fund to local government entities.

PLANNING METHODOLOGY

Planning, simply defined, is a means to accomplish an end, or goals, formulated through a systematic consideration of alternatives. These goals may be accomplished using different methods of planning, depending upon the problem, the goals, and the means sought to achieve the goals. Whatever the methodology, logical planning greatly improves the chances of making any endeavor a successful one. Emphasis on recreational planning in Texas has increased in recent years to keep pace with the

tremendous growth of participation in various recreational activities. Recreational planning for the urban areas of Texas serves a number of purposes, which include

- identifying urban recreational participation patterns and estimations of current and future urban outdoor recreation participation.
- determining recreational resources and facilities needed to meet the recreational requirements for the urban areas, determining where they should be located, and setting priorities for acquiring, developing, and protecting outdoor recreation resources.
- helping ensure that the people of Texas' tax dollars spent on urban recreation resources and facilities provide the maximum of high quality recreation opportunities possible.
- ensuring a continued opportunity for participation in the determination of urban recreational programs by private citizens and local government.
- providing a means of coordinating urban outdoor recreation with environmental, conservation, and other interrelated plans and programs.

Recreational planning must be a dynamic process. Texans' life styles are continually undergoing rapid changes. Economic and political changes; population shifts; changes in mores, society, tastes, and preferences; technological advances, etc.—all make projections into the future difficult. Therefore, it becomes necessary for planners to continually review, update, and revise previous plans so that the planning process remains effective and responsive.

The following discussion provides a brief explanation and overview of the methods and the main elements upon which the urban plan is based. For a more detailed treatment of these topics, refer to Appendix C.

ANALYTICAL PLANNING REGIONS AND URBAN AREAS

The analysis of outdoor recreation for the **Texas Outdoor Recreation Plan** is organized on a state and regional basis, as was previously explained. While the Governor's Office has delineated 24 State Planning Regions, it was felt that some of these areas were too large for realistic outdoor recreation planning. Therefore, a decision was made to subdivide a number of the State Planning Regions into smaller units. The resulting breakdown of the State into 37 Outdoor Recreation Analytical Planning Regions, shown on Figure 1.3, retains, for the most part, the integrity of the State Planning Regions, but permits more detailed analysis where needed. All Outdoor Recreation Analytical Planning Regions follow county boundaries, although most are comprised of more than a single county. The urban areas within these regions were then classified into the three city-size categories of metropolitan areas, cities, and towns, which were then analyzed separately within each region.

THE DATA BASE

Comprehensive outdoor recreation planning requires the collection and analysis of large amounts of data in order to recognize and solve problems. While secondary sources of information can be used in many parts of the planning process, it was found that much primary data must be collected on existing facilities, activity participation, preferences, and a host of other items for which secondary data is not available. In developing the urban portion of the **Texas Outdoor Recreation Plan**, five extensive surveys were conducted: two surveys of recreation demand, two of outdoor recreation resources, and one survey of the urban areas' needs and problems. These surveys, and a brief description of each, follow.

- The 1968 Texas Outdoor Recreation Household Demand Survey was used to collect recreation participation data from a stratified

random sample of 15,125 households interviewed across the State. This was the most important data collection effort undertaken in conjunction with this Plan. The Household Survey obtained information on participation in outdoor recreation, socio-economic characteristics of recreationists, types and numbers of recreation trips taken, seasonality of participation, activity preferences, investment in recreation equipment, factors which inhibited participation, and a host of other characteristics.

- The 1970 Texas Outdoor Recreation On-Site Demand Survey was designed to supplement the information obtained from the Household Survey and to provide detailed information on participant households. A total of 7,963 questionnaires were administered to recreating households or groups representing over 20,000 persons at 163 urban and rural public and private parks or recreation enterprises across the State. The On-Site Survey secured detailed information on the mix of activities pursued, expenditures, distance traveled, facility and activity preferences, daily peak use periods, weekday and weekend use, suggestions for site improvements, and the number and origins of out-of-state users in Texas parks.
- The 1969 Outdoor Recreation Facilities Inventory Survey was used to collect information on the supply of parks, recreation areas, and facilities for outdoor recreation throughout the State. It consisted of an inventory obtained by on-site inspections of both rural and urban recreation facilities at 2,604 public and 1,250 private enterprises for a total of 3,854 enterprises all over Texas.
- The 1971 Municipal Inventory Update Survey was a mailout survey of all the State's metropolitan areas, cities, and towns, and was used to update the urban section of the 1969 Facilities Inventory Survey.

- The 1971 Urban Planner's Survey was a survey of urban and recreation planners in 355 metropolitan areas, cities, and towns. These planners were asked to identify recreation needs, problems, and trends in their respective urban areas and to delineate sections of the urban area according to the predominant socio-economic characteristics.

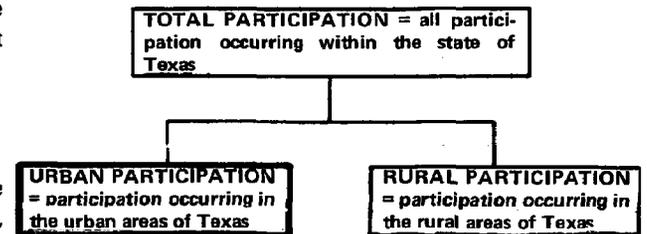
RECREATION OPPORTUNITIES

Recreation opportunities, or opportunity days, are the number of activity-days, or days of participation, made available annually by a given number of units of a specified type of recreational facility. Recreation opportunity days were calculated for each facility type by multiplying the number of units of each facility, i.e., the "supply," by the facility standard. (See discussion of standards below.) This conversion of the supply of facilities into activity days made possible the comparison of supply with demand, which was measured in activity day units, on a common basis. When the two are compared, and the opportunity days for a given activity exceed the projected days of participation for that activity, then there is a surplus, and consequently, the existing facilities should be able to satisfy the demand. When the days of demand exceed the opportunity days, then a deficit exists and there is a requirement for additional facilities to meet the demand. The concept of opportunity days thus made possible the computation of resource requirements by dividing the deficit activity-days by the standard to obtain recreation resource requirements in terms of numbers of facilities.

RECREATION PARTICIPATION

Participation, as utilized throughout the TORP, refers to participation occurring in a given type of area, either urban (i.e., urban participation) or rural (rural participation) as shown in Figure 1.4. In this volume, urban participation is divided into resident and

FIGURE 1.4
TOTAL PARTICIPATION AS CONCEPTUALIZED
IN THE TORP

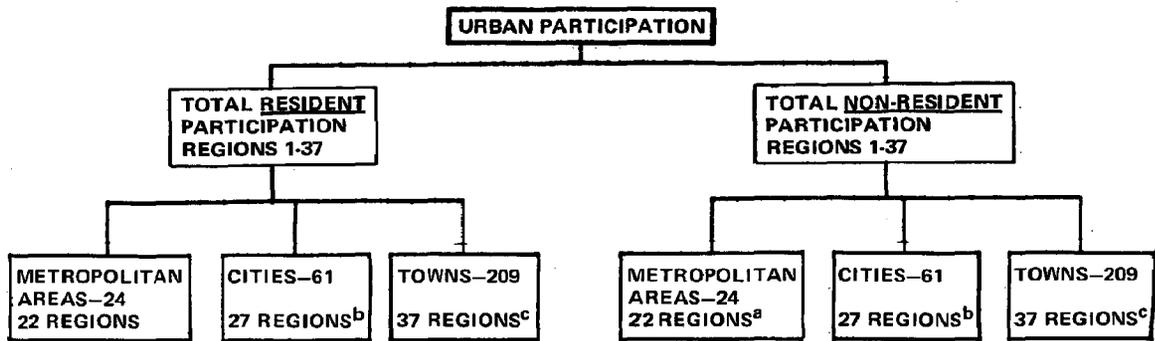


non-resident participation to identify the origin of the participants. Resident participation identifies participation by an individual in the urban area in which he resides. Non-resident participation identifies participation by a resident of Texas in an urban area other than his area of residence. Non-resident participation may include participation by a resident of Texas residing in a rural area who travels to an urban area to participate in a recreational activity, or a person residing in an urban area who travels to another urban area to participate. Resident and non-resident participation were computed for the three city-size categories as illustrated in Figure 1.5.

Resident, non-resident, and total recreation participation in urban areas were determined from survey data for 1968-1969 and projected for the years 1970, 1975, 1980, 1990, and 2000 for a total of 16 activities by each of the three city-size categories for each of the appropriate 37 analytical planning regions. In addition to these 16 activities, saltwater fishing, boating, and skiing participation were projected for those urban areas, located in one of the six coastal planning regions, having saltwater access. Surfing participation projections (the 20th activity for which participation was projected) apply only to metropolitan areas and cities in Region 28, the only region in the state having urban areas where surfing participation was recorded.

FIGURE 1.5

TOTAL URBAN PARTICIPATION AS CONCEPTUALIZED IN THE URBAN VOLUME



- a. Twenty-two analytical planning regions have one or more metropolitan areas.
- b. Twenty-seven analytical planning regions have one or more cities.
- c. All thirty-seven analytical planning regions have one or more towns.

Three different methodologies were used to project urban participation. Two methods were used to project urban resident participation: a multiple-regression model and a trend model. It was necessary to use two methodologies because survey data was not available or was too thin to use for multiple regression in some regions for some activities. These activities utilized the trend model. The third methodology was also a trending technique used to project non-resident participation.

RECREATION STANDARDS

A recreation standard is the number of opportunity days, or participation days, which can be provided by a specific unit of recreation facility or resource per year. Facility standards are an accurate, flexible means of converting the existing supply of outdoor recreational facilities and resources into units comparable to current and expected future participation. From these comparisons resource requirements can be determined. Standards developed in this volume were determined from Household and On-Site survey data, and the computation of the standards involved careful consideration of a number

of factors, such as seasonality, peak use periods, and attitudes and preferences of recreationists.

In addition to recreation facility standards, criteria were developed to estimate the number of land acres required to develop the various types of facilities. These guidelines, expressed as the statewide average number of land acres required per facility unit, were based on recreationists' preferences and generally-accepted design and construction criteria.

RECREATION RESOURCE REQUIREMENTS

Urban resource requirements were computed for the following facilities: square yards of swimming pools; acres of playgrounds; baseball/softball fields; picnic tables; football/soccer fields; holes of golf; tennis courts; basketball courts; surface acres of freshwater lakes; boat ramps (freshwater and saltwater); and miles of trails for walking, bicycling, and nature study.

Resource requirements for each facility type were computed by comparing facility supply in terms of opportunity days with the total participation occurring in a given metro, city, or town. If a deficit

resulted, the deficit days were divided by the standard to convert it to facility resource requirements. A surplus of opportunity days was shown as zero resource requirements. As shown, the resource requirements indicate the number of facilities that should be added to the 1971 supply of facilities available in each region.

The urban resource requirements were developed under the assumptions that the facility satisfied the total demand for the activity and that all relevant support facilities should be provided in addition to the major facilities stated in the tables, such as grills for picnicking. The determination of resource requirements did not consider the availability of private recreational facilities, the quality of available urban facilities, nor the influence of rural facilities in close proximity to urban areas.

STATEWIDE SUMMARY OF URBAN OUTDOOR RECREATION

This section presents a synopsis of each of the four chapters that follow in this volume. The first three summaries, opportunities, demand, and resource requirements, are very important elements of this volume. As such, they provide the basic categories under which the data of principal interest to users of this volume are organized for presentation. In the fourth summary, special concerns and associated problems of urban outdoor recreation, important aspects of urban outdoor recreation which merit consideration, but which were not quantified for analysis, are discussed.

RECREATION OPPORTUNITIES

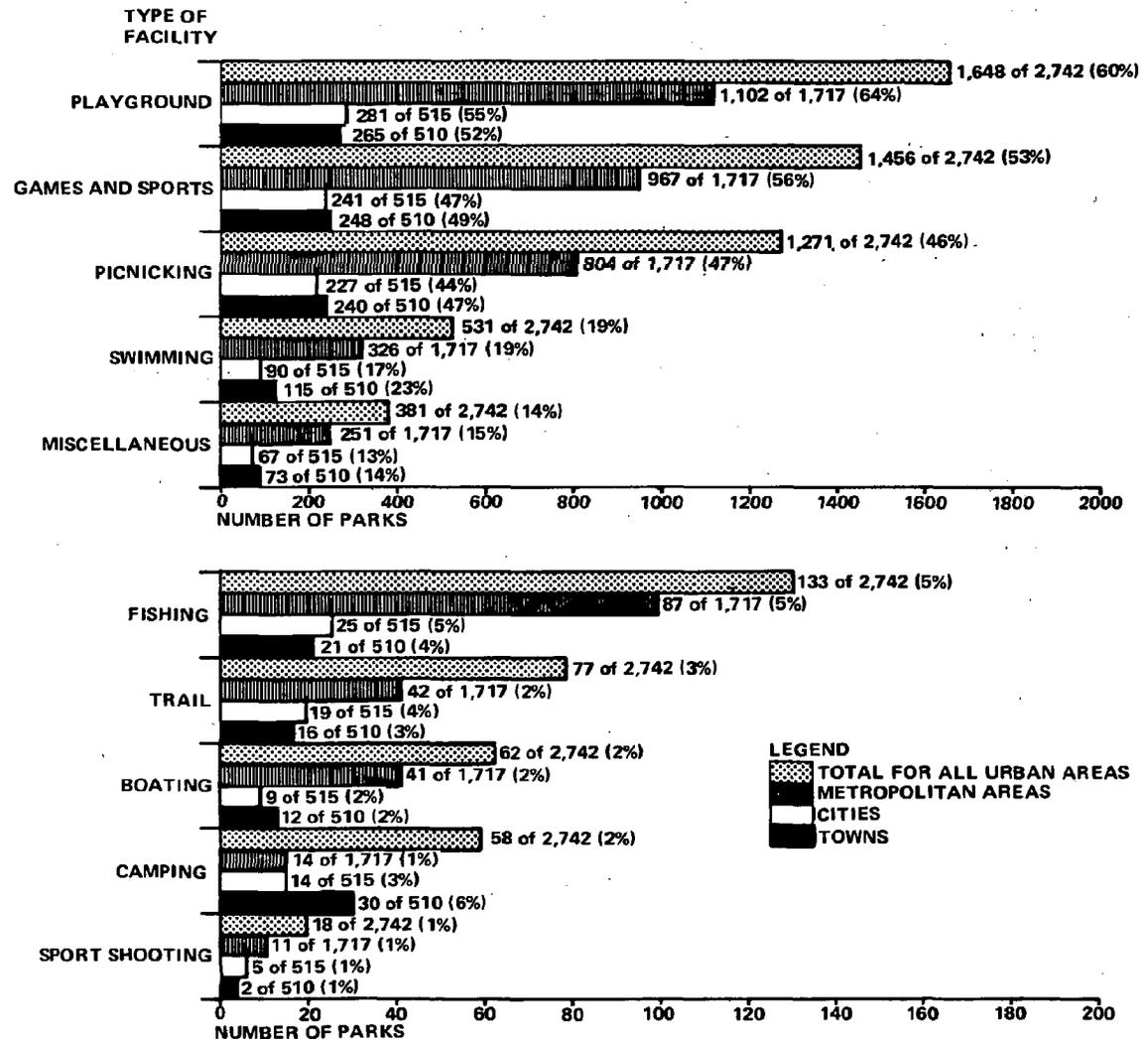
Outdoor recreation opportunities in the metropolitan areas, cities, and towns of Texas are provided primarily by the public sector. Of the 2,742 publicly administered parks available in 1971, local municipal agencies operated approximately 97%, with the remainder operated by federal, state, and county

agencies. In these 2,742 urban parks there were 62,524 acres of recreational land, of which 43,621 acres were developed and 18,903 acres were available as open land or were being held for future development. In addition to recreational land, there were 50,741 surface acres of freshwater within urban areas, of which 25,532 acres were located adjacent to or within urban parks. Although metropolitan areas accounted for most of the developed recreational land (31,381 acres), undeveloped land (12,857 acres), surface acres of water (45,755 surface acres), and most of the urban parks (1,717), metropolitan areas generally had fewer recreational opportunities per thousand population than either the cities or the towns.

Figure 1.6 shows the number and proportion of publicly administered urban parks which had designated facilities in 1971. Of the 2,742 urban parks, a total of 1,648 (60%) had playgrounds; 1,456 (53%) had some form of games and sports facilities; 1,271 (46%) had picnicking facilities; 531 (19%) had some form of outdoor swimming facilities; 391 (14%) had miscellaneous facilities such as amphitheatres, botanical gardens, zoos, or community recreation centers; 133 (5%) of the urban parks had facilities for fishing; 77 (3%) had some form of designated trail; while facilities for boating, camping and sport shooting were available in less than 3% of all urban parks in 1971. Since almost 63% of all urban parks were located in metropolitan areas, the majority of the different types of facilities available were also found in parks located in metro areas. One exception was urban parks having camping facilities, over half (52%) of which were located in towns, compared to 24% each located in cities and metros. Overall, variations in the total number of parks located in cities and towns having the different types of facilities were small. On a units per thousand population basis, however, metropolitan areas were considerably lower than cities and towns in every case, while cities were slightly lower than towns in every case.

FIGURE 1.6

NUMBER AND PERCENTAGE OF PUBLICLY-ADMINISTERED URBAN PARKS WHICH HAD DESIGNATED OUTDOOR RECREATION FACILITIES IN 1971, BY CITY SIZE, AND TOTAL FOR ALL URBAN AREAS



In Table 1.1, the numbers of various types of outdoor recreation facility units available at publicly administered urban parks in 1971 are listed. Looking at totals for all urban areas combined, the number of tennis courts (1,309) and baseball/softball fields (1,862) far exceeded the number of basketball courts (609) and football/soccer fields (287). Picnic tables numbered 12,830, compared to 1,733 campsites. Swimming pools were also numerous as reflected by the 281,520 square yards available. Much more saltwater is available for swimming than the 34,200 square yards shown, but it was not included because the criteria for reporting saltwater swimming areas was that the areas had to be designated for swimming, and most areas were not. The availability of facilities which support the water-related activities of boating, fishing, and skiing is directly related to the quantities and distribution of surface acres of water available. Therefore, the quantities of freshwater-related recreational facilities would probably increase if more freshwater evenly distributed among the urban areas were available. Miles of trails reported are not that substantial if the recent increases in the trails activity participation are considered. By city-size category, metropolitan areas had significantly more facilities available than either cities or towns for most types of facilities. Exceptions were notable for those types of facilities dependent on water-related resources, such as designated saltwater and freshwater swimming areas and saltwater and freshwater fishing piers, barges, and marinas. Cities, compared to towns, had slightly larger numbers of facilities for the more traditional types of facilities, but no distinct patterns were visible for water-related or trails facilities.

The dispersion of recreational opportunities was not entirely balanced in 1971. Although all of the 24 metropolitan areas had recreational resources, individual socio-economic subsections within many of the metropolitan areas lacked public outdoor recreational opportunities, and opportunities in areas of rapid urban expansion generally were less

numerous than in older neighborhoods. All of the 61 cities had at least two public parks, while 87% of the towns had at least one public park; however, many of these parks lacked various types of recreational facilities.

For all urban areas combined, there were 217,293,755 total annual opportunity days available in 1971, for all major activities combined (Figure 1.7). Opportunity days represent the amount of annual recreation demand that can be satisfied by

TABLE 1.1
NUMBER OF OUTDOOR RECREATION FACILITY UNITS AVAILABLE
AT PUBLICLY ADMINISTERED URBAN PARKS
IN 1971 BY CITY SIZE, AND TOTAL FOR ALL URBAN AREAS

TYPE OF FACILITY	TOTAL NUMBER OF UNITS			
	METROS	CITIES	TOWNS	TOTAL URBAN
Tennis Courts	918	223	168	1,309
Basketball Courts	458	82	69	609
Baseball/Softball Fields	1,203	342	317	1,862
Football/Soccer Fields	210	50	27	287
Picnic Tables	7,925	2,757	2,148	12,830
Playgrounds (acres)	1,665	786	658	3,109
Swimming, Pools (square yards)	167,145	57,426	56,949	281,520
Swimming, Designated Freshwater (square yards)	346,235	301,401	960,071	1,607,707
Swimming, Designated Saltwater (square yards)	0	24,200	10,000	34,200
Surface Acres of Freshwater	45,755	2,332	2,654	50,741
Boat Ramp Lanes, Freshwater	49	8	39	96
Boat Ramp Lanes, Saltwater	6	1	6	13
Campsites	781	579	373	1,733
Fishing Piers/Barges/Marinas, Freshwater (linear yds)	313	20	604	937
Fishing Piers/Barges/Marinas, Saltwater (linear yds)	24	300	60	384
Golf Course Holes	659	198	207	1,064
Nature Trails (miles)	59.5	17	33.8	110.3
Horseback Riding Trails (miles)	24	6.7	27	57.7
Bicycle Trails (miles)	50.5	19	27	96.5
Walking (Hiking) Trails (miles)	41.5	15	37.5	94
Total Trails (miles ^a)	140.5	33.7	41.8	216
Sport Shooting Traps	12	1	3	16
Sport Shooting Targets	24	35	1	60
Archery Targets	72	31	1	104
Amphitheatre Seats	6,940	7,950	1,445	16,335
Botanical Gardens (acres)	499	9.3	19.3	527.6
Zoos (acres)	329	9	6	344
Community/Recreation Centers	237	58	71	366

a. Eliminates double counting of multi-use trails in obtaining the totals figures.

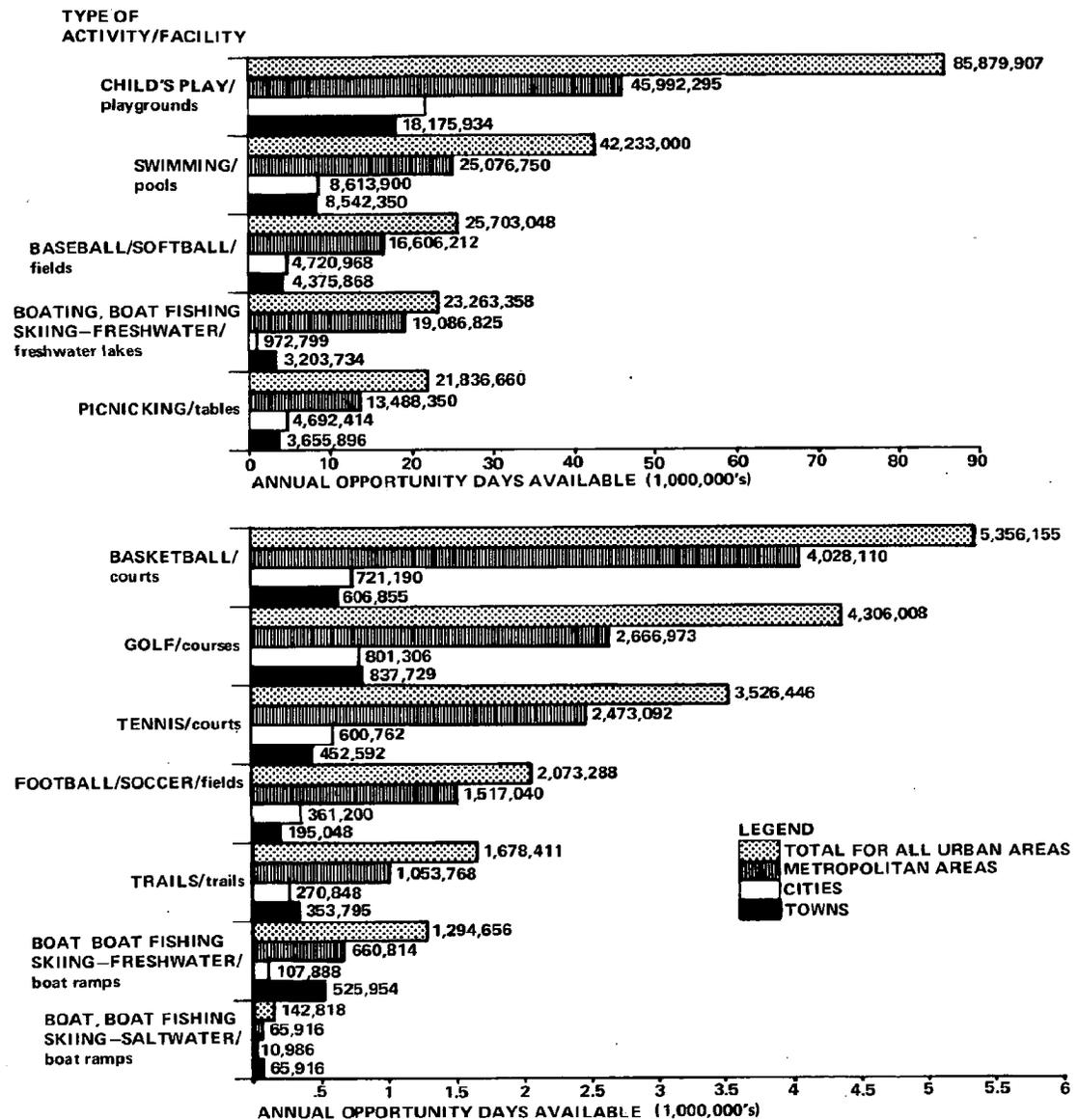
existing recreation facilities. The metropolitan areas had substantially more annual opportunity days available than did the cities or towns. However, when differences in population were taken into account, the metros had fewer opportunity days per thousand population than did the cities for all facilities except freshwater lakes and freshwater boat ramps. Compared to towns on an annual opportunity days per thousand population basis, metros had fewer opportunity days than towns for all facilities, excluding football/soccer fields and basketball courts. Cities and towns were more similar in annual opportunity days available per thousand population, with days available in towns exceeding days available in cities for 7 of the 12 facilities computed. Combining annual opportunity days available per thousand population for all 12 types of facilities produced the following: metros, 20,591 days; cities, 39,501 days; towns, 40,572 days; and the average for the three city sizes combined was 25,384 days.

RECREATION DEMAND

Estimates for the year 1968 indicate that 326 million activity days were spent in pursuit of a variety of recreation activities in the urban areas of Texas. Of this total, resident demand accounted for 285 million days (87%), while non-resident demand totaled 41 million days (13%). The proportion of urban participation attributed to non-residents was generally higher for saltwater fishing, boating, and skiing than for non-saltwater associated activities.

Almost 54% of all urban resident households participated at least once in 1968 in at least one of the major activities. Not surprisingly, participation was heaviest in the simpler activities such as driving and walking for pleasure, although urban residents indicated a preference for activities such as fishing and games and sports. Over half of all urban participation occurred during the summer, and for most activities participation was heavier on weekends than on weekdays. From surveys conducted at urban

FIGURE 1.7
ANNUAL OPPORTUNITY DAYS AVAILABLE IN 1971 FOR RECREATIONAL ACTIVITIES
IN URBAN AREAS BY CITY SIZE, AND TOTAL FOR ALL URBAN AREAS



parcs, it was found that, in general, distance traveled tended to reduce the probability of park usage. Most urban park users arrived with friends or other members of the household, and stayed about three and one-half hours. The vast majority of urban park users relied heavily on the automobile for transportation to the parks.

Also, it was found that certain socio-economic factors influence participation levels. For example, household participation tends to increase with increases in the number of household members, with increased household incomes, and with more education. Increases in age tend to act as a constraint to participation in rigorous activities such as swimming and football. Anglo households tend to participate more than Blacks or Mexican-Americans in activities such as golf, tennis, boating, and skiing, while Mexican-American and Black households have a stronger inclination than Anglo households for team sports such as baseball/softball, football/soccer, and basketball. Also, it was found that levels of participation are affected by levels of opportunity. Generally, additional units of opportunity tend to encourage more people to participate, or to participate more often.

In terms of participation per household, the statewide average annual days of resident participation was projected to be 117 days in 1970, 152 days by 1975, 188 days by 1980, 268 days by 1990, and 359 days by the year 2000. Comparisons of city-size categories depicted projected average annual days of resident participation in metropolitan areas as exceeding projected rates for both cities and towns for all projection years. Projected rates for cities and towns reflected only minor variations. Figure 1.8 illustrates these comparisons graphically for the years 1970, 1980, and 2000.

Considering population growth in conjunction with participation per household, total participation for all three city sizes combined was projected to be over

FIGURE 1.8
PROJECTIONS OF CURRENT AND FUTURE RESIDENT PARTICIPATION PER HOUSEHOLD, 1970, 1980, 2000, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS

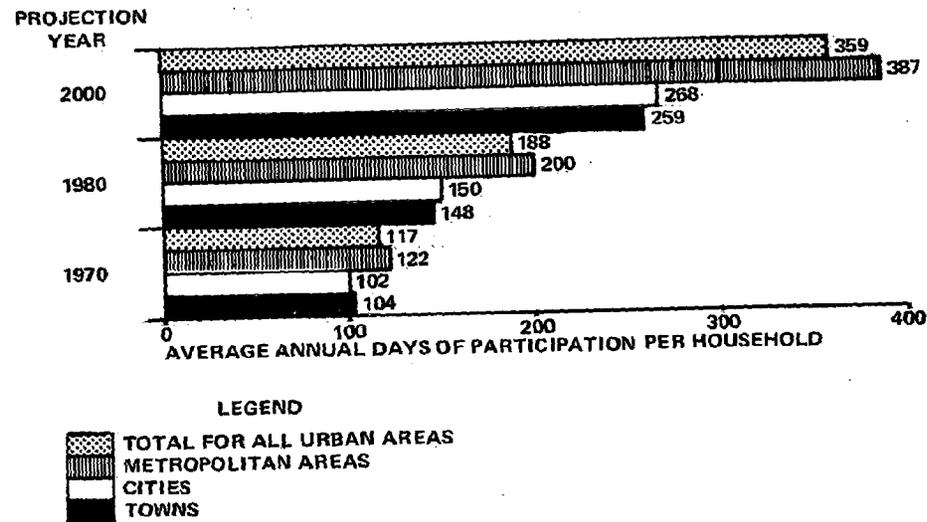
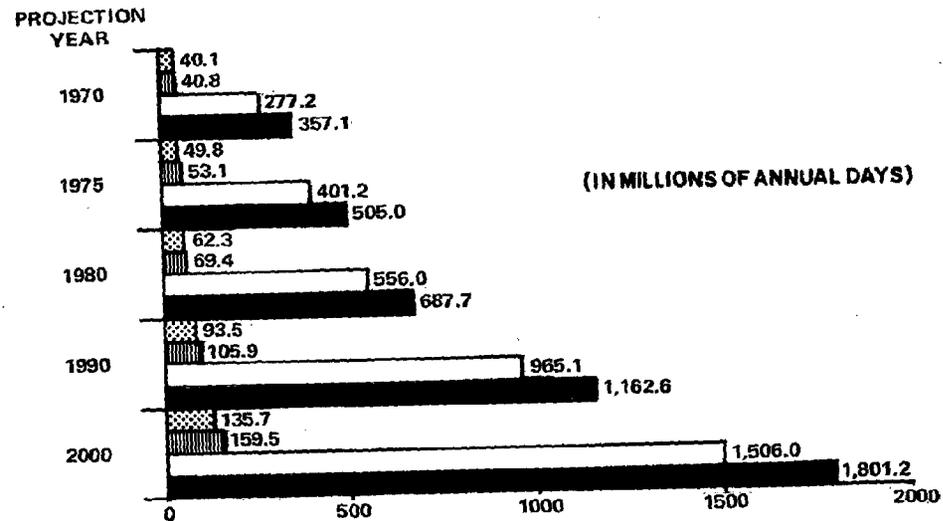


FIGURE 1.9
TOTAL URBAN RESIDENT AND NON-RESIDENT PARTICIPATION PROJECTIONS, 1970-2000, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS



357 million activity days in 1970 (See Figure 1.9). Total demand was expected to increase to 505 million days by 1975, to almost 688 million days by 1980, to almost 1.163 billion days by 1990, and to over 1.801 billion days by the year 2000. The greatest percentage of total participation was projected to occur in metropolitan areas, ranging from 78% (277.2 million days) of the total in 1970, to 81% (556 million days) by 1980, and to 84% (1,506 million days) by the year 2000. Participation projected to occur in the cities ranged from slightly over 11% of the total participation (40.8 million days) in 1970 to less than 9% (159.5 million days) in the year 2000. Total participation projected to occur in towns followed the same pattern as cities from 1970 through the year 2000, i.e., total participation for the city size increased each projection year but decreased slightly each year as a percentage of the total participation occurring in all three city sizes combined. For towns, projections were 40.1 million days in 1970 (about 11% of total participation), and were projected to increase to 62.3 million days by 1980 (9% of the total) and to 135.7 million days by the year 2000 (8% of the total).

Figure 1.10 shows the total annual days of participation by activity. Every activity listed in Figure 1.10 was expected to show an increase in total participation days during the next few decades. The rate of increase was highest for nature study, bicycling, tennis, and freshwater skiing, while the rate of increase was somewhat smaller for the saltwater activities and some of the more traditional activities like picnicking and driving for pleasure. Without exception, participation in each individual activity was projected to be higher in the metropolitan areas for each projection year than in both cities and towns combined. This dramatic difference shown by comparing the three city sizes is influenced by the 1970 population ratio of metropolitan areas to cities and towns combined, a 3:1 ratio.

Participation in cities was projected to exceed participation in towns for every projection year for the activities of child's play, baseball/softball, picnicking, golf, tennis, basketball, walking, bicycling, freshwater skiing, surfing, sightseeing, and driving for pleasure. Compared to cities, participation in swimming, football/soccer, nature study, freshwater and saltwater fishing, freshwater and saltwater boating, and saltwater skiing was projected to be greater in towns for each projection year. Projected differences in total participation occurring in cities and towns for the various activities were not that significant, with some differences of less than 10%.

RECREATION RESOURCE REQUIREMENTS

Land and water are the two principal types of natural resources quantified for urban resource requirement estimates. In Texas, however, freshwater lakes readily accessible to urban populations must of necessity be developed by man.

Other requirements essential to providing adequate outdoor recreation opportunities in the urban areas are the various types of recreational facilities demanded by participants in their pursuits of numerous recreational activities. Not only must adequate recreational land, water, and facilities be provided, they must also be dispersed sufficiently to maximize the opportunities available to all segments of the population. The following assessments of urban resource requirements summarize the quantities required.

Based on the reported supply of recreational opportunities and the estimated demands for those opportunities over the thirty-year period from 1970 to 2000, Texas metropolitan areas, cities, and towns will need substantially larger amounts of land and water resources for recreational purposes. The recreational supply of developed land totaled 43,621 acres in 1971. Comparing this supply of developed land available with land needs for 13 selected



FIGURE 1.10

TOTAL ANNUAL DAYS OF URBAN PARTICIPATION, 1970, 1980, 2000, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS (1,000's of annual days)

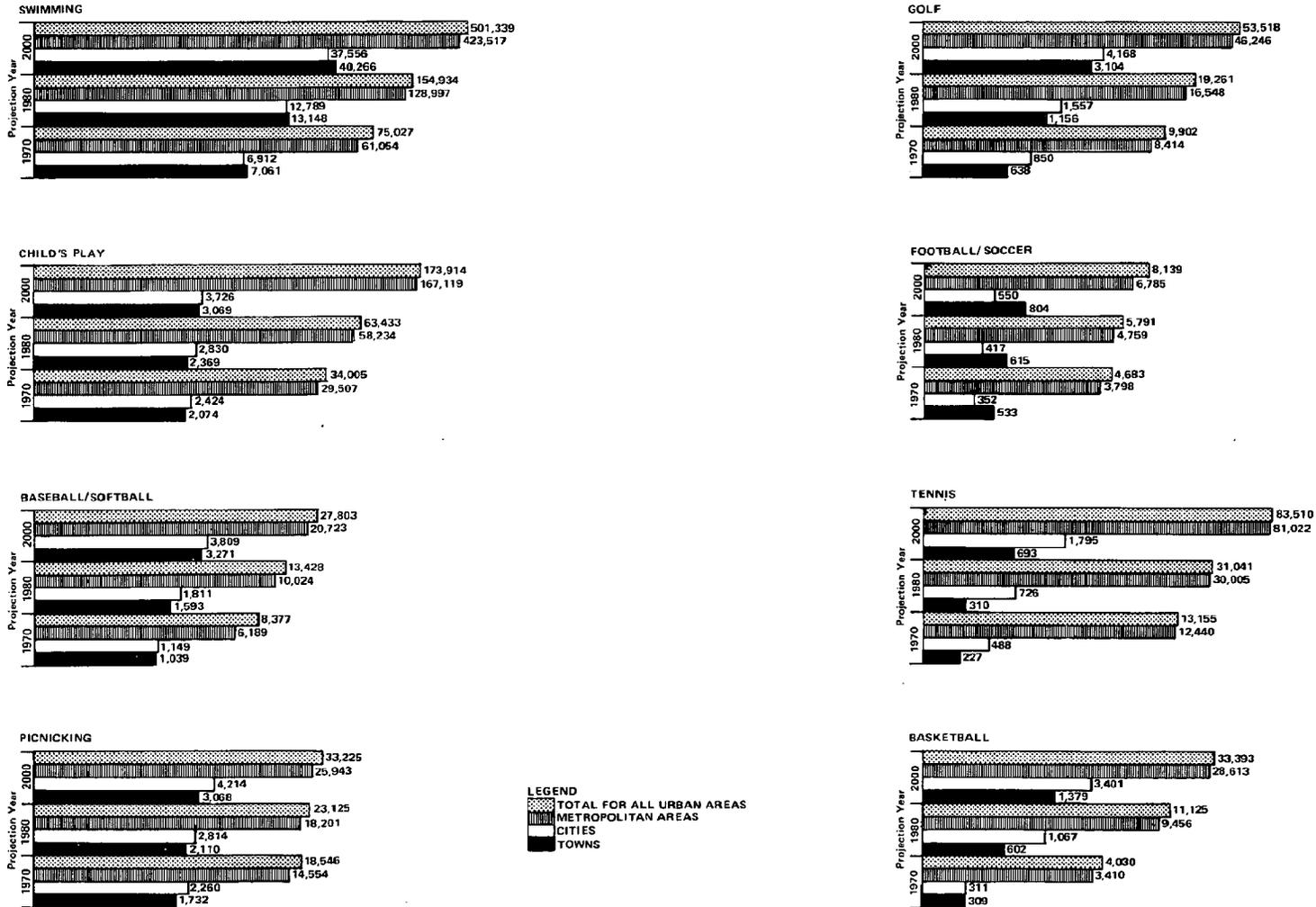
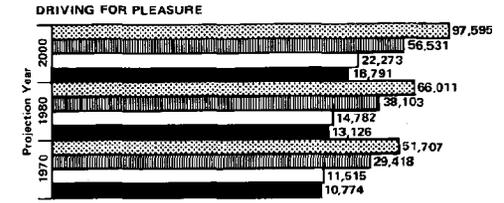
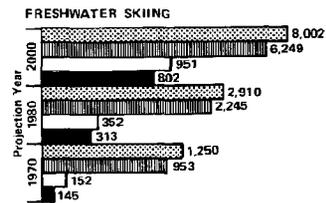
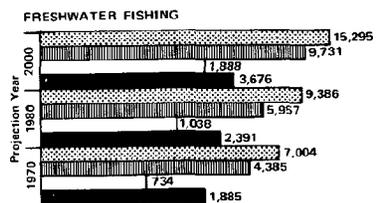
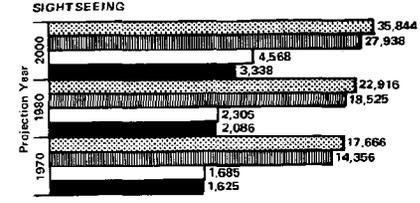
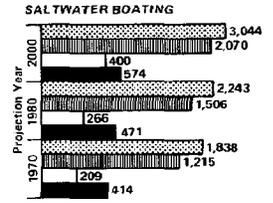
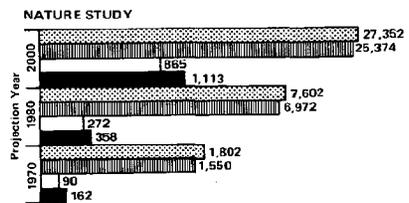
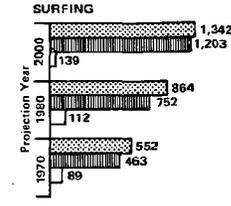
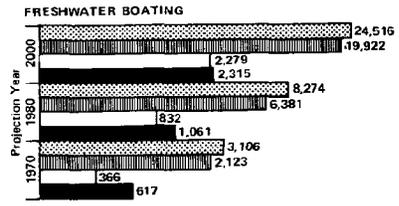
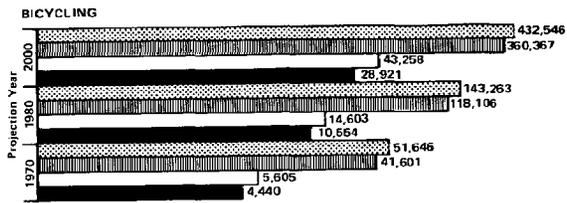
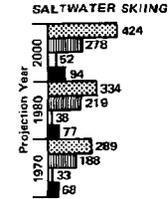
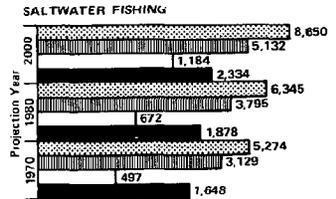
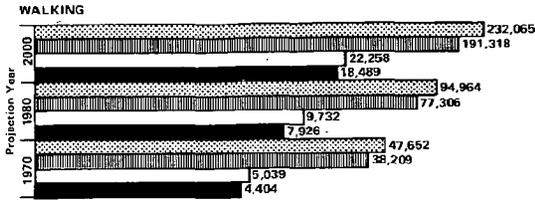


FIGURE 1.10 (Continued)



activities (Figure 1.11) produced a developed land requirement of 26,715 additional acres in 1970. By 1975 the need for developed land increased to approximately 42,008 additional acres. Developed land requirements for the 13 activities totaled 61,827 acres by 1980, 116,346 acres by 1990, and 188,384 acres by the year 2000. In the year 2000, requirements for these 13 activities combined represent an overall increase of about 332% over the 1971 supply of developed land. Metropolitan area requirements comprised the largest totals in each projection year, averaging about 87% of the total requirement for metros, cities, and towns. The cities requirements over the thirty-year period was only slightly larger than the towns requirements; both averaged between 6% and 7.5% of the total in each projection year.

In comparing developed land available with open land available in 1971, a ratio of 70% developed land to 30% undeveloped or open land was determined. Since urban land resource requirement estimates reflect the needs for land actually developed with recreational

facilities, open land needed in addition to the required developed land could be estimated to reach 80,736 acres by the year 2000 in order to maintain the current 70-30 ratio in the three major city-size urban areas.

Surface acres of freshwater lakes or reservoirs available for recreational purposes varied considerably among the urban areas across the State. Six of the 24 metropolitan areas reported no surface acres of freshwater, compared to 11 of the 27 regions with cities reporting that no cities within these 11 regions had any freshwater lakes, and 17 of the 37 regions with towns reporting that no towns within these 17 regions had any freshwater available for recreational uses. Comparing estimated demands for boating, boat fishing, and skiing with the 50,471 surface acres available in 1971 within the metros, cities, and towns showed additional cumulative requirements of 5,747 acres in 1970, 9,394 acres by 1975, 15,280 acres by 1980, 30,605 acres by 1990, and 54,164 acres by the year 2000. Of the three city-size categories, metropolitan area freshwater requirements were

greatest for all projection years, comprising 51% of the total requirement in 1970 and increasing each projection year to almost 73% in the year 2000. Even though the cumulative freshwater requirement for cities and towns increased through the year 2000, freshwater requirements for cities decreased slightly from approximately 15% of the total freshwater requirements in 1970 to about 13% in the year 2000, while freshwater requirements in the towns declined from 33% of the total in 1970 to 14% in the year 2000. Urban recreation cumulative freshwater requirements are illustrated graphically in Figure 1.12 for the projection years 1970, 1980, and 2000 for the three city-size categories and statewide totals.

If one set of data in this volume were to be singled out as the data most important to those who will use this document, it would be recreational facility requirement projections. Comparing estimated demand with opportunities available in 1971 yielded increases in cumulative facility requirements for all of the 13 selected activities for which requirements were projected for each projection year, 1970-2000.

FIGURE 1.11

URBAN RECREATION CUMULATIVE DEVELOPED LAND REQUIREMENTS FOR SELECTED ACTIVITIES, 1970, 1980, 2000, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS

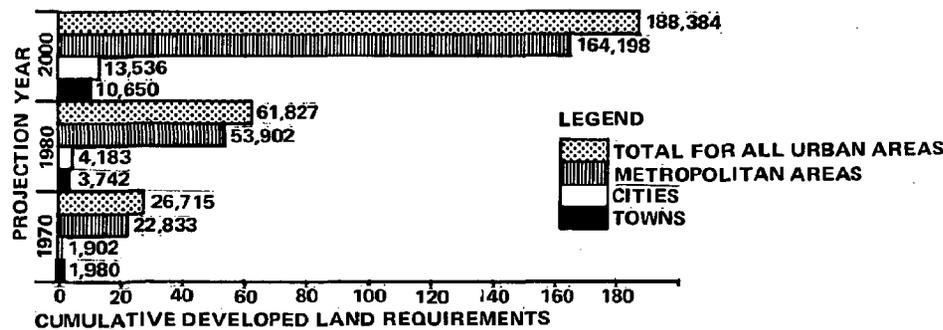
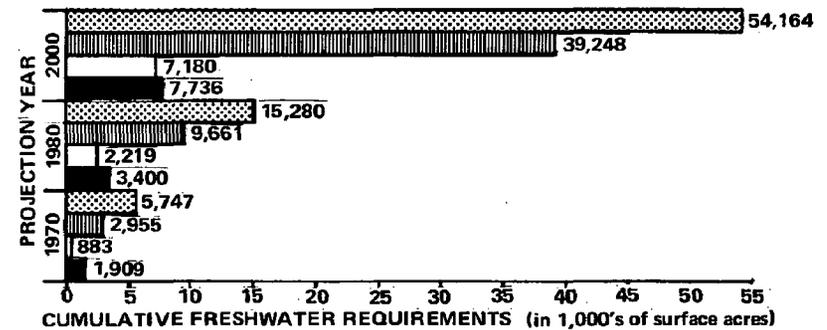


FIGURE 1.12

URBAN RECREATION CUMULATIVE FRESHWATER REQUIREMENTS FOR BOATING, BOAT FISHING, AND SKIING, 1970, 1980, 2000, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS



Different units of measurements are required to estimate facility requirements for different types of recreational facilities; therefore, direct comparisons of the various units cannot be made. Those facility needs occurring in the most substantial quantities over the thirty-year projection period are apparent, however (see Figure 1.13). Cumulative facility requirements for all urban areas combined were most substantial for swimming pools, tennis courts, picnic tables, golf courses, combined trails, and football/soccer fields in 1970.

Requirements for each of these activities continued to increase heavily through the year 2000. By 1980, cumulative requirements for basketball courts (840 courts) and freshwater boat ramps (320 ramps) were also significant compared to other facility needs. By the year 2000 the cumulative requirement for basketball is projected to increase to 3,365 courts. Of the three types of trails activities (walking, bicycling, and nature study), cumulative requirements for miles of trails were greatest in all projection years for walking, ranging from 68% of the total in 1970 to 51% in the year 2000.

Of the three city-size categories, metropolitan area facility requirements far exceeded requirements for either cities or towns in each projection year. This is explained primarily due to the large population masses residing in the metropolitan areas, approximately 75% of the total in 1970 for the three city sizes combined, compared to 13% and 12% for cities and towns, respectively. These population ratios are likely to remain comparable through the year 2000.

SPECIAL CONCERNS AND ASSOCIATED PROBLEMS

Not all elements of urban outdoor recreation can be easily quantified and converted to resource requirements. Yet the importance of several of these elements is undisputed, and merits special

consideration in the planning of outdoor recreation opportunities. Perhaps the most important of these non-quantifiable elements are: urban resources which offer potential for recreational use, recreation for the disadvantaged, sources of funding, and recreational programs.

The conservation of natural areas located in urban environments is important not only for ecological reasons but also because demand is increasing rapidly in activities most suited to natural areas. Although there are many natural areas in the urban areas of Texas, these natural areas are rapidly being lost to industrial, commercial, and other urban land uses. Rivers, streams, and flood plains also can play an important role by providing low-intensity recreational uses such as linear parks, picnic areas, and greenbelts. Another type of resource which offers potential is water. Providing sufficient recreational water in urban areas is not always easy, however, due to certain environmental constraints such as topography and climate, and because recreational use of water competes with other uses such as flood control as well as industrial and municipal water supply. The rapid upsurge in environmental awareness has generated a rapidly increasing demand for bicycling, walking, and hiking. Various resources such as pipeline, utility and abandoned rights-of-way offer potential as urban trails. Finally, historical sites should be viewed as offering recreational potential for urban residents. The task of preserving historical places is made difficult, however, because of inadequate funding for agencies concerned with historical preservation, and the fact that historical places tend to be located in urban areas of decline.

Another special concern is recreation for the handicapped and aged. It has been estimated that 4.1% of the population of Texas is handicapped, while 8% of the population is above the age of 65. Moreover, results of the Household Demand Survey showed that 23.1% of the sampled households had at

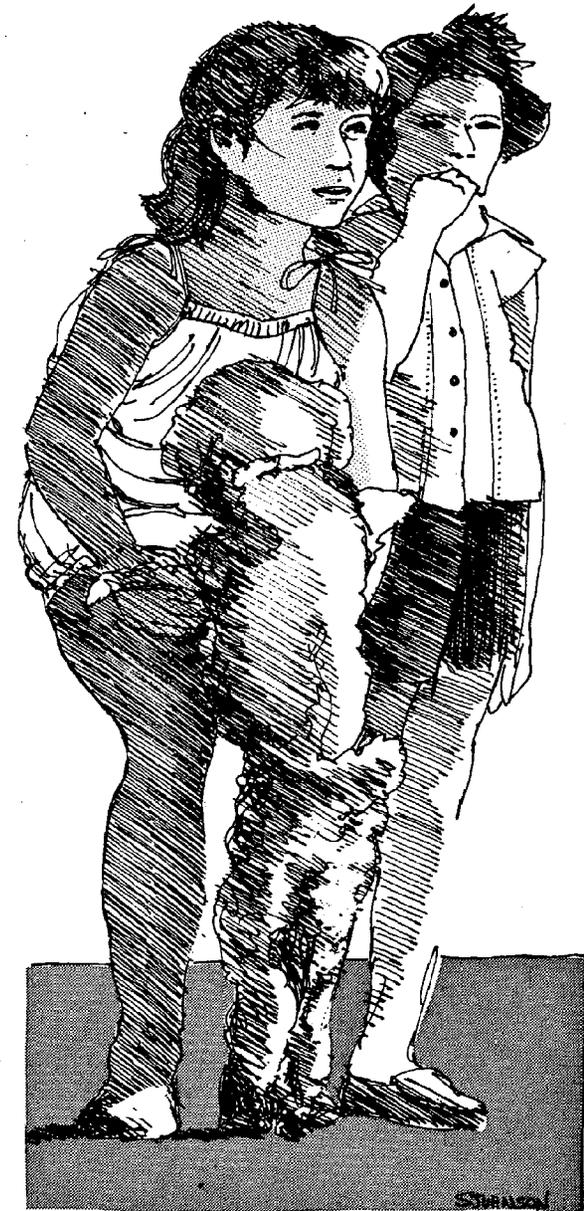
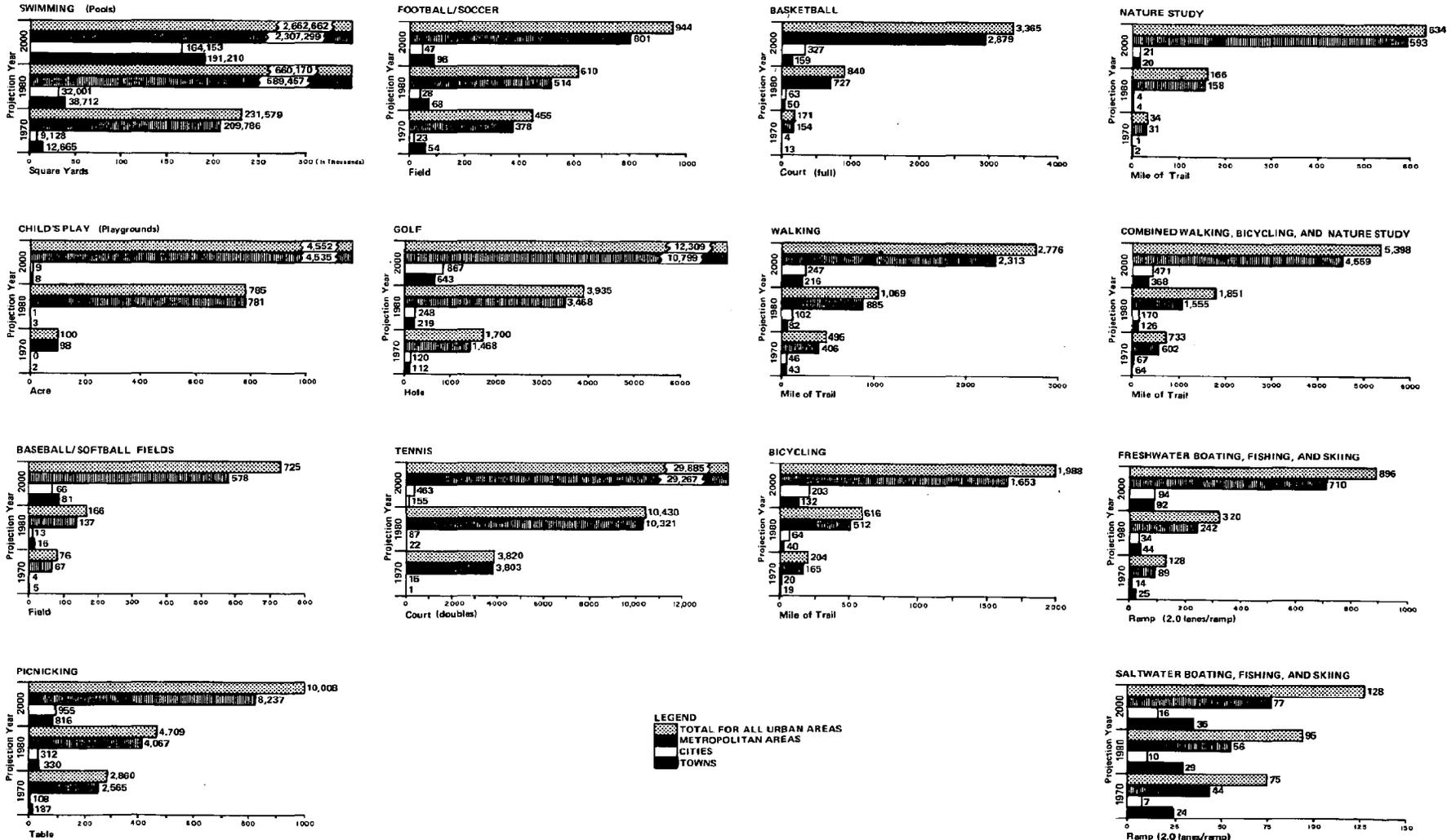


FIGURE 1.13

URBAN RECREATION CUMULATIVE FACILITY UNIT REQUIREMENTS FOR SELECTED ACTIVITIES, 1970, 1980, 2000, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS



least one individual who could not participate in recreational activities due to poor health. Recent studies have pointed out the importance of physical, social, and educational benefits derived from participation, noting that the disadvantaged can make enormous gains as a result of sound recreational programs. Any number of modifications can be made to facilitate recreational participation by the aged and the handicapped. Obstacles such as ditches, curbs, lack of park benches, and inaccessible restroom facilities are just a few of the many hindrances which could be removed. Also, passive outdoor activities such as croquet, shuffleboard, sightseeing tours, and bird watching can provide enjoyable opportunities for the elderly and handicapped.

Still another special concern, especially to municipalities, is the sources of funding for recreational acquisition, maintenance, and development. Basically, there are two broad categories of funding programs: local sources and state or federal grants. Among the more common local sources are general appropriations, general revenue and general obligation bonds, donations and gifts, and revenue produced by collecting fees for use of certain types of recreational facilities. Among the more common state and federal programs which provide matching grants for recreation are: the State Beach Cleaning and Maintenance Program administered by the Texas Parks and Wildlife Department, the Federal Housing and Community Development Act, the Federal Surplus Property Act, the Federal Aid Highway Act, and the Land and Water Conservation Fund. In general, metro areas rely heavily on bond programs, supplemented by federal grants, while many cities and towns rely more on general appropriations and other local sources. Although there are a number of fund sources available to municipalities, funding levels need to be increased if current and future recreational resource requirements are to be met.



Finally, a substantial portion of the need for urban outdoor recreation opportunities could be met through year-round recreation programs which make maximum use of existing resources. During certain periods of the day, the week, or the year, many facilities such as school grounds, baseball or football fields are very lightly used or even lie idle. These facilities could provide space for any number of recreation programs such as arts and crafts, games and sports, nature activities, and social events. In the increasing congestion and sprawl of urban environment, people need to have constructive activities and a variety of recreational pursuits, a release from urban tensions, and an opportunity to join together in classes, teams, or cultural exchanges. Toward these objectives, urban recreation programs can provide considerable assistance.

Projected increases in urban outdoor recreation demand in Texas have been shown to be significant through the year 2000. To satisfy these expected increases will in turn produce greater demands on the different types of resources which must be combined to produce high quality recreational opportunities.

Some of the most important of these resources include natural resources, fiscal resources, and human resources. All of these resources are extremely important to the citizens of Texas, not only in providing recreational opportunities, but also for numerous other worthwhile uses; therefore, the competition for each will be intense and justifications for their commitments demanding. The potential uses of all types of resources are largely determined by the quantities available. Use of natural resources to provide rewarding recreational experiences is also affected by the quality of the resource. To insure that decision-makers may creatively commit available resources in a balance that will best serve all of the needs of the people of Texas begins with comprehensive planning efforts at the state level and continues to all levels of local governments, as well as to private industries and private citizens. Through these planning efforts the needs of the people should be identified.

This volume serves to analyze urban outdoor recreation and provide estimates of the recreational needs projected to occur in the urban areas of Texas through the year 2000. While the quantifications of urban recreational needs across the State accomplish one very important aspect of recreational planning, other important aspects of urban recreation must subsequently receive the proper emphasis if a viable and enduring recreation system is to be provided that will meet current recreational needs while also assuring that future generations will have ample recreational opportunities of their choice. Some of these aspects which merit consideration are the conservation of natural areas and greenbelts, the recreational needs of the handicapped and aged, the means of financing recreational areas and facilities, and the development of recreational programs that will insure that maximum benefits are derived by recreationists from the opportunities provided. Each aspect of recreational planning requires the combined efforts of all levels of government and the private sector to achieve the maximum success possible in providing recreational opportunities.

Chapter 2

URBAN OUTDOOR RECREATION OPPORTUNITIES

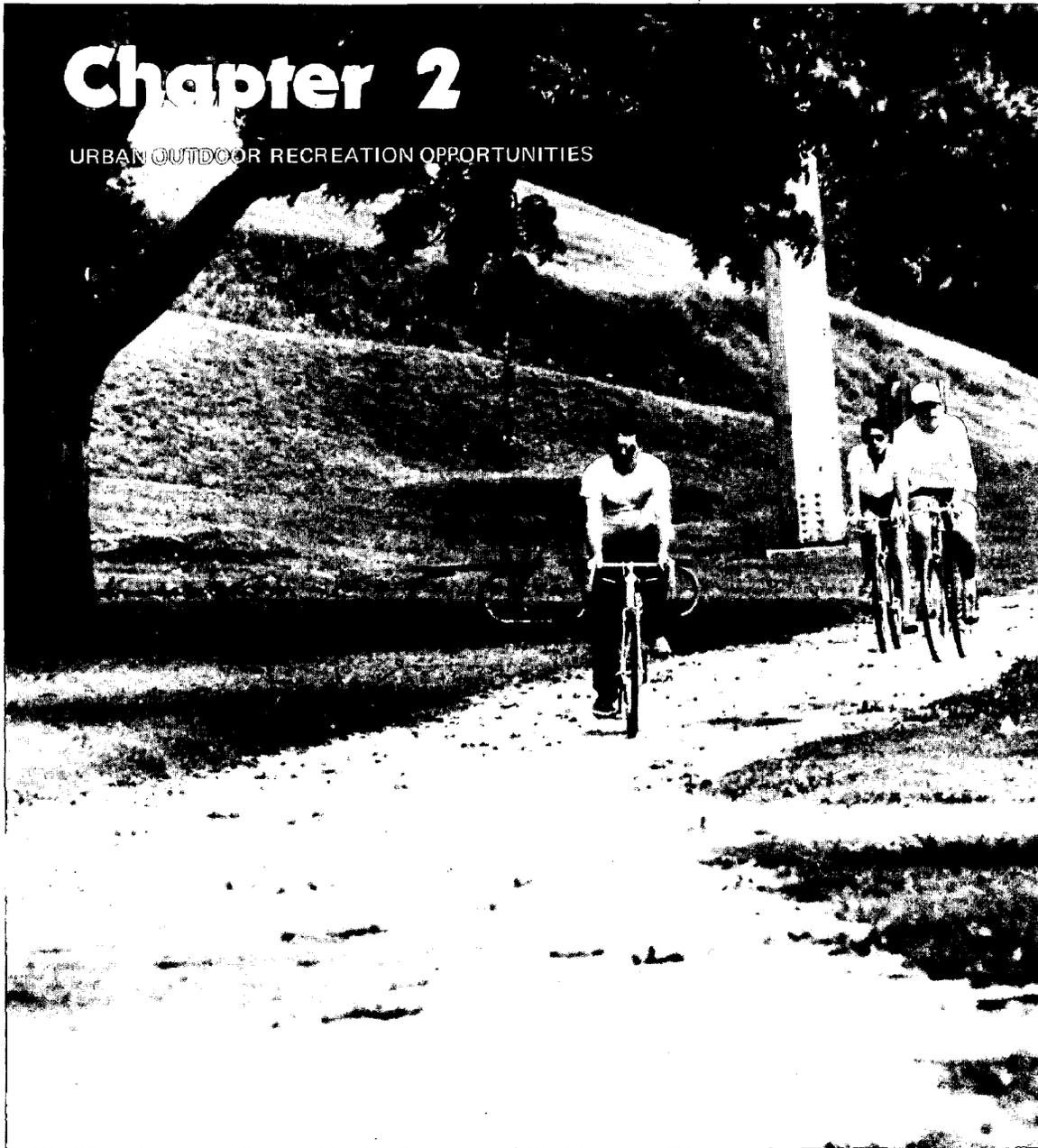


Photo by Melanie Shearer, Texas Parks and Wildlife Department

INTRODUCTION

As noted in Chapter 1, a rigorous methodology is required in order for the planning process to reveal with accuracy the major problems, deficits, and imbalances which may exist in the availability and accessibility of outdoor recreation opportunities in the urban areas of Texas. An essential component in this methodology is an enumeration of existing urban parks, their lands and water, and the various facilities available within these parks. Once enumerated, these existing opportunities may be compared with existing and future estimates of recreation demand, in order to make possible the identification of resource requirements. Once developed, resource requirements form the basis for establishing priorities, which identify those urban areas where the need for additional recreation land, water, and facilities is most urgent.

The purpose of this chapter is to summarize some of the basic characteristics of outdoor recreation opportunities in the metropolitan areas, cities, and towns. The major source of data for this chapter is the 1971 Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities. The chapter is segmented into three main parts: (1) a summary of the governmental agencies' role in supplying urban outdoor recreation opportunities and a brief explanation of the role of the private suppliers in providing urban opportunities; (2) a summary of the quantity and dispersion of recreation resources and facilities, by type, within the metropolitan areas, and among the cities and towns of Texas; and (3) a summary of the recreation opportunity days provided by the resources and facilities in the three city-size categories which reflect the amount of recreation participation that can be satisfied in the urban areas.

SUPPLIERS OF URBAN RECREATIONAL OPPORTUNITIES

Urban outdoor recreation opportunities were provided by both the public and private sectors in 1971. The public sector is characterized by federal, state, municipal, and county governments. The private sector is characterized by a variety of profit-oriented enterprises and non-profit organizations.

Overall, the public sector is the major supplier of opportunities for the types of urban outdoor recreation activities dealt with in this volume. Of the various agencies composing the public sector, the municipal governments are, by far, the largest providers of urban recreation opportunities, followed by county governments. State and federal agencies play a minimal recreation role in supplying recreational opportunities to the urban areas. A brief summary of the involvement in the urban areas by both the public and private sectors is presented below.

FEDERAL AGENCIES

Virtually all federal involvement in the provision of outdoor recreation opportunities in Texas is directed toward rural areas. In urban areas the only park operated entirely by a federal agency was Holiday Park on Benbrook Reservoir in the Fort Worth Metropolitan Area. This 486 acre park was operated by the United States Army Corps of Engineers. The only other federal involvement was with Dutch Branch Park (560 acres), also located on Benbrook Reservoir; however, the Corps of Engineers shared administrative responsibility for this park with the municipality of Benbrook. No recreational resources were provided in urban areas by other federal agencies such as the National Park Service, United States Forest Service, United States Fish and Wildlife Service, Bureau of Land Management, or Bureau of Reclamation.



STATE AGENCIES

As in the case of federal agencies, the vast majority of parks administered by Texas State agencies were located in rural areas. The only state agency providing urban outdoor recreation opportunities was the Texas Parks and Wildlife Department (TPWD) which operated five state parks in urban areas. The largest of the five urban parks was MacKenzie State Park, a 542-acre resource located in, and leased to, Lubbock. Other TPWD parks included Eisenhower Birthplace State Historic Site, a three-acre park in Denison; San Jose Mission, a sixteen-acre historical park in San Antonio; Port Isabel Lighthouse State Park, a one-half-acre in Port Isabel; and Queen Isabela State Park, a six acre undeveloped park also located in Port Isabel. Neither the Texas Forest Service, nor any of the Texas River Authorities administered any recreational resources in the urban areas of Texas in 1971.

COUNTIES

County governments provide the second largest number of urban parks in Texas. In 1971, there were 82 county-administered parks that were within

municipalities which had a 1970 population of at least 2,500 or larger. Of this total, 31% were district parks, 42% were community parks, 21% were specialty parks, and 6% were open land parks.¹ These 82 parks provided a combined total of 6,830 acres. In addition to providing parks in urban areas, county governments also provided numerous rural parks. Many of these rural parks are close enough to population centers to serve urban residents in meeting their recreational needs.

MUNICIPALITIES

By far the largest provider of urban public parks was the municipal governments. Of the 2,742 publicly-administered urban parks in Texas, approximately 2,653 (97%) were reported as being operated by local municipal governments in 1971. Of this total, 281 (11%) were district parks, 1,328 (50%) were community parks, 494 (19%) were specialty parks, and 550 (21%) were open land parks.² A

1. For a formal definition of district parks, community parks, specialty parks, and open land parks, the reader is referred to the glossary in the appendix of this volume.

2. See note 1 above.



comparison of these statistics with comparable statistics for urban parks administered by federal, state, and county agencies suggests that local municipal efforts tended to be directed toward community and open land parks, while federal, state, and county efforts to provide urban recreational resources tended to be oriented more in the direction of large, expansive district parks which were, in many cases, highly developed. It should be noted that many municipalities also administered parks situated in rural areas. Because of their location, these rural parks provide urban residents with amenities normally not found in urban parks.

THE PRIVATE SUPPLIERS

For purposes of developing the **TORP**, outdoor recreation opportunities provided by the private suppliers are considered those opportunities provided by recreation enterprises owned and/or administered by private entrepreneurs, corporations, organizations, institutions, and other non-public entities. Private suppliers of urban outdoor recreation opportunities cover a wide range of different types of entities. The types of recreation opportunities provided by these entities are also varied, ranging from minature golf

courses to country clubs and from regional amusement centers to apartment house swimming pools and tennis courts.

The private suppliers' impact on the provision of urban outdoor recreation opportunities was determined by analyzing both urban inventory data and urban outdoor recreation demand estimates. Based on the results of this analysis, the decision was made to exclude considerations of urban recreation opportunities provided by private suppliers in the estimates of supply, demand, and resource requirements for the Urban Volume. Major findings supporting this decision are as follows:

A large portion of the urban recreation opportunities provided by the private suppliers are not available to the general public. These opportunities, such as golf courses, tennis courts, and swimming pools at country clubs, are available only to a select clientele (members of a private country club, residents of an apartment complex, etc.). Only those opportunities available to the general public were included in resource requirement calculations in the Urban Volume.

Private suppliers provided only about six percent of the total urban parks and about eight percent of the total urban parkland acreage open to the general public.

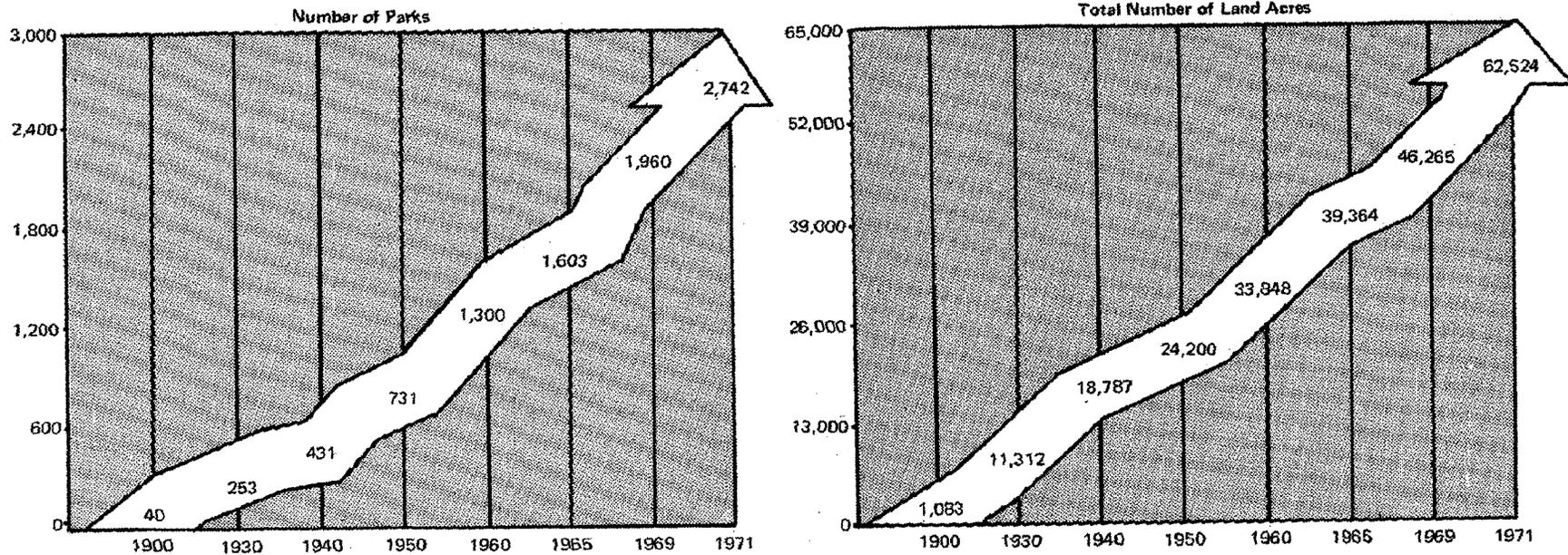
Many types of recreational opportunities provided by private suppliers support types of activities for which no resource requirements were developed for the Urban Volume. Examples are sport shooting, regional amusement centers (Six Flags Over Texas, Astro World, etc.), camping, racing, attending drive-in movies, etc.

Participation by an urban resident in an activity was included in the Urban Volume only if the recreationist took a trip to participate in the activity. For example, participation by a person swimming in his apartment/house pool was not recorded. This means that much of the participation occurring at private facilities is not included in the Urban Volume. Therefore, the recreation opportunities supporting this type of participation were also excluded to make participation projections more comparable with opportunities in computing resource requirements.

Problems encountered in the inventory of privately-supplied urban recreation opportunities open to the general public made it impractical to analyze the data and include the results in the Urban Volume. In a few cases the data requested were not received, or if received were proven to be highly inaccurate. Unfortunately, the few urban areas falling into these two types of respondent categories accounted for a substantial portion of the total opportunities available. The magnitude of collection efforts for this type inventory data necessitates heavy reliance on respondents who voluntarily use their time, resources, and personnel to provide the information requested. When the data are inaccurate, incomplete, or are not provided, accurate analysis becomes impractical.

FIGURE 2.1

GROWTH TRENDS OF PUBLICLY-ADMINISTERED URBAN PARKS:^a 1900-1971



PUBLICLY-ADMINISTERED URBAN RECREATIONAL OPPORTUNITIES

The various publicly-administered urban recreational areas provided a variety of recreational opportunities, and this section of Chapter 2 summarizes these many resources. Specifically, the total number of parks, the number of acres of land and water, and the quantity of different types of facilities are presented for all urban areas combined and for each of the three city-size categories. The various opportunities are summarized by total number of units, and by population ratios which make possible a valid comparison of the three city sizes by neutralizing the effects of differences in population. In essence, it is

the purpose of this section to provide an overall, composite picture of the quantity of recreational resources, as presented in much greater detail in the three other parts of the Urban Volume. Presented first is a brief historical perspective of recreational opportunities followed by a summary of public parks, a summary of recreational facilities, and a summary of the geographic dispersion of recreational resources.

HISTORICAL TRENDS IN THE PROVISION OF PUBLICLY-ADMINISTERED PARKS

In 1971, outdoor recreation opportunities in the urban areas of Texas comprised a vast array of resources, ranging from very small tracts of land with few or no facilities to extensive regional type parks

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

- a. In earlier years many parks currently classified as urban parks were actually located in rural areas according to TORP city size and rural definitions. The criteria for including a park in this figure was whether or not it was classified as an urban park when the inventory referenced in source above was conducted.

encompassing hundreds of land and water acres available for a variety of outdoor activities. This situation has not always been the case, however. In order to provide some historical perspective, the accompanying graphs of Figure 2.1 show the phenomenal increase in the number of

publicly-administered urban parks and the number of land acres within these parks.

The large increase in the quantity of recreational opportunities reflects not only the increase in popularity of outdoor recreation activities; it also represents significant actions taken by the public sector during the past several decades to meet this increase in demand. Since 1960, the number of parks has increased 111%, from 1,300 to 2,742, while the number of land acres available has increased 85%, from 33,848 to 62,524 acres. Between 1960 and 1970, the total urban population increased about 21%, from 7,094,522 to 8,556,407. However, despite the fact that the quantity of urban recreation resources has been increasing more rapidly than the urban population, urban opportunities generally were inadequate to fulfill recreation demand in 1971. Projected increases in demand portend a significant magnification of these inadequacies over the next several decades, if substantial quantities of additional opportunities are not provided.

SUMMARY OF PUBLIC PARKS

In 1971 there was a reported 62,524 acres of publicly-administered recreational land, dispersed among 2,742 urban parks in Texas. Of the total land acreage, 70% (43,621 acres) was developed with facilities, while 30% (18,903 acres) was available as open land or land held for future development. In addition to the 62,524 land acres, there was a total of 48,816 surface acres of freshwater located within or adjacent to these urban parks, for a combined total of 111,340 acres of recreational land and water associated with publicly-administered parks. On a statewide basis there were .320 parks and 7.307 acres of park land per thousand urban population. Or stated another way, there were 3,120 people who shared each park, while there were 137 people who shared each acre of park land. Figure 2.2, and Tables 2.1 and 2.2 express these general relationships.

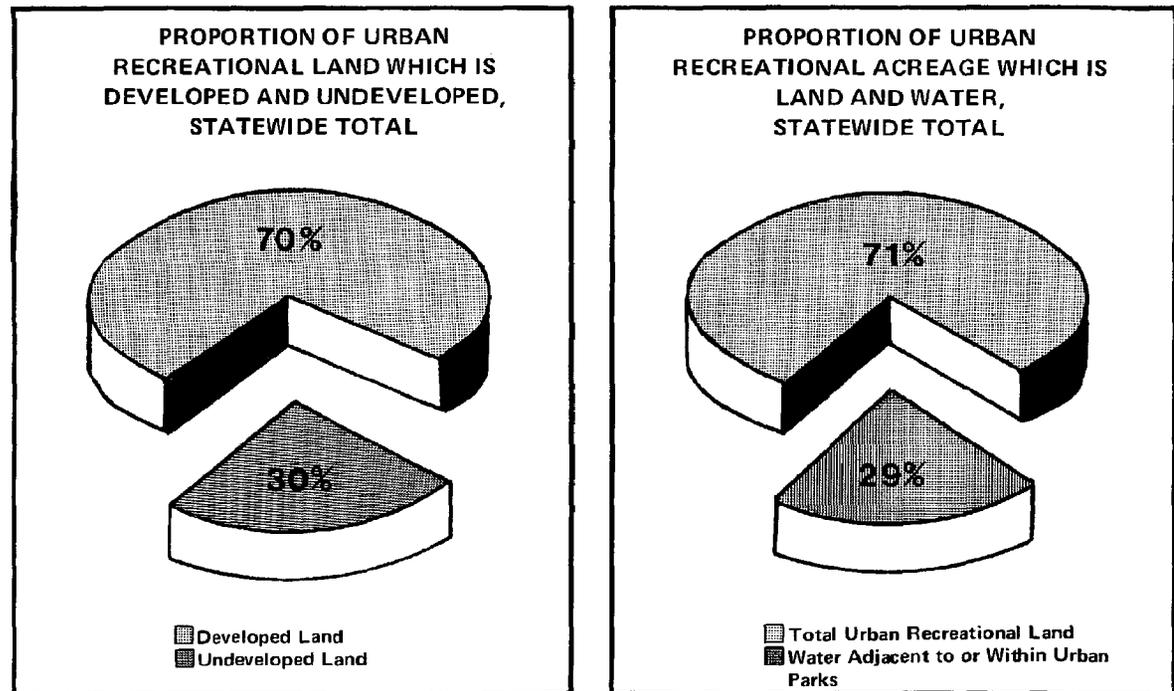
TABLE 2.1

URBAN PARKLAND ACREAGE, AND WATER ACREAGE WITHIN OR ADJACENT TO URBAN PARKS, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS

	<u>METROS</u>	<u>CITIES</u>	<u>TOWNS</u>	<u>TOTAL FOR ALL URBAN AREAS</u>
Developed Land	31,381	7,059	5,181	43,621
Undeveloped Land	12,857	3,718	2,328	18,903
Total Recreational Land	44,238	10,777	7,509	62,524
Water Acreage Within Or Adjacent to Urban Parks	24,142	522	24,152	48,816
Total Land and Water Acreage	68,380	11,299	31,661	111,340

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

FIGURE 2.2



Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities.

TABLE 2.2
NUMBER AND ACREAGE OF URBAN PARKS, AND URBAN POPULATION RATIOS, BY CITY SIZE, TOTAL FOR ALL URBAN AREAS

	<u>METROS</u>	<u>CITIES</u>	<u>TOWNS</u>	<u>TOTAL FOR ALL URBAN AREAS</u>
Number of Parks	1,717	515	510	2,742
Parks Per Thousand Population ^a	.267	.465	.511	.320
People Per Park ^b	3,754	2,154	1,981	3,120
Total Recreational Land				
Acreage in Urban Parks	44,238	10,777	7,509	62,524
Developed Acres Per Thousand Population	4.869	6.397	5.141	5.098
Undeveloped Acres Per Thousand Population	1.995	3.370	2.310	2.209
Developed and Undeveloped Acres Per Thousand Population	6.864	9.767	7.450	7.307
People Per Acre of Parkland	146	103	135	137

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities.

- a. Parks per thousand population was calculated by dividing the total number of parks for the given city-size category or the state by the total population, in thousands, of the given city-size category or the state.
- b. People per park was calculated by dividing the population of a given city-size category or the state by the number of parks in the given city-size category or the state.

TABLE 2.3
COMPARISON OF THE PROPORTIONAL SHARE OF URBAN POPULATION BY CITY SIZE WITH THE PROPORTIONAL SHARE OF LAND AND WATER RESOURCES BY CITY SIZE

	<u>METROS</u>	<u>CITIES</u>	<u>TOWNS</u>	<u>TOTAL PERCENT</u>
Percent of Urban Population (1970)	75.3	12.9	11.8	100
Percent of All Urban Parks	62.6	18.8	18.6	100
Percent of All Urban Recreational Developed Land	71.9	16.2	11.9	100
Percent of All Urban Recreational Undeveloped Land	68.0	19.7	12.3	100
Percent of All Urban Recreational Land (Developed and Undeveloped)	70.8	17.2	12.0	100
Percent of all Water Acreage Within or Adjacent to Urban Parks	49.5	1.1	49.4	100
Percent of All Urban Recreational Land and Water	61.4	10.2	28.4	100

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

As indicated in Chapter 1, urban recreation was segmented into three city-size categories: metropolitan areas, cities, and towns. Tables 2.1, 2.2, and 2.3 show the distribution of recreational land and water resources on the basis of city-size category. Although metro areas accounted for most of the developed land, undeveloped land, and water (as shown in Table 2.1), and most of the parks (as shown in Table 2.2), metros as a whole had fewer resources than either cities or towns when the three city-size categories are evaluated for differences in population (Tables 2.2 and 2.3). In comparison to the other two city-size categories, metros had fewer parks per thousand population as well as fewer developed and undeveloped acres per thousand population. The relatively low number of undeveloped acres per thousand population is especially significant, since it suggests that the metros had comparatively less potential for further development of existing park lands.

The proportional share of population by city-size category is compared with the proportional share of land and water resources by city-size category in Table 2.3. About three-fourths (75%) of all urban residents lived in the metros in 1970; yet, metros accounted for only about 63% of the number of urban parks, 72% of all developed land, 68% of all undeveloped land, and almost 50% of all water acreage within or adjacent to urban parks. Conversely, cities and towns tended to have a higher proportion of resources than their respective populations would predict. The major exception was water resources; nearly all of the water located within or adjacent to parks was located within or adjacent to metro and town parks (about 50% and 49%, respectively). Cities as a whole had only 1% of the water acreage within or adjacent to urban parks. It is important to understand that many of the cities and towns and some of the metros had no water within or adjacent to urban parks. Of the 24 metropolitan areas, 6 reported no water acreage within or adjacent

to urban parks in 1971. Of the 27 regions having cities, 9 regions had no water within or adjacent to city parks. All 37 regions had towns; however, over half of these regions (20) had no water within or adjacent to parks in the towns. This data should be viewed with the fact in mind that all metros and cities had at least one or more parks and only 1 region had towns which had no parks located in any of the towns of that region. The inadequate distribution of water within or adjacent to parks is further amplified by the following information: 93% (22,501 of 24,142 acres) of the total acreage in the metros was found in 4 metropolitan areas; 53% (277 of 522 acres) of the total acreage in cities occurred in 2 regions; 96% (23,284 of 24,152 acres) of the total acreage in towns was located in the town of Lewisville in Region 12; and for all urban areas combined, 83% (40,604 of 48,816 acres) occurred in only 3 regions. Accordingly, these data should be interpreted with caution since they are aggregated in order to provide a statewide overview.

A further distinction is made by classifying urban parks by type. It should be apparent that a one block tract of land with a few facilities for children may not necessarily compare to an extensive regional type park with water and facilities for a variety of activities serving all age groups. Accordingly, four types of urban parks were identified: district, community, speciality, and open land. District parks are larger than twenty acres and contain facilities for two or more major activities; community parks provide facilities for two or more major activities, but are smaller than twenty acres; speciality parks provide facilities for only one major activity; and open land parks are those which have no facilities.³ Although the classifying of parks according to "type" is not a prerequisite for calculating resource requirements, the distinction is useful in identifying parks which have facilities, as opposed to parks which are "open land" and contain no facilities.

3. See glossary for the distinction between open land parks and undeveloped lands.

TABLE 2.4

NUMBER AND PERCENTAGE OF URBAN PARKS BY TYPE AND BY CITY SIZE

	METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS
District Parks	197 (11.5%)	58 (11.3%)	54 (10.6%)	309 (11.3%)
Community Parks	930 (54.2%)	200 (38.8%)	234 (45.9%)	1,364 (49.7%)
Specialty Parks	255 (14.8%)	130 (25.2%)	129 (25.3%)	514 (18.8%)
Open Land Parks	335 (19.5%)	127 (24.7%)	93 (18.2%)	555 (20.2%)
Total Number of Parks	1,717 (100.0%)	515 (100.0%)	510 (100.0%)	2,742 (100.0%)
Average Number of Parks	72	8	2	

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

Table 2.4 presents a frequency distribution of urban parks by type for each city-size category and the total for all urban areas. Of the 2,742 urban parks statewide, 309 (11.3%) were classified as district; 1,364 (49.7%) were classified as community; 514 (18.8%) were classified as speciality; and 555 (20.2%) were classified as open land parks. About four-fifths (79.9%) of all urban parks had facilities for at least one major urban activity (district, community, and speciality types combined); about three-fifths (61.0%) had facilities for more than one major activity (district and community types combined). Of the three city-size categories, the towns had the largest number of parks with facilities for at least one major activity (81.8%), while the cities had the smallest number (75.3%). Conversely, the towns had comparatively fewer open land parks than the other two city-size categories, while the cities had more. On the average, there were 72 parks per metro, 8 parks per city, and 2 parks per town.

Table 2.5 shows the distribution of urban parks by type. Given the definition of the four types of parks, almost half (47.0%) of all urban park acreage were classified as "district." Community parks accounted for 21.5% of the land acreage; special parks accounted for 16.9%; and open land parks accounted for 14.6% of all urban park acreage. Very little difference existed among the three city-size categories in terms of the percentage of acreage distribution by type.

The average size of urban parks is itemized by type of park and city-size category in Table 2.6. The average size for an urban park, all city sizes combined, in Texas in 1971 was 23 acres. District parks averaged 95 acres, community parks 10 acres, speciality parks 21 acres, and open land parks 16 acres. There was a definite tendency for park size to show a positive correlation with the size of urban area. Metro parks averaged 26 acres, city parks averaged 21 acres, and

TABLE 2.5

NUMBER OF ACRES AND PERCENTAGE OF ACREAGE FOR URBAN PARKS BY TYPE AND BY CITY SIZE

	METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS
District Parks	20,839 (47.1%)	4,922 (45.7%)	3,648 (48.6%)	29,409 (47.0%)
Community Parks	9,961 (22.5%)	1,642 (15.2%)	1,852 (24.6%)	13,455 (21.5%)
Specialty Parks	7,708 (17.4%)	1,858 (17.2%)	975 (13.0%)	10,541 (16.9%)
Open Land Parks	5,730 (13.0%)	2,355 (21.9%)	1,034 (13.8%)	9,119 (14.6%)
Total Acres	44,238 (100.0%)	10,777 (100.0%)	7,509 (100.0%)	62,524 (100.0%)

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

town parks averaged 15 acres. Regional comparisons of urban parkland acreages, water acreages within or adjacent to publicly-administered parks, and the number of urban parks by region for metros, cities, and towns are presented in Appendix D.

SUMMARY OF RECREATIONAL FACILITIES

A variety of recreational facilities was available in the urban areas, and Table 2.7 itemizes the frequency with which these facilities were provided, in terms of: total number of units, people per unit, and units per thousand urban population.

Table 2.7 shows that statewide, acres of playground, games and sports facilities, and picnic tables were the three types of facilities most often provided in urban parks. Of the 2,742 urban parks (Table 2.2), a total of 1,648 (60%) had playgrounds; 1,456 (53%) had some form of games and sports facilities; and 1,271 (46%) had picnic tables. To a lesser extent, other

types of facilities were provided; 19% of the urban parks had some form of swimming facilities; 14% had miscellaneous facilities such as amphitheaters; botanical gardens, zoos, or community recreation

centers; only 5% of the urban parks had facilities available for fishing; 3% had some form of designated trail; while facilities for boating, camping and sport shooting were available in less than 3% of all urban parks in 1971. Also, there were 76 publicly-administered golf courses: Generally, these percentages showed minimal variation in terms of the three city-size categories.

Table 2.7 also shows that there were 50,741 total surface acres of freshwater within urban areas. This total includes acres of water within or adjacent to publicly-administered urban parks if the water was located within the urban areas. An urban park may be located on a large body of water which extends beyond the defined limits of the urban area. Only that water located within the urban area is included in the 50,741 acreage figure. It is important to understand that the amount of water acreage tabulated for urban areas can thus be expressed in two ways: (1) water acres adjacent to or within parks, which is relevant to an analysis of urban park recreational resources (presented in the section titled "Summary of Public Parks"), and, (2) total surface

TABLE 2.6

SIZE OF URBAN PARKS BY TYPE AND BY CITY SIZE

	METROS	CITIES	TOWNS	AVERAGE FOR ALL URBAN AREAS
Average Acreage for District Parks	106	85	68	95
Average Acreage for Community Parks	11	8	8	10
Average Acreage for Specialty Parks	30	14	8	21
Average Acreage for Open Land Parks	17	19	11	16
Average Acreage for All Park Types	26	21	15	23

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

TABLE 2.7

**NUMBER OF FACILITY UNITS, PEOPLE PER UNIT, AND UNITS PER THOUSAND URBAN POPULATION,
BY CITY SIZE, AND TOTAL FOR ALL URBAN AREAS**

TYPE OF FACILITY	TOTAL NUMBER OF UNITS				PEOPLE PER UNIT ^a				UNITS PER THOUSAND POPULATION ^b			
	METROS	CITIES	TOWNS	TOTAL URBAN	METROS	CITIES	TOWNS	TOTAL URBAN	METROS	CITIES	TOWNS	TOTAL URBAN
GAMES AND SPORTS												
Parks	967	241	248	1,456	6,665	4,579	4,064	5,878	.15	.22	.25	.17
Tennis Courts	918	223	168	1,309	7,021	4,948	5,999	6,537	.14	.20	.17	.15
Basketball Courts	458	82	69	609	14,072	13,456	14,607	14,050	.07	.07	.07	.07
Baseball/Softball Fields	1,203	342	317	1,862	5,358	3,226	3,179	4,595	.19	.31	.31	.22
Football/Soccer Fields	210	50	27	287	30,691	22,069	37,329	29,813	.03	.05	.03	.03
PICNICKING:												
Parks	804	227	240	1,271	8,016	4,861	4,199	6,732	.12	.21	.24	.15
Tables	7,925	2,757	2,148	12,830	813	400	469	667	1.23	2.50	2.12	1.50
PLAYGROUNDS:												
Parks	1,102	281	265	1,648	5,849	3,927	3,803	5,192	.17	.25	.26	.19
Acres Developed	1,665	786	658	3,109	3,871	1,404	1,532	2,752	.26	.71	.64	.36
SWIMMING:												
Parks	326	90	115	531	19,770	12,260	8,764	16,114	.05	.08	.11	.06
Pools (Square Yards)	167,145	57,426	56,949	281,520	39	19	18	30	25.95	52.02	57.76	32.90
Designated Freshwater (Square Yards)	346,235	301,401	960,071	1,607,707	19	4	1	5	52.24	241.47	949.67	187.90
Designated Saltwater (Square Yards)	0	24,200	10,000	34,200	N/A	46	101	250	N/A	136.50	76.21	14.89
BOATING, BOAT FISHING, SKIING:												
Surface Acres of Freshwater	45,755	2,332	2,654	50,741	141	473	380	169	7.10	2.11	2.63	5.93
BOATING:												
Parks	41	9	12	62	157,198	122,603	83,989	138,007	.01	.01	.01	.01
Ramp Lanes - Freshwater	49	8	39	96	131,533	137,928	25,843	89,129	.01	.01	.04	.01
Ramp Lanes - Saltwater	6	1	6	13	1,074,185	1,103,425	167,978	658,185	*	.01	.05	.01
CAMPING:												
Parks	14	14	30	58	460,365	78,816	33,596	147,524	*	.01	.02	.01
Campsites	781	579	373	1,733	8,252	1,906	2,702	4,937	.12	.52	.35	.20
FISHING:												
Parks	87	25	21	133	74,082	44,137	47,994	64,334	.01	.02	.02	.02
Pier/Barge/Marina-Freshwater (Yd.)	313	20	604	937	20,591	55,171	1,669	9,132	.05	.02	.59	.11
Pier/Barge/Marina-Saltwater (Yd.)	24	300	60	384	268,546	3,678	16,798	22,282	.01	1.69	.46	.17
GOLFING:												
Courses	38	16	22	76	169,608	68,964	45,812	112,584	.01	.01	.02	.01
Holes	659	198	207	1,064	9,780	5,573	4,869	8,042	.10	.18	.21	.12

TABLE 2.7 (Continued)	TOTAL NUMBER OF UNITS				PEOPLE PER UNIT ^a				UNITS PER THOUSAND POPULATION ^b				
	TYPE OF FACILITY	METROS	CITIES	TOWNS	TOTAL URBAN	METROS	CITIES	TOWNS	TOTAL URBAN	METROS	CITIES	TOWNS	TOTAL URBAN
TRAILS:													
Parks	42	19	16	77	153,455	58,075	62,992	111,122	.01	.02	.02	.01	
Nature (Mi.)	59.5	17	33.8	110.3	108,321	64,907	29,819	77,574	.01	.02	.03	.01	
Horseback (Mi.)	24	6.7	27	57.7	268,546	164,690	37,329	148,291	*	.01	.01	.01	
Bicycle (Mi.)	50.5	19	27	96.5	127,626	58,075	37,329	88,667	.01	.02	.03	.01	
Walking (Hiking) (Mi.) ^c	41.5	15	37.5	94	155,304	73,562	26,877	91,026	.01	.01	.04	.01	
Total Trails (Mi.)	140.5	33.7	41.8	216	45,873	32,743	24,112	39,613	.02	.03	.04	.03	
SPORT SHOOTING:													
Parks	11	5	2	18	585,919	220,685	503,935	475,356	*	*	*	*	
Shooting Traps	12	1	3	16	537,093	1,103,425	335,957	534,775	*	*	*	*	
Shooting Targets	24	35	1	60	268,546	31,526	1,007,870	142,607	*	.03	*	.01	
Archery Targets	72	31	1	104	89,515	35,594	1,007,870	82,273	.01	.03	*	.01	
MISCELLANEOUS:													
Parks	251	67	73	391	25,678	16,469	13,806	21,883	.04	.06	.07	.05	
Amphitheatre Seats	6,940	7,950	1,445	16,335	929	139	697	524	1.08	7.11	1.43	1.91	
Botanical Gardens (Acres)	499	9.3	19.3	527.6	12,916	118,648	52,221	16,218	.08	.01	.02	.06	
Zoos (Acres)	329	9	6	344	19,590	122,603	167,978	24,873	.05	.01	.01	.04	
Community/Recreation Centers	237	58	71	366	27,195	19,025	14,195	23,378	.04	.05	.07	.04	

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas and Facilities

Note: The number of parks enumerate the number of publicly-administered parks which had one or more types of the facilities listed immediately below the word parks in the "Type of Facility" column. For example, under "Games and Sports," there were 967 urban parks in metro areas which had either tennis courts, basketball courts, baseball/softball fields, or football/soccer fields, or any combination of these facilities.

* Indicates figures rounded to less than .01.

- People per unit was calculated by dividing the population of a city-size category, or statewide urban population, as appropriate, by the number of facility units in that city-size category, or in the combined urban areas of the state.
- Units per thousand was calculated by dividing the total number of units for the given city size or statewide total by the total population, in thousands, for the given city size or statewide total. As an example, Table 2.7 shows that statewide there were 12,830 picnic tables in urban parks. This figure was then divided by the 1970 statewide urban population expressed in thousands, 8,556.407. The result of this computation is 1.50 picnic tables per thousand urban population, and this number appears in the last column of Table 2.7.
- Since some trails were multi-use, the mileage for these trails appears repetitiously when trail mileage is listed by type of trail. Consequently, the sum of the mileage for nature trails, horseback trails, bicycle trails, and walking (hiking) trails is larger than the total miles of trail since double counting was eliminated in obtaining a totals figure. The total miles of trail does include those trails which were designated only for horseback riding; however, horseback riding trails were excluded from facility requirement calculations in Chapter 4 since horseback riding is an activity normally not compatible with walking, bicycling, and nature study.

acres of freshwater located within urban areas, which is relevant to the computation of resource requirements for water-based activities (presented in the "Summary of Recreational Facilities" and "Urban Recreational Opportunity Days" sections of this chapter, and was also used in calculating resource requirements in Chapter 4).

Table 2.7 also provides an enumeration of facilities based on population ratios which allow the assessment of the frequency or infrequency with which different types of facilities were provided, given the extent of potential users. These two ratios are inversely proportional; that is, a large number of people per unit implies a small number of units per thousand population. Considering the facility types for which urban resource requirements were calculated, metro areas as a whole were below the state average for all types of facilities except

basketball courts, on the basis of "units per thousand." Of the three city-size categories, metro areas averages ranked last for seven of the major facility types: tennis courts, baseball/softball fields, picnic tables, playground acres, square yards of swimming pool, holes of golf, and miles of trail. In no

instance was the metro average for facility units the highest of the three city-size categories, considering the types of facilities for which urban resource requirements were calculated. Generally, cities tended to have more facilities per capita than either the metros or towns.



DISPERSION OF RECREATION OPPORTUNITIES

As mentioned at the beginning of this Chapter, the provision of outdoor recreation opportunities has two major components: availability and accessibility. Thus far, this Chapter has focussed on availability, on a statewide and city-size basis. Accessibility is a function of several factors; one of the most important is the proximity of resources to population. This section of Chapter 2 presents a general overview of the dispersion of recreation resources within the metropolitan areas and among the cities and towns of Texas.

DISPERSION OF OPPORTUNITIES WITHIN THE METROPOLITAN AREAS

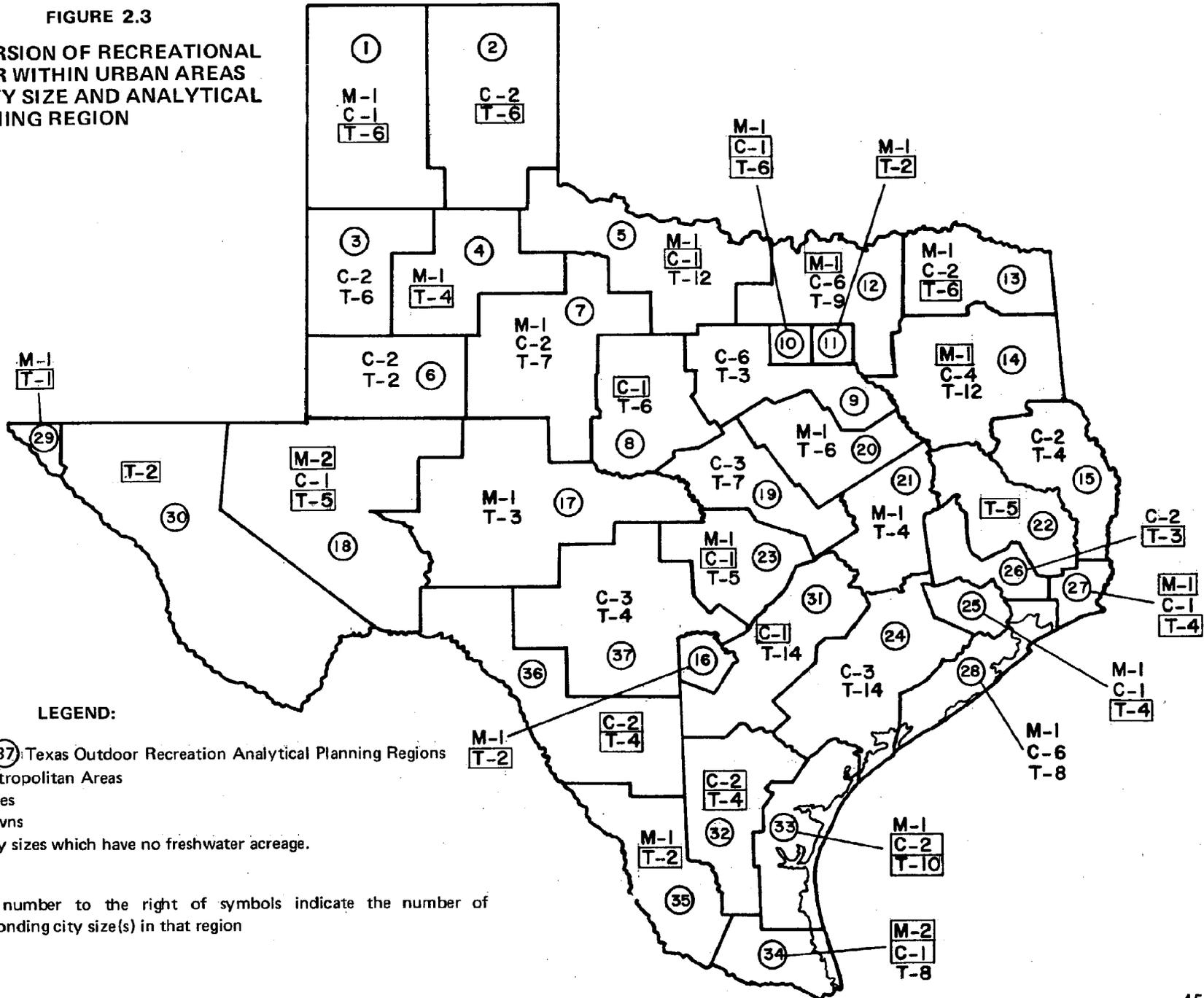
The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities enumerated the quantity of resources available in order to determine resource requirements for each metropolitan area as a whole. Also, to identify spatial imbalances which may have existed within the metro, a separate analysis focussed on the dispersion of parks and the recreational facilities within these parks, particularly as they were dispersed among different income-ethnic background subsections, urban growth areas, and potential growth areas of the metro.

Generally, high density core areas of the metros (made up largely of low-income Anglos, Blacks, and Mexican-Americans) tended to have a relatively large number of small parks. In many instances, these parks were of the specialty or community type, and offered facilities typically for child's play, games and sports, or picnicking. In other instances, parks had no facilities at all, but served as open land type resources. Lower density, outlying areas of the metros (made up largely of middle and high-income Anglos) tended to have a relatively small number of parks, but parks tended to be larger in acreage, and contained facilities for a variety of activities. District parks appeared to be more frequent in outlying areas than in the core area of the metros. Also, in some of the metros it was evident that the ability to establish parks in areas of rapid urban expansion had lagged behind the actual pace of growth. As metropolitan areas continue to expand, it is anticipated that parks which were situated in nearby rural areas will become urban parks as a result of urban land use encroachment. Some of the metros had no surface acres of freshwater lakes available; others had lakes which were situated on the fringe of the metro and thus not immediately accessible to residents in the metro's core area. Some of the contiguous urban areas of the larger metros had been completely surrounded by the principal municipality of the metro. Since some of these contiguous urban areas had few or in some cases no parks, they apparently had to rely on the metro's principal (core) municipality for outdoor recreational opportunities.

The dispersion of recreational water, an important resource in providing adequate recreational opportunities, among the various metropolitan areas (Figure 2.3) merits specific notations. Of the total 45,755 acres of recreational water reported within the metropolitan areas in 1971, almost 77% (35,132 acres) occurred in only 4 metros, and 96% (43,947 acres) occurred in 7 metros. Six of the 24 metropolitan areas reported no recreational water available.

FIGURE 2.3

DISPERSION OF RECREATIONAL WATER WITHIN URBAN AREAS BY CITY SIZE AND ANALYTICAL PLANNING REGION



DISPERSION OF OPPORTUNITIES AMONG THE CITIES AND TOWNS

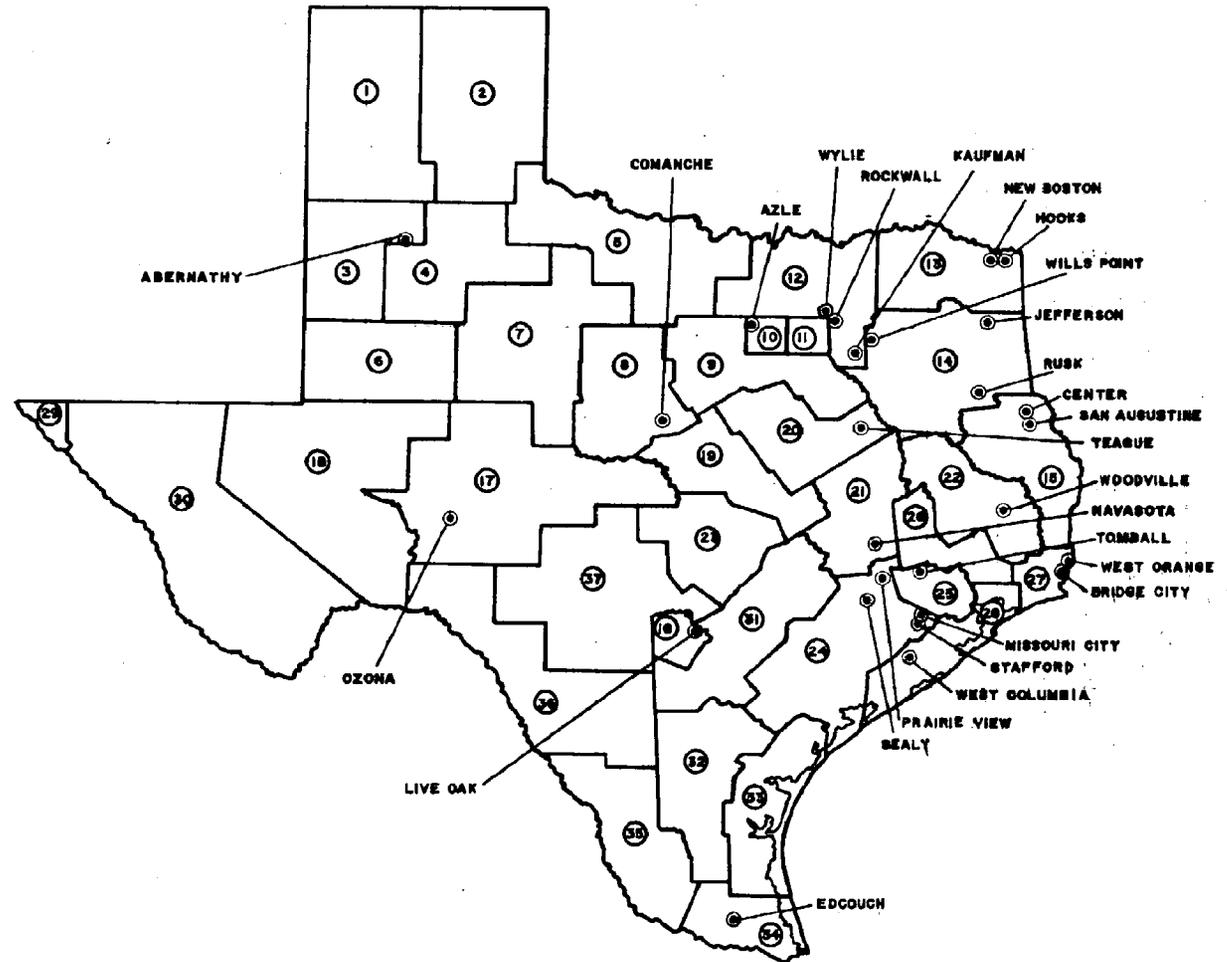
A slightly different approach was taken in the analysis of recreation resource dispersion for cities and towns, since these urban areas normally are separated spatially, sometimes by distances of many miles. In order to identify spatial imbalances which may have existed within an Analytical Planning Region, a separate analysis focussed on the dispersion of resources among the cities/towns for a given region. This approach allowed the identification of specific cities/towns which had few resources relative to other cities/towns within the region. Because of the large number of cities and towns statewide, no spatial analysis were conducted within each of these urban areas. To have done so would have been beyond the scope of the **Texas Outdoor Recreation Plan**, which concentrates at the state and regional level. Local planners can more appropriately assess the dispersion of resources within specific cities and towns, using the metro spatial analysis approach as a model.

All of the sixty-one cities had at least two parks. As shown in Table 2.4, the average number of parks per city was eight, with one city having as many as twenty-nine parks. All of the cities had at least one park which contained at least one type of recreation facility (that is, a district, community or specialty park). On the other hand, twenty-four of the cities had no open land parks in 1971. Open land parks are useful in maintaining a balanced and aesthetically pleasing urban environment, and they also provide a clue as to the potential for further development of existing park land.

Because towns have fewer residents than do cities, it is not surprising to find that the number of parks per town generally was less than for the cities. Table 2.4 shows that the average number per town in 1971 was two. Twenty-eight of the 209 towns had no parks of

FIGURE 2.4

IDENTIFICATION OF TOWNS WHICH REPORTED NO PARKS OF ANY TYPE, 1971



Source: **The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities**

TABLE 2.8

**ANNUAL OPPORTUNITY DAYS AVAILABLE IN 1971 FOR RECREATIONAL ACTIVITIES IN URBAN
AREAS BY CITY SIZE, AND TOTAL FOR ALL URBAN AREAS**

TYPE OF ACTIVITY	TYPE OF FACILITY	UNIT OF MEASUREMENT	ANNUAL OPPORTUNITY DAYS AVAILABLE			
			METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS
Swimming	swimming pools	square yard	25,076,750	8,613,900	8,542,350	42,233,000
Child's Play	playgrounds	acre	45,992,295	21,711,678	18,175,934	85,879,907
Baseball/Softball	fields	field	16,606,212	4,720,968	4,375,868	25,703,048
Picnicking	tables	table	13,488,350	4,692,414	3,655,896	21,836,660
Football/Soccer	fields	field	1,517,040	361,200	195,048	2,073,288
Golf	courses	hole	2,666,973	802,306	837,729	4,306,008
Tennis	courts	court, double	2,473,092	600,762	452,592	3,526,446
Basketball	courts	court, full	4,028,110	721,190	606,855	5,356,155
Boating, Boat Fishing, Skiing—Freshwater	freshwater lakes	surface acre	19,086,825	972,799	3,203,734	23,263,358
Boating, Boat Fishing Skiing—Freshwater	boat ramps	ramp (2 lanes/ramp)	660,814	107,888	525,954	1,294,656
Boating, Boat Fishing, Skiing—Saltwater	boat ramps	ramp (2 lanes/ramp)	65,916	10,986	65,916	142,818
Trails Activities ^a	trails	mile	1,053,768	270,848	353,795	1,678,411
TOTAL OPPORTUNITIES FOR ALL TYPES OF ACTIVITIES			132,716,145	43,585,939	40,991,671	217,293,755

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities

a. Includes bicycling, walking, (hiking), and nature study.

any kind. These towns are identified in Figure 2.4. Of the towns which had parks, all but seven had at least one park which contained at least a minimal number of facilities. However, less than fifteen percent of the towns had open land parks. Because of their relatively small population size and proximity to agricultural and other rural lands, the provision of open land parks may be relatively less important for the towns than for the cities and metros.

The dispersion of recreational water among the cities/towns was concentrated in some regions and totally lacking in other regions for each of these two city sizes (Figure 2.3). Of the total 2,332 surface acres of water within cities, about 82% (1,913 acres) was concentrated in 3 regions. Eleven of the 27 regions having cities reported no recreational water available. Recreational water among the towns was

even more unevenly distributed. Almost 76% (2,014 acres) of the total recreational water located within the towns was located in two regions. Over half of the 37 regions, 20 of 37 regions, had no recreational water located in towns. These facts concerning the distribution of recreational water emphasize the importance of analyzing resource distribution resources in conjunction with total resources available.

URBAN RECREATIONAL OPPORTUNITY DAYS

The previous sections have identified the overall quantity and dispersion of recreational opportunities within the state of Texas and among the three city-size categories. Once these quantities have been determined, it is then necessary to convert them to opportunity days by means of the TORP urban standards, which actually serves as conversion factors.

Conversion to opportunity days is necessary to make possible a valid comparison with present and future demand estimates (expressed as participation days), thus leading to a determination of resource requirements, a major step in the recreational planning process.

Opportunity days are defined as estimations of the number of recreation participation days satisfactorily provided by one unit of a selected recreation facility per year. The number of opportunity days is determined by multiplying the number of facility units by the appropriate facility standard. The result reflects the amount of recreation participation that can be satisfied by the facilities. For a more detailed explanation of the relationship between opportunities available and demand, the reader is referred to Appendix C of this volume. Table 2.8 expresses the

total number of annual opportunity days available for urban activities, and is itemized on the basis of city-size category. In 1971, there were an estimated 217,293,755 annual opportunity days available in the urban areas of Texas for all the selected facilities listed in Table 2.8. For nearly all activity types, the metros had substantially more opportunity days available than did the cities or towns. This is to be expected, however, since metro areas have more parks and by definition, larger populations. Thus, metros are more likely to have a larger number of facility units than either cities or towns. The only exception to this general tendency was saltwater boat ramps, for which the number of opportunity days available in metro areas equaled the number of opportunity days available in towns.

A more meaningful comparison between the three city-size categories is made possible by neutralizing the effect of differences in population. Accordingly, data in Table 2.9 were obtained by dividing the number of opportunity days available (as shown in Table 2.8) by appropriate population figures. Table 2.9 shows that for the urban areas in 1971, there were 25,384 annual days available per thousand population for all activities combined. Also, it is again quite evident that in 1971 the metros were less well supplied on a per capita basis than either the cities or towns for most types of facilities. There was no type of designated facility for which the metro ratio was the highest of the three city sizes. In fact, for all types of facilities except football/soccer fields, basketball courts, surface acres of freshwater lakes,

and freshwater boat ramps, metro ratios were lower than comparable ratios for the cities and towns. Moreover, for all types of designated facilities, except surface acres of freshwater lakes, the metro ratios were below the statewide average. A comparison between cities and towns shows that towns had proportionally more opportunity days available than did the cities for water-related recreation facilities, (surface acres of freshwater lakes, freshwater and saltwater boat ramps) baseball/softball fields, golf courses, and trail facilities. A major conclusion to be drawn from Table 2.9 is that, in general, the number of opportunity days available on a per thousand population basis tends to be inversely proportional to the population of urban areas.

TABLE 2.9

ANNUAL OPPORTUNITY DAYS AVAILABLE PER THOUSAND POPULATION IN 1971 FOR RECREATIONAL ACTIVITIES IN URBAN AREAS BY CITY SIZE, AND TOTAL FOR ALL URBAN AREAS

TYPE OF ACTIVITY	TYPE OF FACILITY	METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS
Swimming	swimming pools	3,890	7,807	8,386	4,925
Child's Play	playgrounds	7,136	19,677	18,034	10,037
Baseball/Softball	fields	2,577	4,278	4,342	3,004
Picnicking	tables	2,093	4,253	3,627	2,552
Football/Soccer	fields	235	327	194	242
Golf	courses	414	726	831	503
Tennis	courts	384	544	449	412
Basketball	courts	625	654	602	626
Boating, Boat Fishing, Skiing—Freshwater	freshwater lakes	2,961	882	3,179	2,719
Boating, Boat Fishing, Skiing—Freshwater	boat ramps	203	98	522	151
Boating, Boat Fishing, Skiing—Saltwater	boat ramps	10	10	65	17
Trails Activities ^a	trails	163	245	351	196
ALL ACTIVITIES		20,591	39,501	40,572	25,384

Source: The Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Facilities
a. Includes bicycling, walking (hiking), and nature study.

Chapter 3

OUTDOOR RECREATION DEMAND IN THE URBAN AREAS OF TEXAS

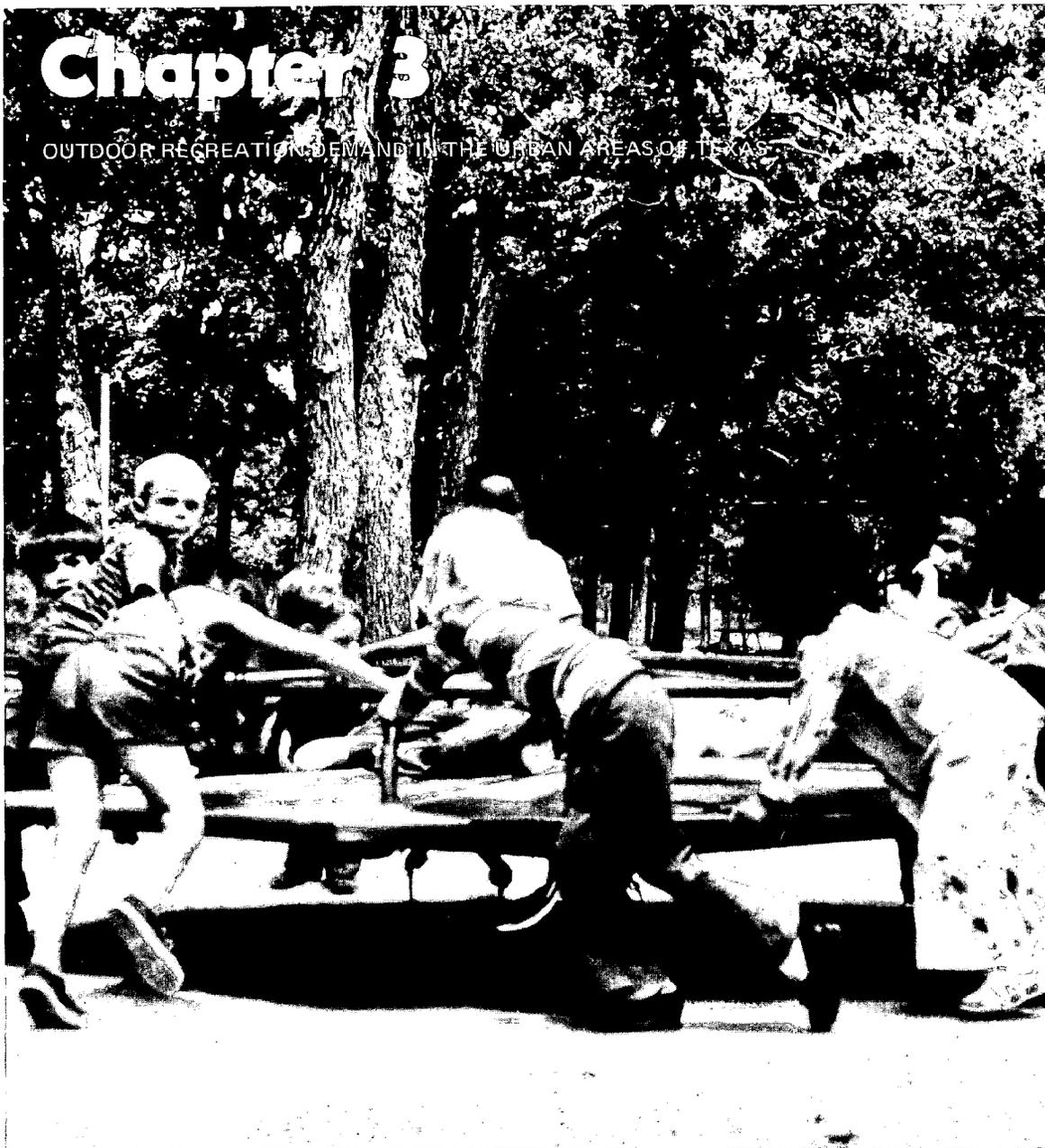
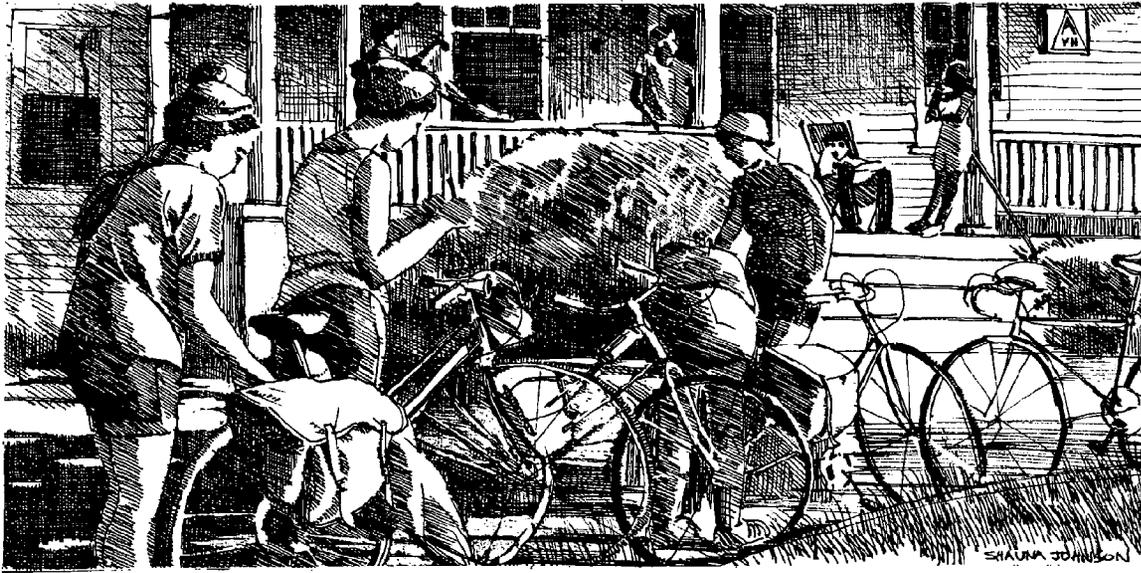


Photo by Melanie Shearer, Texas Parks and Wildlife Department

INTRODUCTION

One of the most important steps in planning for the provision of adequate urban outdoor recreation opportunities involves the development of reasonably accurate estimates of present and future demands for these opportunities. While a knowledge of the recreational supply discussed in the preceding chapter may be useful for certain planning purposes, the value of this knowledge assumes much greater significance in the recreational planning process when it is compared with estimates of demand. Whereas the concept of supply is resource oriented, the concept of demand is people oriented. Generally, recreational demand refers to the propensity or tendency of people to participate in outdoor recreational activities. Participation may be expressed in a variety of ways, such as the number of annual days of participation, the frequency of participation per household, location of participation, the amount of time and money expended, and so on. Therefore, it is important to determine the existing patterns of urban participation and to identify those factors which tend to influence those patterns, prior to the development of urban participation projections.

To assist in identifying and understanding the present patterns of urban recreation demand, two major surveys were conducted. The first such survey was the 1968 Texas Outdoor Recreation Household Demand Survey, which involved personal interviews with 15,000 Texas households. Over 13,000 of these households resided in urban areas. The second survey was the 1970 Texas Outdoor Recreation On-Site Demand Survey. The urban portion of this survey involved over 1,700 personal interviews with recreationists while they were actually participating in a sample of 38 urban parks and recreation areas geographically dispersed within six metropolitan areas.



From the information obtained in these surveys, a large quantity of detailed data on the patterns of urban recreation was made available for the first time in Texas for planning purposes. The surveys also provided the basic data necessary for projecting future recreation demands.

The three detailed parts to this volume, consisting of **Part 2: Metropolitan Areas**, **Part 3: Cities**, and **Part 4: Towns**, present projections of activity participation by Analytical Planning Region, and by type of participant (resident or non-resident). These are the types of demand information considered to be most relevant to users of this volume. Other types of demand data, such as seasonality, mode of travel, length of stay, distance traveled, and other behavioral characteristics are very important; however, to have analyzed in detail each of these many factors for each of the three city size urban areas at a regional level would have been impractical, owing to the nature of the data and the scope of this volume. Therefore, these behavioral patterns are not discussed in the detailed parts, but are discussed in this chapter because of their significance.

The purpose of this chapter is to summarize some of the basic findings relevant to recreation participation in the urban areas of Texas. The chapter is segmented into three major parts: patterns of urban outdoor recreation participation, factors influencing participation, and projections of urban outdoor recreation participation for the years 1970, 1975, 1980, 1990, and 2000.

PATTERNS OF URBAN OUTDOOR RECREATION PARTICIPATION

It was estimated that total participation for selected outdoor recreation activities in the urban areas of Texas (including spectator and active participation) totalled 326 million days in 1968. Of this total, resident participation accounted for 285 million days (87%) while non-residents accounted for 41 million days (13%).

Virtually all participation in the urban areas was accounted for by Texans. Participation by out-of-state tourists was determined to be insignificant with respect to the activities dealt with in this volume. Of the 1,707 individuals and/or groups of recreationists interviewed in urban parks,

only 2% were from other states.¹ Therefore, participation in the urban recreation activities can be attributed either to residents residing within a particular urban area, or to Texans living outside the urban area. Based on these findings, two distinct types of urban participation were distinguished for planning purposes:

Type 1: An individual participates in an outdoor recreation activity, utilizing facilities or resources located in the metropolitan area, city, or town in which he resides = Resident Participation.

Type 2: A resident of Texas participates in an outdoor recreation activity, utilizing facilities or resources located in a metropolitan area, city, or town in which he does not reside = Non-Resident Participation.

These two major sources of urban recreation demand provide the basis for evaluating the total recreation demands for recreation opportunities in the urban areas. The consideration of non-resident demand is of particular significance since the failure to consider this segment of demand in planning for recreation opportunities could result in the provision of inadequate recreation resources for certain recreation activities.

A further breakdown of urban participation revealed an additional finding. Of the 326 million participation days that occurred in the urban areas in 1968, 43 million (13%) were classified as spectator days. The activities of baseball/softball, football/soccer, and basketball accounted for approximately two-thirds of the total spectator days. It was also found that spectator participation accounted for a higher percentage of total participation by non-residents than for residents,

1. Source: 1970 Texas Outdoor Recreation On-Site Demand Survey

indicating that attending sporting events is one of the reasons for travel to urban places. While it is beyond the scope of this volume to dwell in depth on this aspect of urban recreation, planning at the local level should consider spectators in providing recreation facilities, particularly support facilities such as bleachers, rest rooms, parking, etc.

Given these broad breakdowns of urban outdoor recreation demand, the remainder of this section delves into the more detailed characteristics of urban outdoor recreation participation. These topics include participation by residents and non-residents, household rates of participation, seasonality of participation, participation by days of the week, and preferences for urban activities. Following these discussions additional information from the Household Demand Survey is used to describe the behavioral patterns of urban park users. These patterns include the features sought in urban parks, modes of travel to parks, distances traveled, willingness to travel, length of stay, type of recreation group, and cost of outing.

CHARACTERISTICS OF URBAN OUTDOOR RECREATION PARTICIPATION

As mentioned earlier in this chapter, recreation participation in urban areas totalled 326 million days in 1968, of which about 43 million days were attributed to spectators. Therefore, considering only active participation, it was estimated that there were 283 million days in 1968. Of this total, 247 million days (87%) were accounted for by residents of urban areas, with the remaining 36 million days (13%) attributed to non-residents (see Table 3.1). Further investigation of the origins of these non-resident recreationists indicated that over 90% of their participation originated from within 30 miles of the urban areas in which the recreationists were participating. This finding indicated that for planning purposes, non-resident participation occurring in

urban areas generally originated from within the region in which the urban areas are located.

Table 3.1 also itemizes total participation by activity. For resident and non-resident participation combined, swimming had the largest number of days with nearly 47 million. Based on total participation, the second most popular activity was walking, followed by bicycling, driving for pleasure, and child's play. These five activities accounted for almost two-thirds (67%) of the total participation which occurred in urban areas.

A comparison between resident and non-resident participation by activity shows significant differences. For example, the top five activities, based on resident participation, were swimming, walking, bicycling, pleasure driving, and child's play. Together, these five activities accounted for 72.8% of the total resident participation. However, these same five activities accounted for only 27.3% of the total non-resident participation. Most of the total non-resident participation was attributed to sightseeing, swimming, fishing, picnicking, driving for pleasure, and boating.

TABLE 3.1

RESIDENT, NON-RESIDENT, AND TOTAL PARTICIPATION IN URBAN OUTDOOR RECREATION ACTIVITIES BY TEXANS IN 1968
(Millions of Recreation Days)

Activity ^a	Resident Participation	Rank	Non-Resident Participation	Rank	Total Participation	Rank
Swimming	40.7	1	6.1	2	46.8	1
Child's Play	29.4	5	.7	7	30.1	5
Baseball	7.7	7	.2	12	7.9	9
Picnicking	12.9	6	3.7	4	16.6	6
Football	2.9	12	.1	13	3.0	12
Golf	7.3	8	.5	9	7.8	10
Tennis	4.1	11	.1	13	4.2	11
Basketball	1.9	13	—	0	1.9	14
Walking	38.3	2	.6	8	38.9	2
Bicycling	37.5	3	—	0	37.5	3
Nature Study	.8	15	.1	13	.9	15
Fishing	4.7	10	4.6	3	9.3	8
Boating	1.5	14	1.5	6	3.0	12
Skiing	.5	16	.3	11	.8	16
Surfing	.2	17	.5	9	.7	17
Sightseeing	6.3	9	7.9	1	14.2	7
Driving for Pleasure	33.9	4	2.4	5	36.3	4
Other Activities	16.4	NR ^b	6.6	NR ^b	23.1	NR ^b
ALL ACTIVITIES	247.0		35.9		282.9	

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

Notes: Dashes indicate that participation is less than 50,000 days. Zeros indicate that the activity was not ranked due to insignificant participation days recorded.

a. Participation includes only participation by active participants; spectator participation was excluded.

b. Note ranked due to "Other Activities" category including several activities.

RESIDENT RATES OF PARTICIPATION

Table 3.2 shows average household participation rates of urban residents for the seventeen major urban outdoor recreation activities for the metropolitan areas, cities, and towns. As indicated in the table, slightly over half (53.9%) of all urban households participated in at least one outdoor recreation activity in an urban area during 1968. Conversely, slightly less than half (46.1%) of all urban households did not participate at all in urban areas. This 46.1% is significant because it indicates the potential for increases in urban participation. In future years, persons who for one reason or another did not participate in urban areas in 1968 may begin to do so.

This potential is even more apparent for individual activities. A higher proportion of urban households participated in picnicking than in any other listed activity. Yet, even for this activity only 14.9% of all urban households participated in an urban area, while 85.1% of all urban households did not engage in picnicking in urban areas at all.

SEASONALITY OF PARTICIPATION

In planning to meet current and future demands for urban outdoor recreation opportunities, it is important to know when participation can be expected to occur. As indicated in Table 3.3, seasonal

variations affect the patterns of participation in outdoor recreation activities in the urban areas. Fifty percent of all participation occurred during the months June, July, and August. By far the activity with the highest proportion of participation during the summer was swimming with 87%. Of the activities listed in Table 3.3, all except archery had higher participation levels during the summer than any other season. For all activities combined, only 10% of all participation occurred during winter months. Participation in some activities such as walking for pleasure, sightseeing, and sport shooting tended to remain relatively stable throughout the year.

TABLE 3.2
LEVELS OF RESIDENT PARTICIPATION PER HOUSEHOLD IN URBAN OUTDOOR RECREATION
IN TEXAS IN 1968, BY ACTIVITY

Activity ^a	Percent of All Urban Households Participating In Each Activity	Rank	Average Annual Days of Participation Per Household	Rank	Average Annual Days of Participation Per Participating Household	Rank
Swimming	13.4	2	16	1	121	4
Child's Play	12.6	3	12	5	93	6
Baseball/Softball	3.8	10	3	7	81	8
Picnicking	14.9	1	5	6	35	16
Football/Soccer	2.5	12	1	12	46	14
Golf	6.0	7	3	7	49	13
Tennis	2.8	11	2	9	59	11
Basketball	.8	14	1	12	93	6
Walking	8.2	6	15	2	186	2
Bicycling	4.5	8	15	2	335	1
Nature Study	.7	15	---	15	50	12
Fishing	4.5	8	2	9	42	15
Boating	1.0	13	1	12	60	10
Skiing	.3	16	---	15	76	9
Surfing	.1	17	---	15	162	3
Sightseeing	8.6	5	2	9	29	17
Driving for Pleasure	12.4	4	13	4	109	5
ALL ACTIVITIES ^b	53.9		98		183	

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate that participation is less than one-half day.

a. Participation includes only participation by active participants; spectator participation was excluded.

b. Includes a category of miscellaneous activities titled "Other Activities."

TABLE 3.3

SUMMARY OF PARTICIPATION BY TEXAS URBAN RESIDENTS IN OUTDOOR RECREATION ACTIVITIES BY SEASONS, 1968

Activity ^a	WINTER		SPRING		SUMMER		FALL		ANNUAL TOTAL	
	Thousands of Days	Percent of Annual Total	Thousands of Days	Percent of Annual Total	Thousands of Days	Percent of Annual Total	Thousands of Days	Percent of Annual Total	Thousands of Days	Total Percent
Archery	25	27	18	19	11	12	39	42	93	100
Sport Shooting	88	23	91	24	100	27	97	26	376	100
Boating	97	6	302	19	929	59	252	16	1,580	100
Camping	22	17	13	10	70	54	24	19	129	100
Child's Play	3,265	10	5,857	18	17,222	54	5,574	18	31,918	100
Driving for Pleasure	9,412	12	21,312	28	29,600	39	15,466	20	75,790	100
Fishing	663	14	1,084	22	1,882	39	1,199	25	4,828	100
Games and Sports	3,153	12	6,230	23	11,936	44	5,517	21	26,836	100
Horseback Riding	788	18	1,155	27	1,432	33	956	22	4,331	100
Rodeo	---	*	2	25	4	50	2	25	8	100
Racing	27	5	68	14	353	70	55	11	503	100
Regional Amusement Center	4	*	739	22	1,819	54	809	24	3,371	100
Sightseeing	1,310	20	1,469	23	2,179	34	1,516	23	6,474	100
Picnicking	732	5	2,608	20	7,382	55	2,644	20	13,366	100
Skiing	25	5	64	14	297	66	66	15	452	100
Surfing	1	*	26	12	150	69	40	18	217	100
Swimming	214	1	2,947	7	37,494	87	2,263	5	42,918	100
Walking for Pleasure	4,782	12	11,946	29	16,005	39	8,368	20	41,101	100
Hiking	71	18	118	31	123	32	73	19	385	100
Nature Study	100	11	255	28	378	42	162	18	895	100
TOTAL FOR ALL ACTIVITIES	24,779	10	56,304	22	129,366	50	45,122	18	255,571	100

Source: Estimated from the 1968 Texas Outdoor Recreational Household Demand Survey.

Notes: Dashes indicate that participation is less than 500 days. Asterisks indicate less than one-half percent of total annual days.

a. Participation includes only participation by active participants; spectator participation was excluded.

Seasonal variations in the participation patterns of urban outdoor recreation indicate that changes in season affect many aspects of park and recreation area administration and programming. Participation in most activities varies cyclically, apparently closely associated with climatic conditions. However, these changes are also due in part to sociological and institutional factors (i.e., vacations, school year, etc.). For example, swimming declines sharply in the fall and winter months which can be attributed to many factors, but two of the most prominent factors are

the advent of cooler weather and the closing of most pools to coincide with the beginning of a new school year when youths, who account for the majority of swimming participation, return to classes.

PARTICIPATION BY DAY OF THE WEEK

Another aspect of participation which was found to have significant urban planning implications is the amount of participation which occurs on weekends as opposed to weekdays. As indicated in Table 3.4,

urban recreationists participated in fourteen of the twenty activities more on weekends than on weekdays. The six activities that deviated from this pattern were archery, child's play, games and sports (tennis, golf, baseball/softball, basketball, etc.), swimming, walking for pleasure, and nature study.

For those activities that require additional time in preparing for the outing, traveling to the urban recreation area, or where the duration of participation was relatively long, a tendency toward

weekend as opposed to weekday participation was identified. Activities falling into this category included boating, camping, attending rodeos, sightseeing, and picnicking.

For all activities combined, participation was split evenly between weekdays and weekends. However, considering the fact that there are five weekdays as opposed to only two weekend days on which participation may take place, it is clear that use intensity of urban parks and recreation areas on weekends is substantially higher than on weekdays. Based on an average of all activities, 10% of total weekly participation could be expected on a given weekday whereas 25% would be expected on a weekend day. For some activities, this relationship is even more marked. For example, over five times as much picnicking took place on an average weekend day as opposed to a weekday.

ACTIVITY PREFERENCES

Recreationist's preferences should be considered in recreational planning if the most efficient practical utilization of parks and facilities is to be achieved. Each individual's preferences cannot be taken into account in a plan such as the **TORP**. Instead, surveys were designed and conducted to assist in determining how best to satisfy the greatest number of recreationist's participating in Texas.

As indicated by the rankings of the 12 activities in Table 3.5, statewide activity preferences do not necessarily reflect what people were actually doing for recreation in urban areas. It is quite obvious that participation was highest in activities which are relatively simple and which require few or not specialized facilities. Of the types of activities which do require some degree of a specialized skill or facilities suited for recreational purposes (games and sports, fishing, swimming, picnicking, boating, child's

TABLE 3.4

SUMMARY OF PARTICIPATION BY TEXAS URBAN RESIDENTS IN URBAN OUTDOOR RECREATION ACTIVITIES BY WEEKDAYS AND WEEKENDS, 1968

Activity ^a	Weekdays		Weekends	
	Thousands of Days	Percent	Thousands of Days	Percent
Archery	68	73	25	27
Sport Shooting	149	40	227	60
Boating	504	32	1,076	68
Camping	20	16	109	84
Child's Play	16,725	52	15,193	48
Driving for Pleasure	34,974	46	40,816	54
Fishing	2,001	41	2,827	59
Games and Sports	13,817	51	13,019	49
Horseback Riding	1,827	42	2,504	58
Rodeo	2	25	6	75
Racing	192	38	311	62
Regional Amusement Center	1,326	39	2,045	61
Sightseeing	1,907	29	4,567	71
Picnicking	4,363	33	9,003	67
Skiing	160	35	292	65
Surfing	108	50	109	50
Swimming	25,436	59	17,482	41
Walking for Pleasure	23,514	57	17,587	43
Hiking	159	41	226	59
Nature Study	513	57	382	43
TOTAL FOR ALL ACTIVITIES	127,765	50	127,806	50

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

a. Participation includes only participation by active participants; spectator participation was excluded.

play, skiing, and surfing), all but swimming, child's play, and surfing had a higher preference ranking than participation ranking. This suggests that persons would participate more frequently in activities such as games and sports, fishing, picnicking, and boating if given the opportunity. For example, fishing ranked second in preference but eighth in participation. As pointed out in the previous chapter on opportunities, only 5% of all urban parks had facilities available for fishing. Table 3.5 seems to imply that urban residents were

substituting activities such as driving and walking for pleasure for activities in which they would prefer to participate, but for some reason did not.

CHARACTERISTICS OF URBAN PARK USERS

In the previous sections of this chapter, Household Demand Survey data have been used to establish the general patterns of total outdoor recreation in the

TABLE 3.5

COMPARISON OF URBAN ACTIVITY PARTICIPATION WITH URBAN HOUSEHOLD ACTIVITY REFERENCES

Rank	Rank Order of Urban Outdoor Recreation Activity Participation ^a	Rank Order of Urban Household Activity Preferences ^b
1	Driving for Pleasure ^c	Games and Sports ^d
2	Swimming	Fishing
3	Walking for Pleasure	Swimming
4	Child's Play	Picnicking
5	Games and Sports ^d	Driving for Pleasure ^c
6	Picnicking	Sightseeing
7	Sightseeing	Boating
8	Fishing	Child's Play
9	Boating	Walking for Pleasure
10	Nature Study	Skiing
11	Skiing	Nature Study
12	Surfing	Surfing

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

- a. Participation includes only participation by active participants; spectator participation was excluded.
- b. Includes first, second, and third activity choices combined for all urban households interviewed in the Household Demand Survey.
- c. Includes driving for pleasure, bicycling, riding, and flying.
- d. Includes baseball/softball, football/soccer, basketball, golf, tennis, and other games and sports activities.

urban areas. These data were obtained from a stratified random sample of the statewide population. Also presented were data which reflected activity participation which may occur at settings other than parks, while other activities are highly dependent on the availability of specific facilities (such as swimming pools, picnic tables, playground facilities, etc.) which are generally found in parks.

Due to the major importance of such facilities and the implications inferred from the household data with regard to needs for such facilities, a more detailed examination of urban recreationists' responses taken while they were actually participating in an outdoor recreation activity in an urban park is made in this section in order to provide more detailed

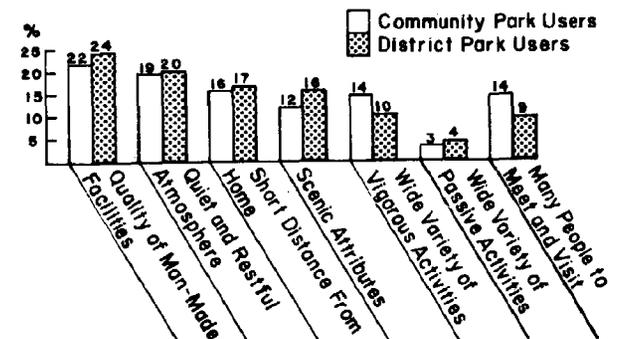
data for explicit park and facilities planning purposes. Accordingly, the next several pages present information obtained from the 1970 Urban On-Site Survey, conducted at thirty-eight parks located in six urban areas. The parks were categorized into two types: community parks and district parks. The former serve nearby households or small groups of people who are generally united by some common bond such as a school or church in the neighborhood. District parks, on the other hand, have a much broader appeal, with users originating from all sections of the urban area and to a lesser extent from the region surrounding the urban area. These parks owe their appeal to their larger size and greater variety of facilities. It should be mentioned that only individuals of fifteen years or older who were

picnicking or swimming were interviewed in this study. The age criterion is reflected in the data, particularly with respect to mode of travel. The analysis covers the following characteristics of urban park users: features sought, mode of travel, distance traveled from home, willingness to travel, length of stay, type of group, and total monetary cost of the outing.

FEATURES SOUGHT

From a list of seven features, respondents were asked to rank order three of the features which were most important to them in selecting an urban outdoor recreation site. The results, as presented in Figure 3.1, show relatively little difference between the two types of parks. For both types, the quality of man-made facilities was judged to be the single most important factor. There appeared to be a slight tendency for community park users to place more emphasis than district park users on activities, facilities, and the opportunity to socialize. Conversely, district park users tended to place slightly more emphasis on atmosphere and scenery.

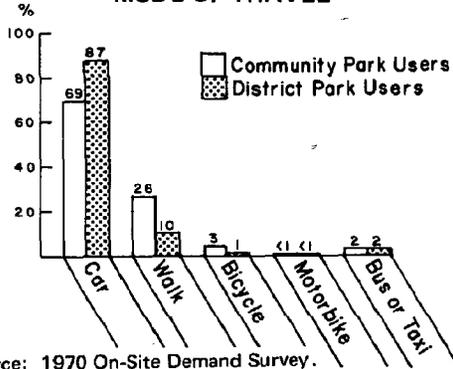
FIGURE 3.1
FEATURES SOUGHT^a



Source: 1970 On-Site Demand Survey.

- a. For each type of park, percentages were determined by adding the total number of points for each feature (on the basis of three points for most important feature, two points for second most important feature, and one point for third most important feature), and dividing by the total number of points.

**FIGURE 3.2
MODE OF TRAVEL**



Source: 1970 On-Site Demand Survey.

MODE OF TRAVEL

The great majority of park users traveled by car from their home to the park. As might be expected, the percentage of users walking to the park was considerably higher for community park users than for district parks users. Only a very small proportion of users traveled to the park via public conveyance (Figure 3.2).

DISTANCE TRAVELED FROM HOME TO PARK

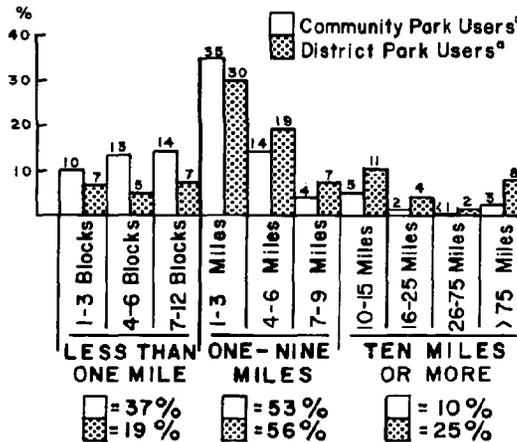
Community parks attracted nearly twice as high a percentage of their users from areas less than one mile of the park as did district parks (Figure 3.3). Both types of parks attracted slightly over half of their users from a distance of one to nine miles. About one-fourth of district park users came from distances of ten miles or more, as compared with only 10% for community parks. In general, distance acts as a constraint to participation. As distance from a park increases, the probability that a person will use that park decreases. The results of the On-Site Survey generally were in accord with results of the Household Survey which indicated that the average distance traveled on trips to urban parks (includes both community and district parks) was 4.58 miles

for metropolitan areas, 2.04 miles for cities, and 1.51 for towns.

WILLINGNESS TO TRAVEL

Respondents also were asked how far they would be willing to travel, one way, to recreate after work (Figure 3.4), and on a one day outing (Figure 3.5). The purpose of this question was to obtain some idea of the maximum radius persons would likely go, given the duration of these two time frames. For both types of parks there was a greater willingness to travel longer distances if the outing was at least one day in duration. Only 15% of the respondents indicated a willingness to travel at least ten miles to a community park, if the trip was to be made after work. But this proportion increased to 45% if the outing was to last at least one day. About one-fourth of the respondents indicated they would travel at least ten miles to a district park, if the trip was to be made after work.

**FIGURE 3.3
DISTANCE TRAVELED FROM HOME**

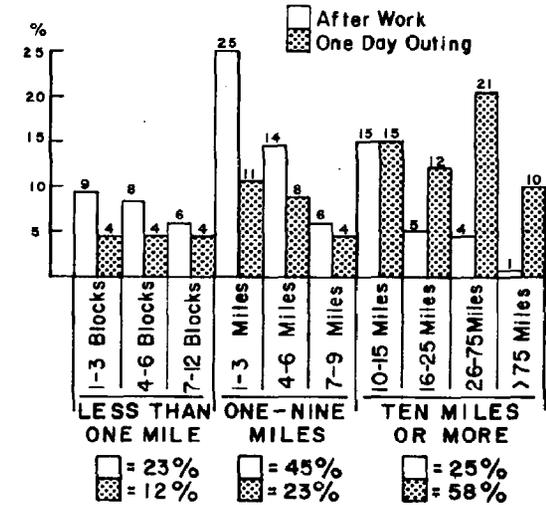


Source: 1970 On-Site Demand Survey.

^aEleven percent would not use

FIGURE 3.4, 3.5

**WILLINGNESS TO TRAVEL-AFTER WORK
WILLINGNESS TO TRAVEL-ONE DAY OUTING**



Source: 1970 On-Site Demand Survey.

Seven percent would not use

This proportion increases to over half (58%), if the trip was to occupy an entire day. An interesting statistic calculated from this question is the distance beyond which one-half (50%) of the respondents said they would not be willing to travel. This median percentile of maximum radius varies, depending on the type of park and the amount of time recreationists have available to participate. This radius has been calculated to be 2.4 miles for a community park after work, 4.2 miles for a district park after work, 12.5 miles for a community park on a one day outing, and 15.0 miles for a district park on a one day outing. These figures suggest that time is a crucial factor in how far people are willing to travel.

LENGTH OF STAY

The average length of stay at an urban park was approximately three and one-half hours. This figure varied only slightly when comparison is made by type of park. Virtually all park users spent at least one hour in the park. On the other hand, very few stayed more than six hours (Figure 3.6).

TYPE OF GROUP

The survey showed some differences in the composition of users (Figure 3.7). Households comprised over one-third of the respondents in district parks, but only about one-fourth of the respondents in community parks. Community parks had a higher proportion of individuals who came alone than did district parks. Organized groups of recreationists participating as a unit represented a very small percentage of respondents for both types of parks.

COST OF OUTING

Recreationists were asked to estimate the total monetary cost of their outing and the results are presented in Figure 3.8. Not surprisingly, recreationists spent more money on trips to district parks than to community parks. The median expenditure on trips to community parks was approximately \$.48, compared to \$1.46 for district parks. Interestingly, 18% of the respondents at community parks spent no money at all. Evidently, these persons lived close enough to the park that a vehicle was not necessary. Somewhat surprising perhaps is the evidence which shows that almost one-fourth of the respondents at district parks spent over \$5.00.

In summarizing the behavioral patterns of urban park users, it was found that, in general, increases in distances to parks tends to reduce the probability of

FIGURE 3.6
LENGTH OF STAY

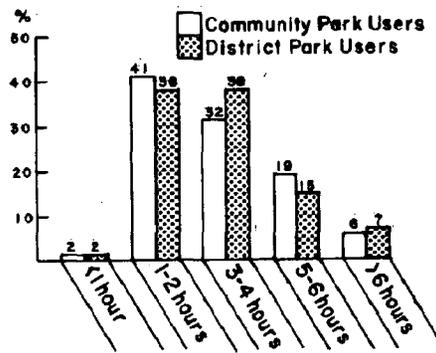


FIGURE 3.7
TYPE OF GROUP

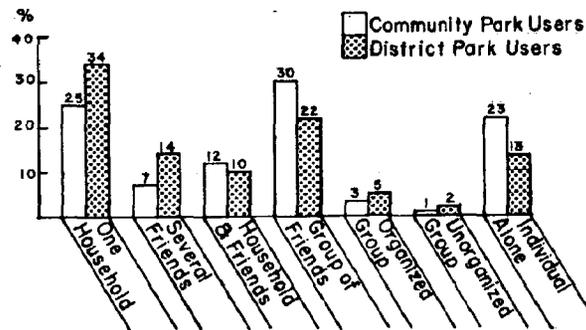
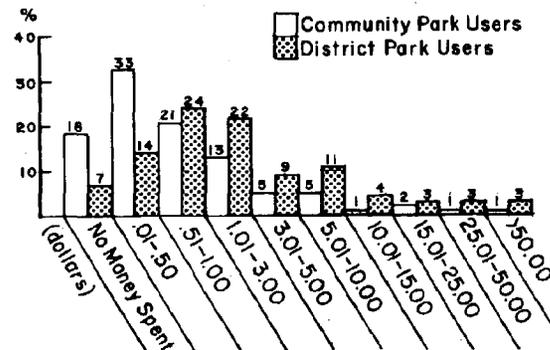


FIGURE 3.8
COST OF OUTING



Source: 1970 On-Site Demand Survey.

park usage. On the other hand, respondents did indicate that they would be willing to travel farther if they had leisure periods of greater duration. Thus, an extra hour after work each evening is less likely to significantly increase the distance recreationist would be willing to travel than a three-day weekend. Not surprisingly, district parks have greater drawing power than community parks, evidently because district parks are larger and usually have a wider variety of facilities. The majority of users arrive with friends or other members of the household, and stay about three and one-half hours. Most park users, especially district park users, still rely heavily on the auto for transportation, although data have suggested that reliance on the auto can be reduced significantly if community parks are provided in sufficient number and located in relation to the population, so as to encourage walking or bicycling.

SOCIO-ECONOMIC FACTORS INFLUENCING PARTICIPATION IN URBAN OUTDOOR RECREATION

By analyzing the socio-economic characteristics of recreationists (determined from 1968 Household Demand Survey Data), some very definitive relationships can be established relating recreationists to the activities they pursue. Decisions can then be made based on information related to the people to be served. Acquisition, development, programs, and administration and operation are enhanced through knowledge of the public and their generalized characteristics. This section discusses briefly the effect which five selected variables have in influencing the general tendency to participate and the intensity of participation. Each of the following five tables relates a given socio-economic variable to: (1) the average annual days of participation per household, summed for all activities, (2) the percent of all households in which at least one person participated in at least one of the selected activities, and (3) annual days of participation per household for each of the selected activities.

HOUSEHOLD SIZE

Figure 3.9 and Table 3.6 suggest that this variable is a significant factor in affecting urban outdoor recreation participation. As the number of household members increases, thus increasing the number of potential recreationists, the probability and intensity of participation by a household increases. This generalization applies to most activities, although there are exceptions, such as golf and tennis.

TABLE 3.6
1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION DAYS PER URBAN RESIDENT HOUSEHOLD BY HOUSEHOLD SIZE, FOR SELECTED ACTIVITIES

ACTIVITY ^a	1	2	3	4	5-7	8+
Swimming	.49	1.25	5.46	21.16	33.45	66.03
Child's Play	.23	.12	3.81	12.62	24.13	66.04
Baseball	.02	.30	1.14	2.63	6.60	16.20
Picnicking	.43	1.20	3.12	6.77	8.68	19.10
Football	.02	.24	.62	1.14	2.18	5.22
Golf	.13	2.06	3.86	4.88	2.80	1.53
Tennis	.10	.46	2.55	2.57	2.23	.51
Basketball	--	.13	.54	1.34	1.31	1.65
Walking	15.09	18.78	14.09	15.01	12.02	22.54
Bicycling	.23	1.17	4.31	20.03	36.22	35.57
Nature Study	.16	.74	.14	.16	.21	--
Fishing	.66	.91	1.11	2.31	3.18	3.11
Boating	.04	.24	.50	.89	.87	1.38
Skiing	.01	.12	.06	.37	.28	--
Surfing	--	--	--	.07	.23	--
Sightseeing	1.27	1.54	2.19	2.74	2.91	7.12
Dr. for Pleas.	4.15	8.76	12.26	17.21	18.97	24.11

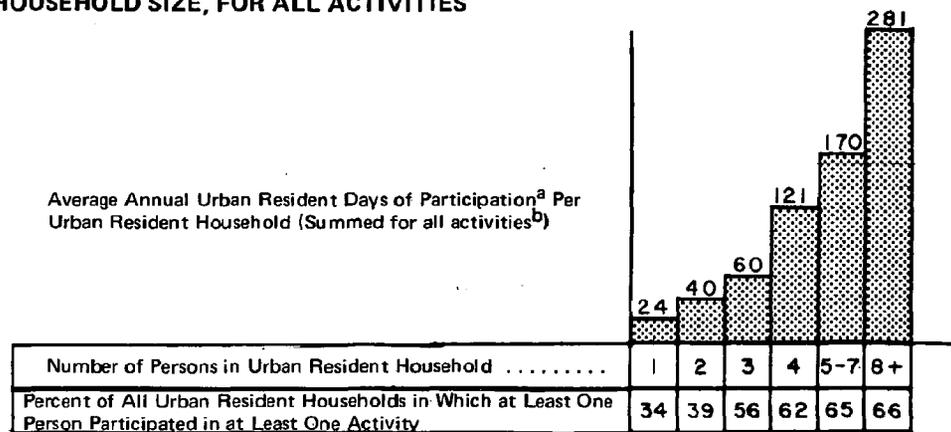
Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate insufficient observations to compute an average.

a. Includes only active participation. Also, see footnote b, Figure 3.9.

FIGURE 3.9

1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION DAYS PER URBAN RESIDENT HOUSEHOLD BY HOUSEHOLD SIZE, FOR ALL ACTIVITIES



Source: 1968 Texas Outdoor Recreation Household Demand Survey.

a. Includes only active participation.

b. Exceeds the number of activities listed in Table 3.6; therefore, Figure 3.9 was not calculated from data in Table 3.6.

FIGURE 3.10
1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION DAYS PER URBAN RESIDENT
HOUSEHOLD BY TOTAL HOUSEHOLD INCOME LEVELS, FOR ALL ACTIVITIES

Source: 1968 Texas Outdoor Recreation Household Demand Survey.

a. Includes only active participation.

b. Exceeds the number of activities listed in Table 3.7; therefore, Figure 3.10 was not calculated from data in Table 3.7.

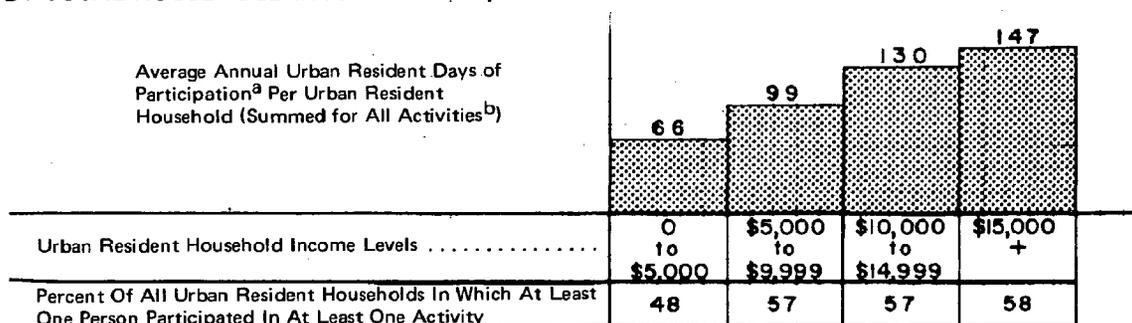


TABLE 3.7

1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION DAYS
PER URBAN RESIDENT HOUSEHOLD
BY TOTAL HOUSEHOLD INCOME LEVELS, FOR SELECTED ACTIVITIES

ACTIVITY ^a	Less than \$5,000	\$5,000- \$9,999	\$10,000- \$14,999	\$15,000 and over
Swimming	9.90	14.92	21.59	31.07
Child's Play	9.28	13.37	12.65	8.04
Baseball	1.51	3.05	5.75	3.27
Picnicking	4.13	5.77	4.02	6.24
Football	.99	1.00	.97	2.21
Golf	.71	1.89	5.28	11.27
Tennis	.22	1.47	2.61	5.87
Basketball	.43	.55	1.69	1.02
Walking	14.16	14.11	15.20	28.35
Bicycling	6.25	12.94	30.83	24.52
Nature Study	.22	.43	.25	.38
Fishing	1.14	2.49	1.68	1.60
Boating	.26	.65	.73	1.30
Skiing	--	.11	.35	.33
Surfing	.02	---	.10	.53
Sightseeing	2.74	2.53	1.52	1.91
Dr. for Pleas.	11.22	16.84	12.46	9.15

TOTAL HOUSEHOLD INCOME

Figure 3.10 and Table 3.7 indicate that, in general, participation rises as household income rises. This trend is most applicable in lower income brackets. Households with an income of less than \$5,000 per year tend to participate much less frequently than those in higher income groups. However, as incomes increase above \$5,000, the attendant increase in recreational participation is much less dramatic and somewhat less predictable. Rates for activities such as swimming, golf, and tennis continue to increase substantially; rates for other activities, such as baseball/softball, picnicking, and bicycling display variations in this trend; while rates for children's play and fishing actually show consistent decreases with increases in income, for levels above \$5,000.

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate insufficient observations to compute an average.

a. Includes only active participation. Also, see footnote b, Figure 3.10.

FIGURE 3.11
1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION DAYS PER URBAN RESIDENT HOUSEHOLD
BY RACE OR ETHNIC BACKGROUND, FOR ALL ACTIVITIES

Source: 1968 Texas Outdoor Recreation Household Demand Survey.

- a. Includes only active participation.
- b. Exceeds the number of activities listed in Table 3.8; therefore, Figure 3.11 was not calculated from data in Table 3.8.

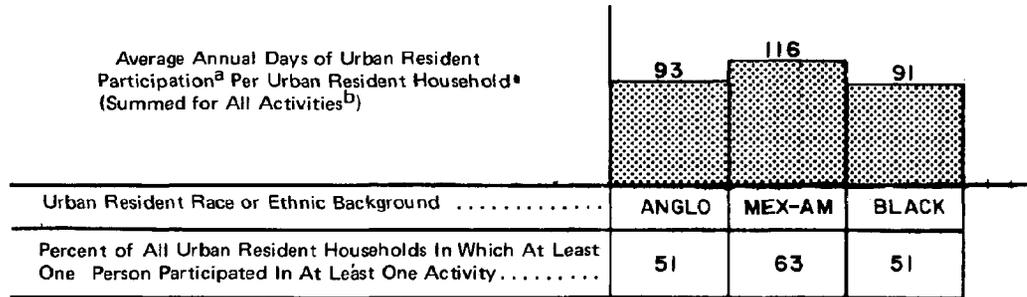


TABLE 3.8

1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION DAYS PER URBAN RESIDENT HOUSEHOLD BY RACE OR ETHNIC BACKGROUND, FOR SELECTED ACTIVITIES

ACTIVITY ^a	Anglos	Mexican-Americans	Blacks
Swimming	14.75	19.20	15.78
Child's Play	8.48	19.01	18.05
Baseball	2.48	4.92	3.31
Picnicking	3.81	10.91	3.95
Football	.79	2.52	1.17
Golf	3.59	1.20	.32
Tennis	2.00	.43	.47
Basketball	.42	.51	2.83
Walking	17.06	11.66	11.54
Bicycling	15.16	10.68	14.83
Nature Study	.32	.15	.51
Fishing	1.76	1.60	2.11
Boating	.75	.16	.06
Skiing	.23	.01	.03
Surfing	.09	---	---
Sightseeing	1.98	5.16	1.43
Dr. for Pleas.	12.23	20.58	11.38

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate insufficient observations to compute an average.

a. Includes only active participation. Also, see footnote b, Figure 3.11.

RACE OR ETHNIC BACKGROUND

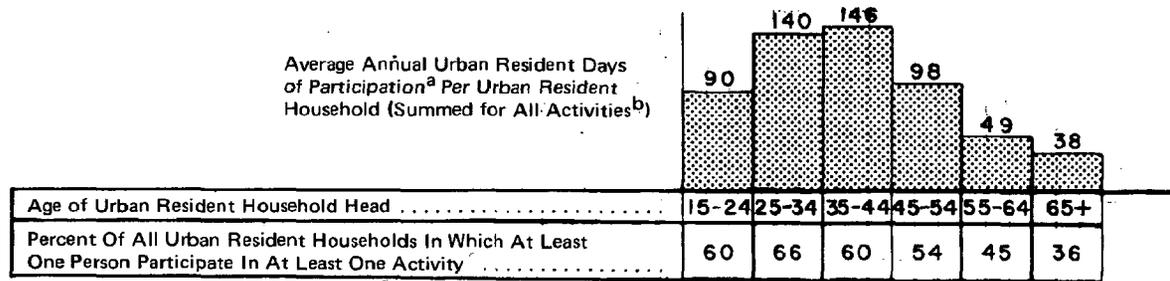
As with the previous two factors race or ethnic background appears to affect the tendency to participate in urban outdoor recreation. Figure 3.11 shows that 63% of all Mexican-American households participated in at least one of the activities; this compares with 51% each for Anglos and for Black households. A comparison by activities (Table 3.8) suggests that Anglo households have a greater affinity than the other two races for "high income" activities such as golf, tennis, boating, and skiing. Mexican-American and Black households have a stronger inclination than Anglo households to participate in team sports such as baseball/softball, football/soccer, and basketball.

FIGURE 3.12

1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION PER URBAN RESIDENT HOUSEHOLD BY AGE OF HOUSEHOLD HEAD, FOR ALL ACTIVITIES

AGE OF HOUSEHOLD HEAD

Age of household head has a predictable impact on participation. As shown in Figure 3.12 and Table 3.9 households headed by older persons are less likely to participate in urban outdoor recreation, and participate less intensively than households headed by younger individuals. As might be expected, participation in the more strenuous activities such as swimming, baseball/softball, football/soccer, etc. tends to be quite sensitive to age. On the other hand, participation in activities such as walking, nature study, and sightseeing appears to be relatively unaffected by the age of the head of the household.



Source: 1968 Texas Outdoor Recreation Household Demand Survey.

a. Includes only active participation.

b. Exceeds the number of activities listed in Table 3.9; therefore, Figure 3.12 was not calculated from data in Table 3.9

TABLE 3.9

1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION PER URBAN RESIDENT HOUSEHOLD BY AGE OF HOUSEHOLD HEAD, FOR SELECTED ACTIVITIES

ACTIVITY ^a	15-24	25-34	35-44	45-54	55-64	65+
Swimming	9.55	19.68	33.97	17.27	3.95	.63
Child's Play	11.59	26.68	17.33	7.28	3.69	.64
Baseball	.72	2.64	5.73	5.47	.35	.33
Picnicking	5.23	9.38	8.08	3.61	1.72	1.14
Football	.30	1.13	2.65	.82	.73	.49
Golf	3.14	1.85	3.76	4.86	2.41	.73
Tennis	1.91	2.01	2.53	1.74	1.20	.19
Basketball	.19	.38	1.19	.58	1.83	.04
Walking	14.11	16.23	13.45	13.59	12.59	21.56
Bicycling	1.43	24.03	31.36	12.70	3.23	1.02
Nature Study	.53	.08	.18	.20	.74	.45
Fishing	1.43	1.98	2.11	2.83	1.37	.64
Boating	.45	1.01	.56	1.03	.28	.03
Skiing	.77	.11	.19	.40	—	.01
Surfing	—	.07	.05	.21	—	—
Sightseeing	1.31	3.10	2.81	1.73	2.68	1.49
Driving for Pleasure	30.45	21.32	12.98	11.23	9.61	7.40

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

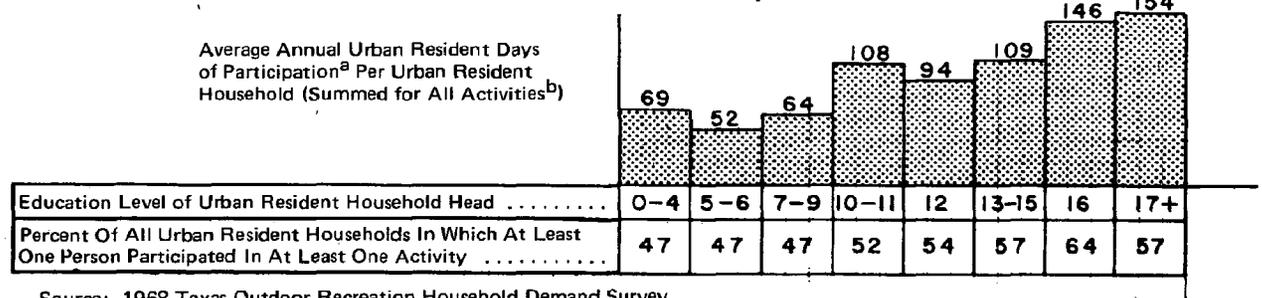
Note: Dashes indicate insufficient observations to compute an average.

a. Includes only active participation. Also, see footnote b, Figure 3.12.

EDUCATION OF HOUSEHOLD HEAD

Generally, as the level of education increases, the probability and intensity of participation increases also (Figure 3.13 and Table 3.10). However, the relationship is less dramatic than the relationship between participation and other socio-economic factors. There is an obvious tendency for persons with over 16 years of education (equivalent to a college degree) to participate more frequently in nearly all activities than persons with less than ten years of education. For the intervening years, however, the relationship between the two factors is much more subtle.

FIGURE 3.13
1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION PER URBAN RESIDENT HOUSEHOLD BY EDUCATION LEVEL OF HOUSEHOLD HEAD, FOR ALL ACTIVITIES



Source: 1968 Texas Outdoor Recreation Household Demand Survey.

a. Includes only active participation.

b. Exceeds the number of activities listed in Table 3.10; therefore, Figure 3.13 was not calculated from Table 3.10.

TABLE 3.10

1968 AVERAGE ANNUAL URBAN RESIDENT PARTICIPATION PER URBAN RESIDENT HOUSEHOLD BY EDUCATION LEVEL OF HOUSEHOLD HEAD, FOR SELECTED ACTIVITIES

ACTIVITY ^a	0-4 Years	5-6 Years	7-9 Years	10-11 Years	12 Years	13-15 Years	16 Years	17+ Years
Swimming	9.30	7.68	9.22	13.31	16.98	15.94	33.72	27.68
Child's Play	14.20	6.62	9.44	16.18	9.64	9.38	15.80	12.85
Baseball	3.52	.99	1.44	4.42	3.78	1.86	3.95	4.06
Picnicking	4.20	4.26	3.44	7.26	4.51	4.44	9.51	2.74
Football	.82	1.11	.89	1.32	1.20	.75	1.14	2.02
Golf	.16	.55	.55	1.34	2.43	6.25	6.75	6.14
Tennis	.24	.15	.39	.52	1.06	3.02	4.34	5.32
Basketball	.11	.46	.40	.75	.62	.35	3.78	.67
Walking	10.77	7.31	12.11	16.72	12.33	16.60	21.52	40.34
Bicycling	8.30	5.74	7.92	13.79	13.14	22.19	21.20	27.09
Nature Study	.01	.04	.50	.03	.18	.63	.76	.39
Fishing	1.26	1.11	1.57	2.30	1.76	2.32	1.11	2.03
Boating	.14	.03	.37	.33	.48	1.06	1.57	.78
Skiing	---	---	.04	.03	.06	.65	.20	.42
Surfing	---	---	---	---	.08	.01	.18	.46
Sightseeing	2.95	2.90	2.69	2.42	2.18	2.33	1.63	1.99
Dr. for Pleas.	9.13	10.21	10.29	19.90	15.50	13.42	11.56	10.47

Source: Estimated from the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate insufficient observations to compute an average.

a. Includes only active participation. Also, see footnote b, Figure 3.13.

In conclusion, household size, household income, and education of household head generally show a positive correlation with participation; that is, as the values of these variables increase, the probability and intensity of participation also increase. Age of household head shows a positive correlation up through the 35-44 year age bracket and then a negative correlation through the remaining years, i.e., as age increases, the tendency to participate and the frequency of participation both decline. In terms of race or ethnic background, Mexican-American households are more likely to participate than Anglo or Black households, and also show a higher frequency of participation for many, though by no means all, urban activities.

AVAILABILITY

While the socio-economic characteristics just discussed are among the most important factors influencing participation, it is evident that there are any number of other factors which, to varying degrees, also influence the amount and type of participation. One such factor is the availability of opportunities for recreational pursuits. For example, if a recreational lake is constructed in an urban area which previously did not have a lake within a reasonable distance, participation in fishing, boating, and other water-based activities very likely will increase. Therefore, to meet future expected demand, more recreation opportunities must be provided. However, in providing more opportunities, these opportunities will be, to some extent, encouraging more demand. Therefore, the accommodation of future demand implies that increases in demand brought about by increased levels of opportunity must be anticipated and projected. Toward this objective, the TORP made use of an iteration technique which projected increases in supply levels, for certain activities, to determine the effects of these increases on demand projections. This technique is explained in detail in the volume *Techniques of Analysis*. Other factors which may also cause



increases in demand are effective recreation programming, promotion of regional events, improved park facilities, better maintenance and operation of existing parks, etc.

PROJECTED URBAN OUTDOOR RECREATION PARTICIPATION

As previously discussed, prior to undertaking the task of developing projections it was considered important to determine the existing patterns of urban participation and identify those factors that tend to affect participation. Having identified those factors, the next step in the planning process was to utilize this information in developing projections of future recreation participation. This section presents projections of participation in the twenty outdoor recreation activities considered significant in the metropolitan areas, cities, and towns of Texas. The projections cover the thirty-year period from 1970-2000. In interpreting these projections, it should be kept in mind that, as a rule, projections are generally more reliable for short periods than for long periods of time. Thus, the projections shown for the years 1970, 1975, and 1980 are considered to be less subject to error than those for 1990 and 2000. In sequential order of presentation, a brief summary of the projection methodologies is presented first, followed by projections of total participation, and projections of resident participation per household.

PROJECTION METHODOLOGIES

As previously indicated, urban participation was categorized into two major types for analytical purposes. These types were defined as resident participation and non-resident participation. In developing projections of urban recreation participation three projection models were developed and implemented. Two of these models, the multiple regression model and trend model, were used in developing projections of resident participation. The third model, a participation-population correlation model, was used to project non-resident participation. The primary data source for developing these models was the 1968 Texas Outdoor Recreation Household Demand Survey.

The multiple regression model was used to develop resident participation projections for nine activities. These include swimming, child's play, baseball/softball, picnicking, football/soccer, golf, tennis, sightseeing, and driving for pleasure. The basic methodology comprised a four step procedure. First, data from the Household Demand Survey were used to compute a set of forecasting equations relating average days of participation per household for each of the activities to the average socio-economic characteristics of households in the urban area and the availability of facilities within the area. Second, a basic set of projection data was constructed for all urban areas, containing estimates of the average socio-economic and demographic characteristics in each area for the years 1970, 1975, 1980, 1990, and 2000. Third, the forecasting equations for each activity were then applied to the projection data for each urban area in order to obtain estimates of average participation per household. Finally, the average number of days of participation per household for all activities was then multiplied by the estimated number of households within each urban area for each time period to arrive at the projected days of participation for the area.

A trend model was used to project resident participation for the remaining 11 activities. These activities included basketball, walking, bicycling, nature study, fresh and saltwater fishing, fresh and saltwater boating, fresh and saltwater skiing, and surfing. The methodology utilized initially established the 1968 annual household rate of participation for each activity for each city-size category. Then, the household rates were projected into the future by using trend information for the 1963-1968 period. The final step was to multiply the population projections, in terms of households, by the projected rates of participation to obtain projections of total resident participation for the specified years.

The "participation-population" type model used to estimate non-resident participation first determined the 1968 estimate of annual days of non-resident participation taking place within a given city size of a region and then projected that participation at the same growth rate as the population of that region. In developing this model, two major underlying assumptions were made. First, it was assumed that non-resident participation going to the urban area originated within the region in which the urban area was located. Second, it was assumed that the magnitude and changes in the magnitude of non-resident participation was related directly to the changes in the total population residing within the

region in which the urban area was located. More detailed information on the development of these models is presented in Appendix C.

PROJECTIONS OF TOTAL PARTICIPATION

Based upon these methodologies, total annual days of resident, non-resident, and combined resident and non-resident participation were projected for twenty activities. The projections were calculated for 1970, 1975, 1980, 1990, and the year 2000, and are itemized on the basis of city size. The results are presented in Table 3.11.

TABLE 3.11
TOTAL ANNUAL DAYS OF URBAN RESIDENT AND NON-RESIDENT PARTICIPATION, 1970-2000,
BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS

THOUSAND'S OF ANNUAL ACTIVITY DAYS

ACTIVITY	YEAR	METROS			CITIES			TOWNS			TOTAL FOR ALL URBAN AREAS		
		Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident
Swimming	1970	56,157	4,897	61,054	6,248	664	6,912	5,979	1,082	7,061	68,384	6,643	75,027
	1975	84,850	5,407	90,257	8,714	720	9,434	8,470	1,189	9,659	102,034	7,316	109,350
	1980	123,106	5,891	128,997	12,019	770	12,789	11,862	1,286	13,148	146,987	7,947	154,934
	1990	242,450	6,899	249,349	20,894	880	21,774	22,143	1,512	23,655	285,487	9,291	294,778
	2000	415,609	7,908	423,517	36,573	983	37,556	38,551	1,715	40,266	490,733	10,606	501,339
Child's Play	1970	28,843	664	29,507	2,263	161	2,424	1,991	83	2,074	33,097	908	34,005
	1975	41,175	741	41,916	2,434	170	2,604	2,121	92	2,213	45,730	1,003	46,733
	1980	57,420	814	58,234	2,647	183	2,830	2,272	97	2,369	62,339	1,094	63,433
	1990	103,732	979	104,711	3,024	203	3,227	2,588	112	2,700	109,344	1,294	110,638
	2000	165,998	1,121	167,119	3,497	229	3,726	2,943	126	3,069	172,438	1,476	173,914
Baseball/ Softball	1970	5,706	483	6,189	1,065	84	1,149	918	121	1,039	7,689	688	8,377
	1975	7,410	566	7,976	1,355	93	1,448	1,156	134	1,290	9,921	793	10,714
	1980	9,375	649	10,024	1,713	98	1,811	1,449	144	1,593	12,537	891	13,428
	1990	14,210	845	15,055	2,525	113	2,638	2,170	170	2,340	18,905	1,128	20,033
	2000	19,714	1,009	20,723	3,685	124	3,809	3,078	193	3,271	26,477	1,326	27,803
Picnicking	1970	11,726	2,828	14,554	1,695	565	2,260	1,144	588	1,732	14,565	3,981	18,546
	1975	13,138	3,135	16,273	1,907	609	2,516	1,265	644	1,909	16,310	4,388	20,698
	1980	14,762	3,439	18,201	2,161	653	2,814	1,407	703	2,110	18,330	4,795	23,125
	1990	18,063	4,069	22,132	2,683	745	3,428	1,720	826	2,546	22,466	5,640	28,106
	2000	21,267	4,676	25,943	3,379	835	4,214	2,128	940	3,068	26,774	6,451	33,225

TABLE 3.11 (Continued)

THOUSANDS OF ANNUAL ACTIVITY DAYS

ACTIVITY	YEAR	METROS			CITIES			TOWNS			TOTAL FOR ALL URBAN AREAS		
		Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident
Football/ Soccer	1970	2,938	860	3,798	244	108	352	190	343	533	3,372	1,311	4,683
	1975	3,298	976	4,274	272	118	390	197	375	572	3,767	1,469	5,236
	1980	3,674	1,085	4,759	292	125	417	209	406	615	4,175	1,616	5,791
	1990	4,489	1,347	5,836	336	142	478	234	477	711	5,059	1,966	7,025
	2000	5,200	1,585	6,785	387	163	550	262	542	804	5,849	2,290	8,139
Golf	1970	8,026	388	8,414	765	85	850	516	122	638	9,307	595	9,902
	1975	11,562	437	11,999	1,064	93	1,157	730	134	864	13,356	664	14,020
	1980	16,065	483	16,548	1,458	99	1,557	1,010	146	1,156	18,633	728	19,261
	1990	28,855	591	29,446	2,428	114	2,542	1,789	173	1,962	33,072	878	33,950
	2000	45,557	689	46,246	4,043	125	4,168	2,908	196	3,104	52,608	1,010	53,618
Tennis	1970	12,425	15	12,440	488	*	488	227	*	227	13,140	15	13,155
	1975	21,391	17	21,400	590	1	591	268	*	260	22,249	18	22,267
	1980	29,985	20	30,005	725	1	726	310	*	310	31,020	21	31,041
	1990	51,776	27	51,803	1,102	1	1,103	442	*	441	53,320	28	53,348
	2000	80,989	33	81,022	1,794	1	1,795	693	*	693	83,476	34	83,510
Basketball	1970	3,286	124	3,410	288	23	311	262	47	309	3,836	194	4,030
	1975	6,007	142	6,149	626	26	652	386	52	438	7,019	220	7,239
	1980	9,306	150	9,456	1,040	27	1,067	544	58	602	10,890	235	11,125
	1990	17,799	178	17,977	2,028	32	2,060	962	67	1,029	20,789	277	21,066
	2000	28,406	207	28,613	3,364	37	3,401	1,301	78	1,379	33,071	322	33,393
Walking	1970	37,308	901	38,209	4,971	68	5,039	4,307	97	4,404	46,586	1,066	47,652
	1975	53,652	999	54,651	7,224	73	7,297	6,033	105	6,138	66,909	1,177	68,086
	1980	76,213	1,093	77,306	9,655	77	9,732	7,813	113	7,926	93,681	1,283	94,964
	1990	128,513	1,291	129,809	15,204	87	15,291	12,482	130	12,612	156,204	1,508	157,712
	2000	189,841	1,477	191,318	22,163	95	22,258	18,343	146	18,489	230,347	1,718	232,065
Bicycling	1970	41,594	7	41,601	5,604	1	5,605	4,436	4	4,440	51,634	12	51,646
	1975	76,138	7	76,145	9,690	2	9,692	7,155	5	7,160	92,983	14	92,997
	1980	118,097	9	118,106	14,600	3	14,603	10,548	6	10,554	143,245	18	143,263
	1990	220,485	11	220,496	26,422	3	26,425	18,566	7	19,613	265,473	21	265,494
	2000	360,356	11	360,367	43,254	4	43,258	28,911	10	28,921	432,521	25	432,546
Nature Study	1970	1,484	66	1,550	79	11	90	122	40	162	1,685	117	1,802
	1975	3,869	73	3,942	160	11	171	207	46	253	4,236	130	4,366
	1980	6,892	80	6,972	259	13	272	309	49	358	7,460	142	7,602
	1990	14,925	96	15,021	487	15	502	608	62	670	16,020	173	16,193
	2000	25,264	110	25,374	849	16	865	1,044	69	1,113	27,157	195	27,352
Freshwater Fishing	1970	3,679	706	4,385	549	185	734	883	1,002	1,885	5,111	1,893	7,004
	1975	4,368	770	5,138	679	193	872	1,040	1,085	2,125	6,087	2,048	8,135
	1980	5,129	828	5,957	837	201	1,038	1,221	1,170	2,391	7,187	2,199	9,386
	1990	6,878	917	7,795	1,195	214	1,409	1,632	1,350	2,982	9,706	2,481	12,186
	2000	8,695	1,036	9,731	1,659	229	1,888	2,149	1,527	3,676	12,503	2,792	15,295

TABLE 3.11 (Continued)

THOUSANDS OF ANNUAL ACTIVITY DAYS

ACTIVITY	YEAR	METROS			CITIES			TOWNS			TOTAL FOR ALL URBAN AREAS		
		Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident	Total Resident	Total Non-Resident	Total Resident and Non-Resident
Saltwater Fishing	1970	1,138	1,991	3,129	188	329	497	10	1,638	1,648	1,316	3,958	5,274
	1975	1,303	2,157	3,460	226	352	578	24	1,741	1,765	1,553	4,250	5,803
	1980	1,476	2,319	3,795	297	375	672	43	1,835	1,878	1,816	4,529	6,345
	1990	1,810	2,623	4,433	480	418	898	90	1,967	2,057	2,380	5,008	7,388
	2000	2,168	2,964	5,132	719	465	1,184	160	2,174	2,334	3,047	5,603	8,650
Freshwater Boating	1970	1,805	318	2,123	317	49	366	425	192	617	2,547	559	3,106
	1975	3,706	338	4,044	536	52	588	623	205	828	4,865	595	5,460
	1980	6,028	353	6,831	781	51	832	847	214	1,061	7,656	618	8,274
	1990	12,048	376	12,424	1,410	53	1,463	1,379	232	1,611	14,837	661	15,498
	2000	19,509	413	19,922	2,219	60	2,279	2,059	256	2,315	23,787	729	24,516
Saltwater Boating	1970	527	688	1,215	113	96	209	30	384	414	670	1,168	1,838
	1975	612	750	1,362	135	101	236	32	409	441	779	1,260	2,039
	1980	696	810	1,506	159	107	266	37	434	471	892	1,351	2,243
	1990	858	921	1,779	212	118	330	44	469	513	1,114	1,508	2,622
	2000	1,024	1,046	2,070	270	130	400	53	521	574	1,347	1,697	3,044
Freshwater Skiing	1970	860	93	953	152	*	152	132	13	145	1,144	106	1,250
	1975	1,438	102	1,540	243	*	243	216	14	230	1,897	116	2,013
	1980	2,137	108	2,245	352	*	352	298	15	313	2,787	123	2,910
	1990	3,927	121	4,048	610	*	610	509	18	527	5,046	139	5,185
	2000	6,112	137	6,249	951	*	951	781	21	802	7,844	158	8,002
Saltwater Skiing	1970	28	160	188	3	30	33	1	67	68	32	257	289
	1975	31	172	203	3	32	35	2	71	73	36	275	311
	1980	36	183	219	3	35	38	2	75	77	41	293	334
	1990	44	202	246	4	40	44	2	82	84	50	324	374
	2000	52	226	278	6	46	52	3	91	94	61	363	424
Surfing	1970	207	256	463	83	6	89	+	+	+	290	262	552
	1975	330	279	609	95	7	102	+	+	+	425	286	711
	1980	450	302	752	105	7	112	+	+	+	555	309	864
	1990	659	347	1,006	121	8	129	+	+	+	780	355	1,135
	2000	809	394	1,203	129	10	139	+	+	+	938	404	1,342
Sight-seeing	1970	4,612	9,744	14,356	759	926	1,685	818	807	1,625	6,189	11,477	17,666
	1975	5,440	10,890	16,330	972	1,006	1,978	986	888	1,874	7,398	12,784	20,182
	1980	6,534	11,991	18,525	1,224	1,081	2,305	1,120	966	2,086	8,878	14,038	22,916
	1990	8,712	14,396	23,108	1,947	1,237	3,184	1,473	1,130	2,603	12,132	16,763	28,895
	2000	11,353	16,585	27,938	3,181	1,387	4,568	2,048	1,290	3,338	16,582	19,262	35,844
Driving for Pleasure	1970	27,410	2,008	29,418	11,110	405	11,515	10,257	517	10,774	48,777	2,930	51,707
	1975	31,413	2,227	33,640	12,573	435	13,008	11,316	563	11,879	55,302	3,225	58,527
	1980	35,666	2,437	38,103	14,320	462	14,782	12,514	612	13,126	62,500	3,511	66,011
	1990	44,644	2,900	47,544	17,552	520	18,072	14,944	710	15,654	77,140	4,130	81,270
	2000	53,206	3,325	56,531	21,698	575	22,273	17,986	805	18,791	92,890	4,705	97,595

Notes: Asterisk indicates participation is less than 500 days. + Surfing participation figures apply to metros and cities in Region 28, the only region in the state having urban areas where surfing participation was recorded.

TOTAL PARTICIPATION FOR ALL URBAN AREAS

Statewide, demand for all outdoor recreation activities in the urban areas was projected to approximately 357 million participation days in 1970, as shown in Table 3.12. Demand was expected to increase to 505 million days by 1975, to almost 688 million days by 1980, to over one billion days by 1990, and to over 1.8 billion days by the year 2000. This trend represents a 92% increase from 1970 to 1980, a 69% increase from 1980 to 1990, and a 56% increase from 1990 to the year 2000. Although the rate of increase slows somewhat in later years, the increase in total number of days from 1970 to the year 2000 amounts to almost one and one-half billion days.

Projections of total annual days of participation in urban areas were segmented into two components: resident and non-resident participation. Table 3.12



shows that for all urban areas combined resident participation was expected to increase from 319 million days in 1970 to about 1.74 billion days by the year 2000. This represents a 445% increase. Conversely, non-resident participation was projected to increase from 38 million days in 1970 to over 61 million days by the year 2000 (a 61% increase). Or to state this another way, in 1970 the non-resident component of demand was estimated to be about

11% of the total. By the year 2000, the non-resident component is projected to be about 3%. The rate of increase projected for non-resident participation was lower than the rate for resident participation. At present, 90% of the non-resident participation originates within thirty miles of the urban place of destination. This consists mainly of residents of the smaller urban areas traveling to the larger urban areas to enjoy their facilities.

TABLE 3.12

PROJECTIONS OF CURRENT AND FUTURE RESIDENT AND NON-RESIDENT PARTICIPATION, 1970-2000, BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS (MILLIONS OF ANNUAL DAYS)

	METROS			CITIES			TOWNS			TOTAL FOR ALL URBAN AREAS		
	Resident	Non-Resident	Combined Resident and Non-Resident	Resident	Non-Resident	Combined Resident and Non-Resident	Resident	Non-Resident	Combined Resident and Non-Resident	Resident	Non-Resident	Combined Resident and Non-Resident
1970	250	27.2	277.2	37	3.8	40.8	33	7.1	40.1	319	38.1	357.1
1975	371	30.2	401.2	49	4.1	53.1	42	7.8	49.8	463	42.0	505.0
1980	523	33.0	556.0	65	4.4	69.4	54	8.3	62.3	642	45.7	687.7
1990	925	39.1	964.1	101	4.9	105.9	84	9.5	93.5	1,109	53.6	1,162.6
2000	1,461	45.0	1,506.0	154	5.5	159.5	125	10.7	135.7	1,740	61.2	1,801.2

Source: Adapted from Table 3.11.

The increase in urban participation also is shown clearly in Table 3.13 which itemizes the increase by activity. For all urban areas combined, the number of participation days for every activity was expected to increase, not only from 1970 to 1980, but from 1980 to 2000 as well. The largest proportional increases were projected for nature study, bicycling, basketball, freshwater boating, tennis, freshwater skiing, and swimming. Activities for which participation was projected to increase at a somewhat slower rate were picnicking, football/soccer, and some of the saltwater activities such as fishing, boating, and skiing. The

relatively small increases projected for saltwater recreational activities may be due to the nature of the supply of saltwater. No additional supply can be made available to induce potential demand. Table 3.13 also shows that for nearly all activities, resident participation was expected to increase at a faster rate than non-resident participation both from 1970 to 1980, and from 1980 to the year 2000, when comparison is made for all urban areas combined.

In terms of the activities which are engaged in most frequently, Table 3.14 shows that, for all urban areas

appears to be common for some of the traditional activities such as driving for pleasure, picnicking, and football/soccer, and some of the saltwater activities. combined, swimming had the largest number of participation days in 1970, and was projected to have the largest number through the year 2000. For 1970, driving for pleasure was second, followed by bicycling, walking for pleasure, and child's play. Over the next several time periods driving for pleasure, while still expected to increase a total number of participation days, shows a decline in significance relative to other activities. This decline in ranking

TABLE 3.13

PERCENT INCREASE IN TOTAL ANNUAL DAYS OF URBAN RESIDENT AND NON-RESIDENT PARTICIPATION, 1970-1980 and 1980-2000, BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS

Activity	METROS		CITIES		TOWNS		TOTAL FOR ALL URBAN AREAS					
	Combined Resident and Non-Resident		Combined Resident and Non-Resident		Combined Resident and Non-Resident		Resident		Non Resident		Combined Resident and Non Resident	
	1970-1980	1980-2000	1970-1980	1980-2000	1970-1980	1980-2000	1970-1980	1980-2000	1970-1980	1980-2000	1970-1980	1980-2000
Swimming	111	228	85	194	86	206	115	234	20	33	107	224
Child's Play	97	187	17	32	14	30	88	177	20	35	87	174
Baseball/Softball	62	107	58	110	53	105	63	110	30	49	60	107
Picnicking	25	43	25	50	22	45	26	46	20	35	25	44
Football/Soccer	25	43	18	32	15	31	24	40	23	42	24	41
Golf	97	179	83	168	20	34	99	183	22	39	95	178
Tennis	141	170	49	147	37	124	136	169	40	62	136	169
Basketball	177	203	243	219	95	129	184	204	21	37	176	200
Walking	102	147	93	129	80	133	101	146	28	34	99	144
Bicycling	184	205	161	196	138	168	177	202	50	39	177	202
Nature Study	350	264	202	218	121	211	343	264	21	37	322	260
Freshwater Fishing	36	63	41	82	27	54	41	74	16	27	34	63
Saltwater Fishing	21	35	35	76	14	24	38	68	14	24	20	52
Freshwater Boating	201	212	127	174	72	118	201	211	11	18	166	196
Saltwater Boating	24	37	27	50	14	22	33	51	16	26	22	36
Freshwater Skiing	136	178	132	170	116	156	144	181	16	28	133	175
Saltwater Skiing	16	27	15	37	13	22	28	49	14	24	16	27
Surfing	62	60	26	24	+	+	91	69	18	31	57	55
Sightseeing	29	51	37	98	28	60	43	87	22	37	30	56
Driving for Pleasure	30	48	28	51	22	43	28	49	20	34	28	48

Source: Adapted from Table 3.11.

Note: + Surfing participation figures apply to metros and cities in Region 28, the only region in the state having urban areas where surfing participation was recorded.

TABLE 3.14

**RANK ORDER OF TOTAL DAYS OF URBAN RESIDENT AND NON-RESIDENT PARTICIPATION
1970, 1980, 2000, BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS**

Activity	METROS			CITIES			TOWNS			TOTAL FOR ALL URBAN AREAS								
	Combined Resident and Non-Resident			Combined Resident and Non-Resident			Combined Resident and Non-Resident			Resident			Non-Resident			Combined Resident and Non-Resident		
	1970	1980	2000	1970	1980	2000	1970	1980	2000	1970	1980	2000	1970	1980	2000	1970	1980	2000
Swimming	1	1	1	2	3	2	2	1	1	1	1	1	2	2	2	1	1	1
Child's Play	4	4	4	6	5	9	5	6	9	5	5	4	10	10	10	5	5	4
Baseball/Softball	10	10	12	8	8	8	10	7	9	9	11	11	11	11	10	10	11	11
Picnicking	6	8	9	5	6	6	7	7	10	6	8	10	3	3	3	6	7	10
Football/Soccer	12	15	15	14	15	17	13	13	15	13	15	16	7	7	7	13	16	16
Golf	9	9	7	9	9	7	11	11	8	8	7	7	12	12	12	9	9	7
Tennis	8	6	5	12	13	13	16	18	17	7	6	6	19	19	19	8	6	6
Basketball	13	11	8	15	10	10	15	14	13	12	10	8	16	16	16	14	11	9
Walking	3	3	3	4	4	4	4	4	4	4	3	3	9	9	8	4	3	3
Bicycling	2	2	2	3	2	1	3	3	2	2	2	2	20	20	20	3	2	2
Nature Study	16	12	10	18	17	16	17	16	14	15	13	9	17	17	17	17	14	12
Freshwater Fishing	11	15	14	10	11	12	6	5	5	11	4	14	6	6	6	11	12	14
Saltwater Fishing	14	16	17	11	14	14	8	9	11	16	17	17	4	4	4	12	15	15
Freshwater Boating	15	13	13	13	12	11	12	12	12	14	12	12	13	13	13	15	13	13
Saltwater Boating	17	18	18	16	18	18	14	14	18	18	18	18	8	8	9	16	18	18
Freshwater Skiing	18	17	16	17	16	15	18	17	16	17	16	15	18	18	18	18	17	17
Saltwater Skiing	20	20	20	20	20	20	19	19	19	20	20	20	15	15	15	20	20	20
Surfing	19	19	19	19	19	19	+	+	+	19	19	19	14	14	14	19	19	19
Sightseeing	7	7	11	7	7	5	9	8	6	10	11	13	1	1	1	7	8	8
Driving for Pleasure	5	5	6	1	1	3	1	2	3	3	4	5	5	5	5	2	4	5

Source: Adapted from Table 3.11.

Note: + Surfing participation figures apply to metros and cities in Region 28, the only region in the state having urban areas where surfing participation was recorded.

In terms of the resident and non-resident components of demand, Table 3.14 shows some very significant differences. For all urban areas combined, the five activities which had the largest number of resident participation days in 1970 were: first, swimming; second, bicycling; third, driving for pleasure; fourth, walking; and fifth, child's play. The rank order for the same five activities for non-resident participation in 1970 were: swimming, second; bicycling, twentieth; driving for pleasure, fifth; walking, ninth; and child's play, tenth. In 1970, the five activities which had the largest number of non-resident

participation days were: first, sightseeing; second, swimming; third, picnicking; fourth, saltwater fishing; and fifth, driving for pleasure.

TOTAL PARTICIPATION BY CITY SIZE

Table 3.12 shows that of the 357.1 million total participation days in 1970, 277.2 million days (almost 78%) were accounted for by the metropolitan areas. In 1970, the cities accounted for 40.8 million days (about 11%), while the towns accounted for 40.1 million days (also about 11%). In the future the

metropolitan areas are expected to have an increasingly larger proportion of total urban participation. By 1980, the metros are expected to account for almost 81% of the urban demand, while the cities are expected to account for 10%, and the towns 9%. By the year 2000, 1.51 billion of the 1.80 billion urban participation days (83.6%) are expected to be attributed to metropolitan areas.

Most of the participation days in the metropolitan areas, cities, and towns are accounted for by

residents. The non-resident element of demand was relatively small (in 1970, about 10% in the metros, 9% in cities, and about 18% in towns). By the year 2000, the proportion of demand attributed to non-residents is expected to be approximately 3% for the metros and cities, and about 8% for the towns.

Analysis of Table 3.13 shows that for all three city sizes, participation was expected to increase for all of the twenty listed activities, both from 1970 to 1980, and from 1980 to 2000. For the period 1970 to 1980, participation increases were expected to be larger in the metros than in the cities or towns, for most activities. Similarly, the cities tended to have a higher proportional increase in participation than the towns, for most activities, for the period 1970 to 1980. For the period 1980 to 2000, the metros were projected to have the largest proportional increases of the three city sizes for about half of the listed activities.

Based on total participation by activity, Table 3.14 shows relatively minimal differences in activity ranks between the three city sizes. Of the five activities which had the largest number of participation days in metropolitan areas for 1970, all but child's play were among the top five activities for both cities and for towns. With the exception of minor rank order differences among the city sizes for the top five activities, the only substantial difference was in the activity of driving for pleasure, which was ranked substantially higher for the cities and towns than for the metros.

PROJECTIONS OF RESIDENT PARTICIPATION PER HOUSEHOLD

As discussed in the previous section, the resident component of demand accounted for almost 90% of total urban demand in 1970, while the non-resident component accounted for about 10%. Therefore, in order to provide an understanding of some of the

reasons why total participation has been projected to increase so rapidly over the next several decades, it is important to determine the source of this increase, particularly for the resident component. There are two ways in which the number of resident participation days for an activity can fluctuate: (1) changes in average number of participation days per household, and (2) changes in the total number of

households. This section presents projections of annual days of resident participation per household for the urban areas of Texas. Projections have been calculated for twenty activities, for the projection years of 1970, 1975, 1980, 1990, and 2000, and have been itemized on the basis of city size. The results are presented in Table 3.15.

TABLE 3.15

ANNUAL DAYS OF URBAN RESIDENT PARTICIPATION PER HOUSEHOLD, 1970-2000 BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS

ACTIVITY	YEAR	AVERAGE PARTICIPATION PER HOUSEHOLD			
		METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS
Swimming	1970	27.41	17.23	18.98	25.08
	1975	36.52	22.14	25.07	33.40
	1980	47.17	27.87	32.56	43.16
	1990	75.28	41.80	52.90	68.96
	2000	110.14	62.39	79.75	101.33
Child's Play	1970	14.08	6.24	6.32	12.14
	1975	17.72	6.18	6.28	14.97
	1980	22.00	6.14	6.24	18.31
	1990	32.20	6.05	6.18	26.41
	2000	43.99	5.97	6.09	35.60
Baseball/Softball	1970	2.78	2.94	2.91	2.82
	1975	3.19	3.44	3.42	3.25
	1980	3.59	3.97	3.98	3.68
	1990	4.41	5.05	5.18	4.57
	2000	5.22	6.29	6.37	5.47
Picnicking	1970	5.72	4.67	3.63	5.34
	1975	5.66	4.84	3.74	5.34
	1980	5.66	5.01	3.86	5.38
	1990	5.61	5.37	4.11	5.43
	2000	5.64	5.76	4.40	5.53
Football/Soccer	1970	1.43	.67	.60	1.24
	1975	1.42	.69	.58	1.23
	1980	1.41	.68	.57	1.23
	1990	1.39	.67	.56	1.22
	2000	1.38	.66	.54	1.21

TABLE 3.15 (Continued)

AVERAGE PARTICIPATION PER HOUSEHOLD						AVERAGE PARTICIPATION PER HOUSEHOLD					
ACTIVITY	YEAR	METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS	ACTIVITY	YEAR	METROS	CITIES	TOWNS	TOTAL FOR ALL URBAN AREAS
Golf	1970	3.92	2.11	1.64	3.41	Freshwater Boating	1970	.88	.87	1.34	.93
	1975	4.98	2.70	2.16	4.37		1975	1.60	1.36	1.84	1.59
	1980	6.16	3.38	2.77	5.44		1980	2.31	1.81	2.33	2.25
	1990	8.96	4.86	4.27	7.99		1990	3.74	2.82	3.29	3.58
	2000	12.07	6.90	6.02	10.84		2000	5.17	3.79	4.29	4.91
Tennis	1970	6.06	1.35	.72	4.82	Saltwater Boating	1970	.84	1.98	.86	.93
	1975	9.21	1.50	.79	7.28		1975	.84	1.99	.83	.93
	1980	11.49	1.68	.85	9.11		1980	.84	2.00	.85	.94
	1990	16.07	2.20	1.06	12.88		1990	.84	2.00	.86	.94
	2000	21.46	3.06	1.43	17.24		2000	.84	2.00	.85	.95
Basketball	1970	1.60	.80	.83	1.41	Freshwater Skiing	1970	.42	.42	.42	.42
	1975	2.59	1.59	1.14	2.30		1975	.62	.62	.64	.62
	1980	3.57	2.41	1.49	3.20		1980	.82	.82	.82	.82
	1990	5.52	4.06	2.30	5.02		1990	1.81	1.22	1.62	1.22
	2000	7.53	5.74	2.69	6.83		2000	1.81	1.62	1.62	1.62
Walking	1970	18.21	13.71	13.67	17.09	Saltwater Skiing	1970	.05	.05	.03	.04
	1975	23.09	18.35	17.86	21.90		1975	.04	.04	.05	.04
	1980	29.20	22.39	21.45	27.51		1980	.04	.04	.05	.04
	1990	39.89	30.41	29.82	37.73		1990	.04	.04	.04	.04
	2000	50.31	37.81	37.95	47.56		2000	.04	.04	.05	.04
Bicycling	1970	20.30	15.45	14.08	18.94	Surfing ⁺	1970	.33	1.45	+	.40
	1975	32.77	24.62	21.18	30.44		1975	.45	1.40	+	.51
	1980	45.25	33.86	28.95	42.06		1980	.54	1.32	+	.58
	1990	68.44	52.85	44.36	64.12		1990	.64	1.14	+	.66
	2000	95.49	73.79	59.81	89.31		2000	.66	.96	+	.66
Nature Study	1970	.72	.22	.39	.62	Sightseeing	1970	2.25	2.09	2.60	2.27
	1975	1.67	.41	.61	1.39		1975	2.34	2.50	2.92	2.42
	1980	2.64	.60	.85	2.19		1980	2.50	2.84	3.07	2.61
	1990	4.63	.97	1.45	3.87		1990	2.70	3.89	3.52	2.93
	2000	6.70	1.45	2.16	5.61		2000	3.01	5.43	4.24	3.42
Freshwater Fishing	1970	1.80	1.51	2.81	1.88	Driving for Pleasure	1970	13.38	30.63	32.56	17.89
	1975	1.88	1.73	3.08	2.00		1975	13.52	31.94	33.50	18.10
	1980	1.97	1.94	3.36	2.11		1980	13.67	33.21	34.35	18.35
	1990	2.13	2.39	3.89	2.34		1990	13.86	35.11	35.70	18.63
	2000	2.30	2.83	4.45	2.58		2000	14.10	37.02	37.21	19.18
Saltwater Fishing	1970	1.81	2.94	.29	1.83	Note: + Surfing participation figures apply to metros and cities in Region 28, the only region in the state having urban areas where resident surfing participation was recorded.					
	1975	1.79	3.34	.62	1.86						
	1980	1.78	3.74	.99	1.91						
	1990	1.77	4.54	1.75	2.02						
	2000	1.78	5.33	2.56	2.15						

RESIDENT PARTICIPATION PER HOUSEHOLD FOR ALL URBAN AREAS

As indicated in Table 3.16, the statewide average annual days of resident participation per urban household was projected to be 117 days in 1970. This was projected to increase to 152 days in 1975, to 188 days in 1980, to 268 days in 1990, and to 359 days by the year 2000. It should be noted that while the average number of participation days was expected to increase substantially for the next several decades, the rate of increase was projected to decline. Thus, by 1980, average annual participation per household was expected to be 61% higher than in 1970; by 1990, 43% higher than in 1980; and by the year 2000, 34% higher than in 1990. Although this suggests that at some future date, household participation rates may stabilize; nevertheless, within the foreseeable future,

participation rates are expected to continue to increase.

This rapid increase in resident participation per household also is shown clearly in Table 3.17 which itemizes the increase by activity. For all urban areas combined, nearly all activities were expected to show an increase in participation per household from 1970 through the year 2000. For football/soccer and saltwater skiing, participation rates were expected to remain relatively stable, or perhaps show a very slight decline. Generally, activities for which participation per household was expected to increase the fastest were those which are associated with the contemporary trend toward environmental awareness, such as nature study and bicycling, and activities for which participation requires some degree of skill,

more leisure time, and/or a larger disposable income, such as freshwater boating and skiing.

Table 3.18 shows the rank order of the twenty activities on the basis of participation per household, for 1970, 1980, and 2000. For all urban areas combined, swimming had the highest rate in 1970, and projections indicate that it will continue to have the highest rate through the duration of the planning period. On a per household basis, bicycling was second, and driving for pleasure was third, in 1970. The rankings in Table 3.18 suggest that some of the more traditional activities such as picnicking, sightseeing, and driving for pleasure were expected to decline in significance relative to other activities, while golf, basketball, nature study, and freshwater boating were among the activities expected to increase in relative significance.

TABLE 3.16

PROJECTIONS CURRENT AND FUTURE RESIDENT PARTICIPATION PER HOUSEHOLD, 1970-2000, BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS

	METROS		CITIES		TOWNS		TOTAL FOR ALL URBAN AREAS	
	Number of Households (Million)	Average Annual Days of Participation Per Household	Number of Households (Million)	Average Annual Days of Participation Per Household	Number of Households (Million)	Average Annual Days of Participation Per Household	Number of Households (Million)	Average Annual Days of Participation Per Households
1970	2.0	122	.4	102	.3	104	2.7	117
1975	2.3	160	.4	126	.3	125	3.1	152
1980	2.6	200	.4	150	.4	148	3.4	188
1990	3.2	287	.5	201	.4	200	4.1	268
2000	3.8	387	.6	268	.5	259	4.8	359

Source: Adapted from Table 3.15.

TABLE 3.17

**PERCENT CHANGE IN ANNUAL DAYS OF URBAN RESIDENT PARTICIPATION PER HOUSEHOLD,
1970-1980 AND 1980-2000, BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS**

Activity	METROS		CITIES		TOWNS		TOTAL FOR ALL URBAN AREAS	
	1970-1980	1980-2000	1970-1980	1980-2000	1970-1980	1980-2000	1970-1980	1980-2000
Swimming	72	134	62	124	72	145	72	135
Child's Play	56	100	-2	-3	-1	-2	51	94
Baseball/Softball	29	45	35	58	37	60	30	49
Picnicking	-1	0	7	15	6	14	1	3
Football/Soccer	-1	-2	1	-3	-5	-5	-1	-2
Golf	57	96	60	104	69	117	60	99
Tennis	90	87	24	82	18	68	89	89
Basketball	123	111	201	138	80	81	127	113
Walking	60	72	63	69	57	77	61	73
Bicycling	123	111	119	118	106	107	122	112
Nature Study	267	154	173	142	118	154	253	156
Freshwater Fishing	9	17	28	46	20	32	12	22
Saltwater Fishing	-2	0	27	43	241	159	4	13
Freshwater Boating	163	124	108	109	74	83	142	118
Saltwater Boating	0	0	1	0	-1	0	1	1
Freshwater Skiing	95	121	95	98	95	98	95	98
Saltwater Skiing	-20	0	-20	0	67	0	0	0
Surfing	64	22	-9	-27	+	+	45	14
Sightseeing	11	20	36	91	18	38	15	31
Driving for pleasure	2	3	8	11	5	8	3	5

Source: Adapted from Table 3.15.

Note: +Surfing participation figures apply to metros and cities in Region 28, the only region in the state having urban areas where resident surfing participation was recorded.

RESIDENT PARTICIPATION PER HOUSEHOLD BY CITY SIZE

An analysis of Table 3.16 shows rather significant differences in projected household participation rates for the three city sizes. It has been estimated that in 1970, household rates averaged 122 days in metropolitan areas, 102 days in cities, and 104 days in towns. Household rates are expected to increase substantially for all three city sizes during the next several decades. Projections indicate a 217% increase in the average number of participation days per

household for the metropolitan areas from 1970 to 2000. This compares with a 163% increase for cities and a 149% increase for the towns. When these increases in household participation rates are combined with increases in the number of households (Table 3.16), the result amounts to very substantial increases in the total number of participation days.

These increases in household participation are shown by activity in Table 3.17. For the metropolitan areas, the activities of nature study, freshwater boating, basketball, bicycling, and swimming are expected to

show the largest increases in household participation rates over the next several years. For cities, the largest increases are expected to be in the activities of basketball, nature study, bicycling, freshwater boating, and freshwater skiing. For towns, the increases are expected to be largest for saltwater fishing, nature study, swimming, bicycling, and golf.

Table 3.18 compares the three city-size categories in terms of frequency of participation per household. The activities of swimming, child's play, walking, bicycling, and driving for pleasure generally showed

the highest participation rates for all three city sizes. There was a tendency for driving for pleasure to rank lower in the metropolitan areas than in the cities or towns. The trend over the next several years is expected to be toward decreasing emphasis in some of the traditional activities such as driving for pleasure, sightseeing, picnicking, and football/soccer, with increasing emphasis in activities such as nature study, freshwater boating, golf, and tennis.

TABLE 3.18

**RANK ORDER OF ANNUAL DAYS OF URBAN RESIDENT PARTICIPATION PER HOUSEHOLD
1970, 1980, 2000, BY CITY-SIZE CATEGORY, TOTAL FOR ALL URBAN AREAS**

Activity	METROS			CITIES			TOWNS			TOTAL FOR ALL URBAN AREAS		
	1970	1980	2000	1970	1980	2000	1970	1980	2000	1970	1980	2000
Swimming	1	1	1	2	3	2	2	2	1	1	1	1
Child's Play	4	4	4	5	5	7	5	5	6	5	5	4
Baseball/Softball	9	11	11	7	7	6	7	6	5	9	9	11
Picnicking	7	8	10	6	6	8	6	7	9	6	8	10
Football/Soccer	14	16	17	17	18	19	15	18	18	14	16	17
Golf	8	7	7	9	9	5	10	10	7	8	7	7
Tennis	6	6	5	14	15	13	14	14	16	7	6	6
Basketball	13	10	8	16	11	9	13	12	12	13	10	8
Walking	3	3	3	4	4	3	4	4	3	4	3	3
Bicycling	2	2	2	3	1	1	3	3	2	2	2	2
Nature Study	17	11	9	19	19	17	17	14	14	17	13	9
Freshwater Fishing	12	14	14	12	13	14	8	8	8	11	14	14
Saltwater Fishing	11	15	16	7	8	11	18	13	13	12	15	15
Freshwater Boating	15	13	12	15	14	12	11	11	10	15	12	12
Saltwater Boating	16	17	18	11	12	15	12	14	17	15	17	18
Freshwater Skiing	18	18	15	18	17	16	16	17	15	18	18	16
Saltwater Skiing	20	20	20	20	20	20	19	19	19	20	20	20
Surfing	19	19	19	13	16	18	+	+	+	19	19	19
Sightseeing	10	12	13	10	10	10	9	9	11	10	11	13
Driving for Pleasure	5	5	6	1	2	4	1	1	4	3	4	5

Source: Adapted from Table 3.15.

Note: + Surfing participation figures apply to metros and cities in Region 28, the only region in the state having urban areas where resident surfing participation was recorded.

Chapter 4

URBAN OUTDOOR RECREATION RESOURCE REQUIREMENTS

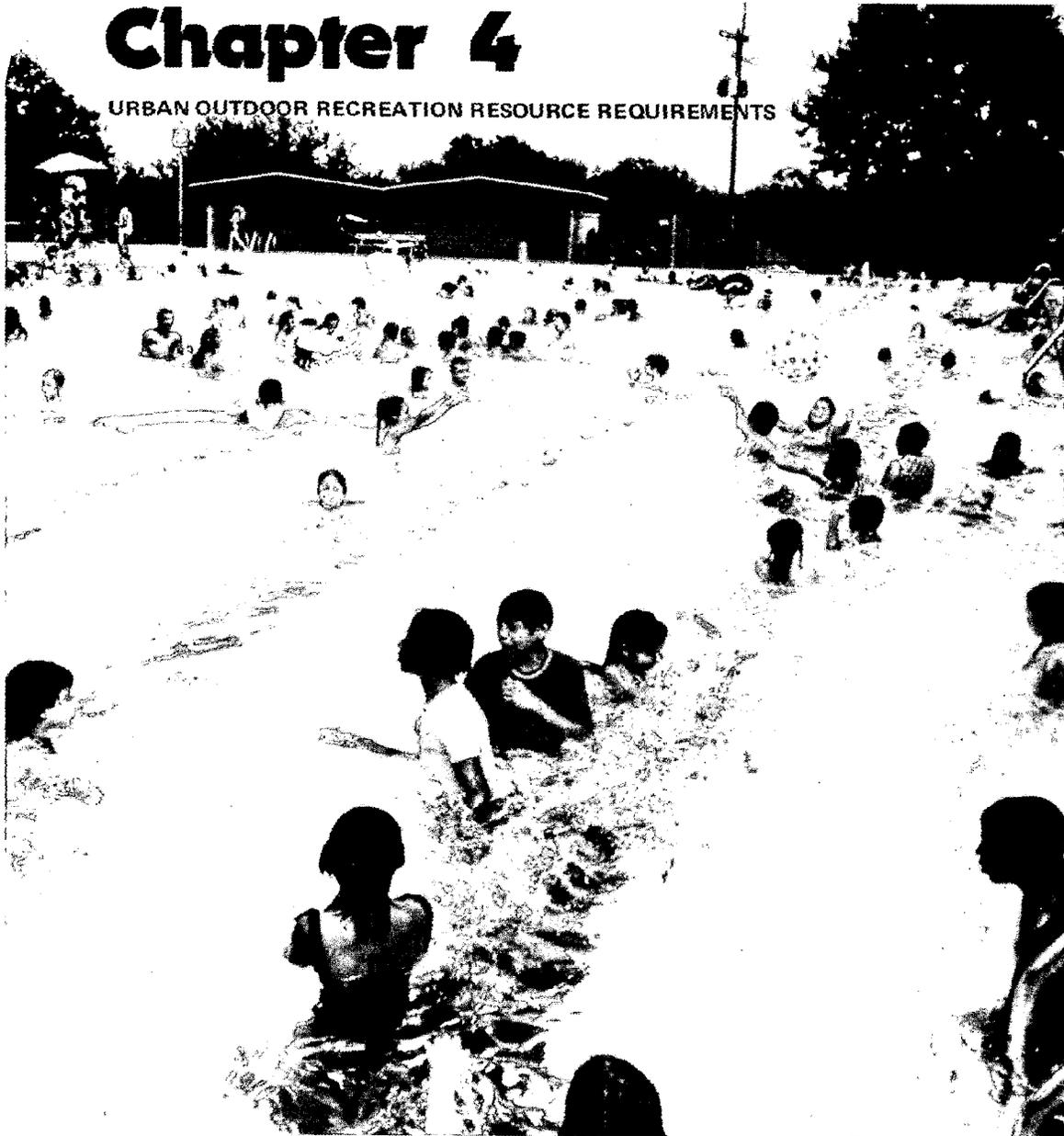


Photo by Texas Parks and Wildlife Department

INTRODUCTION

The Texas outdoor recreation planning process comprises many major steps or phases for analyzing recreation problems and defining objectives in the Texas Outdoor Recreation Plan (TORP). The two previous chapters, explaining significant steps in the analysis of supply and demand for urban recreation, present a perspective on urban recreational opportunities available in Texas' metropolitan areas, cities, and towns, and an overview of current and future demands for urban recreational opportunities generated by urban residents and visitors to urban areas. This chapter describes the results of comparing supply and demand to estimate resource requirements for each projection year to the year 2000. The presentation of urban recreation resource requirements in this volume of the TORP is an important step in the planning process because decision-makers and planners of all types at all levels may use these estimates as quantitative justifications to provide additional parks and recreation developments required to meet urban recreation needs.

In presenting developed recreational land and freshwater requirements, and facility requirements, the first two major sections of the chapter, the general approach is to discuss statewide requirements initially and then break them down into components applicable to the major city-size categories: all metropolitan areas combined, all cities combined, and all towns combined. Data comparing regional requirements by city size is presented in Appendix D.

The final two major sections of this chapter, titled "Selected Additional Recreational Facility Requirements" and "Suggested Recreational Resource Requirements for Small Communities," respectively, are provided to more completely assess urban resource requirements. Resource requirement data in these two sections are presented separately

because the methodology utilized to calculate the data is much more generalized, due to limitations of available data, than the methodology used in the more detailed analyses of land, water, and facility requirements presented in the first two sections. Although treated differently, the nature of the data in these two latter sections should assist local planners in making a more complete analysis of the resource requirements for their area.

The first of these sections presents data for metros, cities, towns, and total urban areas combined for archery, sport shooting, horseback riding, attending rodeos, visiting zoos, and visiting cultural centers. The final major section in this chapter provides suggested resource requirements for those communities with populations numbering from 201 to 2,499 persons called "small communities" in the TORP. Average participation rates for selected recreational activities projected to the year 1980 for an urban area with a population of 2,500, and statewide urban facility standards served as the basis for determining suggested resource requirements for small communities.

Responses to the Texas Outdoor Recreation Urban Planner's Survey, completed February 1972, are used in a limited manner in this chapter to provide a certain measure of TORP data support and additional enhancement of the urban recreation overview, while emphasizing the importance of providing the required recreational resources estimated in the TORP. Indicating local planners' opinions and informed judgements regarding a wide spectrum of park, recreation, and open land related questions, urban planners' data amplify aspects of the need for additional open land to support the required facilities, to support the estimates of land, water, and facilities specified in this volume, and to provide insights into opinions of local park and recreation planners.

DEVELOPED RECREATIONAL LAND AND FRESHWATER REQUIREMENTS

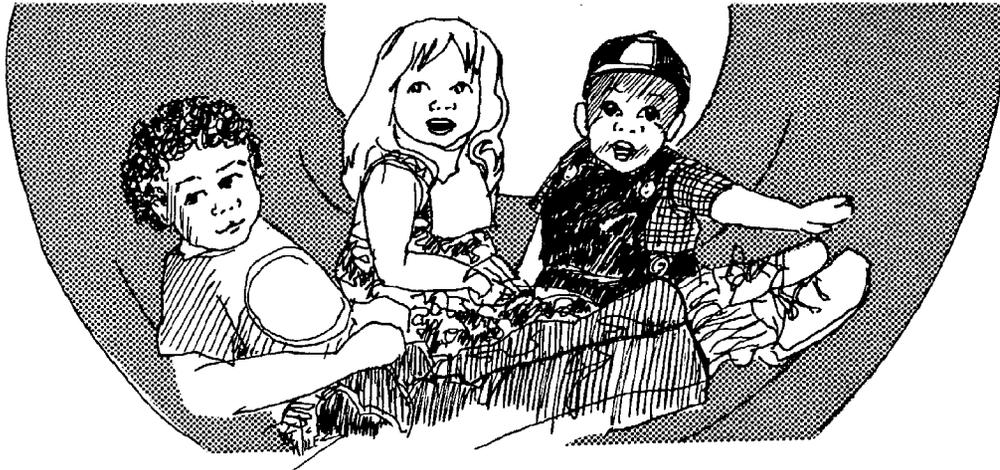
Although facility requirement data is considered to be the most important data presented in this chapter, an initial discussion of land requirements followed by water requirement estimates provides certain insights

as to how much impact on these two major resources the overall needs for increasing numbers of urban recreation facilities will have statewide, and in metropolitan areas, cities, and towns.

DEVELOPED LAND REQUIREMENTS

A major factor affecting the recreation environment of Texas' urban areas is the physical and legal access to recreational opportunities by urban residents. Providing adequate recreational opportunities means assuring that a sufficient quantity of diverse recreational resources is available and suitably distributed among all socio-economic segments of the populace. Often mentioned in the detailed parts of this volume, this factor established general guidelines that were implemented in analyzing urban developed recreational land patterns and in assessing facility requirements. However, the land requirements described below emphasize only the quantities of developed land acres needed to support the required recreation facilities, based solely on numerical facility deficits calculated by comparing numbers of opportunities available with numerical estimates of current and future recreational demand. Inadequate dispersion of existing parks within an urban area may cause estimated land requirements for that urban area to exceed land requirements specified in this volume, since the actual requirement figures were calculated without being affected by existing park dispersion. Furthermore, many urban areas are rapidly expanding without supplying recreational opportunities in the growth areas. While the estimated requirement figures do not include spatial distribution allowances, **Part 2: Metropolitan Areas, Part 3: Cities, and Part 4: Towns**, the detailed parts of this volume, deal more directly with this concept.

The land figures show acreage requirements only for selected facilities, not for the full range of facilities required to support all recreational activities of statewide significance occurring in Texas. Additional



lands may also be needed to support other recreational activities important at the local level, though not significant statewide. Over seventy different outdoor recreational activities pursued by Texans were identified in the Texas Outdoor Recreation Household Demand Survey. Participation in some of these activities occurs primarily in rural areas, i.e., hunting, camping, etc., but participation in a substantial number also occurs in urban environments. Therefore, the following requirements describe the activities most significant in the urban areas, on a statewide basis, that were quantifiable utilizing the **TORP** methodologies.

In calculating developed land requirements for selected facilities, a variety of sources were consulted to determine the factors used to convert facility requirements to developed land acreage requirements. The National Recreation and Parks Association's (NURPA) publication, **National Park Recreation and Open Space Standards**, June 1971, provided baseline land area figures for applicable facilities. Statewide recreational On-Site Demand (and preference) data, experience in local planning assistance, and experience gained in administering the program for Land and Water Conservation Fund grants-in-aid were used to modify the NRPA figures, thereby reflecting the average developed land acreage needed to develop facilities in Texas. Table 4.1 shows the land space in acres per unit required for developed facility areas, as prepared for this volume, presented by selected recreational activity and selected type of facility unit. These figures were simply multiplied by the numbers of facility units required by each projection year to obtain a general estimate of the land area required by activity; then all individual activity land requirements were totaled to provide overall land requirement estimates for the urban areas. For example, in a given projection year and a selected urban area, if a requirement for 1,000 square yards of additional swimming pool area was estimated, developed land required was estimated by multiplying 1,000 square yards times .001317 acres per unit, resulting in a

developed land total of 1.317 acres required. Adding all of the swimming requirements for each individual urban area yields the statewide estimate.

STATEWIDE LAND REQUIREMENTS

The data presented in Table 4.2 indicate the land acreages estimated to be required to meet projected recreational demands in each of the five projection years. Total urban land requirement figures (the two right-most columns) are presented in terms of cumulative and incremental statewide totals by activity and for all activities combined.

In 1970 an additional 26,715 acres of developed land was needed in Texas' urban areas above the supply of 43,621 developed acres existing in 1971. By 1975 the cumulative total land requirement, not including any considerations for complementary and other necessary open land, increased 96% to 42,008 acres over the 1971 supply. The cumulative totals for the remaining horizon years—1980, 1990, and 2000—rose to 61,827 acres, 116,346 acres, and 188,384 acres, respectively.

As shown in Table 4.2, the urban land requirements in 1970 were largely made up of the three activities which require the most developed land area per unit (see Table 4.1)—golf course holes (64% of the total land requirements for urban areas) require approximately 10 acres per hole, combined trails activities (22% of total land requirement) require 8 acres per mile of trail, and football/soccer fields (6% of the statewide land requirements) require 3.8 acres per field. The picnicking and tennis land requirements of 715 acres and 497 acres comprised about 3% and 2% of the total urban land requirement, respectively. While swimming facility unit needs were the most numerous (discussed in a later section), the land requirements for swimming pool areas amounted to only 305 acres, or 1% of the total urban land requirement.

In the remaining projection years, golf courses continued to dominate the land requirement totals, comprising slightly over 64% of the total land requirements. Combined trails requirements continued throughout to require the second largest

ACTIVITY	FACILITY UNIT OF MEASUREMENT	ACRES PER UNIT
Swimming (Pools)	square yard	.001317
Child's Play (Playground)	acre	1
Baseball/Softball	field	3
Picnicking	table	.25
Football/Soccer	field	3.8
Golf	hole	10
Tennis	court, doubles	.13
Basketball	court, full	.2
Boating, Boat Fishing, Skiing, Freshwater	ramp (with 2 lanes)	1.2
Boating, Boat Fishing, Skiing, Saltwater	ramp (with 2 lanes)	1.2
Walking	mile	8
Bicycling	mile	8
Nature Study	mile	8
Combined Trails	mile	8

TABLE 4.2
URBAN RECREATION LAND REQUIREMENTS FOR SELECTED ACTIVITIES,
1970-2000, BY CITY SIZE, STATEWIDE TOTALS

ACTIVITY (facility type)		NUMBER OF LAND ACRES REQUIRED							
		METROS		CITIES		TOWNS		TOTAL URBAN AREAS	
TOTAL ALL ACTIVITIES	YEAR	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL
	1970	22,833	22,833	1,902	1,902	1,980	1,980	26,715	26,715
	1975	36,375	13,542	2,847	945	2,786	806	42,008	15,293
	1980	53,902	17,527	4,183	1,336	3,742	956	61,827	19,819
	1990	102,115	48,213	7,718	3,535	6,153	2,771	116,346	54,519
	2000	164,198	62,083	13,536	5,818	10,650	4,137	188,384	72,038
Swimming (pools)	1970	276	276	12	12	17	17	305	305
	1975	489	213	23	11	30	13	542	237
	1980	776	287	42	19	51	21	869	327
	1990	1,697	921	98	56	126	75	1,921	1,052
	2000	3,039	1,342	216	118	252	126	3,507	1,586
Child's Play (playgrounds)	1970	98	98	0	0	2	2	100	100
	1975	267	169	0	0	3	1	270	170
	1980	781	514	1	1	3	0	785	515
	1990	2,342	1,561	4	3	4	1	2,350	1,565
	2000	4,535	2,193	9	5	8	4	4,552	2,202
Baseball/ Softball (fields)	1970	201	201	12	12	15	15	228	228
	1975	300	99	24	12	27	12	351	123
	1980	411	111	39	15	48	21	498	147
	1990	792	381	93	54	114	66	999	501
	2000	1,734	942	198	105	243	129	2,175	1,176
Picnicking (tables)	1970	641	641	27	27	47	47	715	715
	1975	817	176	51	24	62	15	930	215
	1980	1,017	200	78	27	83	21	1,178	248
	1990	1,528	511	151	73	138	55	1,817	639
	2000	2,059	531	239	88	204	66	2,502	685
Football/ Soccer (fields)	1970	1,436	1,436	87	87	205	205	1,728	1,728
	1975	1,683	247	99	11	224	19	2,006	277
	1980	1,953	270	106	7	258	34	2,317	311
	1990	2,531	578	148	42	304	46	2,983	666
	2000	3,044	513	179	31	365	61	3,588	605
Golf (courses)	1970	14,680	14,680	1,200	1,200	1,120	1,120	17,000	17,000
	1975	23,450	8,770	1,720	520	1,600	480	26,770	9,770
	1980	34,680	11,230	2,480	760	2,190	570	39,350	12,580
	1990	66,540	31,860	4,770	2,290	3,920	1,730	75,230	35,880
	2000	107,990	41,450	8,670	3,900	6,430	2,510	123,090	47,860
Tennis (courts, double)	1970	494	494	2	2	0	0	497	497
	1975	927	433	6	4	1	1	934	438
	1980	1,342	415	11	5	3	2	1,356	422
	1990	2,394	1,052	29	18	8	5	2,431	1,075
	2000	3,805	1,411	60	31	20	12	3,885	1,454
Basketball (courts, full)	1970	31	31	1	1	3	3	34	34
	1975	73	42	4	4	6	3	83	49
	1980	145	72	13	9	10	4	168	85
	1990	334	189	34	21	20	10	388	220
	2000	576	242	65	31	32	12	673	285

TABLE 4.2 (Continued)

ACTIVITY (facility type)	NUMBER OF LAND ACRES REQUIRED								
	YEAR	METROS		CITIES		TOWNS		TOTAL URBAN AREAS	
		CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL
Freshwater Boating, Boat Fishing, and Skiing (boat ramps)	1970	107	107	17	17	30	30	154	154
	1975	188	81	28	11	42	12	258	104
	1980	290	102	41	13	53	11	384	126
	1990	542	252	73	32	82	29	697	313
	2000	852	310	113	40	110	28	1,075	378
Saltwater Boating, Boat Fishing, and Skiing (boat ramps)	1970	53	53	8	8	29	29	90	90
	1975	61	8	12	4	31	2	104	14
	1980	67	6	12	0	35	4	114	10
	1990	79	12	14	2	37	2	130	16
	2000	92	13	19	5	42	5	153	23
Walking (trails)	1970	3,248	3,248	368	368	344	344	3,960	3,960
	1975	4,880	1,632	576	208	504	160	5,960	2,000
	1980	7,080	2,200	816	240	656	152	8,552	2,592
	1990	12,400	5,320	1,344	528	1,016	360	14,760	6,208
	2000	18,504	6,104	1,976	632	1,728	712	22,208	7,448
Bicycling (trails)	1970	1,320	1,320	160	160	152	152	1,632	1,632
	1975	2,560	1,240	288	128	232	80	3,080	1,448
	1980	4,096	1,536	512	224	320	88	4,928	1,848
	1990	8,176	4,080	880	368	664	344	9,720	4,792
	2000	13,224	5,048	1,624	744	1,056	392	15,904	6,184
Nature Study (trails)	1970	248	248	8	8	16	16	272	272
	1975	680	432	16	8	24	8	720	448
	1980	1,264	584	32	16	32	8	1,328	608
	1990	2,760	1,496	80	48	80	48	2,920	1,592
	2000	4,744	1,984	168	88	160	80	5,072	2,152
Combined Walking, Bicycling, and Nature Study (trails)	1970	4,816	4,816	536	536	512	512	5,864	5,864
	1975	8,120	3,304	880	344	760	248	9,760	3,896
	1980	12,440	4,320	1,360	480	1,008	248	14,808	5,048
	1990	23,336	10,896	2,304	944	1,760	752	27,400	12,592
	2000	36,472	13,136	3,768	1,464	2,944	1,182	43,184	15,784

amount of land, approximately 23% of the total land requirements. The third ranked activity in 1975, 1980, and 1990 for land required was football/soccer, comprising 5%, 4%, and 3% of the total land requirements in each of those planning years, respectively. By the year 2000 the need for additional playground areas ranked third in percent of the statewide total.

The statewide perspective on urban outdoor recreational opportunities (Chapter 2) showed that public land devoted to recreation in Texas' urban areas in 1971 closely followed a 70% to 30% ratio of developed land to undeveloped land. This comparison includes open land parks (i.e., parks with no facilities)

which accounted for approximately 15% of the statewide urban acreage total. The 70-30 ratio is not proposed TORP guideline but assuming the relative levels to be reasonably desirable combination of developed to undeveloped land, it provides a potentially useful planning figure for use in comparing urban planners' responses in the following assessment.

Analysis of the Texas Outdoor Recreation Urban Planner's Survey identified what urban recreation planners considered their respective urban areas most pressing requirements with regard to developed facilities, acquiring lands for development, and acquiring complementary or separate open land. The

majority of responding urban planners held the opinion that their urban areas' most pressing need was for additional facilities. In order to provide those facilities, lands already devoted to recreational use would have to be further developed, or additional land would have to be acquired for development. Since much of the existing land was already developed, a large proportion of the respondents indicated pressing needs for more land. A comparison of the responses for additional land to be developed vs. additional land for complementary or separate open land yielded a ratio of 3 to 1, respectively. This indicated that existing lands in most cases were developed to capacity and that the existing lands' abilities to accommodate the more active

recreationists were becoming increasingly burdened with pressure from such factors as population expansion and urban growth. Thus, to maintain the present ratio of 70% developed land to 30% open land, urban areas would have to acquire considerably more land for both types of use. Where suitable land is available and practical in terms of cost, location, and feasibility for development, acquisition is certainly the preferable option to further development of already overused resources. Adding land to urban recreation holdings increases future options for development and may allow urban areas to maintain favorable ratios of adequately dispersed facilities and open land at less cost to taxpayers in the future.

The case for complementary open land was strengthened by responses to two other questions in the Urban Planner's Survey. Responding to specific queries, planners first indicated the additional number of developed acres they thought necessary to meet current demand in their urban areas, and then they enumerated additional acreages needed to meet current demand for recreational open space. A statewide overview of these responses is provided in Table 4.3. The total number of respondents represented 48% of the urban areas with 2,500 population or greater, based on 1970 U.S. Census figures. In order to meet current (late 1971) demand the responding urban planners indicated a need for 20,548 acres of developed land and 15,226 acres of open land. These figures constitute a ratio of 57% to 43%, respectively, pointing out that when assessing the most pressing needs, open land is a secondary consideration, but when meeting general urban needs, open land receives considerably more attention. The urban planners reflected urban area needs in their responses, and, insofar as these corroborating data are available regarding open land, and again assuming the previously determined 70% to 30% ratio to be reasonable, it appears that the statewide cumulative urban land requirements might necessarily be incremented by at least an additional 30% to provide

minimal open land to complement the required facilities. This means that, given the statewide urban land requirement for the year 2000 is estimated at 188,384 acres, another 80,736 acres may be needed for open land, bringing the potential statewide total urban land requirement to 269,120 acres. Many urban parks in the state are not developed to the 70% level and some of these parks could be further developed, although limitations in topography, soils, user preferences, etc., often prevent further development of others.

In providing the required land area, particular emphasis should be accorded each urban area, or portion of an urban area, which currently lacks opportunities. Areas which are growing or those which are expected to grow most rapidly, need additional attention. On this point, responding planners in the Urban Planner's Survey expressed their opinions with regard to whether subdivision developers should set aside park or open space areas

in developments. The response was overwhelmingly in favor of providing either parks or open space in developments—86% of the respondents said yes, while 8% said no, and 6% did not respond to the question. Since action of this type might benefit all concerned, it appears to be a partial solution particularly in high cost areas where the public sector suppliers cannot afford to provide recreational opportunities.

METROPOLITAN AREAS LAND REQUIREMENTS

Table 2.1 in Chapter 2 indicated that there were 31,381 developed land acres available for urban recreation in metropolitan areas in 1971. Table 4.2 shows that in 1970 the 24 metropolitan areas in the State required an additional 22,833 developed acres over the 1971 recreational supply. This metro requirement represents 86% of the 1970 total land requirement shown for the three major city sizes. Between 1970 and 1975 the metros requirement increased 13,542 acres, bringing the cumulative 1975

	NO. ACTUAL RESPONSES	NO. POTENTIAL RESPONSES	DEVELOPED LAND NEEDS	OPEN SPACE NEEDS	TOTAL
METROS PLANNERS	22	24	12,720 acres ^a	7,865 acres ^a	20,585 acres ^a
CITIES PLANNERS	34	61	3,305 acres	2,697 acres	6,002 acres
TOWNS PLANNERS	86	209	4,523 acres	4,664 acres	9,187 acres
TOTAL	142	295	20,548 acres	15,226 acres	35,774 acres

Source: Texas Outdoor Recreation Urban Planners Survey (completed February, 1972).

a. Includes land area needs responses from contiguous urban areas.

requirement to 36,375 acres. The metro areas in Texas have been projected to grow substantially in population and size during the last quarter of the century, contributing to an accelerating requirement for additional recreation opportunities. Total cumulative metro land requirements by 1980 increased to 53,902 acres, or 172% over the 1971 supply. Another large increase from 1980 to 1990 brings the 1990 cumulative requirement to 102,115 acres, and a requirement increase of 62,083 acres between 1990 and the year 2000 generates a total of 164,198 additional acres of developed land needed in the metropolitan areas above the 1971 supply. Requirements for each projection year represent general quantitative estimates and do not account for a lack of opportunities in growth areas or for inadequate dispersion of recreational land areas among different socio-economic subsections within the metro areas.

The metropolitan area land requirements dominate the total urban area needs in every projection year. The facility types which ranked in the top five for statewide developed land resource requirements are the same for metros, with the metro percentages generally comparable to statewide proportions for all activities. Golf facilities required almost two-thirds of the total metro land needed; combined trails requirements vary from 21% to 23% of the metro total; football/soccer fields generally varied from about 6% down to 2% over all projection years—ranking third in most land needed from 1970 through 1990, and dropping to fifth in the year 2000; tennis ranked fifth in 1970 with 2.2% and rose to fourth with about 2.4% of the total in each remaining projection year. Land requirements for picnicking accounted for slightly over 2% in 1970, 2.3% in 1975, 2% in 1980, and was surpassed in 1990 as the fifth ranked activity by child's play (playgrounds). Child's play in the year 2000 became much more prominent in the overall needs ranking, increasing to third overall with about 3% of the metro requirement. Developed land requirements for each of the 24

metropolitan areas may be found in Appendix D. An overview of the most prominent recreational land needs of the State's cities follows.

CITIES LAND REQUIREMENTS

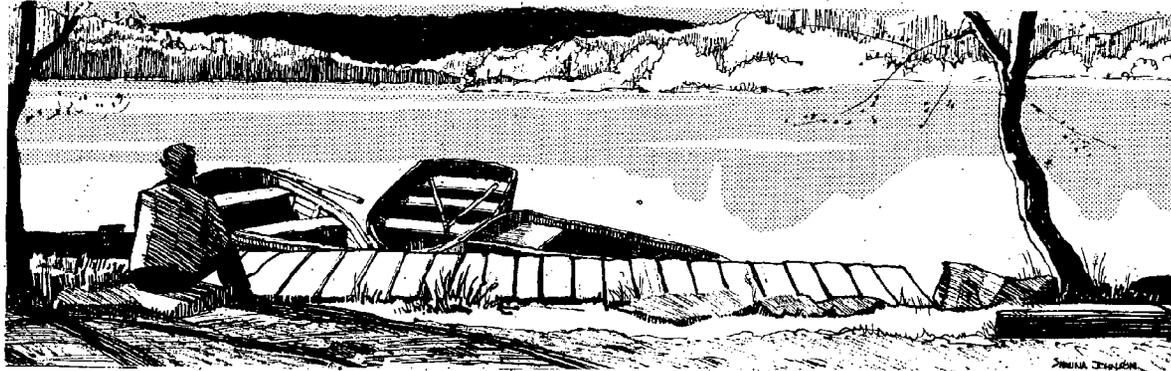
The 1970 U.S. Census indicated 61 urban areas in Texas with populations ranging from 10,000 to 49,999 persons. The publicly administered parks in those cities comprised a developed land total of 7,059 acres. As indicated in Table 4.2, these cities required an estimated additional 1,902 acres in 1970 above the developed land supply reported in 1971. These additional areas represented 7% of the urban total required for the three major city sizes. The 1975 incremental requirement increased the cumulative 1975 requirement to 2,847 acres. Although the individual cities varied considerably in estimated population trends, many are expecting high rates of growth and only a few anticipated significant declines through the year 2000. Overall, the cities' populations in 2000 are projected to more than double in 1970 cities' populations. These expectations emphasize the need to insure adequate developed recreational resources, the requirements for which are projected to expand 59% over 1971 supply by 1980 (to 4,183 acres), 109% by 1990 (to 7,718 acres), and 192% by the year 2000 (to 13,536 acres).

The cities land requirements were particularly sensitive to variations in the different facility requirements over the thirty-year projection period. The 1970 and 1975 land requirements were needed primarily to support additional golf course holes, combined trails, football/soccer fields, picnic tables, and freshwater boat ramps. Combined, these facilities accounted for 97% of the total 1970 cities land requirements and 98% for 1975. The 1980 land requirements were most influenced by the same top four activities, but swimming pool requirements became the fifth most prominent by one acre more than freshwater boat ramps. In 1990, picnicking and

football/soccer fields reversed third and fourth positions, showing a marked increase in the need for additional picnic tables. The ranking five activities in the year 2000 for cities generated a total requirement of 13,270 acres, 98% of the statewide cities total. Football/soccer field requirements decreased to sixth, swimming area needs moved up to fourth, and baseball/softball field requirements became fifth. These quantitative estimates reflect the needs of all cities aggregated on an analytical planning region basis and do not account for deficits among cities within each region, i.e., where one or a few cities in a given analytical region may have concentrations of resources and others may have none. Developed land requirements are presented for cities by planning region in Appendix D. An overview of recreational land requirements for Texas towns follows.

TOWNS LAND REQUIREMENTS

The publicly administered parks reported in Towns in 1971 comprised a total of 5,181 developed land acres. Table 4.2 presents towns land requirements data for the 209 urban areas in Texas with 1970 populations numbering from 2,500 to 9,999 persons. The towns requirements in 1970 closely paralleled the cities requirements with 1,980 acres needed above the reported 1971 supply. Of the total land requirements for the three major city sizes in 1970, the towns portion represented over 7%, slightly larger than the cities requirement. By 1975, an additional 806 developed acres were estimated to be required. Estimates of the towns populations vary considerably over the 1970-2000 time period, but these populations combined are projected to increase 48% over the 1970 population. This added pressure, among other factors, will bring about further cumulative towns requirements of 3,742 developed acres by 1980 (an increase of 72% over the 1971 supply), 6,513 acres by 1990 (a 126% increase over 1971 supply), and 10,650 acres by the year 2000 (a 206% increase over the 1971 supply).



In general, requirements for seven types of facilities comprised 99% of the towns land requirements in all projection years. For 1970, 1975, and 1980 the golf facilities, combined trails, football/soccer fields, picnic tables, and freshwater boat ramp requirements accounted for the major portion of the total, with swimming pool and baseball/softball field requirements rounding out the 99%. The quantitative estimates of the towns developed land requirements reflect the needs of all towns aggregated by analytical planning region and do not account for deficits among the towns of any given analytical region, i.e., where one or a few towns in a region may have concentrations of resources and others may have none. Developed land requirements for towns by planning region are presented in Appendix D.

FRESHWATER REQUIREMENTS

A wide variety of water resources may be found in Texas' urban areas, but the quantities and quality of water available for recreational purposes vary considerably among the urban areas. Some areas with resources of suitable quality to support the activities of boating, skiing, and boat fishing do not have an adequate quantity to meet the recreational needs of their residents. Some urban areas have no recreational water resources of any type, and, as a result, their residents must travel, in some cases, considerable distance to have water-related recreational experiences.

A number of factors were incorporated in the analysis of urban freshwater surface acre requirements, some of which are important in gaining a useful perspective on the discussions in this section. One factor which was emphasized was that to be useable for public recreation purposes, water resources must be physically and legally accessible to the public and must be suitable—in terms of surface area, depth, and absence of physical hazards—for recreationists to use them safely. Freshwater supply figures were adjusted as considered appropriate for the activities boating, boat fishing, and skiing, and the demand data used to estimate surface acres requirements reflect only combined participation for these three activities. Concerning availability, it was assumed that all freshwater lake surface acreage reported within the urban areas was available for the activities of boating, boat fishing and skiing. This assumption was made due to the limited data available concerning the availability of lakes for participation in the water-related activities. Exceptions to this assumption are caused by restrictions limiting participation, such as the lake serving as a municipal water supply or the lake not being accessible for use due to lack of boat launching facilities or roads. Concerning suitability, adjustments were made which took into account those portions of freshwater lakes that would not permit boating, boat fishing, and skiing. Water may be unsuitable to support these activities for reasons such as: the size of the lake was too small to accommodate participation in an activity such as

water skiing, portions of the lake near the bank were too shallow to support these activities, there was too much debris to allow water skiing or boating, or the lake was too open to provide a high use intensity of quality fishing. Surface acre resource requirements were first computed assuming all acreage was suitable to support the three water-related activities. These figures were then expanded using a statewide suitability adjustment factor for all types of urban areas, so that the resource requirements printed in the tables are figures which have been adjusted to compensate for portions of the lakes that would be unsuitable to support the activities. Although freshwater requirements discussed in this chapter refer to the water-related activities of freshwater boating boat fishing, and skiing, another activity, swimming, also requires consideration. Additional swimming needs could be partially met by designating swimming areas at existing freshwater resources and by designating specific areas intended for swimming when planning for new freshwater resources. Another factor in computing freshwater surface acre requirements was that all boating, skiing, and boat fishing were assumed to take place on a lake or reservoir, either public or private. Rivers and streams were not considered because of the problems involved in trying to quantify the opportunity days provided by them. However, it is recognized that river or stream participation could be substituted for lake participation, depending upon the preferences of local residents, the adequacy and quality of streams

for recreation, etc. Another factor considered in the urban analysis was that in developing surface acres of freshwater in urban areas, consideration should be given to the proximity of recreational water located in rural areas. In some planning regions the supply of freshwater lakes in the rural areas provides a surplus of opportunity days. If these are located in close proximity to urban areas, rural lakes might be used to meet some of the demands for urban recreational water. It should be recognized that the development of freshwater lakes within many urban areas is not feasible. This is due to many factors, some of the most limiting are the high cost of urban lands needed for lake construction, climatic conditions (extremely high evaporation rates and low annual rainfall rates), and poor soil conditions (soil too permeable to retain water).

The multi-faceted problem of providing adequate urban water-based recreational opportunities is compounded by a variety of other factors, not the least of which are physical and legal inaccessibility of existing resources. The construction of new water impoundments requires long lead-times to determine the administering agency, or agencies, to coordinate, plan, and gain approval from all appropriate entities, and to secure requisite funding. When new water impoundments are developed, much time elapses from initiation to construction. Broadly speaking decisions to build new reservoirs in urban areas are based on a variable number of water needs of each municipality, to include water needed for a municipal water supply, irrigation, hydroelectric power, and industrial uses. Conservation and flood control are other benefits which may be derived from constructing a new reservoir. Most often a combination of these uses and benefits is necessary to justify providing additional water resources. Where recreation planning efforts reveal requirements for freshwater for recreational purposes, this need adds further justification to the projects. Where all other municipal needs have been accommodated and recreational freshwater resources are still required,

even though water resources are available, the requirement may result from public inaccessibility or exclusion of public recreational use, rather than an inadequate amount of water in the urban area.

The following discussions summarize the need for additional freshwater resources to meet selected urban water-related recreational requirements. As in the previous sections data is presented for all city sizes combined, followed by a discussion of statewide data organized by the city-size categories of metros, cities, and towns, respectively.

STATEWIDE FRESHWATER REQUIREMENTS

There were 50,741 surface acres of freshwater reported within the urban areas in 1971. As the estimates in Table 4.4 indicate, the urban areas in 1970 required an additional 5,747 acres of freshwater surface area to support urban recreational needs for boating, skiing, and boat fishing. By 1975 that requirement is expected to grow by an additional

3,647 acres, bringing the cumulative 1975 requirements to 9,394 acres, an increase of 19% over the 1971 supply. By 1980 freshwater requirements will more than double the 1970 estimates. The additional 5,886 surface acres needed between 1975 and 1980 increment the total for the 1970-1980 decade to 15,280 surface acres, an increase over the 1971 supply of 30% for the ten-year span and 12% for the latter five years. Between 1980 and 1990 another doubling of the overall requirement is projected to occur, bringing the total requirement up another 15,325 surface acres to 30,605. Statewide, this figure appears very large, but considering the number of urban areas which need recreational water, the quantity effectively becomes attainable in many small segments. An additional 23,559 surface acres will be needed as an incremental requirement between 1990 and the year 2000. The cumulative requirement for the year 2000 of 54,164 surface acres represents a 107% increase over the 1971 supply. Discussions of statewide freshwater requirements for metros, cities, and towns follow.



TABLE 4.4

URBAN RECREATION FRESHWATER REQUIREMENTS FOR BOATING, BOAT FISHING, AND SKIING, 1970-2000, BY CITY SIZE, STATEWIDE TOTALS

NUMBER OF SURFACE ACRES REQUIRED

YEAR	METROS		CITIES		TOWNS		TOTAL URBAN AREAS	
	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL
1970	2,955	2,955	883	883	1,909	1,909	5,747	5,747
1975	5,357	2,402	1,453	570	2,584	675	9,394	3,647
1980	9,661	4,304	2,219	766	3,400	816	15,280	5,886
1990	20,902	11,241	4,366	2,147	5,337	1,937	30,605	15,325
2000	39,248	18,346	7,180	2,814	7,736	2,399	54,164	23,559

METROPOLITAN AREAS FRESHWATER REQUIREMENTS

Table 4.4 also presents cumulative and incremental surface acres of water required for metropolitan areas. The metro areas in 1971 had 45,755 surface acres of freshwater on a statewide basis, although 6 metros reportedly had no freshwater surface acreage. In 1970 the 24 metropolitan areas required an additional 2,955 surface acres above the existing supply of 45,755 surface acres. That requirement increased between 1970 and 1975 to a cumulative 1975 requirement of 5,357 surface acres. Incremental increases of 4,304, 11,241, and 18,346 surface acres increased the cumulative totals to 9,661 surface acres by 1980, to 20,902 surface acres by 1990, and to 39,248 surface acres by the year 2000, respectively. This represents an 86% increase by the year 2000 over the 1971 supply. The metropolitan areas were estimated to have the largest requirement of all city sizes for additional freshwater in each projection year.

CITIES FRESHWATER REQUIREMENTS

The cities, compared to the metropolitan areas and towns, had the lowest freshwater acreage requirements. In 1971 cities reportedly had a total of

2,332 surface acres although 11 of the 27 regions with cities reported that the cities of those regions had no freshwater lakes. Table 4.4 shows that the cities required an additional 883 surface acres in 1970. An incremental requirement of 570 surface acres over the next five years brought the 1975 cumulative estimate to 1,453 surface acres. From 1975 the cities requirements almost doubled by each of the remaining planning horizon years. By 1980 an additional 766 surface acres increased the cumulative requirement to 2,219 surface acres, a 95% increase over the 1971 supply. In the following ten years the cumulative requirement jumped to 4,366 surface acres. From 1990 to the year 2000 the cities are expected to need an additional 2,814 surface acres, bringing the cumulative total to 7,180 surface acres over the 1971 supply. While comprising a relatively small portion of the statewide requirement (13%) for the year 2000, these needs are substantial when considering the number of cities amounted to only 61 areas. This indicates that on the average 118 surface acres will be needed for each city. Since some cities are known to have sufficient resources through the year 2000, other cities must obviously have much larger needs than the average indicated. The towns in Texas needed freshwater in much the same increments as the cities. A general overview of the towns requirements is presented next.

TOWNS FRESHWATER REQUIREMENTS

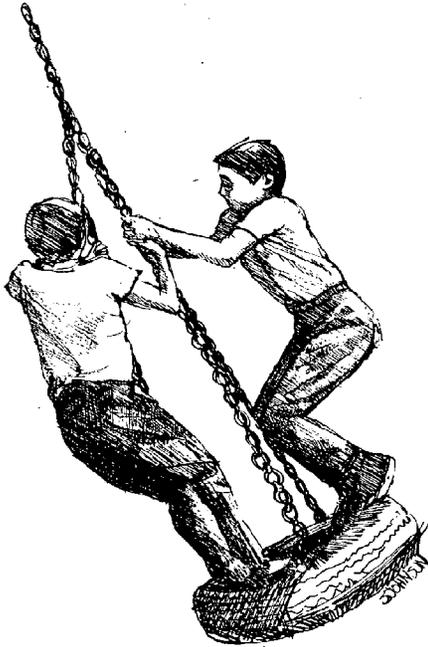
Texas towns in 1970 needed an additional 1,909 surface acres over the reported 1971 supply of 2,654 surface acres, as indicated in Table 4.4. There were no freshwater lakes reported for any of the towns in 17 regions. By 1975, the cumulative freshwater requirement total grew to 2,584 surface acres, representing 28% of the statewide urban requirement for 1975. Projections of freshwater requirements indicate that by 1980 the towns will require a cumulative total of 3,400 additional surface acres, and by 1990 that cumulative total will increase to 5,337 surface acres.

An average of 37 additional surface acres will be required per town by the year 2000. Not all towns will need additional water resources, thus the cumulative total for water resources for the year 2000—7,736 surface acres over the 1971 supply—emphasizes that the towns which need water will need considerably more than the average requirement would imply.

Recreational water requirements have been shown to increase in every year for each city size. Recreational facilities requirements were found to exhibit the same general trends. The next major section presents the estimated requirements for recreational facilities.

RECREATIONAL FACILITY REQUIREMENTS

A previous section of this chapter presented recreational developed land requirements based on the space necessary to provide the facilities discussed below. Over 90% of the statewide developed land requirement delineated earlier for the years 1970 through 200 arises from the need for three major types of recreational facilities—golf courses (10 acres per hole required), combined walking, bicycling, and nature study trails (8 acres of area for each mile of trail required), and football/soccer fields (3.8 acres for each field required). As indicated in Table 4.1, those three facility types dominate the urban statewide developed land requirement estimates. However, this does not necessarily imply that those activities are the most important in terms of meeting the needs of urban recreationists on a statewide basis. Requirements for square yards of swimming pools,



playground acres, baseball/softball fields, picnic tables, doubles tennis courts, full basketball courts, freshwater two-lane boat ramps, and saltwater two-lane boat ramps are also important because of the opportunities they provide. Therefore, no assumption of relative importance among the different selected facility types could be considered valid if the amount of developed land required were the only criterion for comparison. Also important is the amount of demand each unit of a given facility is capable of satisfying. On this basis, completely different rankings of requirements are apparent. Thus, in terms of satisfying urban demand, it is important that the required facilities are provided on either existing undeveloped land or acquired lands as appropriate to each local situation. To produce an adequate dispersion of facilities among different socio-economic subsections within the urban areas and among different urban areas, facility requirements may be higher, in some cases, than the requirement estimates presented in this section specify.

Facility needs established by resource requirements do not imply that all of these facilities should be provided by local parks and recreation departments. Recreation resources are also supplied by other entities, such as governmental agencies, private concerns and school systems. A wide range of facilities, from tot lots, baseball/softball fields, tennis and basketball courts, to huge stadiums housing football and track fields, have been constructed by school systems ranging in levels from pre-elementary through university. While some schools permit public use of these facilities during non-school hours and on weekends and holidays, many remain closed to the general public. The quantities of these facilities are substantial in number and could satisfy some of the resource requirements if made available to the public. Facilities provided by private or quasi-public concerns are also varied and, in some cases, extensive. Included are facilities such as golf courses, baseball/softball fields, tennis courts, and swimming pools. For more information on the roles of the public and private sector in outdoor recreation in Texas the reader is referred to the **State Summary** and the **Roles of the Public and Private Sectors** volume of the TORP.

A number of considerations were taken into account in estimating urban recreational facilities requirements. An understanding of these considerations is pertinent to a more complete interpretation of the requirements presented. Points most appropriate to the interpretation of the requirements are listed below.

- Resource requirements were not computed for the activities of surfing, sightseeing, and driving for pleasure because of the difficulties involved in quantifying the facilities which satisfy the demand for these activities.
- In a few instances, participation occurring in the urban areas of a region for some activities may decline from one year to the next. Where this occurred, the resource requirements for that activity were left at the previous highest level, to avoid appearing to advocate what would amount to removing facilities to meet a lessened demand.
- Designated freshwater and saltwater swimming areas may be substituted for swimming pool resource requirements. However, in so doing, total swimming participation should be considered. Swimming facility requirements were adjusted to reflect only deficit opportunities for swimming pools. Further, substitutions should be made only if it is certain that swimmers would be satisfied with the substitution.
- A criterion of two lanes per boat ramp was adopted for the purposes of this volume, since it was found that, statewide, the average amounted to approximately two lanes per ramp. The term "ramp," as opposed to "lane," is the more commonly used term when referring to the means to launch boats.
- If the proper dispersion of freshwater lakes and boat ramp facilities are to be obtained in those regions having more than one urban area, the resource requirements estimates for boat ramps may have to be exceeded. For example, the

- boat ramp resource requirements may show that only one ramp is needed through the year 2000. If the region has several widely dispersed urban areas, obviously, one ramp would not provide reasonable access. Planning should insure that each separate lake has boat ramp access provided.
- In the computation of resource requirements for boat ramps, participation totals for boating, water skiing, and boat fishing were adjusted downward to consider only the estimated proportion of participation wherein a boat ramp was used. Many recreationists using boats leave their boats in the water until the next time they are used, or may not use a ramp at all. The factor used to adjust participation downward was based on data on the use of boating facilities from the 1968 Household Demand Survey.
- In calculating resource requirements for the different types of trails, participation data were adjusted downward in order to consider only trails participation taking place at public recreation areas. While this is a different treatment than that of other types of facilities, it was necessary because it was found that a substantial amount of participation in these activities takes place at other than designated recreation places, such as streets and sidewalks. For walking, bicycling, and nature study, it was determined from 1968 Household Demand Survey data that 10.5%, 4.0%, and 20.1% of participation in the three activities, respectively, occurs at parks and recreation areas.
- The sum of the individual resource requirements for the different types of trails may not agree exactly with the combined total due to rounding. Here, the combined resource requirement was broken into resource requirements for the individual types of trails on the basis of participation because the trails standard combines the activities of walking (hiking), bicycling, and nature study.

- In computing resource requirements for trails, horseback riding trails were included in the supply figures to compute opportunity days only if the trails were designed for multiple use. Trails designated for horseback riding only were not included.

An overview of the selected statewide facility requirements is presented first in this section, then a closer appraisal is made of the facility requirements by city size.

STATEWIDE FACILITY REQUIREMENTS

The most prominent facility unit requirements in 1970 (shown in Table 4.5) were found to be square yards of swimming pools, tennis courts, picnic tables, number of golf course holes, miles of combined trails, and football/soccer fields. As indicated in Table 2.7 in Chapter 2, there were 281,520 square yards of swimming pools, 1,309 tennis courts, 12,830 picnic tables, 1,604 golf course holes, 216 miles of combined trails, and 287 football/soccer fields reported to be available to the general public in 1971.

Based on tabulation of urban planners' responses in the Texas Outdoor Recreation Urban Planner's Survey, playgrounds (3,109 acres available in 1971), picnic tables, baseball/softball fields (1,862 available in 1971), tennis courts, and swimming pools were the facilities most often mentioned as being needed in the different socio-economic subsections of the urban areas. The responses were similar for all city sizes, i.e., the same five facility types were mentioned most often by planners from metros, cities, and towns. In the interest of providing a better distribution, estimates of facility requirements for these five facilities and others as well, may be somewhat conservative as specified in this section.

By 1975 the TORP estimates of swimming pool requirements increased almost two fold from 231,579 square yards needed in 1970 to 412,088 square yards. Cumulative playground requirements increased from 100 acres in 1970 to 270 acres in 1975. An additional 861 picnic tables brought the 1975 cumulative picnicking requirements to 3,721 tables. Large

projected increases in tennis popularity in the five-year period between 1970 and 1975 added an incremental requirement of 3,364 courts, raising the cumulative tennis total requirement to 7,184 courts. Other significant requirement increases were noted for golf course holes (an additional 977 holes needed), combined trails (487 additional miles), basketball courts (249 additional courts over the 609 available in 1971), and freshwater boat ramps (an additional 87 two-lane ramps required over the 96 lanes available in 1971). The cumulative 1980 requirements for six activities were substantially more than their 1971 level of supply-tennis court needs increased by 797% over 1971, golf needs by 370%, swimming pool needs by 235%, basketball court needs by 138%, playground needs by 25%, and baseball/softball field requirements increased 9% over 1971 supply.

Statewide cumulative requirements for 1990 showed estimates for the ten-year span for most activities had grown by at least 50% over the 1980 estimates, and for some activities over 100%. Those facilities for which requirement increases over their respective 1971 supply level were most prominent were combined trails, tennis courts, freshwater boat ramps, golf course holes, swimming pools, basketball courts, playgrounds, and baseball/softball fields.

Over the entire thirty-year span from 1970 to the year 2000, recreational facility requirements were projected to increase for all selected activities in all projection years. Increases in the popularity of certain activities, the general increases in the urban population statewide, expected changes in socio-economic characteristics of the population, and many other factors contribute to the need for additional recreational facilities in the urban areas of Texas. By the year 2000, combined trails, tennis courts, freshwater boat ramps, and golf course holes requirements indicated large increases of 2,499%, 2,283%, 1,867%, and 1,157% over 1971 supply, respectively. The swimming pools requirement grew an incremental 1,204, 192 square yards from 1990 to the year 2000 for a cumulative additional need of 2,662,662 square yards over 1971 supply; basketball court requirements increased to 3,365 courts,

TABLE 4.5

**URBAN RECREATION FACILITY UNIT REQUIREMENTS FOR SELECTED ACTIVITIES
1970-2000, BY CITY SIZE, STATEWIDE TOTALS**

ACTIVITY	FACILITY UNIT OF MEASURE	YEAR	NUMBER OF FACILITY UNITS REQUIRED							
			METROS		CITIES		TOWNS		TOTAL URBAN AREAS	
			CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL
Swimming (Pools)	Square Yard	1970	209,786	209,786	9,128	9,128	12,665	12,665	231,579	231,579
		1975	371,554	161,768	17,733	8,605	22,801	10,136	412,088	180,509
		1980	589,457	217,903	32,001	14,268	38,712	15,911	660,170	248,082
		1990	1,288,325	698,868	74,475	42,747	95,670	56,958	1,458,470	798,300
		2000	2,307,299	1,018,974	164,153	89,678	191,210	95,540	2,662,662	1,204,192
Child's Play (Playgrounds)	Acre	1970	98	98	0	0	2	2	100	100
		1975	267	169	0	0	3	1	270	170
		1980	781	514	1	1	3	0	785	515
		1990	2,342	1,561	4	3	4	1	2,350	1,565
		2000	4,535	2,193	9	5	8	4	4,552	2,202
Baseball/ Softball	Field	1970	67	67	4	4	5	5	76	76
		1975	100	33	8	4	9	4	117	41
		1980	137	37	13	5	16	7	166	988
		1990	264	127	31	18	38	22	333	167
		2000	578	314	66	35	81	43	725	392
Picnicking	Table	1970	2,565	2,565	108	108	187	187	2,860	2,860
		1975	3,269	704	204	96	248	61	3,721	861
		1980	4,067	798	312	108	330	82	4,709	988
		1990	6,112	2,045	604	292	552	222	7,268	2,559
		2000	8,237	2,125	955	351	816	264	10,008	2,740
Football/ Soccer	Field	1970	378	378	23	23	54	54	455	455
		1975	443	65	26	3	59	5	528	73
		1980	514	71	28	2	68	9	610	82
		1990	666	152	39	11	80	12	785	175
		2000	801	135	47	8	96	16	944	159
Golf	Hole	1970	1,468	1,468	120	120	112	112	1,700	1,700
		1975	2,345	877	172	52	160	48	2,677	977
		1980	3,468	1,123	248	76	219	59	3,935	1,258
		1990	6,654	3,186	477	229	392	173	7,523	3,588
		2000	10,799	4,145	867	390	643	251	12,309	4,786
Tennis	Court (doubles)	1970	3,803	3,803	16	16	1	1	3,820	3,820
		1975	7,131	3,328	43	27	10	9	7,184	3,364
		1980	10,321	3,190	87	44	22	12	10,430	3,246
		1990	18,412	8,091	226	139	64	42	18,702	8,272
		2000	29,267	10,855	463	237	155	91	29,885	11,183
Basketball	Court (full)	1970	154	154	4	4	13	13	171	171
		1975	366	212	22	18	32	19	420	249
		1980	727	361	63	41	50	18	840	420
		1990	1,672	945	170	107	98	48	1,940	1,100
		2000	2,879	1,207	327	157	159	61	3,365	1,425

TABLE 4.5 (Continued)

ACTIVITY	FACILITY UNIT OF MEASURE	YEAR	NUMBER OF FACILITY UNITS REQUIRED							
			METROS		CITIES		TOWNS		TOTAL URBAN AREAS	
			CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL	CUMULATIVE	INCREMENTAL
Freshwater Boating, Fishing, and Skiing	Ramp (2.0 lanes/ramp)	1970	89	89	14	14	25	25	128	128
		1975	157	68	23	9	35	10	215	87
		1980	242	85	34	11	44	9	320	105
		1990	452	210	61	27	68	24	581	261
		2000	710	258	94	33	92	24	896	315
Saltwater Boating, Fishing, and Skiing	Ramp (2.0 lanes/ramp)	1970	44	44	7	7	24	24	75	75
		1975	51	7	10	3	26	2	87	12
		1980	56	5	10	0	29	3	95	8
		1990	66	10	12	2	31	2	109	14
		2000	77	11	16	4	35	4	128	19
Walking	Mile of Trail	1970	406	406	46	46	43	43	495	495
		1975	610	204	72	26	63	20	745	250
		1980	885	275	102	30	82	19	1,069	324
		1990	1,550	665	168	66	127	45	1,845	776
		2000	2,313	763	247	79	216	89	2,776	931
Bicycling	Mile of Trail	1970	165	165	20	20	19	19	204	204
		1975	320	155	36	16	29	10	385	181
		1980	512	192	64	28	40	11	616	231
		1990	1,022	510	110	46	83	43	1,215	599
		2000	1,653	631	203	93	132	49	1,988	773
Nature Study	Mile of Trail	1970	31	31	1	1	2	2	34	34
		1975	85	54	2	1	3	1	90	56
		1980	158	73	4	2	4	1	166	76
		1990	345	187	10	6	10	6	365	199
		2000	593	248	21	11	20	10	634	269
Combined Walking, Bicycling, and Nature Study	Mile of Trail	1970	602	602	67	67	64	64	733	733
		1975	1,015	413	110	43	95	31	1,220	487
		1980	1,555	540	170	60	126	31	1,851	631
		1990	2,917	1,362	288	118	220	94	3,425	1,574
		2000	4,559	1,642	241	183	368	148	5,398	1,973

statewide; the year 2000 playground needs totaled 4,552 playground acres, 146% over the 1971 supply; and, a required increase of 392 baseball/softball fields in the final plan horizon period raised that thirty-year total to 725 fields.

Increases of these magnitudes imply very significant changes in the overall needs for all types of recreational facilities. Although the remaining facility types did not show increases in requirements as large as those mentioned above, all but one—saltwater boat ramps (13 lanes available in 1971)—at least doubled

the 1970 requirements. Since the facility requirements did vary by the different city sizes, the most prominent requirements of metropolitan areas, cities, and towns are discussed below.

METROPOLITAN AREAS FACILITY REQUIREMENTS

Table 4.5 also presents recreational facility requirements for the metropolitan areas by activity and by number of units required in each time period. A cursory examination reveals that for 1970 the

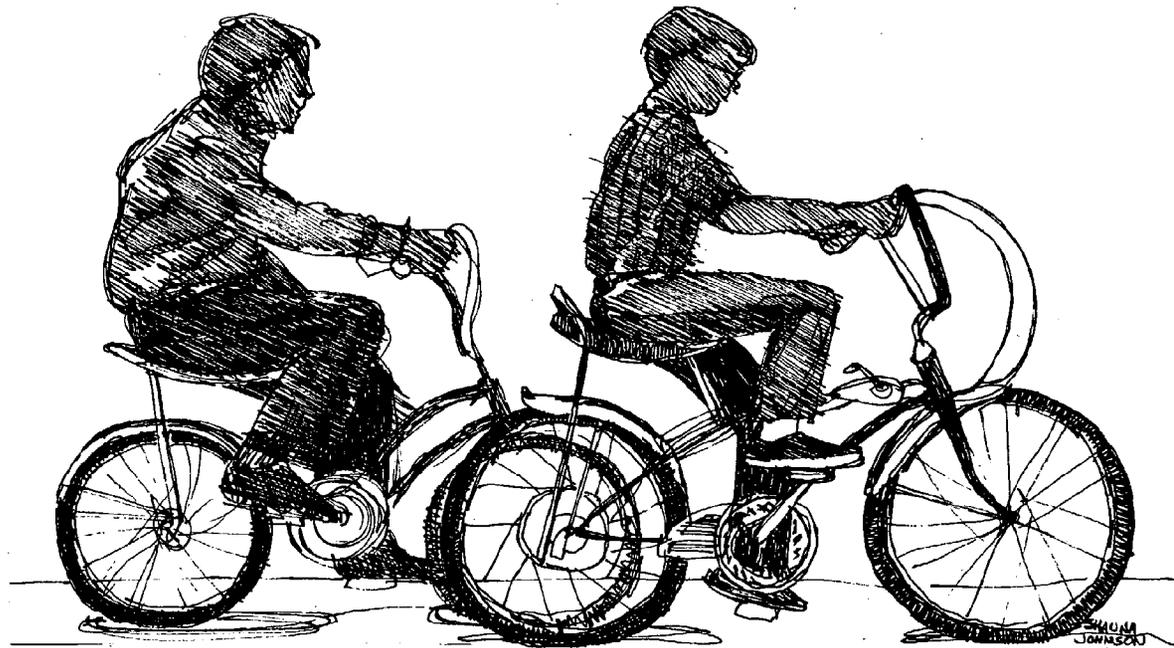
metros were most deficient in swimming pools, tennis courts, picnic tables, golf course holes, and miles of combined trails. By far the greater part—well over 50%—of the statewide requirement was the result of metro areas needs. This was true for all facility types in all projection years. All metro areas combined comprised 167,145 square yards of swimming pools, 918 tennis courts, 7,925 picnic tables, 659 golf course holes, and 140.5 miles of combined trails available to the public in 1971.

Metro areas planners in the Texas Outdoor Recreation Urban Planner's Survey mentioned

playgrounds (1,665 acres available in 1971), picnic tables, baseball/softball fields (1,203 fields available in 1971), tennis courts, and swimming pools most often when describing facility needs for different socio-economic subsections. Golf courses were also frequently mentioned. Facility requirements specified for those activities may be conservative when considering the needs of different socio-economic subsections in addition to the quantitative estimates of requirements. Prior to this point, only combined trails have been mentioned specifically when addressing estimated facility requirements for trails; however, as shown in Table 4.5 a significant percentage (over 67% in 1970) of the combined trails requirement reflects the need for walking trails. Responding to the question, "Should subdivision developers provide sidewalks in developments?", metro areas planners answered 88% affirmative and 12% negative.

Facility requirements for 1975 in general maintained relative numerical rankings for the most deficient types mentioned for 1970. Projected swimming pool requirements increased incrementally by 161,768 square yards to 371,554 additional square yards. Tennis court needs grew by an additional 3,328 courts, bringing the 1975 cumulative requirement to 7,131 courts. An additional 704 picnic tables brought that 1975 total to 3,269 tables. The additionally required 877 holes of golf raised the golf hole total to 2,345 holes in 1975. Combined trails were incremented by 413 miles to a cumulative total of 1,015 miles. Substantial requirement increases were also noted for playgrounds (up 16% over 1971) and basketball courts (up 80%).

The 1980 requirements ranked relatively the same for the five facility types previously shown to be most deficient in the number of facility units required. All five showed large incremental requirements. Additionally, playground requirements almost tripled to 781 acres and basketball court needs increased 159% over supply to a cumulative requirement of 727 additional courts in the five-year span. (There were 458 basketball courts available to metro residents in 1971).



During the ten-year period from 1980 to 1990, incremental requirements more than doubled the previous 1980 estimates for all activities. Additional golf hole requirements brought the cumulative total to 6,654 units required, larger than the cumulative picnic table total (6,112 tables), indicating that golf moved up one place in the top five ranking activities on the basis of facility units required. Otherwise, the top five ranking facility types remained in the same relative positions.

Metropolitan area requirements in the year 2000 are expected to be very large. The five activities indicating the largest numerical facility unit deficits are swimming, tennis, golf, picnicking, and combined trails activities, in that order. Requirement estimates for playground areas and basketball courts were also strongly apparent. All other activities—baseball/softball, football/soccer, and freshwater and saltwater boating, skiing and boat fishing—were projected at least to double the 1970 requirement. The following discussion presents an overview of the cities facility requirements.

CITIES FACILITY REQUIREMENTS

The five most prominent recreational facility requirements, in terms of units as presented in Table 4.5, in Texas cities in 1970 were for square yards of swimming pools (9,128 square yards), golf course holes (120 holes), picnic tables (108 tables), combined trails facilities (67 miles), and football/soccer fields (23 fields). According to Table 2.7 in Chapter 2, there were 57,426 square yards of swimming pools, 198 golf course holes, 2,757 picnic tables, 33.7 miles of combined trails, and 50 football/soccer fields available in cities in 1971. Planners from the cities responding to the Urban Planner's Survey, completed February 1972, mentioned picnic tables, playgrounds (786 acres available in 1971), baseball/softball fields (342 available in 1971), tennis courts (223 available in 1971), and swimming pools most when referring to the needs among the socio-economic subsections of the cities.

Over the five-year period from 1970 to 1975 TORP requirements for all facility types except playgrounds were projected to increase, with tennis courts replacing football fields as the fifth most numerically deficient facility type. The cities generally appeared to have sufficient playground areas throughout the thirty-year plan span from 1970 to the year 2000, having zero requirements in 1970 and 1975 and accumulating only very small incremental requirements in each horizon year after 1980 for a total of 9 acres statewide. Relatively small requirements were also noted for saltwater boat ramps (only 1 lane available in 1971), starting with a requirement for 7 two-lane ramps in 1970 and gaining increments of 3, 0, 2, and 4 two-lane ramps in the remaining projection years for a thirty-year total of sixteen additional two-lane ramps. Regarding those facility types indicating the largest numerical requirement in 1975; swimming pool requirements increased 31% over the 1971 supply to 17,733 square yards; the picnic table requirements increase 96 tables to a cumulative requirement total of 204 tables; 52 additional golf course holes brought the 1975 cumulative golf total to 172 holes; an incremental increase of 43 additional miles brought the combined trails total to 110 miles; and the requirements for the same period increased 575% over the 1971 supply, basketball court requirements increased 27%, tennis court requirements were up 19%, and the requirement for baseball/softball fields doubled from 4 to 8. Requirements for 1980 indicated similar percentage increments for most activities.

By 1990 facility requirements for the cities had in most instances doubled the 1970 requirements. The five facility types with the largest deficit numbers of units were the same as 1975—swimming pools, picnic tables, golf holes, combined trails, and tennis courts. The need for additional basketball courts became more prominent with an increase of 107 additional courts bringing that cumulative total up to 170 additional courts. An increase of 27 two-lane ramps raised the freshwater boat ramp requirement to 61.

In the remaining decade of the thirty-year period, the cities requirements are projected to increase by

comparatively large increments over the 1990 needs. In general the facility requirements remained in the same relative numerical ranking with much larger deficiencies noted for all activities except playgrounds and saltwater boat ramps. Within the combined trail requirements, the requirements for nature study trails remained fairly small throughout the thirty-year span. Bicycle trail requirements increased at the most accelerated pace, while the numerical requirements for walking trails were the largest. Cities' urban planners, answering the question "Should developers provide sidewalks in developments?", in the Texas Outdoor Recreation Urban Planner's Survey, 83% responded affirmative, 10% negative, and 7% did not respond. This indicates that the majority of the responding urban recreation planners from cities held the opinion that developers should provide sidewalks in subdivisions to enhance recreational benefits to be derived from pleasure walking. Requirements for the cities and the towns were very much the same in terms of the trend for general increases in requirements and the same activities influencing the overall requirements. An overview of the towns' requirements follows.

TOWNS FACILITY REQUIREMENTS

In 1970, the 209 towns in Texas needed additional facilities for each of the selected recreational activities. Some requirements (shown in Table 4.5) were more pronounced; i.e., for more swimming pools (12,665 square yards needed); picnic tables (187 required); golf course holes (112 needed); miles of combined walking, bicycling, and nature study trails (64 miles total); and football/soccer fields (54 required), than for playgrounds (only 2 acres required statewide), baseball/softball fields (total of 5 required), and tennis courts (only 1 needed). The survey of 1971 supply showed that 56,949 square yards of swimming pools, 2,148 picnic tables, 207 golf course holes, 41.8 miles of combined trails, 27 football/soccer fields, 658 acres of playgrounds, 317 baseball/softball fields, and 168 tennis courts were available to the public in the State's towns.

Towns planners responding to the Urban Planner's Survey, mentioned playgrounds, picnic tables,

baseball/softball fields, tennis courts, and swimming pools most often as needed among the socio-economic subsections of their towns.

By 1975 the towns situation altered only slightly with increases in requirements indicated for all of the selected activities. The most pronounced increases were for additional swimming pools, picnic tables, golf course holes, and miles of combined trails.

The 1980 requirements showed small increases for all facilities except playgrounds for which no increase was indicated. The second half of the decade was comparable to the first in that the most prominent, but similar, increments were for the same facility types as the 1975 requirements.





The succeeding ten-year period between 1980 and 1990 will be very significant insofar as the increasing facility requirements trend indicated a substantial acceleration for most selected activities. The additional 56,968 square yards of swimming pool requirements for the ten-year period more than doubled the previous cumulative requirement bringing that total to 95,670 additional square yards. Picnic table requirements were up 222 tables over 1980 to a new cumulative requirement of 552 additional tables. The need for additional golf course holes expanded by an increment of 173 holes, raising the cumulative total to 392 holes. Another 94 incremental miles of trail raised the 1990 cumulative total to 220 additional miles. The basketball court requirements exceeded the need for football/soccer fields over the ten-year period. Growing by 48 courts, the cumulative 98 court total was larger than the football field total by 18 units.

Between 1990 and the year 2000 the towns requirements are expected to continue to grow at an accelerated pace. The most numerous deficiencies repeated the 1990 pattern, with the largest cumulative requirements indicated for swimming pools (191,210 square yards or about 915 square yards per town), picnic tables (816 tables—an average of approximately 3.9 per town), golf course holes (643 holes), combined trails (368 miles), and basketball courts (159 courts). In addition, the tennis court, football/soccer field, freshwater boat ramp, and baseball/softball field requirements were all substantial.

Generally, the towns and cities requirements were similar both in numbers of facility units required for the selected activities and in percentages of the statewide total. The facility requirements previously discussed represent quantified needs by the time periods for those selected activities of statewide importance. In addition to those activities, there is a number of other activities which should be considered in providing additional urban outdoor recreational opportunities in Texas. Some of these activities are discussed in the following section.

SELECTED ADDITIONAL RECREATIONAL FACILITY REQUIREMENTS

This section presents information that may assist local planners in calculating resource requirements for the activities of sightseeing, driving for pleasure, archery, sport shooting, horseback riding, and visiting zoos and cultural centers and attending rodeos. The methodology used to compute resource requirements is presented in Appendix C. The discussions that follow group the activities having similar characteristics. Reasons for excluding resource requirements in this volume for these activities are peculiar to each set of activities as grouped, and, therefore, are presented in each discussion as appropriate.

STATEWIDE REQUIREMENTS FOR SIGHTSEEING AND DRIVING FOR PLEASURE

The selected facilities for which land, freshwater, and facility requirements have been calculated represent

major urban recreation activities having statewide significance in terms of participation. Sightseeing and driving for pleasure were excluded, however, even though statewide participation ranks high compared to other activities. Resource requirements for these two activities were not estimated because data available for the urban areas was inadequate to quantify resources needed, on a statewide basis, to support these activities. Although definite resource needs exist across the State for these two activities, meeting these needs depends on the availability of areas with suitable attraction and quality to satisfy the recreationist, and the physical and legal access to these areas. Physical access may be a simple matter of providing signs and other information directing recreationists through scenic areas on existing highway networks, a task of formidable proportions already substantially completed for rural sightseeing and pleasure driving with the development of the major Texas Travel Trails by the Texas Department of Highways and Public Transportation. In the urban areas, providing sightseeing and driving for pleasure needs may be aided by local efforts to identify, locate, and disseminate information regarding special points of scenic, architectural, geological, historical, and cultural interest. Roads, streets, or in-city highways which provide access to unusual or exceptional attractions should also be identified. Overall, it was determined that many aspects of planning for the provision of sightseeing and driving for pleasure opportunities should be undertaken at the local level where in-depth evaluations of the requirements for additional opportunities can be more accurately conducted.

STATEWIDE REQUIREMENTS FOR ARCHERY, SPORT SHOOTING, AND HORSEBACK RIDING

In addition to the development of recreation areas suitable for driving and sightseeing, there are a number of other outdoor recreation activities for which recreation opportunities should be made available in the urban areas. However, the decision to provide these facilities, as well as the quantities to be provided, should also be made on a local rather than a statewide basis. This is primarily because

TABLE 4.6

STATEWIDE ANNUAL AVERAGE PARTICIPATION DAYS BY URBAN RESIDENT HOUSEHOLDS IN ARCHERY, SPORT SHOOTING, HORSEBACK RIDING, 1975-1980, BY CITY SIZE

ACTIVITY	YEAR	PARTICIPATION DAYS PER YEAR PER HOUSEHOLD		
		METROS	CITIES	TOWNS
Archery	1970	.3	.03	--
	1975	.8	.1	--
	1980	1.4	.1	--
Sport Shooting	1970	.2	.1	--
	1975	.3	.2	--
	1980	.5	.3	--
Horseback Riding	1970	1.7	2.1	.9
	1975	2.4	5.3	2.2
	1980	3.1	8.5	3.4

Source: Estimates developed from data collected in the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate insufficient data to develop projections.

TABLE 4.7

GENERAL STANDARDS FOR ARCHERY, SPORT SHOOTING, HORSEBACK RIDING

FACILITY	OPPORTUNITY DAYS PROVIDED PER UNIT OF FACILITY
Archery Ranges	7,279 per acre
Sport Shooting (traps)	4,696 per acre
Horseback Riding	7,741 per mile

participation in the activities tends to vary considerably across the State, apparently caused by differences in availability of resources and the interests of recreationists within the various urban locales. The heterogeneous nature of the facilities indicates that planning, to be effective, should be conducted where recreational interests are strong enough to support the development of facilities. In Table 4.6, data are presented which provide a perspective regarding the average rates of participation by urban households by city size for archery ranges, sport shooting facilities (for trap/skeet), and horseback riding trails. Estimates of general standards for these activities are presented in Table 4.7.

The participation information may be used by local planners in conjunction with population estimates of local areas to determine potential demands for these activities. Then by comparing local supplies of facilities with the potential demands for these activities, facility requirements may be determined. In cases where a local entity has participation data that suggest higher levels of local interest (as opposed to the statewide rates shown in Table 4.6), then it may be used as a substitute for these statewide averages in determining local resource requirements.

STATEWIDE REQUIREMENTS FOR ZOOS, RODEO ARENAS, AND CULTURAL CENTERS

As was found to be the case with horseback riding, archery, and sport shooting, participation in the activities of visiting zoos, cultural centers, and attending rodeos varies significantly from region to region and within the three city-size categories. This variation was also attributed to the different interests in the activities throughout the State and the diversity of facilities available to support the activities.

These characteristics made the estimation of demand and resource requirements more suited to local planning. The more detailed calculations of participation and facilities, possible at local levels, should result in more accurate decisions as to whether

TABLE 4.8

STATEWIDE ANNUAL AVERAGE PARTICIPATION DAYS
BY URBAN RESIDENT HOUSEHOLDS IN VISITING
ZOOS AND CULTURAL CENTERS, ATTENDING RODEOS, 1970, 1975, 1980, BY CITY SIZE

ACTIVITY	YEAR	PARTICIPATION DAYS PER YEAR PER HOUSEHOLD		
		METROS	CITIES	TOWNS
Visiting Zoos	1970	2.5	.6	.6
	1975	2.8	1.0	.6
	1980	3.2	1.4	.5
Visiting Cultural Centers	1970	.1	--	.3
	1975	--	--	.7
	1980	--	--	1.1
Attending Rodeos	1970	.2	.2	.1
	1975	.3	.2	--
	1980	.4	.3	--

Source: Estimates developed from data collected in the 1968 Texas Outdoor Recreation Household Demand Survey.

Note: Dashes indicate insufficient data to develop projections.

or not facilities should be provided, and in what quantities. To assist in such evaluations, Table 4.8 provides statewide projections of average resident household rates of participation by city-size category for 1970, 1975, and 1980. These figures may be used in conjunction with population estimates of local areas to determine potential demands for these activities. Planners should also estimate non-resident demand and determine its impact on the projected facility requirements. While the diverse characteristics of the facilities supporting these activities prevented the development of urban facility standards, local planners may develop these standards for the specific type of facility they are evaluating for development.

To this point, the primary emphasis of this volume has been on urban places with 1970 populations of greater than 2,500 persons. However, there were estimated to be 985 small communities in Texas with populations ranging from 201 to 2,499 persons in 1968. The residents of, and visitors to, these

communities should also have the opportunity to pursue recreational activities. A general discussion of the recreational opportunities that should be available within Texas' small communities is presented in the following section.

SUGGESTED RECREATIONAL RESOURCE REQUIREMENTS FOR SMALL COMMUNITIES

Every community, regardless of size, should have certain basic park and recreation facilities. Needs must be recognized and deficits eliminated by planning and developing the facilities necessary to adequately serve the community's population. Small communities are treated in the TORP as a separate category of urban areas for many reasons, the primary of which is that the recreational patterns of people residing in most small communities were found to be of a magnitude that normally would not require a whole unit of a recreational facility for some activities, if computed using the same TORP

methodologies utilized to compute requirements for metropolitan areas, cities, and towns on a regional basis. Inclusion of small communities in the regional analyses would have shown that the majority of these communities would not require any recreational facilities, a situation not actually the case.

The reader should be aware of the following facts while assessing this section.

- Small communities are defined as those urban areas in the State whose populations are from 201-2,499 persons. The lower limit of 201 persons represents the minimum population an area can have to incorporate and form a municipal corporation, by State law. Once a community incorporates, a legal political subdivision of the State is formed, making the community eligible to participate in various federal and state programs, adopt ordinances, and other such matters.
- Obviously, the contrasts between communities of 201 persons and 2,499 persons can be considerable. Thus a community of 201 may not require the same amounts of recreational resources as the larger communities.
- The general methodology used throughout the TORP to calculate resource requirements was also implemented in this section, excluding considerations for existing opportunities (supply levels); however, the suggested facility levels were rounded to the next higher facility unit in several cases (i.e., land and water areas, and golf course holes), increased in other cases to reach reasonable construction units (i.e., for swimming pools), and combined in the case of games and sports (i.e., football/soccer, tennis/basketball, baseball/softball), and for various types of trails. These adjustments were necessary to provide suggested resource requirements that are feasible for the small communities to implement.
- Local demand should be analyzed carefully in conjunction with the local financial situation in

each community. Facilities developed should be economical, easily maintained, and durable to ensure that the community's fiscal resources for recreation are expended optimally.

- Major questions small communities should ask themselves in determining their facility needs are: What do we have? What help is available? What is our responsibility to the region? Are we meeting our responsibility as one of several entities who provide outdoor recreation opportunities?
- Schools in many small communities have certain types of recreation resources. By arranging for public use when school programs do not conflict, substantial savings might result. School-park cooperatives often can be established to the mutual benefit of the different administrations, and for the recreational benefit of the entire community.
- Urban areas larger than 2,500 in population may assume the requirements suggested in this section for small communities to be general guidelines for the amounts of facilities that should be available if justified by local demands. Local recreation interests and/or participation rates analyses may indicate that larger quantities of resources are more appropriate.

The suggested resource requirements discussed below indicate projected requirements for the year 1980. These requirements are based upon an analysis of statewide average participation rates for a small community with a population of 2,500. Small communities vary in many ways—in size, location, available resources, economic situation, population, and in the age composition of the citizenry. Each community must therefore analyze its particular situation and determine the types of recreation facilities required, based at least partially on whether the community is young and fast-growing, consists of a large proportion of older citizens, or possibly has a declining population. Committees of interested

citizens should be organized in each community to analyze the local resource needs and to provide positive direction in local planning efforts.

In presenting a general overview of the small communities recreational resource situation, the first part of this section summarizes the recreation opportunities and then addresses the major questions, mentioned above, that each community should consider in assessing how to provide adequate recreational opportunities for local residents and visitors. The next part of the section discusses general land and water requirements and the final part focuses on selected facility requirements.

RECREATION OPPORTUNITIES IN SMALL TEXAS COMMUNITIES

In 1969, the Texas Outdoor Recreation Inventory of Parks, Recreation Areas, and Recreation Facilities indicated that 122 of the 985 small communities in Texas had some type of publicly-administered parks and recreation areas in the 122 small communities (statewide total population in those small communities was 169,669), an average of 1.2 parks per community. These parks totalled 2,562 acres for an average per park of 17.2 acres. Slightly more than half of the land (55%) was developed with facilities. A total of 25,425 surface acres of water was reported within or adjacent to public parks. Since most of the water was located in only one small community, an average for the 122 small communities would not be representative.

On the surface, the resource situation of these small communities appeared to be good. However, the majority of the recreation areas and facilities available were located in only a very few of the 122 small communities. Facilities, for example, were distributed among the 149 existing parks as follows: Seventy-one parks had games and sports facilities, 33 had tennis courts, 11 had basketball courts, and 1 park had a football/soccer field. There were 80 baseball/softball fields. Six parks had golf facilities. Picnic tables generally had the widest distribution of all facilities, occurring in 85 parks and averaging four single units and two group units per park with picnicking

facilities. Playgrounds were found in 77 parks. A total of 38 parks, or 25.5% of all parks, had some form of swimming facilities, either pools, designated freshwater swimming areas, or designated saltwater swimming areas. Three parks had boat ramps with a total of 14 boat lanes. There were 6 recreation centers, no trails, sport shooting facilities, archery ranges, or zoos.

This general perspective for recreation resources in small communities indicates that many of them are lacking public recreational facilities. To permit better assessments at local levels, and correct where desirable and necessary, the following material presents suggested guidelines for the provision of recreational land, water, and facilities for an average community of 2,500 people.

RECREATIONAL LAND AND FRESHWATER REQUIREMENTS FOR SMALL COMMUNITIES

Generally this suggested that communities of 2,500 population set aside 25 acres as park and recreation areas. This 25 acres should possibly consist of both open land areas and areas developed with facilities. Open park land adjacent to or combined with park facilities is desirable for providing a measure of aesthetic quality to the park and recreation areas. In addition, a community of 2,500 should also consider utilizing any water resource nearby to support water-related recreational activities, where such a resource is available, or developing water resources if practical. The average demand for boating and fishing for a community of 2,500 justifies (in terms of demand) 8 acres of recreational water; however, water bodies are usually more practical in larger sizes. For example, it may be more practical to construct one large body of water centrally located to serve several small communities (or other size urban areas) than to construct several smaller bodies.

RECREATIONAL FACILITY REQUIREMENTS FOR SMALL COMMUNITIES

A community of 2,500 or less population should be able to adequately support the following facilities if

due consideration is given to the various statements regarding limitations. Some of the statements include facility units rounded up to the next whole or practical unit. For example, if analysis of participation rates indicated that only one-half of the demand necessary to justify a games and sports field was present, the suggested number was rounded to one field. Under-utilization may be expected for most facilities during non-peak seasons of the year. Where practical, flexibility in the use of facilities—e.g., multi-uses—can reduce the number of facilities that otherwise would have to be purchased as well as the additional lands to be acquired and/or developed to support these additional facilities.

Among the factors that should be considered in planning and developing facilities for small community park and recreation areas are: 1) the extent of potential facility use coming from outside the community should be estimated. This use may include recreationists from rural areas and surrounding urban areas, or travellers when the community is easily accessible by major highway routes; 2) facilities for several of the games and sports activities may already be provided in sufficient numbers by local school districts. With communication, coordination and cooperation these facilities might be effectively used to meet a portion of local needs; and 3) certain types of privately-operated existing facilities, such as golf courses, swimming pools, or campsites may be open to the public. These resources should be identified and utilization analyzed to avoid costly duplication of facilities on the part of the community. Recreational facilities should not be provided using tax dollars if adequate recreational opportunities are already available to the general public.

In some cases, facilities such as swimming pools, are more efficiently developed in larger units than the specified requirement indicates; thus, they may not be utilized at full capacity initially in certain communities. Lighting is suggested for most types of facilities to increase potential user time if it is within the means of the community, and the additional costs are justified by increases in public utilization.

SWIMMING (POOLS)

An analysis of small community resident and non-resident participation in swimming indicates, in general, the need for a swimming pool in each community. Statewide average participation rates show that a community of 2,500 or less population should have 184 square yards of swimming pool area. However, a pool this small may not be practical or economical. Local circumstances could warrant the construction of a larger pool.

Since swimming pools must normally be constructed in somewhat larger units than most other facility types, and cannot readily be expanded in small segments, communities must look ahead to the pool requirements of future years. Projected population



change and the communities' age-composition can be excellent indicators of future requirements. Many factors of local participation should be analyzed in advance to properly plan the correct pool type, size, and location to best serve the local need. Support facilities usually include an appropriate filtering system, lighting, and other essential utilities. Additional support facilities could include a bathhouse, restrooms, parking area, fencing, and concession area. It should be recognized that the initial construction costs of a pool and related support facilities constitute a major expense item. Proper maintenance of a pool after construction is also more expensive than the maintenance of many other types of recreational facilities.

CHILD'S PLAY (PLAYGROUND)

Statewide average participation figures for child's play in small communities indicate a resource requirement of approximately one-quarter acre developed with playground facilities.

It should be understood that one of the most important factors in providing a playground area is not necessarily the extent of the acreage, but the number and type of units of play equipment placed within the area. A playground of only one-quarter acre is already fairly compact in size, thus equipment should be selected with care to avoid overcrowded or dangerous conditions. Some of the newer, more innovative units might be considered rather than the typical swing-slide-seesaw-merry-go-round units, with thought given to providing something for each of the various age groups which may be using the playground. The most common and useful support facilities for a playground are rest benches for supervisors and parents. Playground areas might be located near or adjacent to elementary schools or in the principal park in the community. If some residents of the community must walk considerable distances to reach a playground, locations may be preferable to provide reasonable access by the entire community. Two small playgrounds located close to potential users may better serve the community than one larger playground that is not accessible to the majority of the local citizens.

GAMES AND SPORTS FACILITIES

Games and sports facility requirements are discussed below in the following order: requirements for baseball/softball fields and football/soccer fields are combined and presented as the initial section followed by tennis court and basketball court requirements combined in the subsequent section.

Baseball/Softball and Football/Soccer

Again, the participation figures for small communities indicate that only in instances of unusually heavy local demand could a community of 2,500 or less population adequately support one field for each of the various field sports activities. However, every community should have an open field area within its park and recreation acreage; an inexpensive backstop could be appropriately placed in this field for unorganized baseball/softball play.

When a community, regardless of size, hosts or expects to host games in organized league play, one baseball/softball field, of dimensions appropriate to accommodate both activities, equipped with a sufficient backstop and bases, should be provided. When activity interest is generated so as to have more than twelve teams fielded in league competition, two fields could be justified. A possible alternative to a second field may be the installation of lighting at one field, especially if suitable acreage for an additional field is not readily available or economically feasible. Optional support facilities could include spectator bleachers, outfield and base-line fencing, player benches, lighting, parking area, equipment/maintenance storage building, concession stand, and restrooms.

In order to accommodate baseball and/or softball and football and/or soccer, a separate field would not necessarily be required, even for league competition if outfield and infield fences are not permanent and lighting does not interfere. Seasonal conflicts may be solved by proper scheduling of play. The outfield portion of the baseball/softball field could be outlined to football/soccer dimensions, by either

liming or cutting in the grassed area. If goal posts are necessary, i.e., for league competition, inexpensive, removable posts could be mounted on permanent slots in the ground. Adequate safety measures should be taken to protect recreationists from goal post hazards.

The same support facilities provided for baseball/softball could be utilized for organized football/soccer play, especially if items such as player benches and bleachers are portable. A sports field or this type could also serve the needs of other community activities such as track and field events, kite flying, frisbee throwing, and special holiday events or displays, when not in use for baseball/softball or football/soccer activities.

Tennis and Basketball

Participation figures for tennis and basketball indicate that only in instances of unusually heavy local demand could a community of 2,500 or less justify, in terms of demand, both a public basketball court and a separate public tennis court. However; to provide facilities for both of these activities, the most practical and most economical alternative would be the construction of a unit often referred to as an all-purpose or multi-purpose court, or multi-purpose play slab.

This court or slab should be of concrete or similar construction, and of sufficient width and length to accommodate regulation marking for a "full-court" basketball court as well as a "doubles" tennis court. However, only one activity can be played at one time on this type of facility. This presents administrative problems because conflicts may arise over the use of the facility. Tennis and basketball enthusiasts will have conflicts since only one group can play at a time. These conflicts require more detailed administrative procedures, which generally cause more expense; or, if managed by volunteers, require more time to supervise properly.

Use-conflicts may be minimized through the construction of a slab large enough to accommodate separately marked courts, one for basketball on one

side, and one for tennis on the other side. This type court permits both basketball and tennis play simultaneously. Though more expensive than the smaller court discussed above, it is less expensive than two courts constructed separately.

Optional support facilities include lighting, rest benches, spectator areas, practice tennis backstop, and fences. Both types of slabs could also serve the community needs for other activities, such as volleyball, badminton, shuffleboard, outdoor dances, and arts and crafts programs.

PICNICKING

Resident and non-resident participation figures for small communities of less than 2,500 population indicate an average statewide resource requirement of three single-family tables per community. However, it should be noted that above average participation either by residents or non-resident could necessitate the need for more tables. Above average utilization often occurs, for example, where the community is on a major travel route, in a resort area, in proximity to a major city, or where single and multi-family gatherings, large family reunions, or homecomings are frequent, popular occasions. These communities may require several more tables in various combinations of single and group types. At least one large group unit is suggested (equivalent to three single-family tables or more) in addition to the three single tables for each community if above average utilization is expected.

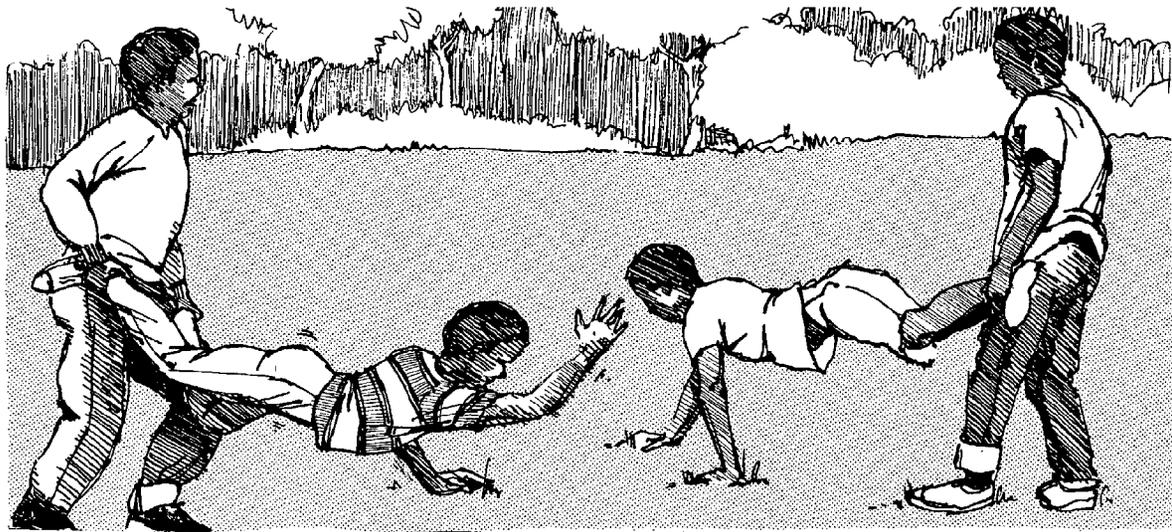
Local demand should dictate whether the picnic units are constructed as single-family tables or several tables combined together as a group unit. Support facilities such as barbecue units, trash receptacles, and a parking area should be provided. Optional support facilities include a covered shelter (normally for a group area), water supply, and restrooms. Undeveloped land adjacent to picnic areas is also desirable for providing a pleasant, relaxing atmosphere, an amenity sought by most picnickers. A major factor in locating picnicking facilities in Texas is the availability of shade. It is a commonly known

fact among recreation planners in Texas that picnic tables located in shaded areas can be expected to receive heavier utilization than tables located in the sun. This is because the peak picnicking season in Texas occurs during the summer months, and picnickers seek relief from the heat by using naturally or artificially shaded picnic areas.

GOLF

A study of the resident and non-resident golfing participation at small community courses indicates that most small communities cannot justify the construction of a regulation golf course. However, circumstances may exist in certain communities that could cause an unusually heavy local demand for golf. In such instances, the local municipal administrators must carefully analyze the participation and demand situation before undertaking the development of a golf course, an expensive facility requiring extensive acreage and large fiscal outlays for construction in relation to other types of facilities, as well as requiring expensive maintenance costs after construction. However, golf courses that are adequately operated and used can become revenue producing facilities. Examples of unusual circumstances might be: where small communities are located in proximity to a large urban area; along heavily travelled tourist routes; in a prominent resort area; or when the community is a county seat or a community which serves as the main center of activity for an entire county, or surrounding counties. Another example of unusual circumstances may occur where there is heavy local activity interest, most often generated by an active golf association or gold instruction program.

In some instances, if locational, operational, and maintenance problems can be resolved, a combined effort between two or more communities may produce the participation and financial support necessary to provide a golf course. In any situation, a minimum of 9 holes is needed if a course is to be used for regulation play, although consideration should also be given to the smaller "executive" type course, or a par-3 course.



Typical support facilities include a parking area, clubhouse with restroom facilities, pro shop with golf equipment and repair facilities, maintenance building, weather shelters, cart trails, and irrigation system. In all instances, the expense of course construction should be kept as low as possible while still providing a satisfactory facility. Use of volunteer help in course construction and maintenance is an excellent method which can be employed both to generate local interest and to conserve funds.

TRAILS ACTIVITIES

Studies indicate that in the urban areas of Texas only about 10% of the walking for pleasure, 4% of the bicycling, and 20% of the hiking and nature study actually occur in parks. This information along with the statewide average participation rates for the trails activities indicate resource requirements of about .3 miles of developed trail for communities of 2,500 or less population.

It should be noted that a trail of three-tenths of a mile in length may in some instances, be an impractical unit, both for construction purposes and for utilization by residents. Therefore, a minimum of .5 or 1 mile of designated or developed trail might be more desirable to construct and to use.

The trail location and actual trail length should be determined in most instances, by the activeness of the local resource. A good natural setting for a trail, for example, might be along an undeveloped stream valley. Where practical, locations should be selected which provide convenient access form residential areas, while safely connecting these areas to the school, park, and/or downtown area of the community.

In addition to the above resource requirements for trails within park and recreation areas, each community should consider providing suitable areas to satisfy that portion of the participation in trails activities that occurs outside parks. Designating parts of certain streets as bike ways and providing sidewalks in residential and school areas would be two methods of providing for a portion of the trails activity participation which does not take place in parks.

OTHER FACILITIES

Additional types of facilities such as community/recreation centers, archery and shooting ranges, camping, boating, and fishing facilities may also be needed based on local interest, demand, and the existence of local resources. For example, a small community located adjacent to a good fishing stream or freshwater lake may generate the demand for boating, fishing, and camping facilities.

Chapter 5

SPECIAL CONCERNS AND ASSOCIATED
PROBLEMS OF URBAN OUTDOOR RECREATION

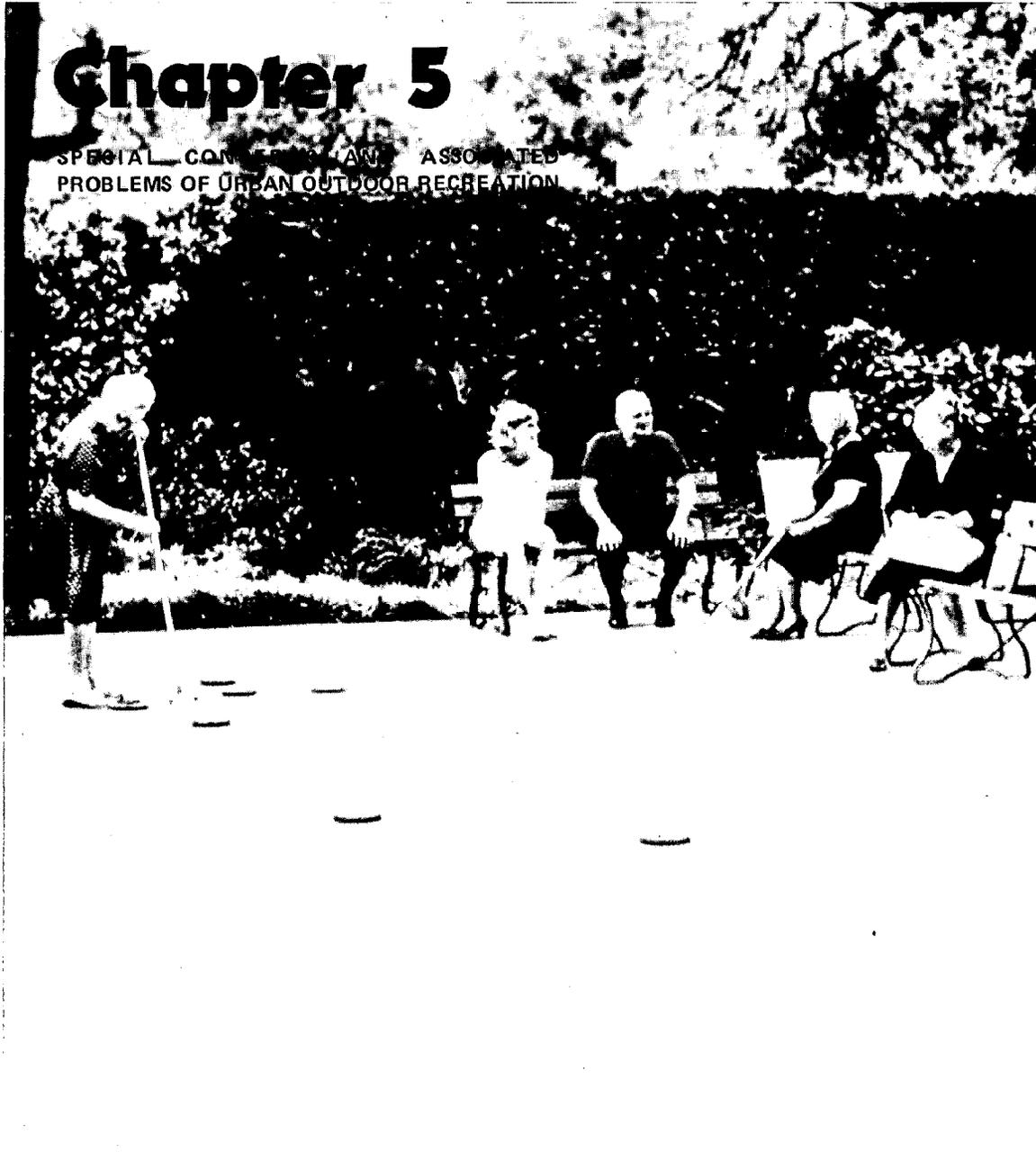


Photo by Governor's Committee on Aging.

INTRODUCTION

Resource requirements were presented for selected outdoor recreation activities in the previous chapter. However, there are several aspects of urban outdoor recreation which could not be quantified for analysis based on existing data. The importance of several of these aspects to urban outdoor recreation in Texas merit their full consideration in providing needed urban recreation opportunities to meet current and future recreation demands for these opportunities. Discussed in this chapter are some of the major types of recreation resources with potential for providing urban recreation opportunities (significant urban natural areas; rivers, streams, and flood plains; lakes and reservoirs; urban trails; and historic resources), the special recreational needs of the handicapped and aged, sources of municipal park and recreation financing, and urban recreation programs which are important in providing leadership that will insure the types of programs desired by local citizenry are made available and that maximum utilization of existing and potential recreation resources is maintained in order to provide adequate recreation opportunities to the urban residents of Texas.

Topics other than those discussed in this chapter may be of equal importance to any given urban area. In fact, the special concerns and associated problems most important to a particular urban area may be of a specialized nature and, as a result, may not have been included here. It is certainly recognized that the importance of many concerns and problems related to urban outdoor recreation could easily justify their inclusion as a separate topic, such as maintenance problems, recruitment of parks personnel, etc.

RECREATION RESOURCES

The variety of resources found in Texas offers an excellent base for providing outdoor recreation opportunities. To insure that sufficient quantities of

certain types of quality resources are available to meet current and future recreational needs, several facts must be realized. One fact is that resources having the potential to provide recreation opportunities for urban recreationists are somewhat limited. This limitation results from the intensity to which urban land areas are developed and the heavy demands placed on water resources in urban areas. The dense development of urban areas has drastically reduced the availability of certain types of resources needed to provide outdoor recreation opportunities. Examples of resources already reduced in either quantity or quality, and continually facing further reductions, are natural areas, rivers and streams, historic resources, and areas suitable for the construction of lakes and reservoirs or urban trails.

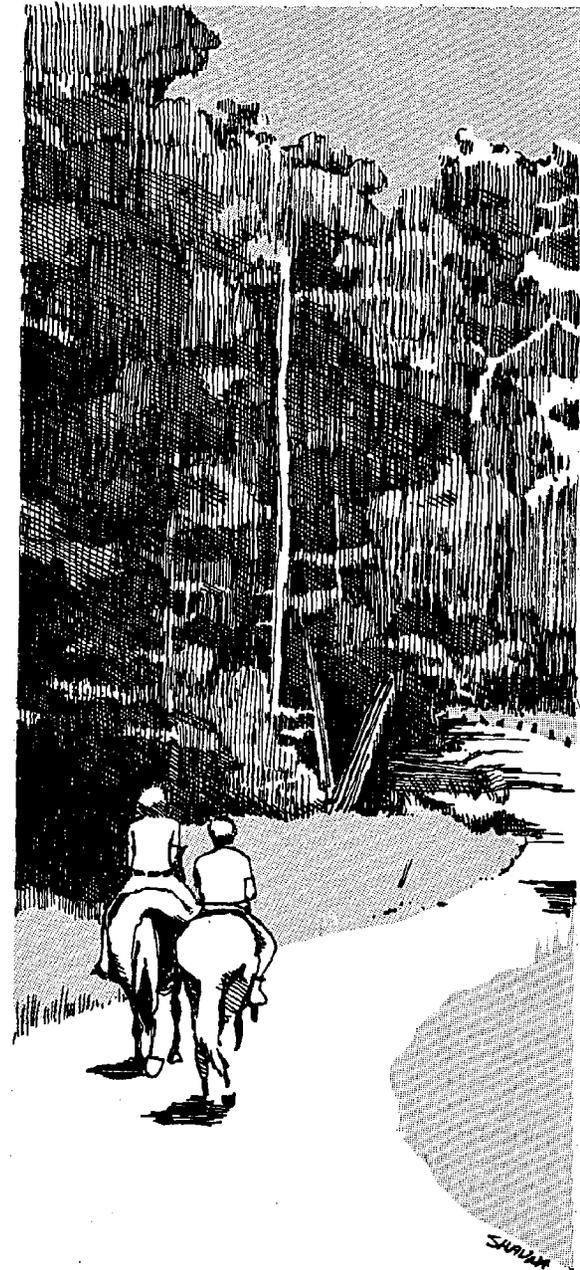
Another point is that these resources are in direct competition with other urban uses, many of which are worthwhile and needed projects. When developed, these other projects may reduce or eliminate valuable recreational resources. Most of these resources are of such a nature that replacement for recreational purposes becomes impractical once they are lost. For example, to replace a river or natural area located in an urban area would be impractical from both an economic and physical standpoint.

Some problems confronting the use of these resources are expected to increase, while other problems, if proper action is taken, may decrease. Continued population increases are expected for the majority of the urban areas, which will maintain or accelerate the demands for certain resources (particularly lands), whether for recreational or other urban uses. Other problems may be eliminated if proper actions are taken, such as establishing high water quality standards that would insure the future use of rivers and streams for recreational uses. Regardless, certain types of resources having significant recreational potentials are finite in quantity and quality, and the assurance of their potential use for recreational purposes, whether present or future, hinges on

considerations given presently and in the near future. Discussions in the following topics are attempts to emphasize special concerns and associated problems confronting the use of selected resources for recreational purposes.

SIGNIFICANT URBAN NATURAL AREAS

In the past, the natural state of recreational resources was often altered by man-made improvements and developments. Recent studies have shown increasing preferences among the general public to preserve certain recreational resources in their pristine or near natural state. Recreationists are demanding that natural areas remain unaltered, or that these alterations be reduced to the minimum required to make the resources available for recreational uses. This change in public preference may be attributed to many factors. Two of the more important are: 1) In recent years the general public has become increasingly aware of man's rapid encroachments into natural areas. Simultaneously, and probably not coincidentally, the public's interest in the benefits offered by these areas in their natural state has intensified. People are attracted to unique natural areas by the beauty and serenity offered. 2) Demand is increasing in those recreational activities more suited to natural areas or near natural areas. Examples are canoeing, walking, hiking, nature study, and sightseeing, to name only a few. Further, preferences in the types of resources which provide opportunities to participate in the more traditional activities have undergone significant changes. For example, picnickers have shown increasing interests in picnicking in areas which are retained in a more natural state. Planners, in efforts to accommodate the preferences of recreationists, strive to minimize alterations to those areas designated as areas having significant values if retained in their natural state.



Texas is fortunate to have many significant natural areas located in urban areas across the State. If proper conservation practices are applied to protect these areas, they have the potential to provide additional recreational opportunities, now and in the future. However, significant natural areas are particularly vulnerable in urban areas to rapid urban development. Often, these areas are highly sought for development of residential neighborhoods because they are natural areas and as such provide amenities homeowners desire. Other types of developments may seek sites in the area due to other reasons, such as an industrial concern searching for a site having an adequate water supply, which in many cases can be a significant urban natural area. The problem which arises is how to insure that adequate amounts of these unique natural areas are preserved to accommodate the present and future recreational needs of the people of Texas.

The first step necessary to protect the unique and significant natural areas in Texas is to identify them, so that they can be given due consideration by planners and decision makers. With the natural areas thus identified, they can be taken into account when planning developments, construction, highways, parks, recreation areas, etc., with a view toward their significant recreation values.

Fortunately, a group of over 100 concerned conservationists throughout the State has conducted, on their own initiative, a survey to identify the significant natural areas in Texas. The study was called the Texas Natural Areas Survey and resulted in a publication entitled **The Natural Areas of Texas**.¹ It provided a detailed listing of significant natural areas in the State. Members of the executive committee of the survey provided a list of thirty of the most significant urban natural areas, in order of priority,

which they felt should be afforded special attention. Through such efforts and groups as this, other unique areas have been conserved for future generations.

These thirty areas, ranked below in order of priority, are by no means the only areas that are unique or worthy of special consideration, but are simply the thirty areas reported of highest priority throughout the urban areas of Texas. Certainly, there are numerous other natural areas of importance to local areas which should be given prompt attention. In addition to the priority and name of the area, a description of the area and its location are given.

1. Survey by the Nature Conservancy, Texas Chapter, titled "Texas Natural Areas Survey" and published under the title **The Natural Areas of Texas**.

<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
1	Armand's Bayou	The area extends more than four miles northward from Clear Lake and Mud Lake in southeast Harris County, including all the woodlands and a thousand foot strip of prairie in a zone one-half mile wide. It is the best preserved coastal bayou. It contains three distinct plant zones—Gulf Coast Prairie, Southern Evergreen Forest, and Coastal Marsh. It has a wide variety of plant species and an interesting combination of birds. Part of it is in the city of Pasadena.	Pasadena	Harris
2	Balcones Escarpment	Is two miles west of Waco in the city of Woodway. This area possesses large exposures of five different types of rock formation. It has fossils from prehistoric times as well as virgin woodlands in small stands. It is the nesting place of the black-capped vireo (which is listed as a rare and endangered species). In addition, many animal species reach their eastern and western limits along the escarpment in this region of Texas. The tract contains 200 acres which should be considered.	Waco	McLennan

<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
3	Bachman Creek	Includes the stretch from Bachman Lake eastward to a point north of Northwest Highway in the city of Dallas. It serves as a nesting area as well as migratory habitat for many bird species, including wood duck, many wild animals, including fox, and many plants, including giant oaks and some ferns and arums not found elsewhere in North Central Texas. The area of interest consists of 600 acres and is owned in part by the city of Dallas and in part by individuals.	Dallas	Dallas
4	Live Oak Peninsula	Contains about 600 acres on the west side of Aransas Bay just east of where State Highway 35 crosses Copano Bay in Refugio County. It is a breeding and spawning ground for many fish species. In addition, numerous shore birds utilize the area for breeding and feeding purposes. The area under consideration is just north of the city limits of Fulton.	Fulton	Refugio
5	The San Marcos River	Extends from the San Marcos Springs to the confluence with the Blanco River in Hays County. This is the only habitat for the San Marcos Dwarf Salamander as well as the Texas Wild Rice. In addition it is one of the few remaining habitats in the State for aquatic moss. The area under consideration is approximately five lineal miles and is in private ownership.	San Marcos	Hays
6	Prairie Chicken Habitat	Is in Galveston County, east and north of Dickinson from the city limits to Southern Pacific Railroad, Clear Lake Shores and League City all of which are about two miles from the Dickinson city limits is an arc about six miles long. The area provides habitat for Attwater's prairie chicken, which is rapidly becoming an extinct species.	Dickinson	Galveston

Priority Rank	Area Name	Description	City of Location or Nearest City	County or Counties of Location
7	Upper White Rock Creek in Dallas County	Is located in the northern part of Dallas County from White Rock Lake to Collin County line. This is a beautifully wooded creek bottom with 100-foot red oaks and a wide variety of birds. It is an arm of the proposed Dallas green belt system. The area being considered is a zone 100 yards to a mile wide and approximately 20 linear miles. It is owned by private interests and by the city of Dallas.	Dallas	Dallas
8	Upper White Rock Creek in Collin County	Includes White Rock Creek between State Highway 121 and the southern boundary of Collin County. The total length of the creek being considered is approximately four miles. It is presently under consideration as a Dallas green belt area. The creek is a free running stream with occasional chalk bluffs bordered by tall oaks and cottonwoods.	Dallas	Collin
9	Upper Buffalo Bayou	Is an area south of Highway 90 and east of FM 1960 in Harris County. It is the bottomland of the Addicks Barker Reservoir and consists of a wooded area along a flowing bayou. The area is a refuge for many birds and small animals. It is approximately 600 acres and within the city limits of Houston.	Houston	Harris
10	Pine Island Bayou	Includes a stretch along the north boundary of Beaumont and consists of the south side of Pine Island Bayou, from Highway 105 on the west to the Neches River on the east. The area averages approximately one-half mile wide and is a beautiful running stream with numerous cypress swamps as well as pine and hardwood stands. It is part of the Big Thicket and still mostly primitive. The area comprises approximately eleven square miles and is still in private ownership except the streambed.	Beaumont	Jefferson

<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
11	Lower Barton Creek	Consists of the area in Austin above Zilker Park to just above Campbell's Hole, including about a 100-yard strip on either side of the creek. This area is in the heart of the city and possesses an excellent spring-fed creek with an abundance of flora. The land is presently privately owned and consists of about 50 acres.	Austin	Travis
12	Comal Springs and River	Is located in Landa Park in New Braunfels. This area is approximately 100 acres in size and is partially city owned. Unique characteristics of the site include clear springs and rapids which provide excellent swimming as well as a significant population of fish species for nature study.	New Braunfels	Comal
13	West Fork Bottoms	Is located in Tarrant County, due west of the Fort Worth downtown area. It is bounded on the north by White Settlement Road, on the south by Imperial Avenue, on the east by Rivercrest Country Club, and on the west by the West Fork on the Trinity River. The tract provides a large open space approximately 400 acres in size with pecan, red oak and basket oak trees, and an undulating river which flows through the area. At the current time the tract is privately owned.	Fort Worth	Tarrant
14	Clear Fork Bottoms	Is located in the southwest part of Fort Worth, south of the Texas and Pacific Railroad, east of the General Dynamics Recreation Area, and west of Hulan Boulevard. The area can be described as a bottomland with huge pecan, oak and elm trees. The tract totals 200 acres in size and is privately owned.	Fort Worth	Tarrant
15	Big Bird Bottoms	Are bottomlands on the Upper Trinity, in the south-east quadrant of Dallas County, partly in the city of Dallas, comprising a zone up to one-half mile wide along both sides of the Trinity River from	Dallas	Dallas

<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
		its confluence with White Rock Creek south to the Ellis County line, encompassing eight square miles. The area is comprised of wetlands and streambottom forest, containing an amazing variety of birds and other wildlife—masked duck (far from usual habitat), mottled duck nesting (far from usual nesting territory), green-winged teal (resident), wood stork, white tailed hawk, caracara (far from usual range), prothonotary and parula warblers nesting (west of usual range), violet-green swallow, and other birds. The area includes thin strips from the Dallas Hunting and Fishing club, the Lancaster Club, the Fin and Feather Club, and is mainly owned by private individuals.		
16	Franklin Mountains Area	Is located in El Paso County, immediately north of U.S. Route 180 west of Fort Bliss and the Logan Heights section in the city of El Paso. The area has important historical and ecological significance. It is approximately 15 square miles in size, and is owned by the city.	El Paso	El Paso
17	Beaumont Pines	Is sometimes called The Old Beaumont Pines Area. It is located in the city of Beaumont between the north side of Lucas Drive and the south boundary of the Beaumont Country Club. The area is characteristic of the prolific East Texas region in that it contains an abundance of trees and plants. It provides a cross-section of the undergrowth commonly found in East Texas. This natural area totals approximately 100 acres in size and is owned by heirs of an estate.	Beaumont	Jefferson
18	Lower Sabine Cypress Swamp	Is located east to northeast of the city of Orange, Texas; along the Louisiana border and the west side of the Sabine River and extends northward from the Naval Mothball Fleet to the county line. It is approximately 2,600 acres in size and varies from 100 feet to two miles in width. The locale is	Orange	Orange

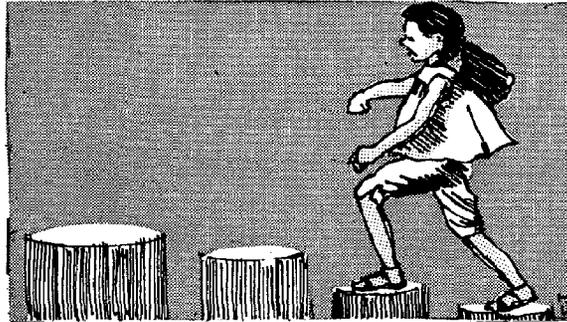
<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
19	Banks of Oso Creek	characterized by large cypress swamps and brackish marshes. In addition to its scenic beauty the area also provides a habitat for numerous species of birds. At the present time the tract is privately owned. Is approximately 12 land miles in length and is that portion of the creek from Cayo del Oso to Cuddihy Field, southwest of the Corpus Christi city limits. The site is good for wildlife and waterbirds (it is here that European Ruff was sighted) and has possible historic significance in that it is believed to contain some burial sites of the Karankawa Indians. At the present time the area is privately owned.	Corpus Christi	San Patricio
20	Bull Creek	Is located from Oak Road Community near the north central boundary of Travis County, downstream to the Colorado River with a zone width of one-half mile wide, within the Austin city limits. The tract contains spring-fed streams and wooded bottomlands, including limestone bluffs and moist meadows. The area of interest is approximately 500 acres in size.	Austin	Travis
21	Woodville Beech Woods	Is located within the city limits of Woodville, Texas, about 200 yards north of U.S. Highway 190 and about 1½ miles west of the county courthouse. The area is approximately ten acres in size and is heavily forested with beech, magnolia and loblolly pine. It contains a small creek bordered with aquatic plants and wildflowers. The area is privately owned.	Woodville	Tyler
22	Kell Canyon	Is located in Bell County one-half mile north of Highway 36 and one-half mile east of the Leon River, on Stampede Creek near Upper Belton Lake. It is described as a beautiful, sheltered canyon and has several interesting features. The site is historically significant in that it was a known crossing of the Chisholm Trail and has	Belton	Bell

<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
23	Wendland Canyon	several Indian campsites within a half mile radius of the area. Wildlife is abundant and there is also a great variety of plants. Ownership of the 150 acre site includes both private and Corps of Engineers holdings. Is located in Bell County near the southwestern corner of the city of Temple and adjoins Bird's Creek within the Temple city limits. The site is a very deep, narrow canyon with numerous springs. It possesses an abundance of lush plant growth and provides an excellent habitat for many species of wildlife. The area may have some historical significance since it is believed that a big Indian camp and burial ground was there at one time. At the present time the tract is privately owned and encompasses approximately 150 acres.	Temple	Bell
24	Temple Mini-Prairie	Is located about one mile north from the Temple city limits, between Interstate 35 and the M K & T Railroad. The terrain can be described as open grassland on general rolling high ground overlooking the surrounding communities. The area was a site of an old farm and provides a unique cross section of the grasslands found in the Central Texas blackland. Since the open grassland has not been grazed, fertilized or treated with herbicides in over forty years it provides an excellent site for nature study. The tract contains approximately three acres of this grassland area.	Temple	Bell
25	Brownsville Whitewing Dove Habitat	Is located just inside the city limits of Brownsville on FM 802 around 1½ miles east of U.S. 83. Approximately 45 acres in size, the tract provides good representation of the South Texas Brush land. The mesquite trees provide good habitat for the whitewing dove. Much of the good whitewing dove habitat in South Texas is being cleared.	Brownsville	Cameron

<u>Priority Rank</u>	<u>Area Name</u>	<u>Description</u>	<u>City of Location or Nearest City</u>	<u>County or Counties of Location</u>
26	San Antonio Springs	Is divided into two parts within San Antonio, one on the San Antonio River Channel which is located from Probant Street to Nueva Street and the other on the San Antonio River in Brackenridge Park. Both areas are of great scenic beauty and have huge pecan and live oak trees along the shores. The San Antonio River Channel area from Probant to Nueva Streets is a narrow strip not over 100 foot wide and approximately two miles long. It is privately owned. The San Antonio River area through Brackenridge Park borders park land on both sides and is approximately two miles long. This area is owned by the city.	San Antonio	Bexar
27	Bird Flats	Are located at the eastern edge of the corporate limits of Morgan's Point on San Jacinto Bay. The site of interest can be described as a significant salt marsh and tidal flat area which is frequented by various species of shore birds as well as nesting birds.	Morgan's Point	Chambers
28	Wilson Creek Bottom	Is located from slightly northwest of U.S. 75 to one mile south of State Highway 24 in Collin County. The site provides bottom land timber with some significant fossil outcrops and mineral deposits. It also serves as a wildlife sanctuary. It totals 600 acres and is privately owned.	McKinney	Collin
29	Trinity Bottoms	Is located along the West Fork of the Trinity River from North Haltom Road eastward to Highway 820. This open space area which totals more than 500 acres provides hardwood bottom land and is rich in bird life. The area is owned by private citizens as well as the city of Fort Worth.	Fort Worth	Tarrant
30	Ezell's Cave	Is located on Brown Street in the city of San Marcos. It has been designated as a national landmark. The cave contains an underground lake which is part of the Edwards underground water system and the only remaining accessible location for the Texas blind salamander as well as many unique cave dwelling invertebrates. The area is about one city block, or two acres, in size and is privately owned.	San Marcos	Hays

RIVERS STREAMS AND ASSOCIATED FLOOD PLAINS

The potential for recreation in many of the state's urban waterways merits full consideration with respect to satisfying the demands for urban outdoor recreation opportunities. Rivers, streams and their associated flood plains, although frequently thought of in terms of rural recreation, can play an important role in providing urban recreation opportunities as well. Flood plains are those lands immediately adjacent to rivers and streams that may be subject to periodic inundation or flooding. Consequently, these lands are often incompatible with certain types of uses. Incompatible development on these lands, such as residential and industrial development, has the potential for the loss of life and property. Additional problems associated with incompatible development include reduction in water quality due to pollution from urban runoff and waste disposal, and increased aggravation of existing flooding problems. However, recreational uses of rivers and streams and their flood plains have long been considered as one of several compatible uses. In urban areas these lands in many cases can provide excellent resources for compatible low-intensity recreational uses such as greenbelts, linear parks, trails, picnic areas, nature study areas, etc. Urban rivers and streams can provide valuable recreation opportunities, which are currently more commonly available in rural areas, such as canoeing, kayaking, rafting, and fishing. The implementation of existing concepts in developing linear parks along rivers and streams offers opportunities to solve recreational needs and other urban problems. For example, a linear park along a river or stream flood plain could complement existing transportation systems (i.e., provide walking and bicycling routes) by providing a safe and attractive means of intracity travel while also serving as a recreational resource offering a place for picnicking, nature study, walking, and other activities. This type linear park utilization helps alleviate traffic congestion while providing needed recreation opportunities. Furthermore, urban waterways can provide recreational opportunities for



canoeing, kayaking, and rafting in natural settings within or adjacent to urban areas. The urban waterways and access points could be integrated into longer distance waterways, and eventually could become components of a statewide system of wild, scenic and recreational waterways.

Examples of the utilization of urban waterways and associated flood plains for recreational purposes are appearing in many of Texas' urban areas. Downtown sections in many urban areas have become considerably more attractive as a result of the acquisition and recreational development of urban waterways and their associated flood plains. In several cases, these areas have not only served as pleasant places to visit in the downtown area, but they have created an economic stimulus as well, such as the San Antonio River Walk. Examples of actions are many. One, in Austin, illustrates the novel methods which are being tried. A city ordinance enacted in 1974 is directed toward protecting that city's waterways by regulating development of property adjacent to or crossed by waterways. Examples of the utilization of urban waterways shows that rivers and streams still possessing good water quality and free of adverse development should be protected; while rivers and streams already subjected to pollution, and incompatible developments require projects of a different nature if acceptable uses of these resources are to be regained.

Significant recent legislative action, which offers new stimulus for additional considerations of urban rivers

and streams and their associated flood plains, is the National Flood Insurance Act of 1968, as amended by the Flood Disaster Protection Act of 1973, which makes federally subsidized insurance monies available to municipalities or areas where appropriate land use controls are implemented to restrict further developments in flood-prone areas.² As of July, 1974, there were reported to be 210 communities in Texas participating in this program with over 37,000 flood insurance policies in effect. Over \$700 million in existing commercial, industrial and residential developments were estimated to be protected as a result. This financial protection offers some relief to current problems facing the developments already existing in flood-prone areas and, by requiring land use controls, restricts further developments in flood-prone areas in an attempt to prevent similar problems from increasing in the future.

A more detailed treatment of this subject may be found in the TORP volume titled **Regional Environmental Analysis**.

LAKES AND RESERVOIRS

The importance of all forms of water resources to outdoor recreation cannot be overstated. This is particularly the case with lakes and reservoirs. Consequently, the availability of lakes and reservoirs with respect to recreation in the urban areas of Texas is a matter of special concern that merits full consideration by all entities involved in water resources development. As was indicated previously, in 1970 it was estimated that a requirement existed for some 5,700 surface acres of water for recreation in Texas' urban areas with populations in excess of 2,500. By 2000, it is projected that this requirement will increase to approximately 163,000 surface acres, an increase of 334 percent above the existing

²S. 1495, H. R. 6524, 93rd Congress, 1st Session, (1973)

available surface acres. However, there are some serious obstacles to satisfying requirements for urban lake and reservoir recreation opportunities, the foremost of which is feasibility. A river or stream with adequate drainage should be available to serve as a water source to fill the reservoir. Suitable land is also needed for reservoir construction. In many urban areas, the high cost of land prohibits reservoir development. Land may be too flat, too permeable to retain water, or unsuitable for reservoir construction for other reasons. In many parts of Texas, water is a very scarce resource. Residents of Amarillo and the Panhandle cities and towns, for example, rely heavily on rural water resources such as Lake Meredith for recreation. In El Paso, residents must travel to New Mexico, or some other distant area, to find recreational water.

Also complicating the problems of providing urban lakes and reservoirs for recreational use is the fact that the provision of recreational water is nearly always inextricably tied to a series of other water requirements and benefits, such as irrigation, municipal water supply, flood control, etc. Recreation benefits frequently contribute only a very minor portion of the total benefits that may accrue from a proposed reservoir project as dictated by federal and/or state legislation or policy. Generally, decisions to provide additional water supplies have far-reaching ramifications for the residents and economy of the area, and perhaps of even the entire state. These ramifications sometimes cause water impoundment projects to be highly controversial. Consequently, decisions to provide more reservoir surface water in a given region will likely be determined by considerations other than recreation, unless recreational benefits of reservoirs are given higher values in the future.

Potential recreational opportunities provided by existing lakes and reservoirs have been lost in some cases due to poor water quality. Another problem is limited, or non-existent, access to urban recreation

water. Limited public access to lakes and other water resources is due to the non-availability or inadequate recreation development of public lands adjacent to these resources. This is a more significant problem in rural areas, but it also prevents the full utilization of urban resources in providing recreation opportunities.

There are many alternative solutions to these specific problems in providing additional water oriented recreation opportunities for urban residents. One alternative solution to the estimated need for urban surface acres is to promote increased use of rural lakes and reservoirs. Rural lakes and reservoirs in close proximity to urban areas can serve urban demands as well as rural. However, the potential of these water resources falls sharply as the distance from the urban areas increases, particularly in view of continuing rising fuel costs. Examples of such lakes and their associated urban areas are Lake Ray Hubbard—Dallas (Region 11), Lake Houston—Houston (Region 25), and Lake Austin—Austin (Region 23). In some instances, rural lakes can become surrounded by urban growth so that they eventually become urban lakes themselves. Another means of providing additional urban recreational water is to assure that existing lakes and reservoirs are of sufficient water quality for human use. While this may be a formidable, as well as expensive, task, with perseverance and public support, it can be, and has been done. Finally, the construction of additional facilities can improve existing or create new access points on lakes and reservoirs, thus enlarging and enhancing the recreational opportunities provided by the water resources. Boat ramps, for instance, provide public access for boating, fishing, and skiing, as can rest stops, campsites, picnic areas, roads, etc.

URBAN TRAILS

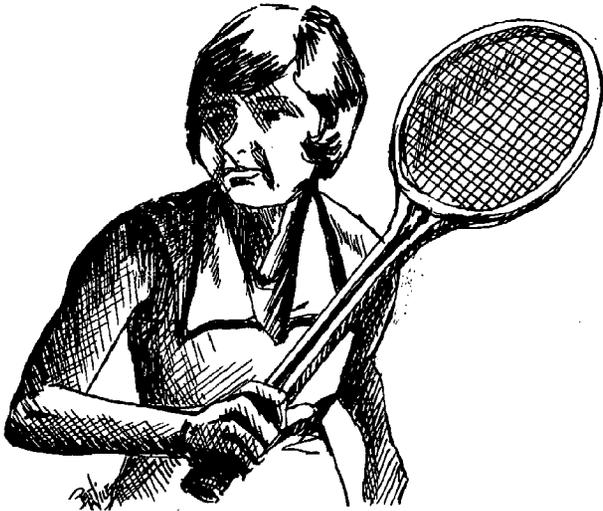
Increased development of trails in the urban areas of Texas is a matter of concern with respect to providing additional urban recreation opportunities.

Historically, trail development in Texas has been minimal compared to the development of other types of recreational resources. Trail development has been slow because, in the past, recreationists demanded facilities for the more traditional urban outdoor recreation activities such as football, baseball, swimming, picnicking, etc. Because they received little public direction to provide trails and related facilities, individual entities responsible for providing outdoor recreational facilities generally considered trail activities as low priority. As a result, the few existing trails that were established were dependent entirely upon the willingness of a particular entity or agency to do so and usually took the form of short walking and nature trails.

Only recently have most public recreation agencies begun to give deliberate consideration to trail development. This increased consideration was primarily brought about by the growing popularity of trails to recreationists of all ages and physical types, an increased awareness on the part of key decision-makers concerning recreationist's preferences for trails, and the fact that trails properly located and designed can provide alternate means of transportation in urban areas to the automobile.

Many resources can be identified for potential trail development on land in the urban areas not otherwise considered as having potential for recreational usage. For example, pipeline, utility and abandoned railroad rights-of-way, flood plains, and drainage systems all have potential for trail development. Numerous studies in various states have been undertaken concerning the feasibility and desirability of establishing trails along existing linear corridors.

The consensus of these studies is that many linear corridors are resources which may be utilized to construct excellent trails. These corridors often times pass through areas of scenic quality, and the grades and slopes are generally favorable for trail



development. Most existing rights-of-way, canals and levees are kept free of vegetation, which reduces construction expenses, and trails activities generally do not interfere with primary activities for which most rights-of-way are established. One outstanding example of trail development utilizing linear corridors exists in Texas. This is the 2.5 mile Cargill Long Park Trail in Longview, which was constructed on an abandoned railroad and pipeline right-of-way. The trail is now a National Recreation Trail.

Although many municipalities have incorporated trails within their recreational programs, municipal parks represent a large resource base upon which additional trails may be developed. Several metropolitan areas such as Austin, Houston, Fort Worth, Dallas, and San Antonio have realized this potential and have established, or plan to establish, trails within their parks.

HISTORIC RESOURCES

Texas, replete with the evidence of thousands of years of prehistoric and historic changes, is becoming

smaller in terms of remaining areas, sites, and objects which reflect our cultural heritage. This is particularly important for urban areas. Often, in our preoccupation with growth and expansion, we tend to forget how we arrived at our existing state. The preservation of archaeological and historic resources can rekindle an understanding and appreciation of the past and lend stability to our rapidly changing world.

Towards the goal of historic preservation in Texas, an inventory and assessment of the known archaeological and historic sites has been partially completed through the efforts of the Texas Historical Commission under the sanction of the National Park Service. Sites of historical importance which have been identified include a variety of resources, such as structures and sites of historic events or acts by historic persons, structures of architectural importance, graves, cemeteries, historic trails, and historic trees. This inventory, along with the **Texas Historical Preservation Plan**, has been initiated in order that planning for preservation can safeguard Texas' historical heritage.

However, realization of the recommendations presented in the **Texas Historical Preservation Plan** is hampered by several factors. One in particular is the small amount of funding available from the federal level through the National Park Service's Office of Archaeological and Historical Preservation. In addition, historic buildings of merit are often found, ironically, in areas of urban decline, often unknown to local decision makers and of limited apparent value to investors. Continued degradation in these areas can be expected if the resources to improve the economic aspects of the surroundings, i.e., re-evaluation of tax bases, conversion to business uses, tourism, etc., are not thoroughly evaluated. There are currently no tax reliefs for historic structures in Texas and scarce monies for preservation and high land costs present further discouragement. Finally, archaeological and

historic sites, currently undesignated, are often unprotected by law and physical restraints and are subject to public vandalism and degradation.

Historical and archaeological resources, properly protected and respectfully used, could become some of the State's most treasured resources. This is of particular importance to the urban areas of Texas since certain historical resources are potentially recreational resources and may provide recreation opportunities and thus help meet some of the resource requirements estimated for the present and future.

OUTDOOR RECREATION FOR THE HANDICAPPED AND AGED

In order to provide a fully comprehensive view of the urban outdoor recreation requirements of the state, the special requirements for recreation opportunities by the state's handicapped and aged persons was determined to be an area of concern that warranted specific attention. The handicapped include men, women, and children who are afflicted with varying degrees of physical, mental, or emotional disabilities. A recent U. S. National Health Survey estimates that currently 22.2 million Americans are limited in their activities because of chronic disease or impairment. By comparison, information provided by the Policy Board on Statewide Planning for Vocational Rehabilitation Services reveals that approximately 4.1 percent of the total population of Texas is handicapped in singular or multiple disabilities.³ Disabilities included in this figure are listed as follows: the deaf, hard of hearing, blind, partially seeing, and the crippled or otherwise impaired in mind, body, or limb. However, this overall percentage is expected to be conservative since the figure

³Policy Board on Statewide Planning for Vocational Rehabilitation Services, *Vocational Rehabilitation in Texas*, (Austin, June 1968) p. 286.

represents estimates which were based on the number of handicapped people who are enrolled in rehabilitative programs and institutions and does not account for the number of disabled persons in homes or rural areas who do not receive special services.

In addition to the physically or mentally disadvantaged, the aged citizen's physical limitation must also be taken into consideration since the process of aging is often accompanied by some type of handicap. The aged population includes all persons 65 years of age and over. This is a sizable portion of our population and according to the Policy Board on Statewide Planning for Vocational Rehabilitation Services, the number of aged persons in Texas in 1968 exceeded 900,000 (eight percent of the total population) while projections for 1975 estimate an aged population of over 1.1 million.⁴ The aged often suffer disability from the standpoint of mental and physical deterioration as well as from a basic tendency to retrogress socially. Some outdoor recreation activities may be too strenuous for aged persons with arthritic or heart problems. Certainly, then, the senior citizen should be taken into consideration when providing for the recreation needs of the state. For this reason, hereafter, the handicapped and aged may also be referred to as the disadvantaged.

In order to understand the magnitude of the problems of the disadvantaged within the state, certain facts should be recognized. Disabilities may be grouped according to two basic types, physical and mental. Although there are identifiable differences between these two types of disabilities, the overall result is similar in that both types may restrict the person's ability to engage in recreational activities to some extent. Many of the factors which cause a person to be physically or mentally disadvantaged may overlap into other problems. For instance, the

⁴Ibid., p. 60.

aged, the physically disabled, or the mentally disabled person may also be chronically unemployable and thus suffer from a lack of income, which restricts his ability to take advantage of rehabilitative services. Each disadvantaged person has his own individual characteristics and personal drives that may be employed to overcome his handicap if certain opportunities are available. Public outdoor recreation programs and services established in the urban areas can offer handicapped persons opportunities for self-improvement where normally prevented by physical or financial limitations. Therefore, consideration should be given to the special problems, abilities, and needs of physically or mentally handicapped persons in planning, designing, providing, and managing urban recreation areas and facilities.

CURRENT ACTION

Currently federal, state, and local agencies charged with the responsibility of providing public service programs have shown an increased recognition of the problems of the disadvantaged, and have strived to improve the accessibility of recreation facilities. Recent actions, such as the 1961 Appropriations Bill which earmarked \$85,000 in State funds for treatment of the severely physically disabled, aided in the rehabilitation of the handicapped. In 1964 the Texas Research League completed a study of services to the blind. Similarly, in 1965 federal legislation expanded the Vocational Rehabilitation Program and made Social Security trust funds available to state vocational agencies. Also in 1965 the Texas Legislative Council completed a study on services available for the rehabilitation of the blind, which later influenced the introduction and enactment of 12 separate bills in the Texas Legislature to help provide state services to the blind. In addition, the Older American's Act in 1965 provided for the establishment of the Governor's Committee on Aging, which has continually worked to promote and develop programs for the aged in Texas. Another

contribution was the establishment of the Statewide Planning for Vocational Rehabilitation Services in 1966, which recently (1968) completed a comprehensive statewide study of vocational rehabilitation programs in Texas. Senate Bill No. 111, Article 678g, Vernon's Annotated Civil Statutes in 1970 authorizes the State Building Commission to enforce minimum building standards to meet specifications which will aid in assuring that the construction of buildings and facilities in the state will fit the needs of the physically handicapped, as well as other citizens.⁵ All these events have contributed greatly to the expansion of the vocational rehabilitation programs and services in Texas.

BENEFITS DERIVED BY THE HANDICAPPED FROM OUTDOOR RECREATION

The establishment of recreational programs, areas, and facilities for the physically disabled, mentally retarded, and disadvantaged merits considerable attention. Recent studies conducted by state entities such as the Governor's Advisory Committee on Mental Retardation Planning, Governor's Committee on Aging, Statewide Planning for Vocational Rehabilitation, and the Texas Health Data Institute, in coordination with the State Health Department reviewed benefits of certain programs available to the handicapped. These studies pointed out the importance of the physical, social, and educational benefits derived from participation in recreational activities, noting that the disadvantaged can make tremendous gains as a result of sound recreation programs, not only from the standpoint of fitness, but also in regaining emotional stability and self-confidence which are often lost as a result of a disability. Good recreational programs can help take

⁵Sixty-First Legislature—Regular Session, Senate Bill No. 111
—Effective January 1, 1970.

the emphasis away from what an individual cannot do and place it on what he can accomplish. It was also found that recreation gives the disabled a chance to come into close contact with people, the outdoors, and a wholesome environment. Activities such as bowling, swimming, sand-lot baseball and football, hiking, horseback riding, boating, canoeing, fishing, court games, square dancing, socials, picnicking, and parties are a few which were noted that can be made available to mentally or physically handicapped in an urban environment through programmed recreation. The studies revealed that currently there are programs available which provide recreational activities while providing a break from the difficult task involved in any rehabilitative process, yet there are still many disadvantaged persons who do not receive the full benefit of the state's recreation resources. The physical limitation of their handicap, architectural barriers, the lack of adequate accessibility to recreation resources, or the time lag in adjustment of programs by the recreation profession may have detracted from their opportunity.

A case in point can be cited from the results of a mental retardation planning study in 1966 by the Child Welfare Division of the Department of Public Welfare.⁶ Results from a survey of recreational facilities and programs in 60 cities revealed existing recreation programs for the mentally disabled met only one-fifth of the current needs. When one views this ratio with respect to the present proportion of facilities available in all the metros, cities, and towns in Texas, the above mentioned ratio of needs is likely to be a conservative one at best. Although much progress has been achieved within the last decade concerning rehabilitation for the disadvantaged, it is clear that much more is needed, especially in the area of recreational programs.

⁶Governor's Advisory Committee on Mental Retardation Planning and the Governor's Interagency Committee on Mental Retardation Planning, *The Texas Plan to Combat Mental Retardation*, (Austin, June 1966) p. 2.

RESULTS OF THE OUTDOOR RECREATION HOUSEHOLD DEMAND SURVEY

The outdoor recreation household demand survey was also designed to provide information concerning the influence of health and disabilities on urban outdoor recreation participation throughout Texas. When urban respondents were asked if any member of the household was prevented from participating in outdoor recreation activities because of general health most of the last year, 23.1 percent of the total urban household population sampled (3,015 households out of 13,064 households) answered "yes". When asked if any member of the household had a disability that kept them from engaging in outdoor recreation most of the last year, 9.3 percent of the total sample (1,221 households out of 13,064 households) indicated a response of "yes".

A more detailed analysis of these two questions by racial or ethnic characteristics produced the following results. Of the urban households sampled who answered "yes" to the question concerning health limitations which restricted general participation in outdoor recreation activities for most of the previous year, 75.5 percent of the households were Anglos, 12.2 percent were Mexican-Americans, and 12.3 percent were Blacks. Households who indicated they had at least one person in their household with a disability which in turn restricted the disabled person's ability to engage in outdoor recreation activities, were 77.0 percent Anglos, 9.7 percent Mexican-Americans, and 13.3 percent Blacks. When levels of income were compared, it was found that a sizable portion (62.1 percent) of the households who indicated there was a disabled member within their family had a total annual income of less than \$5,000. Of this particular income group, comparison by ethnic background revealed that Black households had the highest percentage of disabled persons in this group, while Mexican-American households were second, and Anglos ranked third. The next income

range, \$5,000 to \$10,000 per year, had a total of 25.6 percent who indicated they had one or more disabled persons in their household. The sample of households in income groups between \$10,000 and \$20,000 per year had 10.5 percent who indicated they had a disabled person in their household, while income groups exceeding \$20,000 per year range were represented by only 1.8 percent of the respondents. Generally, higher income groups had the lowest incidence of disabilities while lower income groups had the highest incidence of disabled persons. The high incidence of disabled persons occurring in households in the lower income groups may identify, though not prove, several relationships concerning these people's means to participate in outdoor recreation activities. One, people in lower income levels who become disabled would be less likely to provide their own means to receive the proper medical attention needed to partially alleviate or correct the disability. (recognizing today's high medical costs), thus preventing these people from returning the types and intensities of participation enjoyed by those not disabled. Two, people in lower income levels are less likely to be aware of the types of medical knowledge, and less likely to receive the types of medical attention, that would reduce the frequency of disabilities. Three, the reduced financial means of disabled persons residing in households of lower incomes limits the ability of these households to provide the resources required for the disabled person to engage in outdoor recreational pursuits. Resources which are limited that may prevent disabled persons from participating in outdoor recreation activities cover a wide range, such as gasoline needed to travel to a more distant park having outdoor recreation facilities or fees to join some type of private organization which provides specialized facilities allowing the disabled to participate in outdoor recreation activities. Resources may be limited by the household's increased medical costs incurred by having a member of the household disabled. Other interrelationships of the three points made above may also be surmised which would

amplify the problems confronting a disabled person's ability to participate in outdoor recreation.

FUTURE CONSIDERATIONS

Today, modern medical treatments, prosthetic appliances, and self-help devices enable people with physical limitations to live productive and meaningful lives. In general, disabled people are finding more and more that they can enjoy basic outdoor recreation experiences just as the non-disabled, given the opportunity. Modifications in facility design, public concern, and progressive recreational programs have helped and can continue to make public parks more accessible and useful for disadvantaged persons as well as others. However, it is important to note that the greatest concentrations of problems of the disadvantaged now lie within the more populated urban areas. Consequently it is of special concern that particular attention be given to these areas for current and future development of outdoor recreation facilities.

Adequate consideration given to new proposals concerning outdoor recreation facilities for the aged and the handicapped will become increasingly important in the future. Easily accessible walkways need to be provided to shorelines, fishing piers, or boat docks so that handicapped and aged persons can get to the water and enjoy recreation activities. Obstacles in playground or picnic areas such as ditches, curbs, lack of park benches, and inaccessible restroom facilities show little thought or planning for disadvantage persons. In regard to recreational needs of the aged, passive outdoor activities such as croquet, shuffleboard, sightseeing tours, bird watching, picnicking, and others can provide enjoyable pastimes for the elderly. In addition, indoor activities such as card games, dancing, bingo, table tennis, pool, and others can be made available to the aged or handicapped by the development of central recreation services or community centers. Braille nature trails, which are self-guiding trails for

the blind, are also needed in urban parks. Audio-interpretive recordings can also provide blind visitors with historical or natural descriptions. Steps which provide access to buildings or parks could be replaced with sloped walkways designed with handrails in order to increase accessibility for the handicapped. These are just a few of the many alternatives which need to be considered in order to eliminate barriers to the handicapped and make public facilities more accessible to them.

The disadvantaged, whether physically handicapped or aged, are people having basic needs and desires for recreation in the out-of-doors; experiences that will enhance their lives. These opportunities, desired by all, have been slow in coming to the disadvantaged, partially due to the slowness of the recreation profession to adjust programs and facilities toward meeting their needs and providing them opportunities. Responsibility must be taken for planning, action, and support of recreational programs and services for the disadvantaged and expanded efforts toward this end will be necessary in order to adequately meet current and future needs.

SOURCES OF MUNICIPAL PARK AND RECREATION FINANCING

The most recent Acquisition and Development Survey, a survey conducted by the Texas Parks and Wildlife Department in 1972 providing information concerning the acquisition of land and development of facilities proposed by governmental entities in Texas over the next five year period, revealed several interesting facts on sources of funding anticipated to be used by municipalities. The leading source of financing in terms of total dollar amounts was expected to be bonds, followed by federal grants and then general appropriations. Some differences do exist, however, in the most common source of financing expected to be utilized by the various city-size categories. The metropolitan areas in many instances will rely heavily on extensive bond

programs, supplemented by federal grants for a large portion of their acquisition and development programs, with many areas reporting 90 percent or better of their anticipated total funding from these two principal sources.

Many of the cities and towns will rely more on general appropriations and other local sources, such as gifts. One possible explanation for this may be a general lack of knowledge of available federal grants in the small municipalities, coupled with the inability to obtain passage of a bond issue. This is not meant to imply that this situation exists in all cities and towns, as many have made use of federal grant or bond sources of revenue.

Municipalities utilize many different sources of funding as means of financing their park and recreation acquisitions, facilities development, and recreation programs. Fund sources may be grouped according to two categories, those derived from local sources and those available through state and federal grants. Among the more common local sources are general appropriations, bonds (both general revenue and general obligation), donations and gifts of both money and real property, and revenues produced by collecting fees for the use of certain types of facilities. State and federal grants available to municipalities are too numerous to present in total in this chapter (See Appendix E of this volume for a more detailed listing.); therefore, those discussed are limited to the grants most commonly used by the municipalities.

One rather uniquely funded program in terms of funding sources is the Capital Improvements Program. Various combinations of the funding sources available to municipalities are utilized, to include general appropriations, bond programs, state grants, and federal grants. This is due to the Capital Improvement Program's design to provide new physical facilities or improvements to existing facilities. Specific facilities or improvements to be accomplished in the

immediate future are outlined in guidelines provided by the municipalities' Comprehensive Development Plan. Many capital improvements involve staggering amounts of funds (CIP's of some larger metros may request in excess of \$100 million over a five year period.), and financing these improvements on a pay-as-you-go basis is usually difficult; therefore, the various funding sources are necessitated. Financing parks and recreation areas and facilities usually requires only a small portion of the capital needed for a Capital Improvements Program since categories financed under the CIP cover a wide range.

FUNDING FROM LOCAL SOURCES

The financing of parks and recreation programs or projects may not involve as many sources as an entire Capital Improvements Program, especially those sponsored individually by local municipalities. For example, the acquisition and development of a small urban park may be best suited for financing from one or two sources. Sources available may come from revenues specifically designated to finance parks and recreation projects. Parks and recreation programs and projects financed as either part of an entire CIP or individually must be fully justified to convince decision-makers that tax dollars are wisely utilized on needed projects. Regardless of the source of funding, the burden is placed upon those requesting the financing for park and recreation programs and projects to thoroughly research and plan their proposals to insure that justifications presented adequately compete with justifications used for other urban projects in competition for available funds. Justifying parks and recreation programs has characteristically been much less than an easy task for most urban recreational planners. While the following briefly outlines financing available from local sources, it is stressed that all sources, and the amounts available from these sources, are subject to change. This is particularly true today in view of the strains placed on many municipal budgets and taxpayers themselves.



GENERAL APPROPRIATIONS

Generally, most municipalities that are involved in providing park and recreation areas and facilities annually appropriate a portion of their tax revenues for conducting their park and recreation functions for the following fiscal year. Due consideration should be given by municipal officials to the park and recreation needs of the city in relation to the needs of other municipal departments. A substantial portion of the appropriations designated for parks and recreation are generally spent on necessary operation and maintenance programs, leaving only limited funds available for major acquisition and development.

BONDS

Two types of bonds are utilized by municipalities for financing major acquisitions and developments: 1) General obligation bonds, probably the most common type of long-term financing, can finance the construction of capital improvements and the acquisition of land in instances where no direct revenue will be contributed to the municipality as a result of the improvements. This method of financing helps assure that future residents within an area share in the cost of providing facilities for their own use. 2) General revenue bonds, a comparative innovation in the field of recreation financing, are used to finance

facilities which generate substantial amounts of revenue. Examples of such facility types would be swimming pools, golf courses, tennis complexes, etc.

Among the obstacles to passing a bond issue that must be considered by the municipality are the timing of the election, the location of the bond issue on the ballot, the wording of the issue, education of the voters as to what they will receive for their tax increase, and pressure by opposing special interest groups.

DONATIONS AND GIFTS

Improvements in the park system can be financed through a trust fund, which is continuously rebuilt through contributions from local citizens and businesses. Essential for beginning a trust fund is the establishment of a separate board, independent of politics and free to solicit funds for capital improvements. Many people do not like to donate money to a government organization, but will contribute cash or real property to a trust fund. Federal income tax laws provide many incentives for donations of this nature. A donor will usually give a gift if he has money available, if there are no heirs, if there is a desire to leave the money within the community, and if he is asked. He will give to a recreation system in which he has confidence, one that has a master plan and one that has enthusiasm.

REVENUE PRODUCING FACILITIES

An important method of partial financing of park and recreation services is through the use of revenue-producing facilities. The importance of charging fees must be determined by its effect on participation, the attitude of participants and the quality and amount of service possible as a result of charging fees. Not all municipal park and recreation services should be financially self-supporting, basically only those which provide a special service or serve certain select groups.

STATE AND FEDERAL GRANTS

One of the most pressing problems facing urban parks and recreation personnel today is the complex task of keeping abreast of programs and sources of aid outside of local channels which may be utilized in their short- and long-range efforts to satisfy recreational needs. Although many municipalities take advantage of various federal and state programs that provide matching grants for various aspects of outdoor recreation, others do not, and many sources of aid are not used to their potential. A more comprehensive listing of state and federal programs available in Texas has been compiled in Appendix E to this volume. It is hoped that readers will review the listings and seek additional information on how to apply for the types of assistance that may be utilized to solve their particular problem. Following are descriptions of some of the more commonly used types of state and federal grants available to the municipalities for financing the acquisition and development of park and recreation areas. Although only one state grant is listed, additional financial assistance may be made available through various programs which are listed Appendix E.

STATE GRANT—BEACH CLEANING AND MAINTENANCE

This program, administered by the Parks and Wildlife Department, provides for state financial assistance in the form of reimbursements up to two-thirds of the

amount expended by qualified city and county governments for the purpose of cleaning and maintaining saltwater beaches on the Gulf of Mexico (not on saltwater bays) which are subject to the access rights of the public.

Among the requirements that must be met by a city or county in order to receive financial assistance are:

1. It must be a home rule city of 60,000 (latest U. S. Census) or a county bordering on the Gulf of Mexico;
2. Have public beaches within its boundaries;
3. Provide for the administration of the public beaches of the city or county by a beach park board of trustees, which has adequate authority to administer an effective program for keeping the public beaches within its jurisdiction clean;
4. Provide for the receipt by the city or county treasurer, or other appropriate official, of all funds paid to the city or county under this program;
5. Charge no entrance fees to public beaches under the jurisdiction of the city or county;
6. Provide for the establishment, maintenance and administration of at least one beach park by the city or county which meets the following minimum requirements of size and facilities; (a) be of sufficient size to accommodate public use and enjoyment of the section of public beach that the park is intended to serve; (b) have adequate sanitation facilities to accommodate the average heavy use period of the park; (c) have adequate off beach parking to accommodate the number of visitors which could utilize the park during the average heavy use day; (d) have adequate access to such park from the nearest main arterial highway;

7. Have not less than \$20,000 budgeted for the purpose of cleaning and maintaining public beaches within its jurisdiction for the state fiscal year for which state assistance is sought;
8. Have budgeted for the current state fiscal year an amount not less than the total funds expended by the city or county for the purpose of cleaning its public beaches during the state fiscal year ending August 31, 1969.

FEDERAL GRANTS

1. Housing and Community Development Act. This program, enacted in 1974, replaced the "Legacy of Parks" program, which in turn replaced three former grant programs, including the Open Space, Urban Beautification, and Historic Preservation Programs. The primary purpose of the Community Development Program is the development of viable urban communities, including decent housing, a suitable living environment, and expanding economic opportunities, principally for persons of low and moderate incomes. Program objectives that pertain to recreation include:

"...a more rational utilization of land and other natural resources and the better arrangement of residential, commercial, industrial, recreational, and other needed activity centers;" and "...the restoration and preservation of properties of special value for historic, architectural, or aesthetic reasons."

The Act provided for a national \$8.6 billion block grant community development program that will give localities greater control over how the money is to be spent, within a broad set of guidelines. Programs that may qualify are land acquisitions, public works, code enforcement,

slum clearance, remodeling for the handicapped, relocation, disposition of acquired properties, improvements in public services and facilities, payment of the non-federal share of Community Development Grant-in-Aid Programs, urban re-development, and preparation of a comprehensive community development plan.

The Act specifically states that grant assistance for a community development program is available for the acquisition of real property which is "appropriate" for "rehabilitation or conservation activities." These include preservation or restoration of historic sites, beautification of urban land, conservation of open spaces, natural resources, scenic areas, and the provision of recreational opportunities. Also eligible for grant assistance is the acquisition, construction, reconstruction or installation of neighborhood facilities, senior centers, historic properties, pedestrian malls and walkways, parks, playgrounds, and recreational facilities.

For an applicant to qualify for the program, a number of requirements must be met, including that the community set forth a three-year community development plan, which identifies community development needs, develops a strategy for meeting those needs, and specifies both short—and long-term community development objectives.

2. Federal Surplus Property Act. Under the terms of Public Law 91-485, enacted by Congress in 1970, the Secretary of the Interior is authorized to convey to states and their political subdivisions certain surplus federal real property for public park and recreation purposes. Title to such areas may be transferred at a discount of up to 100 percent of their fair market value.

The federal government owns more than 761 million acres of land—one-third of the entire land mass of the United States. This acreage, divided into more than 20,000 parcels, is scattered throughout the 50 states. Studies have revealed that thousands of the most valuable of these acres lie under-utilized. Many of the acres are restricted or fenced off—their use and enjoyment denied to the American people who own them. Recent White House Administrations feel these lands should be treated as a precious resource belonging to all the people and should be used to serve the highest possible public good.

All real property held by the federal government which is deemed excess to the needs of a particular department is reviewed by the General Services Administration. If it is determined that the federal agency does not require the property to carry out its functions, the General Services Administration declares it surplus to the needs of the federal government. Notices of availability are transmitted to appropriate state and local governments by the General Services Administration and the Bureau of Outdoor Recreation when such a parcel has been determined suitable for public or recreation uses. Recreation receives the highest priority in the Federal Property Management Program.

Any local government may make application to the Bureau of Outdoor Recreation for surplus federal real property which is needed for public park and recreation use. Upon receiving an acceptable application, the Bureau may request assignment of the property from the General Services Administration. Before a transaction can be completed, the interested recipient must prepare a comprehensive park plan for federal approval. The law provides that the conveyance is in perpetuity, but the property reverts to the

federal government if it is not developed as a park and maintained in accordance with the terms of the deed.

3. Federal Aid Highway Act. This law, passed in 1973, authorized two types of funding for bikeways and pedestrian paths.
 - a. Pedestrian facilities and bikeways associated with Federal Aid Highway Act and bikeways associated with Federal Aid Highway Act projects. As long as construction of these facilities is considered an incidental feature to a larger highway program and is contained within the normal right-of-way, there is no limit set on the amount of funds that may be expended.
 - b. Pedestrian facilities and bikeways not associated with Federal Aid Highway Act projects. Up to \$2 million in federal and highway funds may be spent by individual states on a 70-30 percent matching basis. This \$2 million is a part of Texas federal aid and must be matched 30 percent by the state. It is up to individual states to make a determination as to whether or not to expend these funds on bikeways and pedestrian paths or to spend it on highway development. Local political subdivisions may not apply directly to the Federal Highway Administration, but must work through the Texas Highway Department.
4. Land and Water Conservation Fund. The Land and Water Conservation Fund was authorized by Public Law 88-578 of 1965. It has probably been the greatest single impetus to outdoor recreation of any program yet devised, and is still assuming an ever-increasing importance. As originally established, the Fund was supported by entrance and user fees charged at designated

federal recreation areas, proceeds from the sale of surplus federal real property, and a federal tax on motorboat fuel. In 1968, Congress supplemented those funds with revenues from the General Fund, or Outer Continental Shelf mineral lease receipts. These funds are distributed to the states and local governments through the Bureau of Outdoor Recreation.

In order for a state and its political subdivisions to receive acquisition or development grants from the fund, the state must develop a comprehensive statewide outdoor recreation plan, and update and refine this plan on a continuing basis. In addition to serving as a guide for federal grant assistance, the plan serves as a guide for acquiring, developing and protecting significant outdoor recreation resources within the state, including federal, state, local and private recreation resources; it assures a continuing and focused opportunity for local units of government and private citizens to take part in the state's outdoor recreation and environmental quality planning programs; and it provides a practical tool for coordinating all outdoor recreation and environmental conservation programs.

Assistance is provided for acquisition and development projects in highly populated urban areas as well as in rural areas. Eligible development projects may vary in type from bicycle paths to hiking trails, from roadside picnic stops to swimming pool complexes, and from inner city mini-parks to marinas.

Grants are made on a 50-50 matching basis with the federal share based on allowable project cost. To qualify for fund assistance, each acquisition or development project must be in accord with the state plan. The local government agency must agree to permanently dedicate projects to public outdoor recreation

use, and assume responsibility for continuing operation and maintenance. Facility discrimination on the basis of race, color, or national origin is strictly prohibited. A detailed breakdown of Land and Water Conservation Fund expenditures in Texas may be found in Appendix F.

5. **State and Local Fiscal Assistance Act.** This Act, more commonly known as "revenue sharing," was passed in 1972. It provides for the return of federal funds to state and local governments for their needs with only general guidelines directing the use of the money. The Act appropriates from the general fund of the United States Treasury a total of \$30.2 billion over five calendar years beginning in 1972. These funds are to be allocated on the basis of two-thirds to local governments and one-third to state governments. State governments may use the funds as they wish. Local governments may use the funds for "priority expenditures," including recreation, environmental protection, public safety, public transportation, health, social services for the poor or aged, libraries, financial administration, and capital expenditures authorized by law. The funds may not be used to match other federal grant programs.

Although a number of grant funds are available to the municipalities, it is apparent that if their current and anticipated resource requirements are to be met, levels of existing funds available should be increased and new sources of funding must be provided. Some possibilities include an increase in the total amount of National Level Land and Water Conservation Funds, for which there are currently proposals in Congress, and creation of a state fund, supplementing the Land and Water Conservation Fund. Maximum utilization of monies currently available for programs, equipment, and maintenance can also provide some relief to the financial problems.

URBAN RECREATION PROGRAMS

The purpose of public recreation programs is to serve people of all ages throughout the year with a variety of opportunities through the use of recreation areas and facilities, leadership abilities, and special guidance or assistance service for individuals and groups.

Programs include the means by which a recreation department or other entity works to achieve its purpose. Recreation programs may be defined as all services and activities which satisfy the recreational needs and interests of the people within the community. Objectives of programs can be:

1. Character development
2. Community stability
3. Emotional and physical health
4. Development of skills
5. Social living
6. Widening interests

There was a time when a park and recreation program meant a Sunday concern, sand-lot baseball or a game at the horseshoe pit. Programs of these types still exist, but today's park and recreation leaders are required to foresee and meet the more sophisticated and changing recreation requirements of urban populations. Such requirements vary as do the interests of the people. Consequently, each urban area is faced with common, yet uniquely individual problems.

Many recreation programs are felt to lag behind the needs of the urban areas. No "standards" exist with which to measure programs. Standards are difficult to establish due to changing social and economic patterns of American life, a lack of park and recreation areas and facilities, a lack of adequate financial support to assist in expanding programs, and

a lack of sufficient leadership to offer the full scope of program services. These factors hinder exact or precise measurements with which to judge program needs. However, municipal park and recreation departments are charged with the responsibility of meeting the needs and desires of all citizens, varying from objectives directing that every child should have a chance to play, to those directing that every resident, both young and old, should have an opportunity to make the best of his leisure time, etc. Therefore, recreation leaders must offer programs for the senior citizen, all ethnic groups, preschool children, teenagers, families as a group, and the handicapped. They must work with governmental agencies on all levels—municipal, state, and federal—private foundations, corporations, and community organizations.

Park and recreation programs are more important today than ever before. In our growing congestion and urban sprawl, people need to have constructive activities and a variety of recreational pursuits, a release from everyday tensions and pressures, an opportunity to join together in classes, teams, or cultural exchanges. To this end, recreation programs can provide immeasurable assistance in providing urban recreation opportunities. The following narratives discuss some of the key issues that have been found nationally to directly offset urban programs.

THE PROBLEM OF LEADERSHIP

Leadership is most important to any successful program. In addition to the necessary expertise, the municipal recreation staff must have the ability to reach out to the community; they must understand the needs and problems of the handicapped, the poor, the elderly; and they must be flexible in providing services. Leaders must be able to communicate with and coordinate the efforts of volunteers. The development of good leadership usually depends on an agency's staff recruitment and training program.

Problems of trained leadership can often be solved by cooperating with a nearby college or university through in-service and internship training programs for municipal staff and students in the recreation fields. Annual spring leadership institutes can be held to train interested high school students in the field of recreation. Volunteers can be recruited among vacationing students, Job Corps participants, through school work-study programs and civic organizations.

In some small urban area adequate leadership may be difficult to find. One solution might be the hiring of the school athletic director or his assistant to coordinate the summer recreation program. High



school or college students may be hired as playground leaders, instructors, lifeguards, umpires, maintenance personnel, etc.

Following are examples of how two cities helped solve their leadership problems:

1. In Placentia, California, a Volunteen Program, designed for young people between 13 and 18 years of age, provided leadership training for those interested in careers in physical education or recreation. Upon successful completion of minimum course standards, each Volunteen received a \$100 scholarship and a letter of recommendation. A large percentage of the Volunteens were subsequently selected for permanent staff positions in the recreation department.
2. Each year teenagers in Boulder, Colorado, play a vital part in the park and recreation program through a trio of youth leadership organizations: Rangers, PALs (Playground, Assistant Leaders) and WSAs (Water Safety Aides). The Rangers, a group of 100 boys ages 14-17, were employed to perform various work assignments in the city and mountain parks including building and maintaining trails, cutting wood, constructing bridges, installing water systems and maintaining other municipal facilities. Each boy worked a four-hour day under the supervision of Assistant Senior Rangers and Senior Rangers.

The Water Safety Aides are young boys and girls, who assist the Water Safety Instructors in teaching swimming lessons to elementary school-aged children under the Learn-to-Swim Program at the municipal pools. The Playground Assistant Leaders are young boys and girls who assist the Playground Leaders in all phases of conducting playground activities for elementary school children.

The PAL and WSA positions are entirely volunteer while the Rangers receive a small financial compensation. Each year the city's teenagers compete for inclusion in these programs. They like the opportunity of assuming leadership responsibility in a field which they enjoy, gaining experience which qualifies them for consideration as paid leaders. Many enjoyable fringe benefits are made available to the youth, such as swim passes, swimming parties, dances and other socials, a recognition banquet, a certificate for community service, all in addition to preference for future supervisory summer positions and for permanent employment.

TYPES OF PROGRAMS

Often, a lack of programs on the part of local government can be traced to a lack of information regarding programs that have been successful and worthwhile in other areas. In many cases programs of one kind work as well in one area as another. Six principal groupings of various types of recreation programs that have been proven to be successful in many urban areas are listed below. Each of these groups is then divided into several of the possible or most prominent sub-types. This list is not intended to be all inclusive since an unlimited variety of possible programs exist within each type or sub-type. The existence of these programs depends on the interests and demands of the residents, along with the availability of qualified leadership.

1. Arts and Crafts
 - a. Ceramics and Pottery
 - b. Painting and Drawing
 - c. Papercraft
 - d. Sculpting
 - e. Stitchery
2. Camps
 - a. Art Camp
 - b. Day Camp

- c. Music Camp
- d. Nature Camp
- e. Sports Camp
3. Fine and Performing Arts
 - a. Dance
 - b. Drama
 - c. Music
 - d. Rhythms
4. Games and Sports
 - a. Individual Sports
 - b. Informal Games and Sports
 - c. Low Organized Games
 - d. Team Sports
5. Nature Activities
 - a. Nature Study
 - b. Outdoor Crafts
 - c. Trips and Outings
6. Social Events
 - a. Carnivals
 - b. Clubs
 - c. Dances
 - d. Exhibits
 - e. Holiday Events
 - f. Movies
 - g. Parties

Many urban areas of Texas have program activities of this type, but many do not. Increasingly, the need for programs will be realized and become more valuable and essential to the provision of urban recreation opportunities.

UTILIZING EXISTING FACILITIES

In these days of rising costs for acquisition and development, park and recreation administrators must attempt to fully utilize existing facilities by expanding their recreation program offerings. Many facilities are under-utilized during certain portions of

the day, week or year. The following discussion is designed to probe some of the possible alternatives for increasing facility utilization by the addition of activities, programs, and events during non-peak use periods.

Most normal utilization of a playfield is for organized sports or sand-lot and free play. Due to the seasonality of sports such as baseball and football, the playfield, in many instances, remains idle for long periods of time. During these periods, programs such as arts and crafts exhibits, carnivals, pet shows, special holiday events, parades, archery, kite flying, model airplane flying, golf instruction, bicycle safety/races, astronomy, outdoor classes, traveling zoo, etc. could be initiated by the recreation department, providing better utilization of existing areas more of the year.

The play court or slab can also serve many purposes. Dance instruction, calisthenics, puppet shows, wrestling, shuffleboard, boxing, gymnastics, arts and crafts classes, and many more activities or events that could utilize an outdoor concrete surface would help to fulfill increasing recreation demands through the expanded use of existing facilities.

The normal swimming season in most portions of Texas is three months, extending several months longer in some portions of the State. Many opportunities exist for extended use of these expensive pool facilities for activities other than swimming. Among the possibilities are bait and fly casting classes, fishing instruction/derby, scuba and skin diving instruction, boat safety, canoeing and kayak instructions, water polo, combined swimming and pool-side parties, etc.

In like manner other facilities such as the playground, picnic area, trails, golf course, and community/recreation center could be utilized to a greater extent through careful planning and scheduling with the range of activities, programs and

events limited only by the imagination of the recreation staff. Often, the added use of facilities can be provided at very low costs, with a much better balanced program offering significantly improved provisions or urban recreation opportunities.

JOINT SCHOOL-PARK USAGE

In recent years many municipalities have entered into joint agreements with schools whereby school facilities can be provided and used for park and recreation purposes. However, local officials responsible for the development of school facilities must recognize that the schools need not just serve an educational function, but can also provide civic, social, recreational and cultural centers for the community. Likewise, parks and recreation departments must recognize that the schools have purposes other than recreation. If the goals are to avoid duplication of facilities, cooperative arrangements can and have been initiated which provide more efficient and effective service for the public tax dollar.

It is commonly recognized that cooperation between officials of the parks and recreation department and the school district in the planning, acquisition and development of school-park sites within the community results in economies in expenditures, reduces maintenance time and cost and increases the effectiveness of use. Portions of the school grounds and buildings can serve many community needs and indoor recreation requirements, while portions of the park areas can provide facilities for school recreational and educational programs, as well as other community needs.

One initial step toward the joint utilization of school-park facilities and programs which have proven effective in the State is the establishment of a committee (including members of the school board, the parks and recreation board and other municipal officials, which draws up contracts or agreements

stating how the facilities and programs will be jointly operated between the school district(s) and parks department.

Problems of cost and administration have been solved via agreements that allow the schools to make provisions for the use of gymnasiums, swimming pools, auditoriums, classrooms and athletic facilities, while the parks and recreation department assumes responsibility for providing instructors, upkeep of the facilities while in use, and other arrangements. Auditoriums, libraries, classrooms, special study rooms such as shops, music and art rooms, cafeterias and home economics facilities present special problems and are made available in fewer instances, but if extended use does not interfere with school instruction and the school's extracurricular program, cooperation can be excellent.

Cooperative planning efforts between the school and community officials in acquiring sites and in designing schools for combined use has proven highly desirable. New school buildings can be planned so that the portion of the building that is to be used by the community can be separated from the remainder of the structure, thereby offering better advantages for joint school-recreational arrangements.

FEDERAL PROGRAMS

There are a number of federal programs currently in existence which deal with outdoor recreation. However, these programs sometimes change rapidly, and from year to year certain programs may be modified, eliminated, or new ones added. In addition, appropriations from the Congress and the President may not always be forthcoming. Notwithstanding these problems, a brief description of a few of the important federal programs, providing assistance other than capital improvements as they exist at the present time, is presented below. For a more complete list of federal and state programs and grants, see Appendix E.

YOUTH CONSERVATION CORPS

The Youth Conservation Corps is a program resulting from a joint agreement between the Secretaries of Agriculture and the Interior which receives appropriated annual monies from a permanent fund authorized by Congress. The program is designed to allow teenagers from ages 15 through 18 to have the opportunity for summer employment, and is open to persons of all socio-economic backgrounds. Last year, the nationwide allocation for this program amounted to 10 million dollars, and can provide funds to local points on a 50-50 matching basis. Generally, information regarding this program can be obtained from the Texas Department of Community Affairs, Office of Youth Opportunity.

JUVENILE JUSTICE AND DELINQUENCY PREVENTION ACT

This law authorizes three-year matching grants to state and local governments for the purpose of *developing innovative programs* for the prevention and treatment of juvenile delinquency. Since use of the program could result in substantial funding of park and recreation programs (the act specifically cites recreation as a means of preventing juvenile delinquency), *this program could prove highly beneficial for urban areas in Texas.* However, in order for states to receive grants, they must submit comprehensive juvenile justice plans, which are prepared by the State Planning Agencies of the Law Enforcement Assistance Administration (LEAA) of the Justice Department. Funding of recreation programs will then depend on the priorities of the planning agencies. The Texas Criminal Justice Council can provide more information regarding the program.

SUMMER YOUTH PROGRAM

Provision for the Summer Youth Program is part of legislation establishing the Comprehensive

Employment and Training Act of 1973 (CETA). The program is similar to, and succeeds, the popular Summer Recreation Support Program (RSP), which no longer exists. The purpose of the Summer Youth Program under the auspices of the Federal Department of Labor, is to provide summer employment and work training experience for rural and urban disadvantaged youth, ages 16-22. The CETA legislation specifically states that the program must include jobs in recreation and related programs. The program is administered by prime sponsors, which are local governmental units. Further information can be gained from the Texas Department of Community Affairs, Manpower Services Division.

RECREATION AND TRANSPORTATION PROGRAM

The Recreation and Transportation Program, under the direction of the Federal Department of Labor, is designed to provide more recreation opportunities for disadvantaged youth. It is administered similarly to the Summer Youth Program, i.e., with prime sponsors, etc. Under the program money may be spent for equipment and transportation necessary for recreation, but not for capital improvements, such as swimming pools or playground equipment. The transportation portion of the program is to include such things as transporting disadvantaged children to playgrounds, ball games, etc. Further information can be obtained from the Texas Department of Community Affairs, Manpower Services Division.

SUMMARY

A set of statewide standards for recreation programs cannot be established due to the wide variety of possible programs and the varying demands of a given community. However, certain general criteria, if followed, will assist the community in developing worthwhile programs. Consideration for the provision

of programs should include planning which provides recreation opportunities which will:

1. be accessible to all age groups, all economic and racial groups, all creeds and both sexes.
2. be related to the varying physical, mental, social and emotional characteristics of individuals.
3. provide an opportunity for participation at various levels of proficiency.
4. involve consideration of diversified interests and include a wide variety of activities from athletic to cultural.
5. enlist community resources that can provide variety and enrichment to the program.
6. be continuously evaluated and measured.

Survival of a park and recreation program in a municipality has been demonstrated to be successful only through the cooperation of many individuals and organizations, through a well-informed public, and a willingness to try a program. Key factors include measures which insure that people be made aware of the programs offered. This may be accomplished by distributing leaflets or brochures in schools, banks and stores; by providing announcements in newspapers and over local radio and TV stations.

Program suggestions should always be encouraged. If residents want a new class of instruction, or a new activity that is not offered within the program, the municipal government should be aware of this. Only through citizen involvement will the programs be able to flex with the needs and desires of the community. Programs should be evaluated at the close of each session, attendance and participation figures analyzed, and where possible, public opinion surveys made periodically.

Creative use of leisure time is a major challenge, especially with the trends toward shorter work weeks, earlier retirement and year-round schools. Program emphasis and funds need to be expanded and adapted to these trends. Since recreation is a responsibility of all entities, both public and private, government is obligated to assist in meeting these needs. Fulfilling that responsibility will mean providing adequate recreation opportunities for all Texans, particularly those who lack the mobility and funds to use existing resources.

Federal recreation lands and facilities are not always suited to everyone's needs, particularly the urban poor or disadvantaged, and the elderly who cannot always take advantage of recreation opportunities at national parks, forests and reservoirs outside the urban areas. Much of the need for recreation opportunities for these groups could be met through year-round recreation programs that make maximum utilization of existing lands and facilities. Peak periods exist when various facilities are utilized to capacity. However, for several hours of the day, several days of the week, or even months of the year, many facilities are very lightly used or even lie idle. Additional recreational opportunities for a wide variety of activities can be provided by more fully utilizing existing facilities.

Many local governments are handicapped by insufficient funds to provide the recreational programs. Certain federal programs, such as the Youth Conservation Corps, the Juvenile Justice and Delinquency Prevention Program, etc. may be of some help. However, the effectiveness of many such programs are only available if applied for, and may not receive funds to carry out their purpose unless local governments make use of their benefits. As more recreation programs of the type which can provide financial assistance are designed and implemented, a great deal of emphasis must remain on good leadership and innovation in providing recreation programs.

Appendices

Appendix A

Appendix A: Glossary

Introduction

The terms in this glossary relate most closely to the analysis of outdoor recreation in the urban areas of Texas. Glossaries in other volumes of the **Texas Outdoor Recreation Plan** may have more or fewer words described, as applicable.

In developing the **Texas Outdoor Recreation Plan (TORP)**, unconventional or specialized meanings have sometimes been assigned to familiar words. This was done in order to make the analysis of large amounts of data more readable and useful to the general public. For this reason, the following glossary has been prepared so that the public, as well as other planners, might acquaint themselves with the meanings, translations, or uses of these terms in the **TORP**.

To facilitate more efficient communication and common understanding, several attempts have been made to standardize terms and concepts used in recreation research and planning. The definitions of terms offered here do not necessarily imply that other definitions are unacceptable. However, these definitions are of particular significance as they are found in the official document that is to guide recreation development in the State of Texas. If the words prove useful enough, their use should become standardized throughout the State.

Any questions or comments regarding the clarity or accuracy of these terms and their uses should be sent to: Comprehensive Planning Branch, Texas Parks and Wildlife Department, John H. Reagan Building, Austin, Texas, 78701.

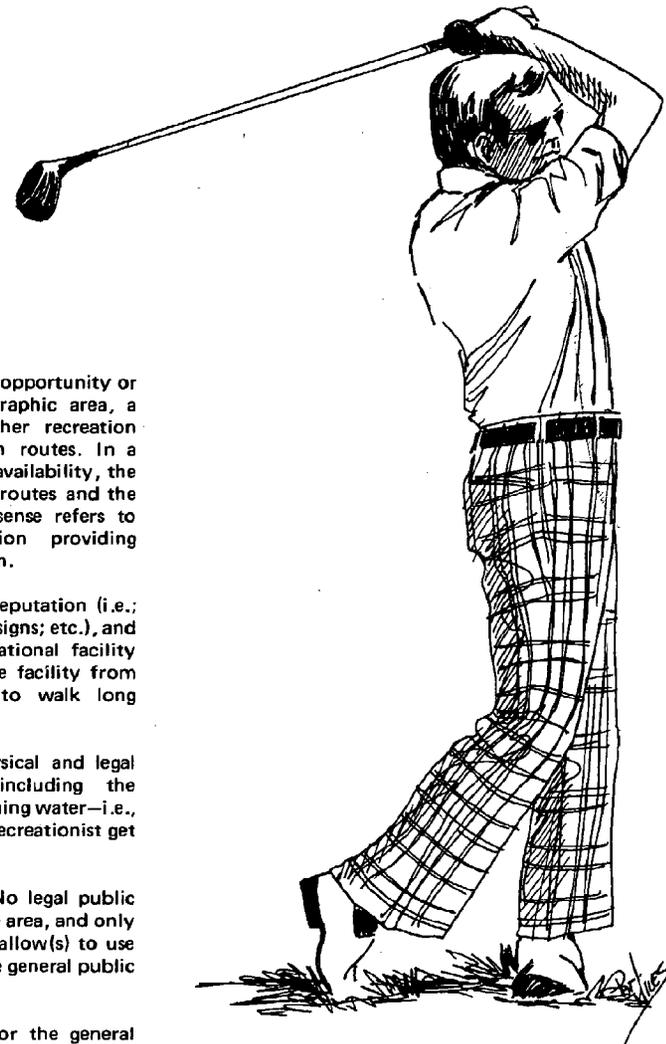
Access, area, recreation area, and/or park—the opportunity or means of approaching a given geographic area, a recreation area, and/or park or other recreation destination via existing transportation routes. In a sense refers to the physical and legal availability, the reputation, and/or the quality of the routes and the recreation area or park. In another sense refers to available modes of transportation providing conveyance to the recreation destination.

Access, facility—refers to route availability, reputation (i.e.; do people know route exists; are there signs; etc.), and quality from park entrance to recreational facility destination (i.e., can people get to the facility from the park entrance; do they have to walk long distances; is there parking nearby; etc.)

Access, fishing—Fishing access refers to physical and legal availability of fishing facilities, including the recreationists' opportunity to reach fishing water—i.e., is there a boat ramp available, can the recreationist get to the waters edge, etc.

Access, private—(Also, see: Access, public) No legal public access. Area is open to owner(s) of the area, and only those other persons that the owner(s) allow(s) to use the property. In other words, use by the general public is controlled by the property owner.

Access, public—the opportunity or means for the general public to approach and use a recreation destination. (As considered in the **TORP**, public access means, in effect, a park, or recreation area, is open to the public



either for a fee or for free.) The recreation destination—either park or recreation area—may be publicly or privately administered and/or owned, but the general public must be allowed to use the resource. The facilities available at a given park or recreation area are called the facilities mix. Correspondingly, but not necessarily, the facilities mix determines the activities package for a given park.

Accessibility—refers to the ease with which recreationists may use recreation resources. Among the factors which may influence accessibility are land ownership transportation facilities, the proximity of recreation resources to urban centers, user fees, and signs and information which identify the recreation resources for the recreationist.

Accessible Shoreline—that water frontage, e.g., either on the Gulf, on a bay, a lake, river, stream, reservoir, etc., which presents recreational opportunities for the public via existing modes and routes of transportation.

Acquisition—receiving control of a land and/or water resource by a variety of means for purposes of altering the present use of the resource to recreational. Means of acquiring vary from outright purchase (fee simple) of title or deed to receiving as a gift. Recreational uses may vary from strict preservation—no development; to high-intensity uses—completely developed areas for many activities.

Action Programs—significant outdoor recreation related actions which the State proposes to initiate or continue during the period of plan use.

Active Recreation—See: Recreation, active

Activities, recreational—a wide array of individual pursuits which tend to refresh or relax, entertain or amuse, and invigorate or recharge the mind and body, and which tend to release the tensions or frustrations created by day-to-day interactions.

Activities, saltwater associated—recreational activities which occur in or near saltwater areas to include Gulf and bay areas along the Texas Gulf Coast.

Activities, spectator—applies only to observance of organized activities.

Activity, primary—(Also, see: Activity Package) This activity provided the major reason for going to a park, the major reason for stopping while on a trip, and/or the major impetus for participation. The "primary" activity might vary from recreationist to recreationist, while often the primary is the same for all members of a group.

Activity, secondary—(Also, see: Activity Package) A secondary activity is a recreational activity which results from a variety of conditions. There must be a "primary" activity, then secondary activities evolve from preplanning, from pursuit by members of the household or group who are not as enthusiastic for the primary activity as others, from a selection from alternative activities, from recreationists tiring of the primary activity, from a lack of opportunity for the primary activity, or from overcrowding of the primary facility.

Activity Day—(Participation Day)—a unit of measurement used to describe participation in recreational activities. One day of participation was recorded in the TORP surveys if any part of a day was devoted to a selected recreational activity. If the same members from the same household or group participated in the same activity twice in the same day at two different parks or recreation areas, it would be recorded as two days for each participating member. Participation by the same household or group in the same activity several times during the same day at the same one location would be recorded as one day for each member.

Activity Package—activity "packages" are those sets of recreational activities which were generally shown to be closely related. Recreationists have, as a general rule, different preferences and capacities to pursue the activities of their choice. Most parks provide facilities for two or more activities. One activity is usually the primary activity, or the reason for going; and, an activity which might also be pursued within the same park is called a secondary activity. For example, the primary activity might be picnicking, while on the outing recreationists might also pursue such secondary activities as swimming, baseball, horseback riding, nature study, boating, etc.

Aggregate Analysis—The process of combining an analysis of supply, participation, and/or resource requirements for particular geographic delineations, i.e., analysis of an entire metropolitan area including contiguous municipalities, a group of cities excluding those contiguous to metro areas, or a group of towns excluding those contiguous to a metro in each of the 37 analytical regions. In the volume of the TORP titled **Outdoor Recreation in the Urban Areas of Texas**—when analyzing a metropolitan area—aggregate analysis implies that the data used to determine resource requirements related not only to the metro core, but to all immediately adjacent, contiguous, and surrounded smaller municipalities. When analyzing the "cities" within a given analytical region the data were combined for all cities in that region such that supply, participation, and resource requirements for the region were expressed as if there was only one city in that given region. Likewise, when analyzing the "towns" of

a given region, these were expressed in the "aggregate" as well.

Amphitheatre Seats—refers to outdoor theatre seating capacities only. Seating capacity was estimated if individual seats were not designated (i.e., if there were only benches).

Analytical Regions (Same as the 37 Texas Outdoor Recreation Analytical Planning Regions for TORP) Territorial delineations among the political subdivisions (i.e., groups of counties) within the State based on a combination of factors which allows state recreation planners to apply recreational demand and supply data to recreation problems at the regional level. Counties were aggregated for regional analysis based primarily on the initially established Governor's Planning Regions. Certain of those regions were subdivided to provide the capability to analyze data at a more local level.

Analytical Subsections—portions of an urban area delineated by local urban or recreation planners in the Texas Outdoor Recreation Urban Planners Survey. Delineations were based on the combined, predominant income and ethnic background characteristics of the urban areas of the State. For example, middle-income Anglo subsection. Breakdowns of the income levels were based on total annual (average) household income as follows: Low—up to \$5,000; Middle—\$5,000 to \$15,000; High—greater than \$15,000. The three ethnic backgrounds which characterize most Texas municipalities—Anglo, Black, and Mexican-American—were selected as the other delineation criteria.

Analytical Techniques—(Also, see volume of TORP titled **Techniques of Analysis**) The various scientific or empirical and recreation planning methodologies used to synthesize and analyze pertinent data from the surveys conducted to support state-wide recreation planning in Texas.

Archeological Site/Area—those archeological, historical, and cultural resources present in areas, districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and are identified as being important in prehistory and/or history.

Archery—(Also, see: Sport Shooting) A recreational activity involving the use of bow and arrow equipment for competitive or non-competitive, non-school and non-professional target shooting as well as for other unspecified uses. Participation normally occurred at either a practice range or empty field. Hunting with a

bow was counted in the TORP as hunting participation.

Archery Targets—See: Sport Shooting

Available Surface Acres of Bay—approximate total surface acres of bays located in or near counties in the coastal region which are available for the water related activities of boating, fishing, or water skiing.

Barge, fishing—a floating structure usually attached to the shore and usually providing access to more desirable fishing water than is available from the shore.

Baseball—a recreational activity generally involving competition between two teams in a wide variety of types of baseball activity involving for example, from sandlot to little league participation (usually requiring a field, bats, balls, gloves, etc.); but, organized school, semi-professional, or professional games were not included in the TORP. Participation could have taken place in the street, at a school baseball diamond after school, at park facilities, or at some other resource with or without sport facilities.

Baseball/Softball Fields—fields with facilities for baseball and/or softball play.

Basketball—A recreational activity which normally involves two opposing teams of five members each which pass, throw, or bounce (i.e., dribble) a ball toward the opponents goal at indoor or outdoor facilities, i.e., gymnasium, vacant lot, standard court, etc. City parks and school gyms or playgrounds were prime areas for participation. Any number could play and there were no restrictions on rules. Indoor participation was eliminated from the projections of recreation demand.

Basketball Courts—an area designed, constructed, and/or used for recreational basketball participation. Full-court basketball courts were enumerated for recreation resource inventory purposes of the TORP.

Bicycle Route—A course designated on existing streets, roadways, and/or highways which has been specifically allocated for bicycle traffic or which has special traffic control signs which mark the route indicating to others that bicyclers may be in traffic ahead. This type of course would most often be found in an urban area, but not within a park.

Bicycle Trail—A course which has been specifically designed and constructed primarily for recreational bicycling. The course may be designed on an existing roadway, but generally the trails are off-road except for short stretches for crossing traffic, in rough terrain, or for

more expedient use of resources. This type of course would often be found in parks and recreation areas.

Bicycling—A recreational activity which involves riding a two-wheel unmotorized vehicle for pleasure. The activity could include use of designated trails or paths. Does not include going to and from school or to and from work unless the destination was incidental to the reason for using the bicycle.

Boat Fishing—A recreational activity which involves fishing while using a boat to gain access to fishing waters which may not be available from shore.

Boat Ramp—An area for launching and retrieving boats; generally, a sloping road-like structure constructed of asphalt, concrete, gravel, or dirt leading down into the water.

Boat Ramp, lane—a subdivision of a boat ramp; one lane providing access for one boat at a time. A ramp will most often have one, two, three, or four lanes. If the ramp is not physically partitioned by curbs or other barriers, number of lanes was determined by estimating number of boats which could be launched or retrieved safely, side-by-side, at one time on the same ramp.

Boating—A recreational activity involving riding around in a boat as an objective in itself. Fishing from a boat, pulling a skier, or using a boat for transportation would not be accepted as boating participation unless the respondents specifically stated that they were riding around in the boat for recreational purposes. Types of boats included canoes, kayaks, houseboats, various motorboats, paddleboats, rowboats, sailboats, yachts, etc.

Botanical Gardens—areas devoted to specific collections or arrangements of endangered, indigenous, ornamental, or otherwise extraordinary plant materials used for scientific study, exhibition, interpretation, education, landscape enhancement, etc.

Camping—A recreational activity involving any overnight stay on the premises of a public or private recreation enterprise regardless of type of camping shelter used. For example, a recreationist who spent the night in his car, in a tent, in a recreational vehicle, etc., at a designated campsite would be considered a camper. On the other hand, those staying at motels were not considered campers.

Campsites—refers to any space designated and used as a camping area excepting sites used primarily for picnicking. There are many types of camping sites, the following are the most common in Texas:

Single Unit Campsites:

Tent Sites—normally consists of an area which has been leveled and includes one or more facilities; such as table, grill, trash can, and/or water. The site is normally used by campers using tents or other similar portable materials for shelter.

Trailer, Mobile Camper, and Pickup Camper Site—normally a designated site having a similar complement of amenities as tent sites used by persons with travel trailers (includes tent foldout trailers) motorized or self-powered fixed construction camping vehicles, and pickup campers, or any site having a sewer connection.

Screened Shelter—this type campsite is a permanent or semi-permanent structure consisting of a roof and two or more screened walls, the remainder of which is fully enclosed (with fewer than two screens, the structure would be a cabin and was not included); the height of the screens may vary, however. Most of these shelters are insect resistant and provide some degree of privacy for a single family or single group of campers.

Group Campsites:

This type would appear as a cluster of single unit campsites in one location. They can be used for tent or trailer camping.

Group Screened Shelters—these are also permanent or semi-permanent structures designed to accommodate two or more families or groups of campers. The definition of screened shelters applies otherwise.

Capacity—The environmental, physical, biological, psychological, social, and cultural limitations of a given resource or set of resources. (For example, some types of limitations are size, space, interfacility distances, perceptions of crowding, carrying ability of the soils, flora, and fauna, etc.) The carrying ability of a given resource. For purposes of the TORP, most references to capacity relate to seating capacity or the maximum number of persons a theatre or rodeo arena can seat; however, in another context the word has been used to describe the limiting point for resource use beyond which degradation of the resource begins and from which the resource cannot recover naturally. If use levels are maintained above capacity eventual destruction of the resource occurs.

Children's Play—primarily unorganized play at a field, park, playground, or undesignated area not at a private residence lawn or yard. Organized play might occur at a club or neighborhood outing with supervised games for children. Adults, such as parents, watching the children were not recorded unless actually participating. Types of play included swinging, sliding, riding merry-go-rounds, arts, crafts, free play, etc.

Cities—(Also, see: Urban Area; Metro Area; and, Towns) Any urban area with a population of 10,000 to 49,999 persons and which is not a part of or contiguous to a metropolitan area.

City Park—See: Urban Park

Communication—(Also, see: Statewide Recreation Information System; Cooperation; and Coordination) For purposes of the TORP, this word describes a vital component necessary in the implementation of the statewide recreation planning process. Communicating timely information among the entities providing recreational opportunities, technical, and/or financial support; among other decision-makers and planners; and among the general public regarding recreation problems, solutions, and actions, provides more efficient, expedient, and long lasting solutions to the identified recreation related problems.

Community Park—(Also, see: Urban Park) An urban park with less than 20 acres of developed land and containing facilities for two or more of the following activities: games and sports, picnicking, playground, or swimming. See Games and Sports.

Community Recreation Center—A building or structure providing indoor recreation facilities for all age groups.

Comprehensive Planning—See: Planning, Comprehensive

Conservation—The wise use of resources. In this plan the major focus is on conservation of recreation resources by achieving sound, environmentally sensitive, citizen-formulated recreation goals via actions implemented through the comprehensive recreation planning process.

Contiguous Area—Those incorporated cities and towns which for purposes of analysis in the TORP were considered integral areas immediately adjacent to, surrounded by, or otherwise connected to the metropolitan core area. (For example, Irving was considered part of the Dallas metro area.)

Contiguous to Bay or Gulf—On, adjacent, or near (accessible) the Texas Gulf Coast or bay water shorelines.

Cooperation—(Also, see: Statewide Recreation Information System, Communication, and Coordination) Describes a necessary ingredient for efficient and effective implementation of the statewide recreation plan. By acting in a cooperative manner, recreation planners, decision makers, lawmakers, and citizens can participate in the planning process and thereby provide solutions to the recreation problems facing Texas in providing adequate recreational opportunities

for all Texans, our out-of-state and our out-of-country visitors.

Coordination—(Also, see: Statewide Recreation Information System, Communication, and Cooperation) Describes an integral function of the statewide recreation planning process. By coordinating information, actions, plans, laws, and the desires of the public; Texans from all levels of government, the private sector, and individual citizens will be aware of the status, actions, and needs (or requirements) for providing adequate recreational opportunities for Texas' recreationists, thus eliminating costly duplications of efforts.

Councils of Governments—Refers to those organizations established under Article 1011m, V.A.C.S., as Regional Planning Commissions. Regional councils are voluntary associations of local governments composed of at least two-thirds voting majority of local elected officials. These organizations are primarily engaged in regional planning and the promotion of intergovernmental cooperation among member local governments. In Texas, regional councils are referred to variously as "regional councils," "planning councils," "councils of governments or COGs," "development councils," and "associations of governments."

Cultural Site/Area—See: Archeological Site/Area

Data—(Also, see: Information) The sets of quantitative and qualitative information required to provide support for well-informed and statistically significant analysis of the recreational supply, demand, trends, patterns, and other recreation related factors in Texas.

Data Base—(Also, see: Data) The foundation of information on which the Texas Outdoor Recreation Plan is establish.

Demand—A schedule of the quantities of a particular good or service that would be purchased in a specified period of time at all alternative prices, holding all other factors (such as income, population, consumers tastes, and preferences, etc.) constant. More detailed discussions of recreation demand can be found in the volume Techniques of Analysis.

Demand, Outdoor Recreation—(Also, see: Demand) A schedule of the quantities of outdoor resources and/or facilities that would be utilized (in terms of participation days, occasions, visits, trips, etc.) over some period of time (i.e., an hour, a day, a year) at all alternative costs of participation, holding all other factors (such as income, population, consumers' tastes and preferences, etc.) constant.

Demand Models, recreation—mathematical formulae used in explaining or projecting demand for selected recreational activities. Detailed discussions of the several models utilized in the TORP are presented in the volume Techniques of Analysis along with discussions of the assumption and limitations on which they are based.

Designated—Indicates the acceptable recreational uses of a given resource by signs or markings describing direction, area, and purpose. However, physical barriers such as cables, buoys, ropes, fences, etc., are often used.

Designated Freshwater Swimming Area—Square yards of freshwater specifically marked for swimming by signs, roping, fencing, buoys, or any other physical features that may be used to delineate the swimming area. Swimming pools are not included.

Designated Saltwater Swimming Area—Square yards of saltwater specifically marked off by buoys, signs, roping, groins, jetties, etc., to establish a restricted swimming area. Includes only saltwater swimming areas located on a bay or on the Gulf. Usually these areas are measured in terms of square yards.

Designated Swimming Area—Square yards of water specifically marked off for control by signs, roping, etc., to establish a restricted swimming area.

Developed Land—(With Recreation-Related Facilities) Land areas, measured in acres, in parks where facilities are specifically developed for recreational activities. This does not include areas adjacent to nature or other trails in a natural setting unless developed for various activities. This does not include open areas unless they are specifically designed to provide free play, access to other areas, or activity of the outdoor sports and games variety. (Excludes water acreage.)

Development—The modification of land resources by the influences of man. Residential, commercial, industrial, agricultural, recreational, or other types of structural activities influence, or change, the natural landscape to satisfy human needs or wants.

District Park—(Also, see: Urban Park) An urban park with 20 acres or more of developed land containing facilities for two or more of the following activities: games and sports, picnicking, playground (children's play), or swimming.

Driving for Pleasure—(Also, see: Sightseeing) A recreational activity consisting of driving or riding with no specific

destination in mind, this being the principal distinction between driving and sightseeing. Includes use of designated roads and trails primarily in a car but use of motorcycles or airplanes was also recorded. Could begin immediately upon leaving the recreationist's residence.

Ecology—The study of interrelationships among living organisms and between the organisms and their living environment. This includes the study of human populations and their interrelations with regard for physical environment, demographic and cultural characteristics.

Environment—The aggregate surrounding conditions within which organisms, or groups or organisms, exist and function.

Environment, recreational—The surrounding external conditions within which persons or groups of persons recreate. The recreation environment includes such influential factors as sights, sounds, smells, social and cultural factors, availability of recreational resources, the weather, the availability of transportation, and many others.

Facilities, private—those facilities owned and/or administered by private entrepreneurs, corporations, and other non-public enterprises, most often operated to make a profit.

Facilities, public—those facilities owned and/or administered by public agencies.

Facilities, support (support units)—Equipment and/or resources which can be identified with a particular activity and/or activities. Developments which are not absolutely necessary for any particular recreational activity. For example, bleachers, water fountains, lockers, parking, bath houses, maintenance building, lighting, etc.

Facility Mix—(Also, see: Activity Package) The grouping of facilities types in a particular park or recreation area.

Facility Requirements—(Also, see: Resource Requirements) Quantitative estimates of the units of selected recreational facilities expected to be needed to meet current and future demands.

Federal Agencies—Governmental entities under the direct auspices of the United States of America. As they are related to recreation (TORP) federal agencies are divided into three categories: those which provide opportunities for recreation as a primary function; those which provide opportunities for recreation as a

secondary function; and those which provide only technical or financial assistance to other entities providing opportunities.

Fee Simple Ownership—The complete ownership of land with exclusive and unrestricted rights of disposition, excluding only those rights retained by the government for exercise of its taxation, eminent domain, and police powers.

Fishing—A recreational activity involving the taking of fish from the Gulf, a bay, a lake, pond, tank, river or stream, in a public or private area. Types include fishing with bow, gig (flounder, frogs), pole, rod and reel, seine, trotline, spear, or fly rod; from a bank or a chartered boat, etc. Excludes commercial fishing.

Fishing (Sport Fishing)—See: Fishing

Fishing Barge—See: Barge, fishing

Fishing Barge/Marina (Length)—A measurement of total fishing access enumerated in linear yards around the exterior and interior of a barge or marina.

Fishing Barges/Marinas—A barge or marina is a floating structure often attached to the shore providing access to fishing water.

Fishing Jetties—A jetty is a type of wall built into the water to restrain currents or for protection of a harbor or pier but used by recreationists primarily for fishing. To differentiate between a pier and a jetty, a pier is supported above the water and a jetty is built to divide the water. The circumference and/or length in linear yards from the access point of the jetty around the last yard of area where recreationists may fish has been measured to give planners an indication of the amount of access provided by jetties.

Fishing Pier—(Also, see: Fishing Jetties) A platform which extends over the water and provides access to fishing water.

Fishing Pier (Length)—A measurement of length in linear yards along the edge of a pier, considering only the portion that is actually over water suitable for fishing. Both sides of any pier wide enough to allow fishing from both sides were enumerated. Circumferential length around "T" head piers was also evaluated.

Football—A body contact sport or game played with a ball. Touch, tackle, flag, and other common American variations played for recreation were included in TORP surveys. As few as two persons on each side or as many as eleven was acceptable for indicating participation. Organized leagues were included in

acceptable TORP survey responses, but school or professional games were excluded from consideration. Persons watching these games would be considered football spectators.

Football/Soccer Fields—Facilities designed and designated (marked or provided) for football and/or soccer play. Did not have to be used exclusively for those sports to be considered in TORP, just so the field would accommodate organized events.

Freshwater Swimming Area—(Also, see: Designated Swimming Areas) Water areas, both designated and undesignated, generally found on rivers, streams, creeks, lakes, reservoirs, which are used predominantly by swimming recreationists. Excludes consideration of swimming pools.

Games and Sports—Any of a variety of the more common recreational activities, normally competitive, which require facilities of the courts, fields, or nets varieties. Some examples are: tennis, volleyball, football, baseball, basketball, etc.

Games and Sports Facilities—As enumerated in the TORP, fields or courts associated with a particular game or sport on which regulation or league games can be played.

Geological Features—Those extraordinary physical or physiographical attributes of an area (i.e., mountains, caverns, plains, faults, river basins, etc.) which presently or potentially could provide recreational resources.

Goals—(Also, see: Objectives) Short range or long range aims, achievements, or objectives established during the recreation planning process. In other words, the interim and ultimate steps along the schedule toward achieving adequate recreational opportunities for all.

Golf—A recreational activity involving play at regular courses with nine or more holes, par three, or miniature courses, and at driving ranges. Recreational participation can occur any place facilities are available, but not as a school activity or professional contest.

Golf Course (Holes of)—(Also, see: Golf) A golf course provides facilities to support golf activities. Only par three and regular courses were enumerated for purposes of the TORP. The number of holes available to the general public was considered. Since the numbers of holes vary (i.e., some regular courses may have only nine holes, while others may have 18, 27, 36, or more) in many cases, the number of holes was

- selected as the unit of measurement and comparison for golf activities (i.e., the common denominator). By determining the number of holes needed, planners may then determine, based on local resources and analysis, what the most appropriate number of holes would be to provide for a given situation. Country clubs and other private courses open only to members were excluded.
- Grants-in-Aid**—Financial assistance in the form of grants made by the federal and/or state governments to a local government to assist in a public project. Regarding recreation, grants are normally made on a matching basis (e.g., 50 percent of cost might be paid by each entity-grantor and grantee).
- Greenbelts**—Commonly, linear areas along river and stream basins or transportation corridors which are often left "green" or in a minimally developed state.
- Group Campsite**—See: Campsites
- Group Screened Shelters**—See: Campsites
- Handicapped**—A person with some mental or physical disadvantage which might prevent or deter utilization of recreation facilities or resources.
- Hiking**—A recreational activity which depends on the recreationists' determination that the activity is a hike instead of a walk. Usually involves a specific destination, preparation of some kind, vigorous physical exertion, and is often of greater distance than associated with walking for pleasure.
- Hiking/Walking for Pleasure/Nature Study Trail**—A designated trail measured in linear miles, for the primary purpose of walking and/or hiking and/or nature study.
- Historic Site/Area**—See: Archeological Site/Area
- Horseback Riding**—A recreational activity involving riding a horse for pleasure. Includes equestrian pursuits such as trail riding and open land riding. Does not include rodeo or racing pursuits or when professional or school activities are involved. Also does not include range riding as a part of an occupation such as ranching.
- Horseback Riding Area**—A recreational space devoted to riding horses. This type of area was typically measured in acres devoted to the activity.
- Horseback Riding Trail**—A trail devoted to equestrian riding. Generally this trail can accommodate two or more horses abreast and has some overhead clearance (approximately 15 feet) provided. Not included were riding arenas, race tracks (unless part of trail), etc.
- Household**—The unit of people residing in a particular residence whether they are a group of single, unrelated individuals; a traditional family; or members of two families related or unrelated.
- Houston-Galveston Region**—Generally referred to as the political region coinciding with the original eight-county jurisdiction of the Houston-Galveston Area Council of Governments. The region included Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties.
- Hunting**—A recreational activity which is typically characterized by the taking of wild game for personal consumption. Usually involves preparation of some kind, pursuit, and killing of the animal(s). Included the use of bow, dog (to tree or locate game), handgun, rifle, shotgun, and other weapons in the pursuit of deer and other big game, dove, goose and/or duck, quail, turkey, squirrel, varmints, and other game.
- Implementation**—An essential step or element in the planning process during which the recommendations of a plan are carried out. Regarding the TORP, implementation is a complete, integrated, and on-going process because provision of adequate recreational opportunities statewide cannot be an "overnite," or short-range, step in the planning process because of the paucity of immediately available resources, physical and financial.
- Information System**—See: Statewide Recreation Information System
- Interpretive Facilities**—Normally, a building, or site, or area comprising artifacts or surroundings of an era which have been arranged or analyzed to tell a story in an interesting, educational, or otherwise "interpreted" fashion. Interpretive facilities can include any resource—amphitheatres, trails, open land, natural areas, flora, fauna, puppets, loud speakers, etc., which can be used to "tell the story," whatever the story happens to be. (Regarding recreation the "story" is usually based on historical, cultural, archeological, natural, or other aspects of the area.)
- Jetty(s)**—A barrier usually constructed of concrete and boulders extending from the shoreline out into the water. The primary purpose of the jetty is usually to protect shipping channels from erosion, siltation and rough water; however, it also may provide access to more desirable fishing water than which is available from the shore.
- Land, rural recreation**—Recreation land located in a country atmosphere usually located outside of urban areas or in small rural towns of less than 200 in population.
- Land, urban recreation**—Recreation land within or adjacent to urban areas, usually within city limits with the exception of those areas within the urban area that are sparsely developed.
- Land and Water Conservation Fund**—The Land and Water Conservation Fund Act of 1965 (Public Law 88-578) established a fund to increase outdoor recreation opportunities for the American people. The program provides for (1) acquisition of lands for federally administered recreation areas; and (2) matching grants for state recreation planning and state as well as local land acquisition and development. The fund is administered by the Bureau of Outdoor Recreation of the Department of the Interior at the federal level and the Texas Parks and Wildlife Department at the state level. In order for Texas to receive grants from the fund, the State must develop a statewide comprehensive outdoor recreation plan (i.e., the Texas Outdoor Recreation Plan), and update and refine this plan on a continuing basis.
- Land Use**—A general term referring to the uses that land resources are put to. For example, some lands are used to support industry, others support commercial, agricultural, recreational uses, etc. In other words, land use is how man exercises his stewardship over lands and waters in his domain—what is done to and with the land.
- Legal Authority**—Senate Bill 165, Acts of the 59th Texas Legislature, Regular Session 1965, authorized the Parks and Wildlife Department as the primary state office to (1) develop outdoor recreation in Texas including the preparation and maintenance of a statewide comprehensive outdoor recreation plan and to (2) regulate the allocation of federal aid from the Land and Water Fund to all political subdivisions in the State in accordance with the Texas Outdoor Recreation Plan.
- Level of Government**—Refers to the organization of government into federal, state, regional, and local governments.
- Linear Parks**—See: Parks, linear; and Greenbelts.
- Local Agencies**—For purposes of the TORP, local agencies are either county or municipal political subdivisions of the State.
- Marina(s)**—A floating structure usually attached to the shore and usually providing access to more desirable fishing water than is available from the shore. Marinas also

often provide boat stalls; gasoline; concessions for fishing, boating, skiing, and swimming recreationists; and other amenities.

Metropolitan Area—(Also, See: Cities and Towns) Any of the 24 Texas urban areas in 1970 with a population of 50,000 or more, plus all incorporated and some unincorporated urbanized areas contiguous to the core city area; for example, San Antonio plus Alamo Heights, Castle Hills, Terrell Hills, etc. Municipal populations over 2,500 persons that were close to but not part of the contiguously developed metropolitan area were considered under the city or town category.

Models, demand—See: Demand Models

Multi-Use Courts—Courts for a selected number of games or sports activities on which regulation or league games can be played at different times. For example, basketball or volleyball can be played on the same court that might at another time have tennis matches.

Multi-Use Trail—A trail, measured in miles, designated for two or more combined or associated activities such as walking, hiking, and nature study.

Museums—Organized and permanent non-profit institutions, essentially educational or aesthetic in purpose, which exhibit objects with intrinsic value to science, history, art, or culture, and which are open to the public.

Natural Area (potential recreation area)—An area noted for its extraordinary characteristics and natural qualities.

Nature and/or Interpretive Trail—Nature trails are routed through essentially natural environments for the purposes of providing access for witnessing, studying, feeling, or appreciating natural features of the area. Interpretive trails are those courses which seek to reveal meanings, insights, or relationships in the natural environment by means of signs, objects, or other interpretive media to enhance appreciation of nature.

Nature Center—Normally a man-made structure housing organic and/or material exhibits of flora and/or fauna utilized most often in an educational way to centralize aspects of nature which many persons may have neither the means nor expertise to locate and appreciate in a native setting. Zoos, botanical gardens, aquaria, and wildlife exhibits are but a few examples.

Nature Study—This recreational activity normally includes a specific destination and/or purpose that includes studying flora and/or fauna in a natural environment, such as bird watching at Aransas National Wildlife Refuge, beach combing, or rock hunting, etc.

Recreational nature study can be done individually or in a group, organized or unorganized.

Needs—See: Requirements

Non-Recreationists—Those persons in Texas who because of lack of opportunity, handicap, choice, or other reason did not participate in outdoor recreational activities.

Objective—(Also, see: Goals) Those essential steps in the recreation planning process which have to be achieved to accomplish the short and long range goals of the process, i.e., the solutions to recreation problems in the State. Objectives and goals are semantically equivalent, or synonymous, terms as defined in most dictionaries; however, in recreation planning objectives must be reached to achieve goals. An objective, for example, might be to provide a certain number of picnic tables to meet 1980 needs in a certain analytical planning region. By providing part of those picnic tables by 1975, a part of an identified problem will have been solved, or part of a (1980) goal achieved. Another type of equally essential objective would be to achieve a state funding program to support land and water acquisition and recreational developments at the regional or local level in order to pursue the ultimate goal of providing adequate opportunities statewide.

Open Land Park—(Also, see: Urban Park) An urban park in which no conventional outdoor recreational facilities have been developed. However, the acreage may be landscaped or maintained.

Open Space—(Also, see: Recreation and Open Space Plans) Land area free or relatively free of man-made structures and where water bodies, land forms, or vegetation predominate.

Open Space, Recreational—Open space which is devoted to recreational activities that do not require developed facilities and are compatible with conserving open space for designed purposes.

Opportunity Days—(Also, see: Activity Day) An estimation of the number of recreational activity days satisfactorily provided by one unit (or the sum of opportunity days for any number of units) of a selected recreation facility per year within a selected geographic area of the State. For further discussions of opportunity days refer to the volume *Techniques of Analysis*.

Opportunity Days, deficit—A deficit of opportunity days results when the supply of facilities, expressed in opportunity days, was less than the estimated demand, expressed in participation days, for the selected activity during the selected time period.

Opportunity Days, surplus—A surplus of opportunity days resulted when the supply of facilities, expressed in opportunity days, exceeded the estimated demand, expressed in participation days, for the selected activity during the selected time period.

Out-of-State Visitors—(Also, see: Residents, Out-of-State) Recreationists who reside outside Texas, but participate in recreational activities while visiting the State.

Outdoor Recreation—(Also, see: Activities, recreation) Recreational activities which are participated in outside buildings or completely enclosed shelters. Excludes indoor recreation.

Outdoor Recreation Resources Review Commission—In 1958, Public Law 85-478, 72 Stat. 238, created the Outdoor Recreation Resources Review Commission, charging it with the massive task of recommending courses of action to insure that the necessary outdoor recreation opportunities are provided for each citizen of this country now and in the future. The results of the Commission's work, *Outdoor Recreation in America*, were published in 1962, in twenty-seven volumes containing many recommendations for action. Responding to the recommendations in the report, Congress and the President began enacting legislation which created the Land and Water Conservation Fund, the Bureau of Outdoor Recreation under the United States Department of the Interior, and which broadened outdoor recreation responsibilities in several federal agencies.

Park—Areas of land and/or water which have been set aside by public or private entities for the recreational uses of present or future generations.

Parkland, developed—See: Developed Land

Parks, linear—Refers to parks and recreation areas, so designated, normally occurring along some natural or man-made features such as river, creek, and stream basins or along highway or railroad rights-of-way, etc. The park normally is much longer than it is wide, which gives it a "linear" physical characteristic.

Parks and Recreation Department—An officially recognized entity of a federal, state, regional, or local government agency which has been given the primary responsibility for providing and maintaining recreation land and facilities areas within its jurisdictional boundaries.

Participant—(Also, see: Recreation, active; Recreation, passive; and Spectator) An individual who actively engages in a recreation activity. Participation could occur indoors or outdoors but not in the participants'

back yard or as a school activity. However, participants could use school facilities after school hours. Organized participation such as club or church related was included.

Participation Day—See: Activity Day

Peak Use Season—The two, three, or four month period during which an activity or a park receives the highest monthly totals of total annual participation. Normally, heaviest participation for most activities is during the summer months. (However, for hunting in Texas most activity occurs in the fall and winter months as does camping along the Gulf Coast and in South Texas.)

Picnic, Group table unit—A large picnicking table unit for use by large groups of people (measured in numbers of single tables it represents); e.g., family reunions, church groups, etc. The unit may include a central facility for serving food and may also provide some type shelter from the weather. To estimate single table equivalents, one needs only to determine the length or area of one group table; divide by length or area of any single table unit, then multiply this result times the number of group units in the park (e.g., if a park has five group units of the same approximate size, one of which is 36 feet long, and assuming one single table unit is six feet long, then the single table equivalent number is arrived at by dividing 36' by 6' (36 divided by 6) and result is 6 single units per group unit. Total single table equivalents is determined by multiplying the original five group units by six single table equivalents (5 x 6) the result of which is 30 total equivalent units.)

Picnic, Single table units—A table unit designed to accommodate one or two picnicking families and normally includes provisions in the area for trash cans, drinking water, and possibly lighting for night use. Generally this type of unit is from six to eight feet in length and three to four feet in width.

Picnicking—A recreational activity involving one or more people on an outing or at a social gathering where the eating of food is usually the main activity. Only recreationists using facilities less than or equal to one day could qualify as picnickers.

Picnicking Area/Site—Refers to all space (measured in acres) designated and used as picnicking areas excepting sites used primarily for camping. The activities picnicking and camping sometimes overlap, therefore, special designation is needed to eliminate double counting and get as complete a view of each activity as possible by primary allocation of space.

Pier—See: Fishing Pier

Plan—(Also, see: Planning Process) There are many types of plans most of which have similar characteristics. In general, a plan constitutes the end product of the planning process, which could be represented by a scheme, an approach, a schedule, a guide, a method, a technique, a program, or other pre-conceived way of influencing things or events in the future. Most plans describe a process by which objectives and goals stated in the plan may be achieved or accomplished.

Planning, Comprehensive—A specific type of planning process that involves development, maintenance, review, evaluation, coordination, and updating of a single on-going plan, or coordinates two or more plans, in relation to established (specified) objectives and/or goals. With respect to the TORP, emphasis is placed on providing the information and planning expertise necessary to relate the TORP objectives and goals with other types of plans such as The Texas Water Plan and regional transportation, waste disposal, or other plans (at any level of government) to more effectively guide the provision of outdoor recreation opportunities in Texas.

Planning Horizon—Recreational resource requirements for selected activities were estimated in the TORP for five different years—1970, 1975, 1980, 1990, and 2000. Those planning years have been variously called planning horizons, projection years, target dates, etc., implying that those are the years that the plan is generally "aimed" at and the estimated resource requirements represent the goals for those years.

Planning Process—A planning process normally comprises a phased series of actions or approaches directed toward solving an identified problem(s). By stating objectives and goals to be achieved, and a methodology or schedule for attainment, a plan is specified. In the TORP, the planning process is an on-going, dynamic set of approaches directed toward solving the recognized recreational problems in Texas. Since recreational patterns change over time, the static portions of the process; i.e., the documents; must be updated periodically to keep the process continually viable. In Texas recreational planning, the planning process integrates a statewide recreation information system for the purposes of improving and maintaining communication, cooperation, and coordination within the phases of the planning process (i.e., step to step) and among the responsible entities in the State.

Playground—(Also, see: Children's Play) Developed land acres with apparatus such as merry-go-rounds, swings, jungle gyms, see-saws, etc.

Plinking—Shooting at, generally with a firearm, tin cans or similar targets.

Pool—A man-made structure (usually concrete) which contains water, measured in square yards, and is used for swimming. Also, an indoor recreational activity played on a table, but not considered in the TORP.

Preservation—The process of protecting a site or an area from damage, deterioration, development, or use in order to maintain, in an unaltered state, the characteristics which make it valuable (i.e., saving it for future use).

Private Entrepreneur/Enterprise—A private citizen or business utilizing resources, usually in a monetarily gainful manner, to provide recreational opportunities for public consumption.

Private Supply, Private Recreation—(Also see: Private Supply, recreation)-privately owned resources which are not made available to the general public, but are restrictively used by private individuals, groups, organizations, etc., for recreational purposes. Examples include backyard swimming pools and tennis courts, county club facilities, homeowners' or restricted subdivision facilities, sportsman's clubs, hotel/motel swimming pools, yacht clubs, and many others.

Private Supply, Recreation—Privately owned recreational resources and facilities made available to the general public generally, but not always, for a fee.

Programs, administrative—Any prearranged policy and manpower managing methodology or plan for effectively administering the park and money resources made available for recreational purposes.

Programs, budgeting—Plans for managing the accounting of funds, the capital investments, payments, operations, depreciations, etc., associated with recreational resources.

Programs, Comprehensive Planning—(Also, see: Planning Process) Means or methods by which comprehensive planning goals are achieved.

Programs, implementation—Means, methods, and/or schedules put into action for accomplishing objectives or short and long range goals.

Programs, interpretive—(Also, see: Interpretive Facilities) Planned guidelines or schedules for managing and utilizing interpretive facilities and personnel associated with recreational resources.

Programs, maintenance and operation—Planned schedules or guidelines for managing park operations, the care of facilities and grounds, operational personnel, maintenance personnel, and maintenance and operations equipment.

Programs, recreation—Planned or prearranged scheduling for the actual uses that recreational resources will be put to. For example, many urban and rural communities have "Learn-to-Swim" programs, while others program (i.e., determine) the use of games and sports areas such as baseball fields and tennis courts, and still others may have cultural events scheduled. Many municipalities schedule the use of all facilities so that as many persons as practical get to utilize the resources.

Public Supply, Recreation—(Also, see: Private Supply, Recreation) Recreational resources made available to the general public by governmental entities.

Quality—That characteristic which describes the relative value or condition of recreational resources and facilities in terms of repair state, maintenance of area and grounds, condition of water, etc.

Quantity—The magnitude in terms of areal and numerical measurements of individual types of recreational resources and facilities in discrete units (i.e., the number of picnic tables, the number of surface acres of water, the number of acres of land, etc.)

Quasi-public—Used to indicate a level of administration which is neither public nor private but in-between having characteristics of both. Usually the level of administration has no governmental responsibilities and is usually considered a non-profit organization. Considered in TORP in the capacity of a resource manager that open its resources to a limited segment of the public (e.g., boy or girl scouts, church camps, private summer camps, etc.)

Questionnaire—An instrument utilized to solicit or collect information. Several types have been used for the TORP. For a detailed discussion see the volume titled *A Statewide Recreation Information System*.

Racing—A recreational activity involving active or spectator participation in auto, horse, motorcycle, dog, boat, and other categorical kinds of competition among two or more competitors.

Ramps and Lanes—See: Boat Ramps

Recommendations—Suggestions for action.

Recommended Responsibilities—State recommendations pertaining to the planning and provision of additional outdoor recreation opportunities various levels and agencies of government and the private sector should undertake, recognize, exercise, and signify in accomplishing their respective responsibilities in Texas from 1975-1980.

Recreation, active—(Also, see: Recreation, passive; Participant; and Spectator) That portion of recreational participation which is accounted for by persons who physically exert themselves, often strenuously, while participating in the activity. Most often the activities where a distinction was made between active and passive recreation were games and sports where fields and courts were required for active participation; whereas, a seating capacity or number of seats were required for spectators. Active recreation excluded spectator involvement.

Recreation, passive—(Also, see: Recreation, active) Participation in activities accounted for by recreationists who are more sedentary in their pursuits and who often watch others actively participate, i.e., spectators, or this type is accounted for by those who would observe, hear, feel, or sense in some way rather than consume or use the resource. This type of activity usually requires little physical exertion on the part of the recreationist; however, some passive pursuits are especially strenuous, such as bird watching, wildlife photography, etc.

Recreation, rural—Outdoor recreation participation occurring in a country atmosphere and/or in communities of less than 200 in population.

Recreation, urban—Outdoor recreation participation occurring in urbanized areas with populations of 200 people or more.

Recreation and Open Space Plans—Those planning instruments (or tools) generated by regional planning entities (Councils of Governments and Regional Planning Commissions) for purposes of assessing regional recreation and open space resources in order to provide these amenities in adequate quantities and qualities for regional needs.

Recreation Area—(Also, see: Park) A land and/or water area so named or otherwise designated which is set aside for recreational purposes and which has characteristics indistinguishable in most cases from parks. In other words, parks and recreation areas are generally considered to be synonymous. However, when a recreation area is considered to be a large geographical area designated for recreation, such as the Lake Meredith National Recreation Area, there may be several "parks" or "recreation areas" within the area.

Recreational Activities—See: Activities, Recreational

Regional Amusements or Attractions—Recreational resources or events with greater than local appeal. Generally these resources are considered to be of such quality that recreationists will travel lengthy distances to utilize. Examples of such attractions might be the Sonoran or Longhorn Caverns, the Astrodome, Six Flags, Searama, etc.

Regional Park—An area designated as a park having significance or appeal of greater than a local nature.

Requirements, cumulative—A running total of all incremental requirements up to and including the time period being considered. In the example shown in the following definition for 1970, the cumulative requirements would be 10; for 1975, 17; for 1980, 22; for 1990, 27; and for 2000, 30.

Requirements, incremental (additions)—The number of units needed within a specified time period, assuming that the units of facilities needed for previous time periods have been provided. For example, if incremental requirements are cited as being 10 picnic tables in 1970, 7 by 1975, 5 by 1980, 5 by 1990, and 3 by 2000, this can be interpreted as:

Example:

1. 1970-10 tables are needed in addition to the existing facilities.
2. 1975-7 additional tables will be needed if 1970 resource requirements are satisfied.
3. 1980-5 additional tables will be needed if 1975 resource requirements are satisfied.
4. 1990-5 additional tables will be needed if 1980 resource requirements are satisfied.
5. 2000-3 additional tables will be needed if 1990 resource requirements are satisfied.

Requirements, resource—Those resource and facility development goals specified in the TORP as needed in a specified planning horizon year. The accomplishment of these specified requirements implies fulfillment of estimated demands for the selected geographic area or for the state as a whole, based on the methodology utilized in the TORP.

Residents, out-of-state—Person or persons residing outside of Texas but using recreational facilities within the State.

Residents, rural—Persons living in places of less than 200 in population.

Residents, urban—Persons living in metropolitan areas, cities, towns, and communities of 200 or more in population.

Residents and Non-Residents—Texans who by virtue of the location of their residences have been categorized with respect to urban areas. For any selected urban area there are residents and non-residents. Resident—person or persons living in the respective urban area or group of urban areas under consideration. Non-Resident—person or persons not living in the specified urban area but using recreational facilities within that urban area or group of urban areas. Excludes recreationists from out-of-state origins.

Resource Requirements—See: Requirements, resource

Resources, land—The land and all other associated natural resources which lie ready for utilization.

Resources, natural—Actual and potential form of wealth or raw materials supplied by nature and used to satisfy various human needs and wants.

Resources, recreation—The natural and cultural surroundings that provide the basis for and contribute to enjoyable recreation experiences. Recreational resources are a part of our larger store of natural resources. Used synonymously with land, facilities and/or water available for recreational use.

Rifle and Pistol—See: Sport Shooting

Rifle Targets—See: Sport Shooting

Rodeo—A recreational activity that includes both active and spectator participation. School and professional rodeo participants were excluded.

Rodeo, Number of Arenas and Seats—The number of arenas in all parks and the total approximate seating capacity.

Rural Area—Areas located outside urbanized areas where there are no residential areas adjacent and in essentially an undeveloped or non-urban environment. May possibly occur within a city's corporate limits; however, there must be very sparse, if any, development, and again the environment or adjacent land uses must be rural in nature.

Rural Environments—(Also, see: Environment) Those areas which are typified by country or countryside settings and surroundings and which are away from the residential, commercial, industrial, and other developments of man. Those environments generally outside municipal limits and away from residential subdivisions.

Sanitary Facilities—Normally, restrooms, with all showers, water closets (toilets), wash basins, trash cans, etc., are considered as sanitary facilities. However, these facilities can be reduced to only chemical toilets.

Additionally, in some cases in Texas, there are ancillary facilities for waste treatment and disposal.

Seating Capacity—See: Capacity

Sightseeing—(Also, see: Driving for Pleasure) Driving, riding, or walking to a particular destination or area for the purpose of viewing natural or man-made attractions. Means of conveyance could include walking, motorcycle, car, bus, train, boat, airplane, horse etc.

Single Unit Campsites—See: Campsites

Skiing—A recreational activity that involves the participant moving freely or being pulled over some supporting medium, i.e., water, snow, or sand; on runners of wood, fiberglass, plastic or metal attached to the feet. Water skiing was the primary type; however, snow and sand (as in Monahans State Park) were evaluated and included.

Small Community—Municipalities which had between 200 and 2,499 population in the 1970 census, and which were not contiguous to a metropolitan area.

Soccer—A variation of football in which a "soccer ball" is kicked, bumped, butted, or otherwise (excepting the use of a player's hands or forearms) propelled toward an opponent's goal. The goal keeper for each side is allowed to touch or strike with the forearms or hands. Officially referred to in the United States as "association football."

Spatial Distribution—The geographic distribution of the types and numbers of recreation areas and facilities in relation to the user populations in an individual urbanized area, among the urban areas of an analytical region or in the rural areas of a region, etc.

Specialty Park—(Also, see: Urban Park; and Games and Sports) An urban park containing facilities for only one of the four major urban activities: games and sports, any one of which would qualify; picnicking; children's play, i.e., playgrounds; or swimming. The amount of acreage was not a factor and any number of units for the facility type could be present.

Spectator—(Also, see: Participant) An individual who engaged in the observance of an organized activity.

Sport Shooting—A recreational activity in which the recreationists use equipment such as rifles, shotguns, bows and arrows, slingshots, etc., to shoot at inanimate objects such as targets. Included plinking and/or target shooting, field; skeet and/or trap, competitive or non-competitive; target, competitive; and other miscellaneous kinds of shooting.

Sport Shooting Facilities—All skeet (trap) apparatus, rifle and pistol targets, and archery targets.

Trap and Skeet: Number of traps—An enumeration of target throwing units counted to give an indication of how widespread or prevalent they are in Texas and how important they are to the activity of sport shooting overall.

Rifle and Pistol: Number of targets—An enumeration of fixed or mobile target units (comprised by designated sport shooting facilities) giving an indication of how widespread or prevalent they are in Texas and how important they are to the activity of sport shooting overall.

Archery: Number of targets—An enumeration of fixed or mobile target units (comprised by designated sport shooting facilities) giving an indication of how widespread or prevalent they are in Texas and how important they are to the activity of sport shooting overall.

Standard—(Also, see: Opportunity Days) Standards are of many varied types when related to recreation. In the TORP, a standard is the average number of outdoor recreation opportunities, measured in participation days, which can be provided by one unit of a specified outdoor recreation facility per unit of time, given the current participation patterns and preferences of outdoor recreationists.

Standards, facilities—See: Standard

State Actions—Those approaches or programs utilized (implemented) by state agencies in general and the Texas Parks and Wildlife Department in particular, for solving recreation problems in the State.

State Agencies—Institutions of the Texas government. As they are related to recreation, state agencies are categorized by their levels of influence on the provision of recreational opportunities as a function of the agency. An agency may have recreation as a primary or secondary function, or the agency may provide technical or financial assistance to those state agencies and political subdivisions which do provide recreational opportunities.

Statewide Comprehensive Outdoor Recreation Plans (SCORP)—(Also, See: Land and Water Conservation Fund) Each state which chooses to participate in the Land and Water Conservation Fund program must develop a SCORP. The SCORP for Texas is titled the Texas Outdoor Recreation Plan.

Statewide Recreation Information System (SRIS)—(Also, See: Planning Process) A statewide intercommunication network which is an integral part of the recreation planning process in Texas and is used to transfer, or exchange, recreational information. As a coordinating tool, it is conceptually envisioned as the link between involved entities and the phases or steps of the planning process. Via the SRIS, information is collected, edited, stored, analyzed, synthesized, documented, and disseminated for purposes of determining and monitoring the status of recreational opportunities versus recreational demand. (Further discussions are provided in the volume A Statewide Recreation Information System.)

Supply—A schedule of the quantities of a particular good or service that would be made available for purchase in a specified period of time at all alternative prices, holding all other factors (such as income, population, consumers' tastes and preferences, etc.,) constant.

Supply, outdoor recreation—(Also, see: Supply) A schedule of the quantities of outdoor resources and/or facilities that would be made available for use (in terms of opportunity days, numbers and/or areal quantities, units, etc.) over some period of time at all alternative costs (of utilization or purchase) to the consumer, holding all other factors (such as income, population, consumer's tastes and preferences, etc.) constant. Also, a generic term referring to the number and areal quantity of opportunities made available for the outdoor recreational purposes of the general public.

Surface Acres—(Also, see: Units) Units of measurement ascribed to water resources.

Surfing—A recreational activity in which the recreationist rides the crests of waves toward shore usually on a board used for support, but "body surfing" is included.

Surplus Opportunity Days—See: Opportunity Days, surplus

Swimming—A recreational activity in which the recreationists float on or move in, through, or across a body of water. Participation, as considered in the TORP, could occur indoors or outdoors but not in the household's backyard or as a school activity. However, school facilities could be used after school hours. Types of swimming include from scuba and skin diving to a child splashing in the shallow end, at a lake, pond, tank, river, ocean, pool, or drainage ditch. Indoor swimming was not used in calculations of requirements in the TORP.

Swimming, Area—See: Designated Swimming Area

Swimming, Designated Area—See: Designated Swimming Area

Swimming Facilities, Designated—See: Designated Swimming Area

Swimming Pools (total square yards)—An enumeration of the total number of square yards of all publicly available outdoor pools. Includes only water surface area. Includes wading pools. Excludes pool side walking surface, buildings, and grounds.

Targets—See: Sport Shooting

Technical Assistance—Providing advise or expertise, (i.e., manpower and often machines and operators) not normally available to the recipient through the recipient's organizational structure. Many of the exacting skills of the recreation planning and design experts cannot be feasibly utilized on a long term basis by local entities and thus must be provided by a more centralized entity available to those with limited resources.

Techniques of Analysis—See: Analytical Techniques. Also, see volume of TORP titled, Techniques of Analysis.

Tennis—A recreational activity (a game or sport) involving the use of rackets, balls, a net, and a court on which two recreationists compete in singles, or two pairs of recreationist compete in doubles matches. The matches involve hitting a ball back and forth across a net stretched and bisecting the length of a rectangular court. Also involves strenuous physical exertion. Tennis played on a home or private court, (i.e., not publicly available), at school as a school curriculum activity, or as a professional match was not included. Tennis played using school facilities after school hours was considered.

Tennis Courts, Number of—(Also see: Unit) An enumeration of courts on which official, standard, regular, or organized doubles matches can be played.

Tent Site—See: Campsites

Texas Outdoor Recreation Plan (TORP)—(Also, see: Planning Process) The ongoing recreation planning process in and for the State of Texas, periodically updated and subsequently documented for the purpose of guiding the provision of adequate recreational opportunities to support the recreational activities of all Texans and their visitors from other states and countries. Also, the title of the statewide recreation planning documents.

Toilets—enumerated to indicate the occurrence of sanitary facilities.

Total Land Acres—The sum of recreation land acres developed with facilities plus undeveloped land acres devoted to recreation.

Towns—Any urbanized area of 2,500 to 9,999 population which was not within or contiguous to a metropolitan area in the 1970 census.

Trail—Any path, passage, route, etc., specifically designated for trail activities, e.g., nature study and/or appreciation, hiking, walking for pleasure, bicycling, horseback riding, multi-use, etc. Measured in linear miles in the TORP.

Trail Activities—Recreational pursuits which involve walking, hiking, or riding on a trail or route.

Trailer and Pickup Camper Site—See: Campsites

Trails, Bicycle Route (Designated)—See: Bicycle Route

Trails, Bicycle Trail (Designated)—See: Bicycle Trail

Trails, Handicapped (designated or adapted for)—Any trails having special adaptations for handicapped persons or those trails constructed for their use.

Trails, Horseback Riding (designated)—The length of trails devoted to equestrian riding. Generally, these trails can accommodate two or more horses abreast and have some overhead clearance (approximately 15 feet) provided. Riding arenas, race tracks (unless part of trail), etc., were excluded.

Trails, Miles of—See: Trails Facilities

Trails, Multi-Use—a trail that was designated specifically for combined trails activities such as walking, hiking, and nature study.

Trails, Nature and/or Interpretive (designated)—See: Nature and/or Interpretive Trails

Trails, Walking for Pleasure/Hiking—All trails which were designated as walking and/or hiking trails and on which the primary use is by walking and/or hiking enthusiasts. Hiking trails are generally longer and require more strenuous physical exertion than walking.

Trails Facilities (Length in Miles; Only Designated Trails were included)—total number and total miles of designated trails in a park. The total number of trails for all types and the sum of their lengths in miles.

Trap and Skeet—See: Sport Shooting

Traps, Number of—See: Sport Shooting

Trends—The ways, directions, or tendencies recreational patterns or influencing factors in Texas appear to be changing or developing over time, given past and existing circumstances.

Trips, combined weekday and weekend—Trips occurring on one or more days of the week, i.e., Monday through Friday, plus Saturday and/or Sunday.

Trips, weekday—Trips occurring anytime during Monday through Friday.

Trips, weekend—Trips occurring anytime during Saturday and/or Sunday.

Undesignated—Those resources which are used for recreational purposes but have no official designation.

Undeveloped Land—The total number of land acres in parks that do not comprise recreational facilities constructed by man.

Unit—The numerical designation assigned to recreational facilities by type and resources by area to enable recreation planners to assess the quantities of available recreational opportunities. The following are units enumerated in the TORP by type of facility:

Type Resource	Unit
Archery	Target
Baseball	Field
Basketball	Court
Boat Ramp	Lane
Camping	Campsite
Fishing Pier	Linear Yard
Football	Field
Games and Sports	Court/Field/Hole
Golf	Hole
Land	Acre
Picnicking	Table
Playground	Acre
River	Linear Mile
Sport Shooting	Target or Trap
Stream	Linear Mile
Swimming Pool	Square Yard
Tennis	Court
Trail	Linear Mile
Volleyball	Court
Water	Surface Acre
Other	Number

Units, by activity and/or facility type—In order to effectively inventory recreational resources, typically the major facility required to support a given activity was enumerated or measured by the lowest common measurement normally assigned to the facility type. In the TORP recreational supply, demand, and resource requirements for selected activities are expressed in comparable units. Numbers and areal quantities of existing resources (and/or facilities) were considered the major supply and/or opportunity indicators.

Units Per Thousand—Ratio of resource units to a selected population; determined by dividing the number of units by the selected population (in 000's).

Urban—Within municipal limits of a metropolitan area, city, town, or small community (population over 200) unless located in a sparsely developed environment.

Urban Growth Areas—Sections and general directions (of metropolitan areas) that were experiencing rapid development, or those sections projected by local urban/recreation planners to grow most significantly from 1971. Areas around a metro area which are changing most rapidly from rural to urban land uses.

Urban Park—A park within or adjacent to municipal limits excepting those parks in rural environments. For example, no residential areas adjacent and which are essentially in a countryside environment. Most parks within city limits will, therefore, be urban and most parks outside city limits will be rural, but not always.

Use Intensity—An average measurement or estimation by park superintendents of how heavily (percent full) a park and/or its facilities are being used during a typical peak use week (Monday through Sunday). Measured during the peak use season, gives an indication of the park capacity to attract and support recreationists.

Also, can give an indication of overcrowding or insufficient facilities. Weekday use intensity is a measurement of participation on the five weekdays Monday through Friday. Weekend use intensity is a measurement of participation on Saturdays and Sundays.

Volleyball—Recreational activity normally considered a game requiring a net (suspended at a given height) and a court over which two opponent teams, normally six persons per team, attempt to maintain a ball in flight over the net by bouncing the ball with head or hands from person to person for a limited number of times on each side of the net until the ball touches the ground. A point is lost if ball touches ground inside a team's portion of court.

Wading Pool—Normally, a shallow pool that is two feet or less in depth and is not part of a larger pool.

Walking for Pleasure—A recreational activity involving traversing or moving over, through, or by an area on foot for the pleasure or enjoyment of the pursuit itself. This could include use of designated trails or paths. This is one of the few activities which could begin immediately upon leaving the house.

Water; lake, reservoir, pond, tank—Inland bodies of water.

Water, fresh—Bodies and courses of water before reaching saltwater.

Water, river or stream—Inland water courses.

Water, suitable (for recreation purposes)—That portion of the water bodies in the State which can support three selected water-related recreational activities. As used in the TORP, suitable water was considered that portion of freshwater lakes and reservoirs suitable to support the activities of boating, skiing, and boat fishing. Unsuitable waters for the three activities were considered those which were too shallow, too small in area, had excessive debris, or were otherwise unsafe.

Water, surface acres—The units assigned to recreational water to enumerate freshwater resources for purposes of the TORP.

Water, within—That water wholly contained within parks and recreation areas boundaries.

Water Adjacent—That water at which a park or recreation area can provide public recreational access, i.e., by means of water frontage, public boat ramps, etc.

Water Length in Miles Adjacent to or Within—Parks which have continually running water from a river or stream within the park boundaries, length in statute miles (for the length within the park) was specified. If a park was adjacent to a river or stream, only the length to which the park was adjacent to and not the entire length of the river or stream was specified.

Water within or adjacent—The total surface acres of all lakes, ponds, or tanks within or adjacent to the boundaries of parks. Swimming pools were not included. Water adjacent to refers to any water which may be located on the park boundary and is accessible from the park. Water within refers to any water which is either impounded in or running through the park.

Zoos, Acres of—Areas including only those acres with zoo facilities.

Appendix B

Appendix B REGIONAL LISTING OF URBAN AREAS BY CITY-SIZE CATEGORIES, 1970

LISTING OF METROPOLITAN AREAS: CORE CITIES
AND CONTIGUOUS URBAN AREAS (POPULATIONS
50,000 AND OVER IN 1970)

Planning Region	Core City	Contiguous Areas
Region 1	Amarillo	
Region 4	Lubbock	
Region 5	Wichita Falls	
Region 7	Abilene	
Region 10	Fort Worth	Arlington Haltom City Hurst North Richland Hills White Settlement Bedford
		Richland Hills Forest Hills River Oaks Benbrook Lake Worth Village Sansom Park Village Westworth Village Kennedale Saginaw Pantego Edgecliff Village Dalworthington Hills Westover Hills
	Region 11 Dallas	Irving Garland Mesquite Grand Prairie Richardson Farmers Branch University Park Duncanville Carrollton Lancaster Balch Springs Highland Park Kleberg Seagoville Cockrell Hill Hutchins
	Region 12 Sherman-Denison	
	Region 13 Texarkana	
	Region 14 Tyler	
	Region 16 San Antonio	Alamo Heights Castle Hills Terrell Hills Windcrest Kirby Balcones Heights Olmos Park Leon Valley
	Region 17 San Angelo	
	Region 18 Midland	
	Region 18 Odessa	

			LISTINGS OF CITIES (POPULATIONS RANGING FROM 10,000 TO 49,999 IN 1970)			
Region 20	Waco	Bellmead Woodway Robinson Lacy-Lakeview Beverly Hills Northcrest	Planning Region	Cities	Region 15	Lufkin Nacogdoches
Region 21	Bryan-College Station		Region 1	Hereford	Region 18	Pecos
Region 23	Austin	Westlake Hills Rollingwood Sunset Valley	Region 2	Pampa Borger	Region 19	Killeen Temple Copperas Cove
Region 25	Houston	Pasadena Bellaire West University Place Deer Park South Houston Galena Park Jacinto City La Porte Nassau Bay Bunker Hill Village Hunters Creek Village Seabrook Hedwig Village Spring Valley Piney Point Village Lomax Village	Region 3	Plainview Levelland	Region 23	San Marcos
Region 27	Beaumont-Port Arthur	Groves Nederland Port Neches Pear Ridge Lakeview Griffing Park	Region 5	Vernon	Region 24	Victoria Rosenburg Port Lavaca
Region 28	Galveston-Texas City	La Marque	Region 6	Big Spring Lamesa	Region 25	Baytown
Region 29	El Paso		Region 7	Sweetwater Snyder	Region 26	Huntsville Conroe
Region 33	Corpus Christi		Region 8	Brownwood	Region 27	Orange
Region 34	Brownsville-Harlingen- San Benito	Rio Hondo	Region 9	Corsicana Mineral Wells Cleburne Waxahachie Weatherford Ennis	Region 28	Lake Jackson Dickinson Freeport Bay City League City Alvin
Region 34	McAllen-Edinburg-Pharr	Mission San Juan	Region 10	Eules	Region 31	Seguin
Region 35	Laredo		Region 12	Denton Greenville Plano McKinney Terrell Gainesville	Region 32	Alice Beeville
			Region 13	Paris Sulphur Springs	Region 33	Kingsville Robstown
			Region 14	Longview Marshall Palestine Henderson	Region 34	Weslaco
					Region 36	Del Rio Eagle Pass
					Region 37	New Braunfels Kerrville Uvalde
			LISTING OF TOWNS (POPULATIONS RANGING FROM 2,500 TO 9,999 IN 1970)			
			Planning Region	Towns		
			Region 1	Dumas Canyon Dalhart Tulia Dimmitt Friona	Region 3	Memphis Wellington Shamrock Phillips
			Region 2	Perryton Spearman		Brownfield Littlefield Muleshoe Denver City

	Morton Abernathy		Bridgeport Decatur Rockwall Whitesboro Wylie		Teague Clifton	Region 29	Fabens
Region 4	Slaton Floydada Post Tahoka	Region 13	Mount Pleasant Atlanta New Boston Clarksville Daingerfield Hooks	Region 21	Brenham Navasota Hearne Madisonville	Region 30	Alpine Marfa
Region 5	Burkburnett Graham Iowa Park Childress Bowie Quanah Electra Olney Jacksboro Seymour Henrietta Nocona	Region 14	Jacksonville Athens Kilgore Gladewater Carthage Rusk Gilmer Mineola Pittsburg Winnsboro Jefferson Wills Point	Region 22	Silsbee Crockett Livingston Woodville Trinity	Region 31	Lockhart Gonzales Pleasanton Luling Kenedy Schertz Elgin Floresville Bastrop La Grange Poteet Smithville Karnes City Giddings
Region 6	Andrews Seminole	Region 15	Jasper Center Diboll San Augustine	Region 23	Taylor Georgetown Burnet Round Rock Llano	Region 32	Falfurrias San Diego Premont Freer
Region 7	Colorado City Stamford Ballinger Haskell Hamlin Winters Anson	Region 16	Universal City Live Oak	Region 24	El Campo Wharton Cuero Richmond Yoakum Edna Missouri City Prairie View Eagle Lake Columbus Sugar Land Stafford Hallettsville Sealy	Region 33	Portland Aransas Pass Sinton Mathis Refugio Rockport Ingleside Bishop Taft South San Pedro
Region 8	Breckenridge Coleman Cisco Comanche Eastland Ranger	Region 17	Brady Ozona San Saba	Region 25	Humble Katy Barrett Tomball	Region 34	Mercedes Raymondville Donna Elsa Alamo Port Isabel Edcouch La Feria
Region 9	Stephenville Burlison Dublin	Region 18	Monahans Fort Stockton Kermit Crane McCamey	Region 26	Cleveland Liberty Dayton	Region 35	Rio Grande City Hebbronville
Region 10	Grapevine Everman Azle Mansfield Colleyville Crowley	Region 19	Belton Lampasas Cameron Gatesville Rockdale Harker Heights Hamilton	Region 27	Vidor Bridge City West Orange	Region 36	Crystal City Pearsall Carrizo Springs Cotulla
Region 11	De Soto Cedar Hill	Region 20	Hillsboro Martin Mexia McGregor	Region 28	Angleton Pearland Clute Friendswood Hitchcock Palacios West Columbia Sweeney	Region 37	Hondo Fredericksburg Devine Junction



Appendix C

TECHNIQUES OF ANALYSIS

This appendix provides explanations of the planning methodology and elements of the urban plan. Its purpose is to provide the interested user or reader a fuller, more technical treatment of the methodological explanations offered in brief form throughout the text. Detail as offered in this appendix gives the reader a deeper, more thorough understanding of the large amounts of data presented. It also alerts the reader to the complex process utilized to produce the data. Those who seek even more detailed, technical background information should refer to another volume in this plan, titled **Techniques of Analysis**. For the reader's convenience, some of the planning methods and data are briefly explained in the "Introduction" to each of the detailed parts of the Urban Volume, Metros, Cities, and Towns.

ANALYTICAL PLANNING REGIONS AND URBAN AREAS

Since Texas is so demographically, geologically, and geographically dissimilar among the different sections of the State, and since the resources vary within the different sections, the State was divided into 37 Outdoor Recreation Analytical Planning regions for the purposes of defining recreation problems in the TORP to the finest degree practical and allowing more efficient analyses of the large amounts of data collected. While the Governor's Office has delineated 24 State Planning Regions, it was felt that some of these areas were too large for realistic outdoor recreation planning. Therefore, a decision was made to subdivide a number of the State Planning Regions into smaller units. The resulting breakdown of the State into 37 Outdoor Recreation Planning Regions retains the integrity of the State Planning Regions in

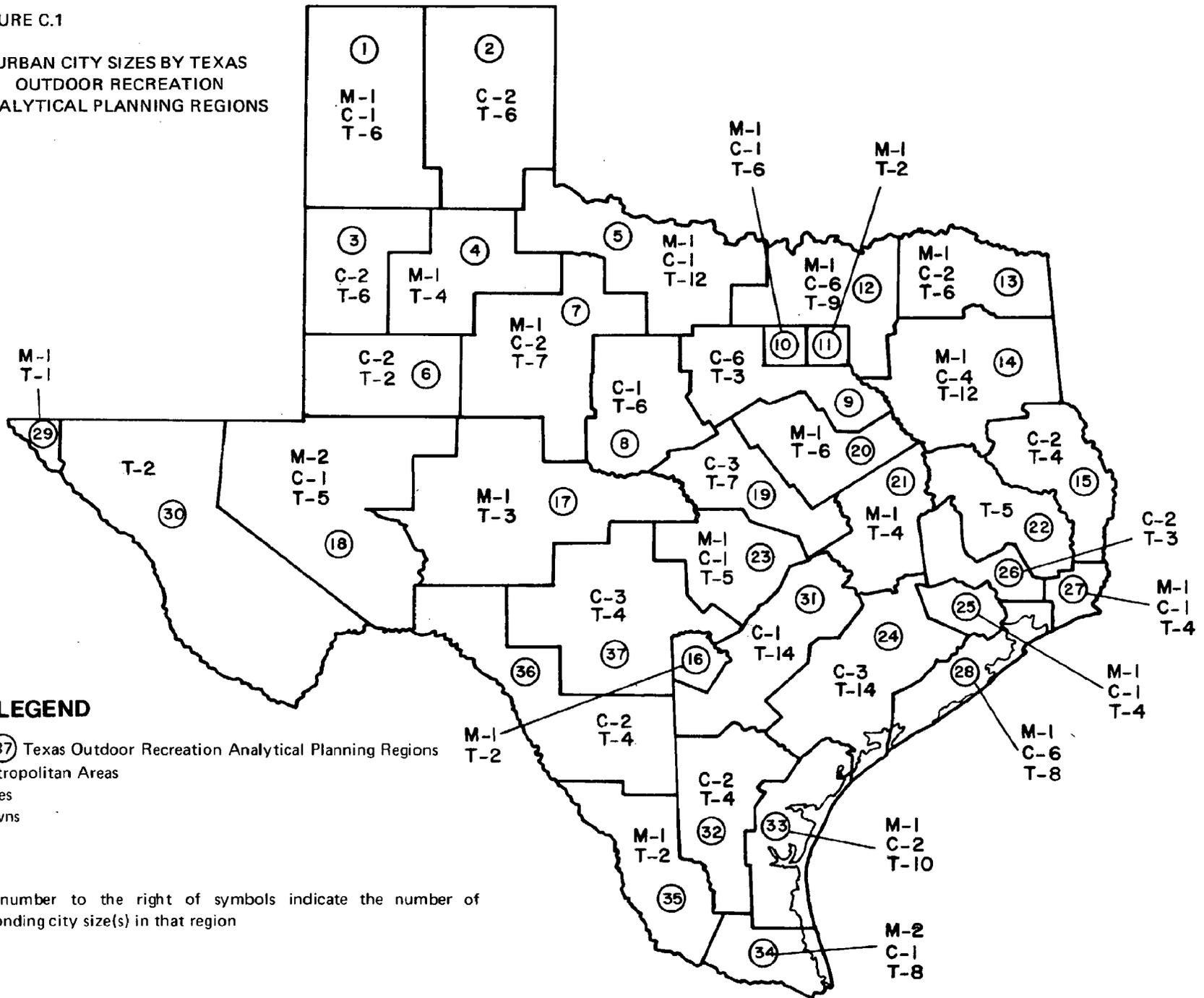
a majority of cases, and permits more detailed geographical analyses where needed. The regions are delineated by county boundaries, and they closely approximate natural and demographic boundaries. This partitioning of the State should enable planners and decision-makers at the regional and municipal levels to analyze the potential effects of their proposed actions and to assist them in making sound decisions. Although most regions are combinations of several counties, five of the regions comprise only a single county. Major metropolitan areas such as Houston (Harris County), Dallas (Dallas County), Fort Worth (Tarrant County), San Antonio (Bexar County), and El Paso (El Paso County) have been given regional status in order to analyze in more detail these population core areas and their contiguous surroundings because of the large population residing in these areas and the significant impacts the residents have on total recreation occurring throughout the State.

The urban areas of the State, based on 1970 Census population data, were classified into three city-size categories, which were then analyzed separately for the appropriate regions. These categories were:

1. **Metropolitan Areas**—the core city or cities having populations of 50,000 or more, according to 1970 population figures, plus all incorporated, and some unincorporated, urbanized areas contiguous to the core city/cities. Data is organized for each metro area by Analytical Planning Region. The 24 metro areas are located in 22 different planning regions, with Regions 18 and 34 having two metros each, Midland and Odessa in Region 18 and Brownsville-Harlingen-San Benito and McAllen-Edinburg-Pharr in Region 34.
2. **Cities**—the 61 urban areas of the State with populations ranging from 10,000 to 49,999, and which are not part of or contiguous to a metropolitan area. Twenty-seven Analytical Planning Regions have one or more cities.

FIGURE C.1

URBAN CITY SIZES BY TEXAS
OUTDOOR RECREATION
ANALYTICAL PLANNING REGIONS



LEGEND

- ① - ③⑦ Texas Outdoor Recreation Analytical Planning Regions
- M - Metropolitan Areas
- C - Cities
- T - Towns

Note - number to the right of symbols indicate the number of corresponding city size(s) in that region

3. **Towns**—the 209 urban areas in Texas with populations ranging from 2,500 to 9,999 and which are not part of or contiguous to a metropolitan area. All 37 Analytical Planning Regions have one or more towns.

Incorporated places of populations 200 to 2,499 are referred to as small communities. These are not analyzed quantitatively on a regional basis in this volume because of a lack of data on such places, and the large number of them (985) would require analysis that exceeds the scope of this volume.

A complete listing of the urban areas in Texas by analytical region may be found in Appendix B. Figure C.1 depicts the 37 Analytical Planning Regions and the types and number of city sizes located in each region.

THE DATA BASE

Insufficient resources, both physical and monetary, is one of the most common of the many problems associated with planning. A review of other state plans indicates that in many cases there were either shortages of people to develop a good outdoor recreation plan (i.e., one that can be effectively implemented and serve as a guide to development) or, if the people were available, there were insufficient funds for detailed data collection and analysis. Likewise, no adequate statewide data was available for guidance and planning in Texas.

Recognizing this problem, the Texas Parks and Wildlife Department, by communication and coordinating with many other responsible entities in the State, and by receiving monetary support from the Bureau of Outdoor Recreation of the Department of the Interior and the Texas Legislature, designed and conducted a program of data collection on a statewide basis which revealed the indications of present and anticipated needs for recreation opportunities.

FIGURE C.2
SAMPLING DISPERSION
1968 Household Demand Survey

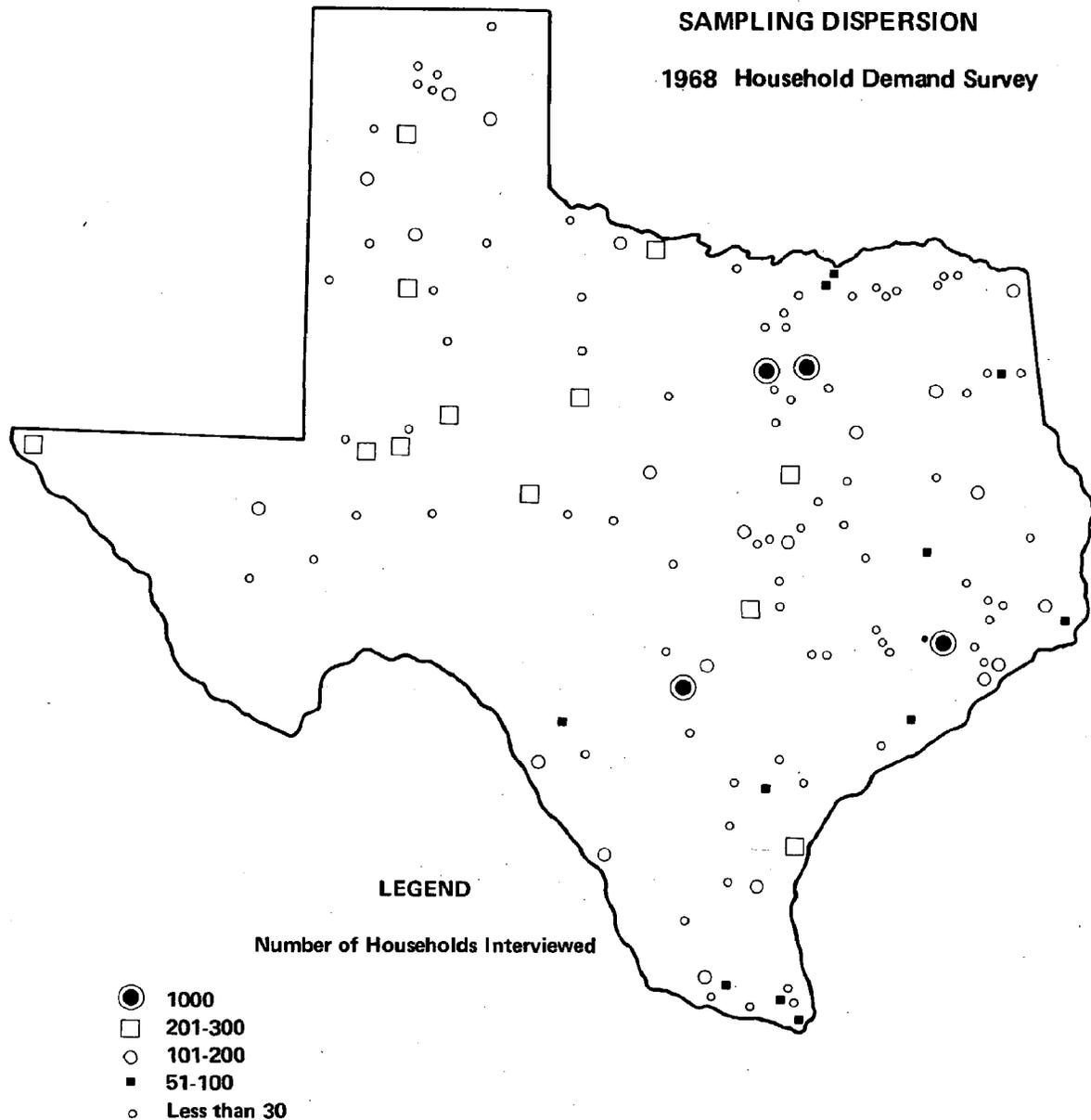


TABLE C.1
SAMPLE DESIGN OF
HOUSEHOLD DEMAND SURVEY

<u>City Size</u>	<u>No. of Interviews</u>
Major Cities ^a	3,992
Over 100,000	4,702
10,000-99,999	3,483
2,500-9,999	895
200-2,499	571
Rural	1,482
TOTAL	15,125

a. Includes Houston, Dallas, Fort Worth, and San Antonio.

In developing the urban portion of the Texas Outdoor Recreation Plan, five surveys were conducted: two surveys of recreation demand, two of outdoor recreations resources, and one survey of the cities' needs and problems. These included the 1968-1969 Texas Household Demand Survey, the 1970 On-Site Demand Survey, the 1969 Outdoor Recreational Facilities Inventory Survey, the 1971 Municipal Inventory Update Survey, and the 1971 Urban Planner's Survey.

HOUSEHOLD DEMAND SURVEY

The most important data collection effort undertaken in conjunction with this Plan was the Texas Outdoor Recreation Household Demand Survey. This study was designed to determine the magnitude and nature of participation in outdoor recreation in Texas. Information on participation in outdoor recreation was obtained for over 70 activities and detailed information for 21 major activities. Interviews were taken by members of professional market research firms under contract to the Texas Parks and Wildlife Department. Twenty-two interviewing teams comprised of 200 interviewers were involved in the Study. Before the actual survey was conducted, questionnaires were submitted to federal, state, and local planners for their review and comments and to a selected group of households for pre-testing. The

actual interviews required an average of 45 minutes to complete, while a few lasted much longer. Table C.1 gives the number of questionnaires taken within each sampling strata. Figure C.2 depicts the sampling density and dispersion across the State.

The survey was divided into two phases of 7,500 questionnaires each. Phase I collected information for activities participated in during the time period from October 1, 1968 through March 31, 1969. Phase II solicited information on activities participated in during the time period from April 1 through September 30, 1969. The two phases taken together represented on full year's participation. The decision to divide the interviews into two phases was based on the belief that the persons questioned would have difficulty in recalling in detail participation which occurred more than six months prior to the date of the interview. However, data was obtained from both phases on any vacations taken within the past year, on the premise that people would be able to remember the details of their vacations longer than they remembered weekend outings and similar brief excursions.

Complete information on the socio-economic characteristics of each household, including family size, race, income and education, occupation, and age of the head of household, was obtained. Participation was categorized by the type of trip, in-town, out-of-town, or vacation, and according to the destination, urban or rural. In addition, information concerning recreational destinations, activity preferences, investment in recreation equipment, factors which inhibited participation, and a host of other characteristics were obtained.

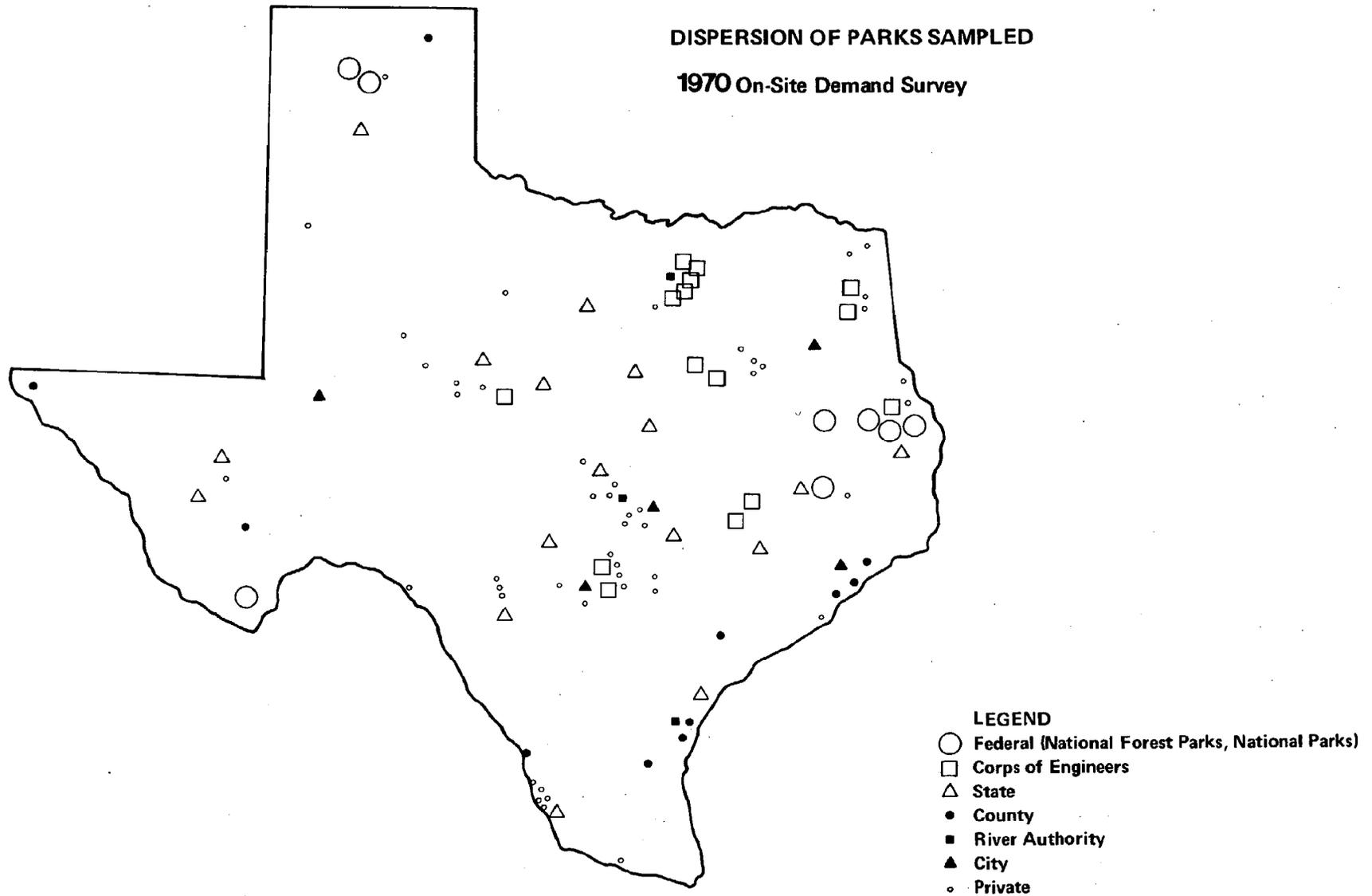
For purposes of the analysis of urban outdoor recreation, data on all trips with an urban destination were utilized. Of the 15,000 households included in the survey, approximately 13,000 resided in the urban areas of the State.

The scope of the Household Demand Survey and the amount of information collected on each household combined to provide the most comprehensive body of data on the outdoor recreation characteristics of the general population available anywhere in the nation.

TABLE C.2
SAMPLE DESIGN OF THE ON-SITE DEMAND SURVEY

<u>Type of Authority</u>	<u>Number of Parks Sampled</u>	<u>Number of Interviews</u>
Public Recreation Areas		
National Parks	3	462
U.S. Forest Service Parks	5	418
Corps Parks	14	1,366
State Parks	18	2,238
County Parks	12	1,018
City Parks	38	1,707
Public Total	90	7,209
Private Recreation Areas		
Private Total	73	754
All Recreation Areas-TOTAL	163	7,963

FIGURE C.3
DISPERSION OF PARKS SAMPLED
1970 On-Site Demand Survey



ON-SITE DEMAND SURVEY

In order to supplement the information obtained from the Household Demand Survey and to provide detailed information on participant households, an On-Site Recreation Demand Survey was conducted during the summer of 1970 in cooperation with federal, state, county, and municipal agencies, and selected private enterprises. A total of 7,963 recreationists were interviewed at 163 parks across the State. Figure C.3 shows the dispersion of parks sampled by type of park. The number of interviews taken at different types of recreation areas is given in Table C.2.

Sixteen enumerators were employed to administer the Survey, under the direction of three field supervisors. Both interviewers and supervisors were college students who were engaged in recreational curriculums. Many had prior experience working on the recreation facility inventory of the previous summer. After an extensive training session which included trial interviews, the interviewers were sent to specific parks located throughout the State. The sites were chosen to be representative of all types of public agencies and private enterprises providing recreation opportunities in the State. The enumerators spent one week at a time at each park and returned to the park every four weeks, for a total of three weeks at each park. The interviewers' itinerary was also designed so that a proportionate number of weekdays and weekends were included.

The Survey was broken out by activity with separate questionnaires in urban areas for picnicking and swimming, and in rural areas for camping and picnicking while boating and fishing were on the same questionnaire. The interviewers were instructed to follow a sample design procedure based upon the total number of recreationists in the activity area and the number of questionnaires required for any given day.

The On-Site Survey was designed to secure detailed information on the mix of activities pursued, expenditures, distances travelled, facility and activity preferences, daily peak-use periods, weekday use as related to weekend use, and specific suggestions about site improvements. It was decided that this type of information would be most accurate if obtained at the time of participation rather than from a survey at a later date. The On-Site Survey was also utilized to provide information on the number of out-of-state users in Texas parks.

A separate section of each questionnaire was devoted to obtaining information required for the development of standards for selected activities. Standards are an indication of the amount of participation a facility can accommodate annually. An attempt was made to measure user tolerances to varying degrees of crowdedness. Confidence intervals were obtained denoting the optimum space allocation per recreationist. This information was then utilized in developing the standards used in translating supply into recreational opportunity days.

OUTDOOR RECREATION AREAS AND FACILITIES INVENTORY

The Household Demand Survey and the On-Site Survey provide data on the demand for outdoor recreation. Of equal importance to the recreation planning is the supply of facilities for outdoor recreation. In order to determine the extent and nature of outdoor recreation resources currently available in Texas an inventory of recreation resources throughout the State was conducted in 1969. It was obtained by on-site inspections of parks and recreation facilities in both urban and rural areas, of both publicly and privately-administered facilities. All sizes of parks were inventoried, provided they supplied some form of outdoor recreation and were open to the general public. To insure that the inventory was complete, enumerators were asked to

inquire of each entrepreneur or supervisor if there were any additional recreational enterprises in the area.

The inventory questionnaire was developed with the aid of federal, state, and local experts in the field of outdoor recreation. The questionnaire was presented and field work was conducted by 15 college students trained in the field of parks and recreation along with staff members from four Councils of Government through a cooperative effort with the Texas Parks and Wildlife Department. In gathering the data, the enumerators travelled approximately 100,000 miles and visited 3,854 parks. The following table lists the number of parks enumerated on the basis of the administering agency:

TABLE C.3

RECREATION FACILITIES INVENTORY

<u>Administering Agency</u>	<u>No. of Parks Inventoried</u>
Bureau of Reclamation	1
U.S. Fish and Wildlife Service	1
Corps of Engineers	192
National Park Service	8
U.S. Forest Service	28
Texas Parks & Wildlife Department	75
Texas Forest Service	4
River Authority	16
County Parks	194
City Parks	2,085
Total Public	2,604
Total Private	1,250
TOTAL	3,854

MUNICIPAL INVENTORY UPDATE SURVEY

The Municipal Inventory Update Survey was a mailout survey conducted during the latter part of 1971. Its purpose was to update the urban portion of the Outdoor Recreation Areas and Facilities

Inventory Survey. Approximately a 75% return was realized from the municipalities surveyed.

URBAN OUTDOOR RECREATION PLANNER'S SURVEY

The data obtained from the Household Demand and On-Site Surveys provided useful information for the development of the Texas Outdoor Recreation Plan. However, in addition to the understanding that comes from the analysis of raw data, the planner also needs to have a picture of the human element, the "feel" of a city. This cannot always be quantified but does exist nevertheless and should profoundly affect urban outdoor recreation planning. To isolate this essential individuality of each of the cities studied, an additional survey was conducted involving city parks departments, or when non-existent, other city entities responsible for providing recreation opportunities. The number of questionnaires returned by city size is presented in the following table:

TABLE C.4

RECREATION PLANNER'S SURVEY

City Size	No. of Questionnaires
Metro ^a	94
Cities	61
Towns	200
TOTAL	355

a. Includes communities contiguous to metropolitan areas.

The questionnaire was divided into two parts. The first part asked planners to identify the urban outdoor recreation needs for their communities. Prior to listing the land and facilities needs for their cities, planners were asked to delineate sections of their city according to predominant race and income characteristics. They were then requested to list the current needs for developed land, open space, and

TABLE C.5

PARTICIPATION IN URBAN OUTDOOR RECREATION IN TEXAS BY OUT-OF-STATE RESIDENTS

CITY PARK LOCATION	OUT-OF-STATE RESIDENTS INTERVIEWED		IN-STATE RESIDENTS INTERVIEWED	
	NUMBER	PERCENT	NUMBER	PERCENT
Austin	2	.6	342	99.4
Corpus Christi	9	3.1	283	96.9
Houston	8	2.6	303	97.4
Midland	2	1.8	109	97.2
San Antonio	9	2.7	330	97.3
Tyler	2	.7	281	99.3
Total	32	1.9	1,648	98.1

Source: 1970 Texas Outdoor Recreation On-Site Demand Survey.

facilities for each of these sections. After needs were enumerated for each section of the city, planners were asked to draw up a priority list comparing needs throughout the city.

The second part of the questionnaire was general in scope and subjective in nature. Park planners were provided an opportunity to express their opinions on such issues as needed recreational legislation, and improvement of the coordination between all levels of government. They were also asked to provide descriptive information on recreational programs in their city, operational and managerial problems, and recreational trends that they detected on the basis of their own city's experience.

The Planner's Survey provided extremely useful information which supplemented the data obtained from other sources. Each city was given an opportunity to contribute a direct input to the plan developed for their region. It also increased the Department's awareness of the problems and needs confronting Texas' cities.

ESTIMATED 1968 AND PROJECTED URBAN PARTICIPATION

1968 PARTICIPATION

1968 participation data was determined from Household Survey participation data. Sample participation data from the survey was multiplied by a series of expansion factors to reflect estimated participation by the entire population of a metro, city, or town. These expansion factors are simply the ratio of the population to the number of people sampled for a given city size for each of the 37 analytical planning regions. These ratios, or expansion factors, multiplied times the number of sample days of participation for a given activity for a certain city size give the number of days of participation for that activity by all the residents of that city size.

PROJECTED PARTICIPATION

Recreation participation in the urban areas was projected for the years 1970, 1975, 1980, 1990, and

2000 by each of the three city-size categories for all of the 37 Analytical Planning Regions for a total of 20 major activities.

Projected participation for the urban activities is categorized into resident and non-resident, and includes only participation which occurred while the participant was on a trip. Participation occurring at the participant's home was not included. Resident participation occurs when a resident of an urban place participates in an outdoor recreation activity in the urban place in which he resides. Non-resident participation occurs when a resident (of Texas) participates in an outdoor recreation activity in an urban place in which he does not reside. Participation by out-of-state residents in the activities considered in this volume were found to be insignificant with the possible exception of regional amusement centers, such as Six Flags Over Texas. As indicated in Table C.5, of the 1,707 individuals and/or groups of recreationists interviewed in a sample of 38 urban parks within six metropolitan areas, only 1.9 percent were out-of-state residents. For this reason, out-of-state participation was not considered in the development of urban participation projections.

This section explains the various methodologies used to project urban participation. Two projection models were utilized to project urban resident participation: a multiple-regression model and a trend model. A third methodology, also a trending technique, was utilized to project non-resident participation.

MULTIPLE REGRESSION MODEL

The Multiple Regression Model was utilized to project participation for a total of nine activities, swimming, baseball/softball, tennis, golf, football/soccer, sightseeing, picnicking, child's play, and driving for pleasure. Using data from the Household Survey, average household participation rates for the various

urban activities were computed for each city within the three city-size categories. Then, multiple regression analysis was used to develop forecasting equations for each city-size category, relating variations in household participation rates to socio-economic characteristics and the availability of outdoor recreational facilities.

Socio-economic factors analyzed by multiple regression techniques were race, or ethnic background, expressed as the percentage of Anglo, Mexican-American, and Black households, average household income, average age of the head of the household, and average family size. Other factors were analyzed as well, including occupation, sex, education, and city size. However, the analysis revealed that these variables did not significantly improve the predictive capability of the projections equations, and they were, thus, omitted from the final set of equations.

An important factor affecting participation is the availability of recreational facilities. In developing the multiple regression model, it was found that the total area devoted to an activity and the total number of facilities for a given activity were the best indicators of availability in terms of their relation to participation. These indicators were tested in terms of total area and facilities and on a per capita basis, and it was found that the total availability was more strongly related to participation than per capita availability.

The approach employed to project demand used average days of participation per household for each urban place as the dependent variable and the average values of the set of household socio-economic traits and availability for each urban place as independent variables. A general form of the forecasting equations employed to project urban outdoor recreation demand can be written as follows:

$$Y_{ij} = k X_{1j}^{B_1} X_{2j}^{B_2} X_{3j}^{B_3} X_{4j}^{B_4} X_{5j}^{B_5} X_{6j}^{B_6} X_{7j}^{B_7}$$

Where:

- Y_{ij} = the average number of days per household of activity i participated in by individuals in urban place " j ".
- k = constant.
- Y_{1j} = percent Anglo population in urban place " j ".
- Y_{2j} = percent Mexican-American population in urban place " j ".
- Y_{3j} = percent Black population in urban place " j ".
- Y_{4j} = average family size in urban place " j ".
- Y_{5j} = average age of the head of household in urban place " j ".
- Y_{6j} = average household income in urban place " j ".
- Y_{7j} = availability of facilities for activity " i " in urban place " j ".
- B = coefficients indicating the importance of each of the independent variables.

It should be pointed out that the coefficients of this equation are elasticities, i.e., each coefficient indicates the percent change in participation associated with a one percent change in the relevant independent variable.

In general, the procedure used to project participation per household was to construct a basic set of projection data representing estimates of the average values of the independent socio-economic variables and the availability of facilities variable, for each urban place for each period, 1970, 1975, 1980, 1990, and 2000.

The construction of the basic forecasting data set for projecting participation involved the location of data sources for the expected values of each of the independent variables. For the socio-economic variables, the average values of income, age, racial composition, family size, and population on a regional and city-size basis were needed for the years, 1970, 1975, 1980, 1990, and 2000. The secondary sources of information utilized in assembling the socio-economic data set were as follows:

1. U. S. Census of Population: 1950-Texas.
2. U. S. Census of Population: 1960-Texas.
3. U. S. Census of Population: 1970-Texas.
4. Statistical Profile of the Spanish Surname Population of Texas by Harley L. Browning and S. Dale McLemore.
5. Total Personal Income Estimates for Texas Counties Office of Business Economics, U. S. Department of Commerce.
6. Preliminary Revised Population Projections for Texas Counties to 1990, Series I-A, compiled by the Population Research Center, The University of Texas at Austin, June 1971.

In some cases, the secondary sources provided directly the required information. However, in most cases, the methodology had to be developed to establish trends from available time series data. Where time series data was utilized to establish demographic and socio-economic trends, personnel from the Bureau of Business Research and the Population Research Center of the University of Texas at Austin were consulted regarding the appropriate trending methodology to be utilized.

One element of the basic projection data set proved to be particularly difficult to trend over time. While the Recreation Facilities Inventory provided complete information on the existing availability of outdoor recreation facilities in the urban areas of Texas, no comparable data were available for earlier periods. The lack of earlier data bases for facilities inventories prevented the simple trending of availability into the future. To provide a basis for projecting availability, it was decided to employ a computerized technique which would interate the supply facilities for a given time period. For example, as in the case of the year 1975, the projection equation would determine the number of swimming days of demand for a given city as a function of the soci-economic characteristics of the city and the magnitude of the available swimming facilities. However, it has been determined that the availability of any facility does have a significant effect on the

participation in the particular activity. Thus, it is necessary to provide an adequate number of facilities for the activity to determine its actual demand. By doing so, participation can be established for those people who are now non-participants due to the lack of facilities as well as those participating at relatively low rates.

The program developed for the interation of supply simply kept adding facilities until the addition of more facilities had a negligible effect on demand. In most cases this point was reached after two interations. Supply was interated in this manner for each activity and each time period. By using this technique the possibility of deriving a low participation rate as a result of a lack of opportunity was overcome.

TREND MODEL

The Trend Model was utilized to project urban resident participation for the remaining eleven activities, including basketball, walking for pleasure, bicycling, nature study, salt and freshwater fishing, salt and freshwater boating, salt and freshwater skiing, and surfing. The Trend Model projections were based on both population trends and trends in recreation participation patterns. The methodology determined resident days of participation, or the amount of participation in each activity originating the specified region and taking place in that region, for each city-size category in each region using the following procedure:

$$TDP_i^t = (NHH_i^t) (DPNHH_i^t)$$

Where:

TDP_i^t = the total days of participation by residents of a selected city size of region i in some specified outdoor recreation activity taking place in a selected city size in region " i " for " t " time period.

t = the projection year (1970, 1975, 1980, 1990, or 2000).

i = the region of residence.

NHH_i^t = the total number of households residing in the selected city size of region " i " at " t " time period.

$DPNHH_i^t$ = the average days of participation per household of the selected city size in region " i " for time " t ".

The NHH_i^t is a population statistic and is given for each year and each analytical region. The number of households by city size by analytical region for each projection year was determined from population estimates prepared by the Population Research Center, the University of Texas at Austin. It was necessary to calculate $DPNHH_i^t$, as shown below.

$DPNHH_i^t$ was computed by establishing an average household participation rate for each activity and for each city size in each analytical region in 1968, $DPNHH_i^{1968}$, and the average annual change in this rate of participation, $\Delta DPNHH_i^{t-1968}$. The formula for computing $DPNHH_i^{1968}$ is simply:

$$DPNHH_i^{1968} = \frac{PD_i^{1968}}{NHH_i^{1968}}$$

Where:

$DPNHH_i^{1968}$ = the average days of participation per household in the specified activity occurring in the selected city size in region " i " in 1968.

PD_i^{1968} = the total number of resident participation days for the specified activity generated

NHH_i^{1968} = the total number of households residing in the selected city size in region "i" in 1968.

After determining $DPNHH_i^{1968}$, the next steps were to determine the annual change in the rate of participation. The steps were as follows:

1. Determine the regional DPNHH for the years 1963 and 1968 for a selected city size.
2. Compute the annual average change in the regional DPNHH's between 1963 and 1968 for the selected city size as follows:

$$\Delta DPNHH_i^{1963-1968} = \frac{DPNHH_i^{1968} - DPNHH_i^{1963}}{5}$$

Computation of $DPNHH_i^{1970}$, $DPNHH_i^{1975}$, $DPNHH_i^{1980}$, $DPNHH_i^{1990}$, $DPNHH_i^{2000}$, for each activity for the projected years was determined by combining $DPNHH_i^{1968}$ and $DPNHH_i^t$ as follows:

$$DPNHH_i^t = DPNHH_i^{1968} + (t-1968)(\Delta DPNHH_i^{1963-1968})$$

URBAN NON-RESIDENT PARTICIPATION MODEL

Non-resident participation, or that participation occurring in an urban place by one who does not reside there, was projected for all 20 activities. Although it varies by activity among the three city-size categories, as well as among the urban areas within a particular city-size category, non-resident participation accounted for approximately 9% of the total recreation participation occurring in the urban areas of Texas. The average for metro areas was 6%; for cities, 19%; and for towns, 13%. It was also

determined that approximately 90% of the non-resident participation originated from within 30 miles of the urban area in which the participation took place. Thus, the majority of non-resident participation generally originated within the region in which the participation occurred.

The determination of non-resident participation in the metropolitan areas was computed differently than it was for the cities and towns for the year 1968. The different methods were due to the fact that the metro areas could provide a broader, more in-depth data base to work with than could the cities and towns. Consequently, for each metro, the 1968-1969 Household Survey non-resident participation in that metro was utilized as the basis for projecting future participation. The technique employed for metros was, for a particular projection year, to simply vary the initial 1968 participation level by the same percentage as the total regional population had varied since 1968. Thus, for example, for 1970, the 1968 non-resident participation was increased by a percentage equal to the total regional population increase from 1968 to 1970. Similarly, non-resident participation for 1975, 1980, 1990, and 2000 was determined, except that projected population changes were utilized instead of the actual changes.

The model may be expressed as follows:

$$NRP_{im}^t = (NRP_{im}^{1968}) \frac{POP_i^t}{POP_i^{1968}}$$

Where:

- NRP_{im}^t = the total days of non-resident participation for a given activity taking place within a selected metro "m" located in region "i" for time period "t".
- t = the projection year (1970, 1975, 1980, 1990, or 2000).
- i = the planning region in which the metro is located.

- m = a specified metropolitan area located in region "i".
- POP_i = the estimated or projected population of region "i".

Non-resident participation in the cities and towns for 1968 was determined by using the statewide non-resident participation in cities and towns as a basis. The 1968 regional non-resident participation for cities and towns was calculated by proportioning out participation on the basis of population, i.e., the ratio of the total regional population to the statewide population was applied to the statewide total non-resident participation for cities and for towns for each activity. The resulting 1968 figures were then projected trending them out on the basis of the total regional population growth. The computation of non-resident participation for 1968 may be expressed as follows:

$$NRP_{ij}^{1968} = (NRP_{sj}^{1968}) \left(\frac{POP_i^{1968}}{POP_s^{1968}} \right)$$

Where:

- NRP_{ij}^{1968} = the total days of non-resident participation for a given activity taking place within city size "j" (cities or towns) located in region "i" for the year 1968.
- i = the planning region in which the city/cities or town/towns are located.
- j = the city-size category for the urban place (in this case, only cities or towns).
- NRP_{sj}^{1968} = the total days of non-resident participation for a given activity taking place with city size "j". (cities or towns) throughout the state for the year 1968.
- POP_i^{1968} = the estimated total population of region "i" in 1968.

POP_s^{1968} = the estimated total population of the state in 1968.

The formula for the computation of non-resident participation for the remaining planning years may be expressed as follows:

$$NRP_{ij}^t = (NRP_{ij}^{1968}) \left(\frac{POP_i^t}{POP_i^{1968}} \right)$$

Where:

NRP_{ij}^t = the total days of non-resident participation for a given activity taking place within city size "j" (cities and towns) located in region "i" for time period "t".

t = the projection year (i.e., 1970, 1975, 1980, 1990, or 2000).

OTHER ACTIVITIES

In addition to the previously discussed activities, Chapter 4 presents projected statewide household participation rates for metropolitan areas, cities, and towns for the years 1970, 1975, and 1980 for archery, sport shooting, horseback riding, zoos, rodeo, and cultural centers. Statewide rates for metropolitan areas, cities, and towns were computed because variations from region to region in participation rates and trending patterns made regional rates impractical to determine. The methodology used to compute statewide household participation rates by city-size category for these six activities is the same procedure utilized to establish regional average household participation rates by city-size category for resident participation, $DPNHH_i^t$, with one difference; statewide data is used for each city-size category for these six activities

whereas regional data was utilized in the resident participation model for $DPNHH_i^t$ previously discussed. Therefore, the model to compute statewide average household participation rates by city-size category for resident participation for each of these six activities becomes $DPNHH_{cs}^t = DPNHH_{cs}^{1968} + (t-1968) (\Delta DPNHH_{cs}^{1963-1968})$ and the procedure to determine $DPNHH_s^t$ may be outlined as follows.

$DPNHH_{cs}^t$ was computed by establishing 1968 statewide average household participation rates by city-size category for each of the six activities, $DPNHH_{cs}^{1968}$, and the statewide average annual change in this rate of participation, $DPNHH_{cs}^{t-1968}$.

The formula for stating $DPNHH_{cs}^{1968}$ is

$$DPNHH_{cs}^{1968} = \frac{PD_{cs}^{1968}}{NHH_{cs}^{1968}}$$

Where:

$DPNHH_{cs}^{1968}$ = the average days of participation per household by city-size category in the specified activity in 1968.

PD_{cs}^{1968} = the total number of resident participation days for the specified activity generated by the residents of each city-size category in 1968.

NHH_{cs}^{1968} = the total number of households residing in each city-size category in 1968.

After determining $DPNHH_{cs}^{1968}$, annual rates of change by city-size category in the rates of participation were calculated as follows:

1. Determine the $DPNHH_{cs}$ for the years 1963 and 1968.

2. Compute the annual average change in the $DPNHH$'s between 1963 and 1968 as follows:

$$\Delta DPNHH_{cs}^{1963-1968} = \frac{DPNHH_{cs}^{1968} - DPNHH_{cs}^{1963}}{5}$$

The computation of $DPNHH_{cs}^{1970}$, $DPNHH_{cs}^{1975}$, and $DPNHH_{cs}^{1980}$ for each activity was determined by combining $DPNHH_{cs}^{1968}$ and $DPNHH_{cs}^t$ as follows:

$$DPNHH_{cs}^t = DPNHH_{cs}^{1968} + (t-1968) (\Delta DPNHH_{cs}^{1963-1968})$$

Where:

$DPNHH_{cs}^t$ = the average days of participation per household by city-size category for time "t."

t = the projection year 1970, 1975, or 1980.

cs = city-size category (metro, city, or town).

$DPNHH_{cs}^{1968}$ = the average days of participation per household by city-size category in the specified activity in 1968.

t-1968 = the specified projection year minus 1968; 2, 7, and 12 for the years 1970, 1975, and 1980, respectively.

$\Delta DPNHH_{cs}^{1963-1968}$ = the annual average change in the rates of resident participation in each specified activity between the years 1963 and 1968 for each city-size category.

FACILITY STANDARDS

A facility standard is defined as the average number of outdoor recreation opportunities, measured in days of participation, or "activity days," which can be provided by one unit of a specified outdoor

recreation facility per unit of time, given the existing participation patterns and preferences of outdoor recreationists. The purpose of the facility standard is to provide a conversion factor so that supply and demand can be compared, and from this, resource requirements determined. The procedures explained below illustrate the use of standards in comparing supply and demand and computing resource requirements:

1. First, the standards for each activity are used to convert the existing supply of related outdoor recreation facilities to existing opportunity days for that activity regardless of geographical breakdown. The resulting quantity, participation days, is in terms of measurement which can be compared with geographically compatible demand, which is in terms of days of participation.

Example:

$$\text{NUMBER OF EXISTING OPPORTUNITY DAYS} = \text{FACILITY STANDARD} \times \text{EXISTING SUPPLY}$$

2. Second, the computed existing opportunity days for the activity (existing supply) are compared with current or projected future participation days for the same activity (current or future demand) to determine whether a surplus or deficit of opportunity days exists for the activity.

Example:

$$\text{SURPLUS OR DEFICIT} = \text{EXISTING OPPORTUNITY DAYS} - \text{CURRENT OR FUTURE PARTICIPATION DAYS}$$

3. Third, if there is a resulting deficit of opportunity days for the activity, the deficit is divided by the standard for the activity and the

resulting figure, the resource requirements, expresses the deficit recreation facility or resource units.

Example:

$$\text{RESOURCE REQUIREMENTS} = \frac{\text{DEFICIT OF CURRENT OR FUTURE OPPORTUNITY DAYS}}{\text{FACILITY STANDARD (PARTICIPATION DAYS PER FACILITY UNIT)}}$$

The primary data sources used in developing facility standards were the 1968 Texas Outdoor Recreation Household Demand Survey and the 1970 Texas Outdoor Recreation On-Site Demand Survey.

The Household Survey provided information on seasonality, peak-use periods, and weekday-weekend participation patterns. The On-Site Survey furnished information on daily participation patterns, length of stay, number of persons utilizing a facility, turnover rates, and the attitudes and preferences of urban recreationists with respect to the spacing of facilities. Secondary sources were used for comparison purposes, or where primary data was lacking.

From the information gathered in these surveys, a model was developed to compute a standard for each of the urban outdoor recreation facilities. The general formula for computing standards and definitions of each variable are presented below.

$$\text{OD} = [\text{WD}(\text{J})\text{P} + \text{WE}(\text{P})] \text{EF}$$

Where:

OD is the average number of outdoor recreation opportunities, measured in participation days, which can be provided by one unit of a specified outdoor recreation facility per year, given the current participation patterns and preferences of outdoor recreationists.

WD is the number of weekdays during the established peak use season, based on user participation, by specified activity.

J is the ratio of the number of participation days occurring on weekdays during the peak use season to participation occurring on weekends and holidays during the peak use season by specified activity; or J may be defined as a weighing factor for reducing or expanding the average number of opportunity days provided by one unit of the specified outdoor recreation facility during the peak use season.

P is the average number of outdoor recreation opportunities, measured in participation days, which can be provided by one unit of a specified outdoor recreation facility per day during the peak use season, given the current participation patterns and preferences of outdoor recreationists.

Computed as follows: $P = (Y) (T)$

Where:

Y = the average number of participants that normally use or occupy one unit of the specified outdoor recreation facility at one point in time during the peak season.

T = the turnover rate of participants per unit of the specified outdoor recreation facility per day during the peak use season.

WE is the number of weekend days and holidays during the established peak use season, based on user participation, by specified activity.

EF is the reciprocal of the proportion of total annual participation which occurs during the peak use

season by the specified activity; or EF may be defined as an expansion factor which converts the average number of outdoor recreation opportunities, measured in participation days, which can be provided by one unit of a specified outdoor recreation facility during the peak use season, to an annual figure.

Computed as follows: $EF = \frac{1}{K}$

Where:

K = the percent of total participation in the specified activity which occurs during the peak season.

It should be pointed out that standards are meant to serve as guidelines, and should not be interpreted as inflexible measuring tools universally applied in all planning situations. Standards are not substitutes for the judgments of professional recreation planners who have gained the ability to make competent judgments through experience. Rather, the standards, serving as guidelines, provide the planner with a means of comparing supply and demand, thus improving the planner's ability to make professional judgments.

TABLE C.6
URBAN FACILITY STANDARDS FOR SELECTED OUTDOOR RECREATION ACTIVITIES AND FACILITIES

Activity/Facility	Unit of Measure	Urban Standard (Days of Opportunity) Per Unit of Measure
Designated Swimming	Square yard of water	150
Child's Play	Acre	27,623
Baseball/Softball	Field	13,804
Picnicking	Table	1,702
Football/Soccer	Field	7,224
Golf	Hole	4,047
Tennis	Court, double	2,694
Basketball	Court, full	8,795
Boat Fishing, Freshwater	Acre of surface freshwater	310
Boating, Freshwater	Acre of surface freshwater	306
Skiing, Freshwater	Acres of surface freshwater	228
Boating, Skiing, and Boat Fishing, Freshwater (Combined Activities)	Acre of surface freshwater	629
Boat Lane-Freshwater	Lane	13,486
Boat Lane-Saltwater	Lane	10,986
Bicycling, Walking, and Nature Study (Combined Activities)	Mile of trail	8,464

Urban facility standards are presented in Table C.6. Each urban facility standard applies to each urban city-size category. No significant differences were found which identified a need for different standards according to city-size category, i.e., each urban facility standard may be used to compute resource requirements for metros, cities, towns, or all three of these urban areas combined. Standards for the activities of freshwater boat fishing, boating, and skiing are provided for information only. The combined boating, skiing, and boat fishing standard was used to compute resource requirements for surface acres of freshwater.

ADDITIONAL STANDARDS

Standards were presented in Chapter 4 for the activities of archery, sport shooting, and horseback riding. Participation varied rather widely across the state. Due to these wide variations in participation, resource requirements were not computed. However, planners in some areas of the state are planning facilities for these activities because of local interests. The decision to provide facilities for these activities is best suited for local levels rather than on a statewide (TORP) basis because of the variations in participation from one locale to another. Standards are provided for these activities to assist the local

planners in their planning efforts. The methodology utilized to calculate these three standards employed the same procedures discussed above for facility standards.

CONVERSION OF RESOURCE REQUIREMENT TO LAND ACRES

To provide another perspective of the resources needed to satisfy estimated resource requirements, resource requirement units were converted to land acres. These land acreage figures represent estimates of the land acreage that should be developed with recreational facilities (henceforth, referred to as developed land acres) to meet the resource requirements for the 13 selected facilities presented in Chapter 4. Developed land acre figures do include some minor sized buffer zones but the large open spaces which may surround outdoor recreation facilities are not included. The methodology utilized to convert resource requirement units to land acres follows facility standards in this appendix because this is the order of calculations actually followed in

the Urban Volume. In Chapter 4, the order of presentation was land, water, and facility requirements because this was considered a more logical organization for presenting these three types of resource requirements when grouped as resources.

The purpose of this section is to explain the use of the conversion factors used to compute developed land acres and to briefly describe the procedure adopted in the Urban Volume to produce developed land acres. Land acres required per facility unit are presented in Table C.7. Figures listed under the column titled "ACRES PER UNIT" represent the acreage needed to develop one facility unit as listed in the adjacent "FACILITY UNIT OF MEASUREMENT" column. For example, it would require 1.2 acres of land to construct one freshwater two-lane boat ramp. The 1.2 acres includes only the land necessary to develop the ramp and does not include open space lands that may be desired adjacent to the boat ramp, particularly if the ramp is located in a park. The 1.2 acres does include enough land to construct a 35 car (with trailers) parking lot, a

support facility which normally accompanies a boat ramp. This distinction is necessary to understand that, continuing the example, the 1.2 acres includes more than the boat ramp itself, if the ramp is visualized in terms of the launching facility only, while excluding land areas such as large open space buffer zones which may accompany a recreational facility.

Figures presented in Table C.7 are statewide urban averages utilized in the TORP for metropolitan areas, cities, towns, and these three city-size categories combined. However, variations will occur across the state in the amount of land required to develop a particular type of facility. These variations in developed land required will result primarily from differences across the state in terrain and vegetation, and to a lesser extent participant's preferences in the spacing of facilities. For example, picnic tables may be spaced closer in the dense forests of deep East Texas than in the open terrain found in far West Texas. Therefore, as iterated in Chapter 4, resource requirements expressed in terms of facility units are more accurate when utilized by local planners than the developed land requirements. Resource requirements enumerated in terms of numerical facility units are less subject to variations across the state than variations caused by converting these requirements to developed land acres. For example, 10 picnic tables required in any part of the state is a constant figure; however, converting these 10 picnic tables to developed land acres required would possibly produce varying figures if terrain, vegetation, and user preference variations are considered.

A variety of secondary sources were reviewed in determining factors to be used in converting facility requirements to developed land requirements, principle of which was the NRPA's publication titled **National Park Recreation and Open Space Standards**, June 1971. Figures from secondary sources were modified to produce developed land area figures (for applicable facilities) that were appropriate to the

TABLE C.7

LAND ACRES REQUIRED PER FACILITY UNIT, STATEWIDE AVERAGES

ACTIVITY	FACILITY UNIT OF MEASUREMENT	ACRES PER UNIT
Swimming (Pools)	square yard	.0013
Child's Play (Playground)	acre	1
Baseball/Softball	field	3
Picnicking	table	.25
Football/Soccer	field	3.8
Golf	hole	10
Tennis	court, doubles	.13
Basketball	court, full	.2
Boating, Boat Fishing, Skiing FW	ramp (with 2 lanes)	1.2
Boating, Boat Fishing, Skiing SW	ramp (with 2 lanes)	1.2
Walking	mile	8
Bicycling	mile	8
Nature Study	mile	8
Combined Trail	mile	8

urban areas of Texas. These figures, listed in Table C.7, were multiplied by the number of facility units for each activity required for each projection year to obtain developed land requirements.

Land acres required for each picnic table were based on information gathered in the 1970 On-Site Demand Survey. Respondents were asked their opinions and preferences regarding usage patterns, the number of people using a site, and spacing. These attitudes, patterns, and preferences were then considered in developing the "ACRES PER UNIT" figures in Table C.7. Although On-Site Survey data was not gathered for the remaining activities/facilities, these land standards were based upon extensive study and experience in the design of recreation facilities and parks, and represent generally accepted design criteria for facility spacing in Texas' urban areas.

RESOURCE REQUIREMENTS

Facilities for which urban resource requirements were computed include square yards of swimming pools, acres of playgrounds, baseball/softball fields, picnic tables, football/soccer fields, holes of golf, tennis courts, basketball courts, surface acres of freshwater lakes, boat ramps (freshwater and saltwater), and miles of trails for walking, bicycling, and nature study. Resource requirements were computed for all 37 analytical planning regions for the years 1970, 1975, 1980, 1990, and 2000.

Resource requirements were determined by means of a two-step analysis. First, resource requirements were calculated by comparing projected participation with opportunity days available:

$$\text{SURPLUS OR DEFICIT} = \frac{\text{Existing Opportunity Days} - \text{Current of Future Participation Days}}$$

If a deficit resulted (participation greater than opportunity days), the deficit was divided by the standard to determine cumulative resource requirements:

$$\frac{\text{CUMULATIVE RESOURCE REQUIREMENT (UNITS OF FACILITY)}}{\text{Facility Standard (Days Per Facility Unit)}} = \text{Deficit Opportunity Days}$$

Incremental resource requirements, which are the number of units needed within a specified time period, assuming that the units of facilities needed for previous time periods have been provided, were calculated simply by subtracting the cumulative resource requirement of the preceding year from the cumulative resource requirement of the year in question.

If a surplus resulted (opportunity days greater than participation), the resource requirement was simply stated as zero. In some instances, participation occurring in an urban area declined from one planning year to the next. Where this occurred, the resource requirements for that activity were left at the previous high level, rather than advocate what would amount to removing facilities to meet a lessened demand. The incremental requirements were then recorded as zero.

For boat ramp resource requirements the deficit in opportunity days were first divided by the boat lane facility standard to give a resultant boat lane requirement. The boat lane requirement was then divided by two (the number of boat lanes per boat ramp) to give the number of boat ramp requirements. Two lanes per ramp were used as the standard number of lanes per ramp, realizing that the number of lanes per ramp will vary from site to site.

In the second stage, an analysis of the availability and spatial distribution of recreation opportunities was conducted. For the metropolitan areas, the analysis was more detailed than for the cities and towns. In this analysis of the metro areas, consideration was given to the economic and ethnic subsections of the metro and the contiguous cities and towns with respect to the distribution of parks and recreation

facilities. A series of maps were developed and utilized for this analysis. These metro maps showed the different socio-economic subsections of the area and the dispersion of parks and recreational facilities. Also given special attention were the areas expected to undergo rapid population growth and physical expansion in the future. Then, conclusions drawn from this analysis were used to qualify, where necessary, the resource requirements calculated in the first step to compensate for inadequate facility dispersion. A similar analysis was conducted for cities and towns, except that it was based on inter-city or inter-town distribution of parks and facilities. Again, this analysis was used to qualify, where necessary, the resource requirements previously calculated to account for inadequate inter-city or inter-town dispersion of facilities.

In the development of resource requirements, the assumption is made that the facility units satisfied the total demand for the activity, with the exception of swimming pools, boat ramps, and miles of trails. (The different treatment for these three facility types is explained later.) For instance, it was assumed that everyone who picnics away from home does so at a table, that all child's play away from home takes place at a playground, etc. Resource requirements represent facility development needed in addition to existing facilities. In no way should facility needs be interpreted to mean that all of the stated requirements should be provided by local parks and recreation departments. Recreation resources are also supplied by federal and state agencies, private concerns, quasi-public concerns, and school systems. All relevant support facilities should be provided in addition to the resource requirements shown in the tables. An example of support facilities is grills and garbage cans for picnic tables.

SURFACE ACRES

The computation of urban surface acres which considered the combined total participation in

boating, skiing, and boat fishing, involved several special problems, and consequently, certain assumptions and qualifications were necessary. The first assumption dealt with the availability of freshwater lakes to support boating, boat fishing, and skiing. It was assumed that all freshwater lake surface acreage reported by the various types of urban areas was available for these activities. This assumption was made due to the limited existing data on the availability of lakes. Exceptions to this assumption might be due to restrictions limiting usage, for example, for sanitary reasons, or due to limited accessibility because of a lack of boat ramps.

A second assumption dealt with the suitability of a freshwater lake for the three activities of boating, boat fishing, and skiing. Generally, the entire surface acreage of a body of fresh water is not suitable for these activities because of water depth, proximity to the shore, obstructions, etc. Consequently, an adjustment factor was developed to account for those portions of freshwater lakes that could not support boating, boat fishing, and skiing. For urban freshwater lakes, this factor, a weighted proportion, was determined to be .6632, or the proportion of a lake estimated as suitable for boating, boat fishing, and skiing combined. The following steps illustrate the computation of this factor:

1. Proportions of fresh water suitable for boating (B), skiing (S), and boat fishing (F):

- a. Boating .6932
- b. Skiing .3689
- c. Boat Fishing .7568

The above figures are statewide averages of the estimated proportions of freshwater surface acres suitable for each of the respective activities. The data on a regional basis was actually collected for rural surface acres and gathered from a telephone survey taken in each of the 37 analytical regions. Inasmuch

as comparable urban data was unavailable and more difficult to collect, the assumption was made that the averages of the 37 regions for rural surface access should represent good approximations of suitable water for urban areas as well.

2. 1968 Total Annual Freshwater Participation Days by Activity

- a. Boating - 1,538,150 activity days
- b. Water Skiing - 471,180 activity days
- c. Boat Fishing - 988,075 activity days¹

This data was taken from the 1968-1969 Texas Household Demand Survey for urban areas.

3. 1968 Total Combined Participation Days:

$$(a) + (b) + (c) = 1,538,150 + 471,180 + 988,075 = 2,997,405$$

4. Weighted Freshwater Suitability Proportions By Activity:

- a. Boating = $\frac{1,538,150}{2,997,405} (.6932) = .3557$
- b. Skiing = $\frac{471,180}{2,997,405} (.3689) = .0580$
- c. Boat Fishing = $\frac{988,075}{2,997,405} (.7568) = .2495$

The purpose of this step is to weigh the suitability factors for each activity according to each activity's proportionate participation.

5. Weighted Boating, Skiing, Boat Fishing Combined Freshwater Suitability Proportion:
 $.3557 + .0580 + .2495 = .6632$

1. It was determined that, on a statewide basis, 21.1% of all urban freshwater fishing took place from a boat.

To compute urban resource requirements for surface acres, the combined suitability factor was first multiplied times the actual number of surface acres in each region for each city size to obtain the total suitable acres. Suitable freshwater acres multiplied by the combined boating—skiing—boat fishing standard yielded opportunity days, which was compared to participation. If a deficit resulted, the deficit was divided by the combined standard to determine resource requirements for suitable surface acres. Finally, suitable surface acres divided by the suitability factor gave actual surface acres required, or surface acres needed assuming that a portion of them would not be suitable for the three activities.

In the computation of freshwater surface acre requirements, it was assumed that all boating, skiing, and boat fishing took place on a lake or reservoir, either public or private. Rivers and streams were not considered because of the problems involved in trying to develop a standard and determine opportunity days provided by rivers or streams. Of course, it is recognized that river or stream participation could be substituted for lake participation depending upon the preference of local residents, adequacy and quality of streams for recreation, etc.

SWIMMING POOLS

Resource requirements for swimming pools were computed based on the fact that 94% of all urban swimming in inland regions takes place in pools. Thus, in computing resource requirements for pools, 94% of the total swimming participation taking place in the inland regions was used. For the six saltwater regions, it was found that 70.48% of the total swimming participation in each region occurred in swimming pools. Likewise, 70.48% of the total swimming participation was used to compute swimming pool resource requirements for the six saltwater regions. It should be pointed out that designated freshwater and saltwater swimming areas

may be substituted for swimming pool requirements. However, in doing so, total swimming participation (figures in the participation table, Chapter 3) should be considered, not the participation figures used to compute the swimming pool resource requirements, which were adjusted to reflect only participation occurring in pools. Substitutions should be made only if it has been clearly determined that swimmers would be satisfied with these substitutions.

BOAT RAMPS

Regional participation totals for boating, boat fishing, and skiing were also adjusted downward to consider only the estimated proportion of participation wherein a boat ramp was used. For instance, a recreationist may leave his boat in the water until the next time it is used, or he may simply launch from the bank. Factors used to adjust participation for these three activities shown below reflect the proportion of participation occurring in each activity where access is gained to the water through a boat ramp facility.

Freshwater Boating—.6381
Freshwater Skiing—.8223
Freshwater Boat Fishing—.9736

For freshwater boat fishing above, total freshwater fishing participation in the region is first adjusted to determine only freshwater fishing occurring from a boat (.211 of the total freshwater fishing) then freshwater boat fishing is adjusted for boat ramp usage by the factor specified above.

The adjusted participation totals for each of the three activities were then summed and this figure used to compute freshwater boat ramp resource requirements.

These adjustment factors were developed from data on the incidence of facility usage for the various means of launching or storing a boat, e.g., boat ramp,

boat hoist, boat house, marina, slip, etc. The data was extracted from the 1968-1969 Texas Household Demand Survey. The three factors shown above were calculated by computing the ratio of days of participation in a given activity attributed to boat ramp usage to days of participation in that same activity attributed to all means of launching or storing a boat.

The adjustment factors for salt water for the three activities were computed in a similar manner, and are as follows:

Saltwater Boating—.303
Saltwater Skiing—.965
Saltwater Boat Fishing—.885

Resource requirements for saltwater boat ramps were then computed in the same manner as they were for fresh water. For saltwater boat fishing, the proportion of total fishing estimated to have taken place from a boat was .184.

TRAILS

The resource requirements for three types of trails activities, walking, bicycling, and nature study, were also accorded a different type of treatment. Participation data for these three activities was adjusted downward to consider only trails participation taking place at public recreation areas. From the 1968-1969 Texas Household Demand Survey, it was found that a substantial amount of participation occurs at other than designated recreation places, such as on streets and sidewalks. Consequently, adjustment factors were derived to account for trails participation at public recreation areas. These factors were determined from the Household Survey, and were as follows:

Walking—.105
Bicycling—.040
Nature Study—.201

The total regional participation for each of the three activities was multiplied by the activity's respective adjustment factor. The three adjusted participation figures were then summed and compared with the opportunity days available. If a deficit resulted it was divided by the combined trails standard (walking, bicycling, and nature study) to arrive at a combined trails requirement. The combined requirement was then broken down separately for walking, bicycling, and nature study, by percentage on the basis of participation. For this reason, and due to rounding, the sum of the incremental resource requirements may not agree exactly with the total.

In the computation of resource requirements for trails, horseback riding trails were included in the opportunity days figures only if the horseback trail was designed for multiple use. Trails designated solely for horseback riding were not included.

OTHER ACTIVITIES

Although participation figures were calculated for surfing, sightseeing, and driving for pleasure, resource requirements were not computed. This was due to the difficulties encountered in quantifying these activities in terms of a standard, and in defining facilities which should be provided to satisfy the demand for these activities.

SUGGESTED RESOURCE REQUIREMENTS FOR SMALL COMMUNITIES

Small communities, defined in the TORP as urban areas ranging in population from 200 to 2,499 and not contiguous to a metropolitan area, should have adequate park and recreation facilities to meet the recreational needs of its residents and visitors. The methodology utilized to compute resource requirements for metropolitan areas, cities, and towns, was modified slightly to determine suggested resource requirements for an urban area with a population of 2,500 based on 1980 household participation rates. Table C.8 outlines this modified

TABLE C.8

**ADAPTATION OF TORP METHODOLOGY TO CALCULATE SUGGESTED RESOURCE REQUIREMENTS FOR SMALL COMMUNITIES USING
CITY SIZE OF 2500 POPULATION AND 1980 PROJECTED PARTICIPATION RATES**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOWNS 1980								
Activity	Projected Days Per Household ^a	Households Per Town 2500 Population ^b	Total Resident Participation (1) x (2)	Ratio Total Participation to Resident Participation ^c	Total Participation (3) x (4)	Adjustment Factors	Total Adjusted Participation (5) x (6)	Urban TORP Facility Standards	Recreational Resource Requirements (7) ÷ (8)
Swimming (Pools)	32.56	814.33	26,515	1.108	29,379	.94 ^d	27,616	150	184.1
Child's Play (Playgrounds)	6.24	814.33	5,081	1.043	5,299	---	5,299	27,623	.2
Baseball/Softball	3.98	814.33	3,241	1.099	3,562	---	3,562	13,804	.3
Picnicking	3.86	814.33	3,143	1.500	4,714	---	4,714	1,702	2.8
Football/Soccer	.57	814.33	464	2.943	1,366	---	1,366	7,224	.2
Golf	2.77	814.33	2,256	1.145	2,583	---	2,583	4,047	.6
Tennis	.85	814.33	692	1.000	692	---	692	2,694	.3
Basketball	1.49	814.33	1,213	1.107	1,343	---	1,343	8,795	.2
Freshwater Surface Acres For									
Boating	2.33	814.33	1,897	1.253	2,377	---	2,377	---	---
Fishing	3.34	814.33	2,720	1.958	5,326	.211 ^e	1,124	---	---
Total	---	---	---	---	---	---	3,501 ^f	629	5.6
Freshwater Boat Lanes For									
Boating	2.33	814.33	1,897	1.253	2,377	.6381 ^e	1,517	---	---
Fishing	3.34	814.33	2,720	1.958	5,326	(.211x.9736) ^e	1,094	---	---
Total	---	---	---	---	---	---	2,611 ^f	13,486	.2
Trails Activities									
Walking	21.45	814.33	17,467	1.014	17,712	.105 ^g	1,860	---	---
Bicycling	28.95	814.33	23,575	1.001	23,599	.040 ^g	944	---	---
Nature Study	.85	814.33	694	1.159	802	.201 ^g	161	---	---
Combined Trails	---	---	---	---	---	---	2,965	8,464	.3

Note: Dashes indicate data not applicable to column.

- a. Projected 1980 statewide average for Towns, by activity, taken from **Outdoor Recreation in the Urban Areas of Texas Part 4: Towns**.
- b. Based on University of Texas Population Research Data, the projected household size of those residing in Towns in 1980 will be 3.07 people per household. Dividing the maximum population of a Town, 2500, by the projected 3.07 people per household give the 814.33 households projection for 1980 used to estimate participation.
- c. Computed: Ratio total participation towns 1980 to resident participation towns 1980 total participation (resident and non-resident) occurring in towns 1980^a. Total resident participation occurring in towns 1980^a
- a. Source: Chapter 3 of this volume.
- d. Refer to section of this appendix titled "Swimming Pools" for rational behind this adjustment factor.
- e. Refer to section of this appendix titled "Boat Ramps" for rational behind this adjustment factors.
- f. Skiing participation was omitted from these calculations since skiing would not be practical on the amount of surface acreage suggested.
- g. Refer to section of this appendix titled "Trails" for rational behind this adjustment factor.

procedure, key of which is that opportunities available (supply) were not considered. Resource requirement computations were based on total projected participation without modifications for existing opportunities. In Table C.8 requirements were calculated for surface acres of recreational freshwater and selected recreational facilities which included swimming pools, children's playgrounds, games and sports facilities (baseball/softball and football/soccer fields and tennis and basketball courts), picnic tables, golf courses, freshwater boat lanes, and combined walking, bicycling, and nature study trails. With the recreational freshwater and facilities data in Table C.8 serving as a base, suggested resource requirements were determined for small communities as listed in Table C.9 under the column titled "Quantity" for recreational land, recreational freshwater, and selected recreational facilities. Additional documentation in Table C.9 was provided to explain how the recreational land and freshwater figures were calculated.

A city size of 2,500 population was used in Table C.8 because data in Columns 1 through 5 were determined utilizing data from **Outdoor Recreation in the Urban Areas of Texas Part 4: Towns**. Of the data available to compute these 5 columns, towns data (applicable to urban areas ranging in population from 2,500 to 9,999) was the most appropriate. The assumption was made that the recreational needs and characteristics of small communities should be more similar to towns than to cities or metropolitan areas. Results of the computations in Table C.8 identified several problems encountered in determining resource requirements for small communities. It proved that the methodology used to compute resource requirements for the larger city-size categories would require modifications. These modifications, referring to Table C.8, were required because most of the requirements produced (Column 9) were too small to recommend as suggested resource requirements, particularly in view of the fact that 2,500 is the upper limit of the population range of small communities.

For example, it is obviously not feasible to provide .3 of a baseball/softball field. First reaction from this point was to round the resource requirements up to whole units, or units which could be feasibly constructed. Again, problems were encountered. To round all resource requirements off to whole numbers would overstate requirements needed for some facilities (child's play and boat lanes) understate them for one (excludes group picnic tables), and provide satisfactory suggestions for others (swimming for example). Most small communities could not be expected to provide the full range of recreational resources listed in Table C.8 due to the limited fiscal resources at their disposal. Even if their fiscal resources were sufficient to provide the full range of resources the demand may be insufficient to justify the expenditures. The intensity of demand will vary for each activity from one small community to another based on local interests. It then becomes apparent that each small community should provide those facilities determined to be in greatest demand by local citizens, particularly if fiscal resources are limited. Therefore, resource requirements suggested for small communities cover a wider range of facilities than practically feasible for most small communities to provide. These resource requirements are summarized in Table C.9. The reader is referred to Chapter 4 for explanations required to more fully understand the conditions under which it is suggested each of these facilities be provided in small communities.

For park and recreation areas it is suggested that 25 land acres be set aside in small communities. Both open land and areas developed with facilities are included in the 25 acre figure. The total 25 acres would not have to be developed entirely at once. It provides enough land to develop additional facilities included in "Other Facilities" listed in Table C.9. It also provides land that may be used to add additions to existing facilities, i.e., a community may want to add another multiple purpose

baseball/softball-football/soccer field if local interests in softball and football increase to levels which exceed the capacity of existing field(s). The 25 acre figure was determined as shown in Table C.9, Columns 2 through 4. The quantities of facilities, Column 2, were multiplied by the amount of developed land acres estimated to be required to construct one unit, Column 3. The product is the conversion of the quantities shown in Column 2 to developed land acres, Column 4. The sum of the developed land acres in Column 4 is 17.25 acres. This figure, which includes only developed land, was expanded to include both developed and undeveloped land as shown in Footnote b. This suggested 25 acres compares to the 17.2 acres per park for the 122 small communities reporting existing park and recreation areas.

Eight surface acres of recreational water are also suggested for each small community (Table C.9). These 8 acres of water are not included in the 25 acres of park and recreation land; however, it is most preferable that the recreational water be located within or adjacent to a park. Should sufficient recreational water already exist in the community, it may be more feasible to locate parks adjacent to the water to accomplish this preference. These 8 acres were expanded to compensate for that portion of the freshwater unsuitable for boat fishing or boating (approximately 28%) as shown in Footnote C. Skiing is not practical on water bodies of this size; therefore, it was excluded from the suitability adjustment factor (.7181).

Suggested facility requirements, Table C.9, were based on data shown in Table C.8. Figures shown in Table C.8 for swimming pools (184 square yards) and single picnic tables (3) were not changed because these two types of facilities could be constructed in these sizes (swimming pools) or quantities (picnic tables). Other facility requirements were rounded up or set at levels considered feasible from a construction standpoint or from the standpoint that

TABLE C.9
SUGGESTED RESOURCE REQUIREMENTS FOR SMALL COMMUNITIES

Recreational Resource	(1)	(2)	(3)	(4)
	Resource Requirements		Developed Land Acres	Developed Acres Required
	Units	Quantity ^a	Per Unit	(2) x (3)
Land	Acres	25 ^b	---	---
Freshwater	Surface Acres	8 ^c	---	---
Facilities				
Swimming Pools	Square Yards	184	.0013	.24
Children's Playgrounds	Acres	1/4	1.0	.25
Baseball/Softball and Football/Soccer	Multiple Fields	1	3.8 ^d	3.80
Tennis and Basketball	Multiple Courts	1	.2 ^e	.20
Picnicking	Single Tables	3	.25	.75
Picnicking	Group Tables	1	.5	.50
Golf	Holes	9	10.0	Omit
Trails (Walking, Bicycling, Nature Study)	Miles	1/2-1	4.0-8.0	8.00
Other Facilities ^f	---	---	---	3.51 ^f
TOTAL				17.25^b

Note: Dashes indicate data not applicable to column.

- a. These quantities were determined based on data in Table C.8 and are suggested only if demand is sufficient to justify their provision.
- b. Computations: In the Towns Volume, the ratio of developed land to undeveloped land, based on publicly-administered park lands available, was .69 to .31. Therefore, 17.25, the sum of developed land acres required for the facilities listed, was expanded to provide a land acreage figure that would include both developed and undeveloped land as follows: $17.25 \cdot .69 = 25$ land acres (developed and undeveloped)
Undeveloped land is 7.75 acres, computed: 25 land acres \times .31 = 7.75 acres
- c. The figure 5.6, from Column 9, Table C.8, was expanded to 7.8 acres to account for that portion of the water unsuitable for boating and boat fishing using the factor .7181 (see section in this Appendix titled "Surface Acres") as follows: $5.6 \cdot .7181 = 7.8$ acres
The figure 8 acres shown is 7.8 rounded to the nearest whole number.
- d. To construct multiple fields the suggested average size of a football/soccer field was selected since it exceeds the suggested average size of a baseball/softball field, 3.0 acres.
- e. To construct multiple courts the suggested average size of a full basketball court was selected since it exceeds the suggested average size of a doubles tennis court, .13 acres.
- f. Examples include boat lanes, urban camping facilities, archery ranges, sport shooting ranges, cultural centers, entertainment facilities, etc. The figure 3.51 is the amount of land acres suggested for small communities to provide to accommodate local demands for these types of facilities, or any other facilities needed that are not presented in this table.

these quantities are realistic for small communities to provide; i.e., within fiscal and resource means.

Baseball/softball and football/soccer fields were combined and suggested as 1 multiple purpose field; likewise, tennis and basketball courts were combined and suggested as 1 multiple purpose court. These facilities were combined because the projected 1980 participation for each activity did not justify individual fields or courts. Golf course data is provided in Table C.9 for the suggested number of holes and the developed land acre required per hole, but data was omitted in determining the total developed land acres required, Column 4. To include golf course acreage in computing the developed land acres would distort the suggested developed land acre figure, 17.25 acres, as well as the combined developed and undeveloped land acre figure, 25 acres. Most small communities cannot justify the construction of a golf course; therefore, the 25 land acres is more representative of the park and recreation land acreage that the average small community should attempt to provide.

Boat lanes were excluded as an individual type of facility and grouped in the "Other Facilities" category for several reasons. It was suggested that 8 surface acres of freshwater be provided. Ramps resource requirements presented for metros, cities, and towns were in terms of 2.0 lanes per ramp. It would not be practical to provide a two lane ramp on an 8 acre body of water; however, local demands in boating and boat fishing may justify the construction of a one-lane ramp. In fact, a boat launching facility should be provided on 8 acres of water. Therefore, initial computations in Table C.8 attempted to justify a one-lane ramp, not a two-lane ramp. In Table C.8, Column 9, it can be seen that only .2 of a one-lane ramp was justified, or, in other words, the lane would be utilized approximately 20% of its capacity under average conditions. For these reasons boat ramps were placed in the "Other Facilities" category in Table C.9.

Appendix D

REGIONAL COMPARISONS OF URBAN

Appendix D is used to present selected urban supply, demand, and resource requirement data by analytical planning region for metropolitan areas, cities, towns and for these three city sizes combined. Even though data for metropolitan areas is listed by region, each metro is presented separately. Only two regions had more than one metro area, Regions 18 (Midland and Odessa) and 34 (Brownsville and McAllen), which had two metros each. Metro data for these two regions are combined and summed with the cities and towns of each respective region to arrive at the total urban areas figures for these two regions.

The first section of this appendix (Tables D.1 through D.7) presents analyses of various facets of the publicly administered recreation opportunities currently available in the metropolitan areas, the cities and the towns across the State.

Table D.1 presents a regional comparison of the available parkland and water acreage within or adjacent to the publicly administered urban parks of the 24 metropolitan areas of the State. The land acreage figures are ranked to illustrate the relationships of the various metropolitan areas. The figures at the bottom of the table make possible the comparison between each metropolitan area and statewide metropolitan averages.

Table D.2 and D.3 present similar data for the 27 city regions and the 37 town regions respectively.

On Table D.4 the regional comparison of total number of parks and total park-land acreage is presented for the 24 metropolitan areas. For each metropolitan area the data is presented on a people-per-park and people-per-acre basis, as well as on a parks-per-1000 population and acres-per-1000 population basis. The figures at the bottom of the table permit comparisons between each individual metropolitan area and statewide metropolitan averages determined.

Tables D.5 and D.6 present similar data for the city regions and town regions respectively.

Table D.7 presents a regional comparison of selected urban outdoor recreational facility units per 1000 population available in the metropolitan areas, the cities, the towns and the total urban areas. The rankings readily indicate the relationships between regions while the figures at the bottom of the table make possible the visualization of the relationship of each region to the statewide average.

The second section of this appendix (Tables D.8 and D.9) presents a regional comparison of urban resident participation, on a household basis, for selected urban outdoor recreation activities for the years 1970, 1975, 1980, 1990, and 2000. The estimates show rates of participation for the average urban household residing within each of the metropolitan areas, cities, and towns of the region as well as combining the city sizes and showing the participation rates for the total urban areas of each region. The statewide average participation rate on a household basis, for each city size and total urban areas, is presented for comparative purposes. For the purposes of this analysis, non-resident and total participation rates were omitted. In-depth analysis of participation including resident, non-resident, and total participation are presented in the detailed parts of this volume, **Part 2: Metropolitan Areas**, **Part 3: Cities** and **Part 4: Towns**.

In the regional estimates, participation is presented to the year 2000. These projections indicate the expected rates of participation if adequate recreation areas and facilities are made available. Thus, the projections indicate, in general, the magnitude of participation that would take place if adequate recreation opportunities were available and maintained at adequate levels for each specified time period. Certainly, if adequate facilities are not developed and maintained, participation will be dampened due to reduced access and overcrowding of existing facilities.

TABLE D.1

REGIONAL COMPARISONS OF URBAN PARKLAND ACREAGE AND WATER ACREAGE WITHIN OR ADJACENT TO PUBLICLY-ADMINISTERED URBAN PARKS, METROS, 1971

REGION	DEVELOPED LAND		UNDEVELOPED LAND		TOTAL LAND		WATER ACREAGE WITHIN OR ADJACENT TO PARKS	TOTAL LAND AND WATER ACREAGE
	ACRES	RANK	ACRES	RANK	ACRES	RANK		
1	1,050	9	1,148	2	2,198	5	55	2,253
4	1,055	8	651	6	1,706	8	72	1,778
5	881	11	119	16	1,000	12	2,330	3,330
7	352	16	153	14	505	16	2	507
10	7,903	1	868	3	8,771	2	9,964	18,735
11	4,909	2	5,621	1	10,530	1	2,860	13,390
12	173	22	97	18	270	21	0	270
13	149	23	280	10	429	18	6	435
14	321	17	55	19	376	19	0	376
16	2,107	4	739	5	2,846	4	60	2,906
17	227	20	11	24	238	22	64	302
18 Midland	307	18	202	13	509	15	0	509
18 Odessa	191	21	30	22	221	23	0	221
20	1,145	7	854	4	1,999	6	7,347	9,346
21	306	19	42	21	348	20	48	396
23	1,433	5	402	8	1,835	7	525	2,360
25	4,603	3	387	9	4,990	3	518	5,508
27	1,234	6	52	20	1,286	10	0	1,286
28	474	14	100	17	574	14	2	576
29	886	10	416	7	1,302	9	50	1,352
33	800	12	257	11	1,057	11	19	1,076
34 Brownsville	481	13	237	12	718	13	179	897
34 McAllen	361	15	122	15	483	17	41	524
35	33	24	14	23	47	24	0	47
Total Metro	31,381		12,857		44,238		24,142	68,380
Average	1,307		536		1,843		1,006	2,849

Table D.8 presents regional participation rates per household and their rankings by city size and total urban areas for the five specified time periods. This presentation is made for thirteen of the urban outdoor recreation activities. The "average" line at the bottom of each column represents the statewide average participation rate for the specified time period and city size.

For the saltwater related urban outdoor recreation activities, Table D.9 presents the same information

just described and presented in Table D.8. However, the regional comparison by city size is only made for the areas which have saltwater access. The "average" line at the bottom of each column represents the average participation rate for each city size in the specified time period of only those urban areas which have saltwater access.

Evidently, there are urban areas which have either inadequate or no freshwater resources available to support the recreational activities of freshwater fishing, freshwater boating, or freshwater skiing.

However, the desire (latent demand) of the residents of those areas to participate in these freshwater related activities without leaving their urban areas of residence is still present. To estimate the latent demand in these areas an average participation rate by city size, based on days per household, was determined for areas having freshwater resources. This estimate was used as the rate at which a household, of residence in the same city size, could be expected to participate if adequate freshwater resources were available. This average participation

TABLE D.2

**REGIONAL COMPARISONS OF URBAN PARKLAND ACREAGE AND WATER ACREAGE WITHIN OR
ADJACENT TO PUBLICLY-ADMINISTERED URBAN PARKS, CITIES, 1971**

REGION	DEVELOPED LAND		UNDEVELOPED LAND		TOTAL LAND		WATER ACREAGE WITHIN OR ADJACENT TO PARKS	TOTAL LAND AND WATER ACREAGE
	ACRES	RANK	ACRES	RANK	ACRES	RANK		
1	100	20	214	8	314	15	0	314
2	341	7	149	10	490	9	16	506
3	278	10	270	4	548	7	15	563
5	5	27	15	23	20	27	0	20
6	322	8	28	21	350	13	28	378
7	952	1	505	2	1,457	1	5	1,462
8	209	15	0	0	209	19	36	245
9	265	11	307	3	572	6	199	771
10	35	26	32	20	67	25	0	67
12	841	2	109	11	950	2	4	954
13	152	17	34	19	186	21	2	188
14	260	12	7	26	267	16	18	285
15	253	13	96	13	349	14	27	376
18	160	16	600	1	760	3	0	760
19	355	6	66	15	421	11	3	424
23	91	22	10	25	101	23	0	101
24	479	3	53	16	532	8	1	533
25	57	24	190	9	247	17	9	256
26	38	25	12	24	50	26	0	50
27	77	23	19	22	96	24	1	97
28	423	5	241	6	664	5	78	742
31	139	18	49	18	188	20	0	188
32	241	14	220	7	461	10	0	461
33	133	19	107	12	240	18	8	248
34	100	20	50	17	150	22	0	150
36	300	9	81	14	381	12	30	411
37	453	4	254	5	707	4	42	749
Total Cities	7,059		3,718		10,777		522	11,299
Average	261		138		399		19	418

rate was applied to all regions by corresponding city size. For this reason a table, similar to Tables D.8 and D.9, presenting regional comparisons of urban resident participation days per household for the freshwater related activities would simply be a table listing the average participation rate by city size for each region. Therefore, the freshwater related recreational activities were omitted from this analysis presentation.

The third and final section of this appendix (Tables D.10 through D.13) presents the various resource requirements (land requirements and facility requirements) as needed for each specified time period: 1970, 1975, 1980, 1990, and 2000. This section presents regional comparisons of incremental resource requirements per thousand population for metropolitan areas, cities, towns, and total urban areas. The incremental resource requirements were

converted to a per thousand population basis in order to eliminate population differences between the urban areas and to facilitate comparisons. Incremental resource requirements indicate the quantities of units (either land units or facility units) by activity that should be provided by each specified time period, assuming that the incremental requirements from the previous time period were provided as scheduled.

TABLE D.3

REGIONAL COMPARISONS OF URBAN PARKLAND ACREAGE AND WATER ACREAGE WITHIN OR ADJACENT TO PUBLICLY-ADMINISTERED URBAN PARKS, TOWNS, 1971

REGION	DEVELOPED LAND		UNDEVELOPED LAND		TOTAL LAND		WATER ACREAGE WITHIN OR ADJACENT TO PARKS	TOTAL LAND AND WATER ACREAGE
	ACRES	RANK	ACRES	RANK	ACRES	RANK		
1	85	21	86	11	171	19	6	177
2	71	24	8	27	79	28	0	79
3	139	15	118	8	257	9	0	257
4	83	22	16	25	99	25	5	104
5	384	3	328	1	712	2	145	857
6	24	30	0	0	24	32	3	27
7	199	9	201	3	400	5	29	429
8	124	17	99	10	223	12	28	251
9	71	24	53	14	124	22	0	124
10	38	28	64	12	102	24	0	102
11	89	20	17	24	106	23	0	106
12	687	1	191	4	878	1	23,284	24,162
13	98	18	29	17	127	21	0	127
14	168	12	12	26	180	17	500	680
15	199	9	23	20	222	13	2	224
16	9	33	26	19	35	29	0	35
17	238	4	122	7	360	6	11	371
18	231	5	6	28	237	10	0	237
19	218	7	3	30	221	15	10	231
20	208	8	29	17	237	10	5	242
21	190	11	118	8	308	8	80	388
22	98	18	55	13	153	20	0	153
23	146	13	174	5	320	7	22	342
24	618	2	21	21	639	3	15	654
25	26	29	2	33	28	30	0	28
26	12	31	3	30	15	33	0	15
27	0	0	0	0	0	0	0	0
28	70	26	18	23	88	26	0	88
29	3	35	0	0	3	36	0	3
30	7	34	21	21	28	30	0	28
31	220	6	230	2	450	4	0	450
32	10	32	0	0	10	34	0	10
33	60	27	162	6	222	13	5	227
34	140	14	40	16	180	18	0	180
35	2	36	6	28	8	35	0	8
36	137	16	44	15	181	16	0	181
37	79	23	3	30	82	27	2	84
Total Towns	5,181		2,328		7,509		24,152	31,661
Average	140		63		203		653	856

TABLE D.4

REGIONAL COMPARISONS OF SELECTED DATA FOR PUBLICLY-ADMINISTERED
URBAN PARKS, METROS, 1971

REGION	NUMBER OF PARKS	PEOPLE PER PARK	PARKS PER 1,000		LAND ACRES	PEOPLE PER ACRE	ACRES PER 1,000	
			UNITS	RANK			UNITS	RANK
1	48	2,646	.378	9	2,198	58	17,306	1
4	40	3,728	.268	16	1,706	87	11,442	4
5	35	2,788	.359	12	1,000	98	10,250	5
7	15	5,977	.167	23	505	178	5,633	13
10	167	3,809	.263	18	8,771	73	13,788	3
11	338	3,853	.260	19	10,530	124	8,086	8
12	20	2,699	.370	11	270	200	5,000	17
13	23	2,243	.446	6	429	120	8,316	7
14	19	3,041	.329	13	376	154	6,509	12
16	78	8,773	.114	24	2,846	240	4,159	19
17	32	1,996	.501	4	238	268	3,725	21
18 Midland	29	2,050	.488	5	509	117	8,560	6
18 Odessa	23	3,408	.293	14	221	355	2,820	23
20	44	2,686	.372	10	1,999	59	16,917	2
21	29	1,772	.564	2	348	148	6,771	11
23	69	3,686	.271	15	1,835	139	7,214	9
25	285	5,046	.198	21	4,990	288	3,470	22
27	61	3,744	.267	17	1,286	178	5,630	14
28	45	2,597	.385	8	574	204	4,912	18
29	65	4,958	.202	20	1,302	248	4,040	20
33	151	1,354	.738	1	1,057	193	5,168	16
34 Brownsville	41	2,497	.401	7	718	143	7,014	10
34 McAllen	47	1,888	.530	3	483	184	5,443	15
35	13	5,310	.188	22	47	1,469	.681	24
Total Metro	1,717				44,238			
Average	72	3,754	.267		1,843	146	6,864	

The tables that follow, Tables D.10 and D.11, present regional comparisons of urban incremental land resource requirements per thousand population for selected urban outdoor recreation facilities. Table D-10 presents the regional comparisons of incremental land requirements per thousand population needed to support each of thirteen selected recreation facilities. The "average" line at the bottom of each column represents the statewide average incremental land required to support the selected recreation facility for the specified time period for each city size. Table D.11 presents the comparison of regions having saltwater access in

respect to the incremental land requirements per thousand population in those regions to support saltwater boat ramp usage. The "average" line at the bottom of each column represents the average amount of incremental land required in each specified time period for each city size having saltwater access.

Tables D.12 and D.13 present the regional comparisons of urban incremental facility resource requirements per thousand population for selected urban outdoor recreation facilities. Resources needed to correct inadequate distributions of facilities within or among urban areas are not included in these tables.

Table D.12 presents the regional comparisons of incremental facility requirements per thousand population and their regional rankings for metropolitan areas, cities towns, and total urban areas for thirteen selected activities. The "average" line at the bottom of each column represents the statewide average incremental facility unit requirement per thousand population for the specified time period for each city size. Table D.13 presents the comparison of regions having saltwater access in respect to the incremental saltwater boat ramps required per thousand population and the relative rankings of these regions. The "average" line at the bottom of

TABLE D.5

REGIONAL COMPARISONS OF SELECTED DATA FOR PUBLICLY-ADMINISTERED
URBAN PARKS, CITIES, 1971

REGION	NUMBER OF PARKS	PEOPLE PER PARK	PARKS PER 1,000		LAND ACRES	PEOPLE PER ACRE	ACRES PER 1,000	
			UNITS	RANK			UNITS	RANK
1	12	1,118	.895	5	314	43	23,408	3
2	36	998	1.000	2	490	73	13,641	7
3	18	1,696	.589	9	548	56	17,943	4
5	2	5,727	.175	26	20	573	1,746	26
6	17	2,370	.422	13	350	115	8,686	13
7	6	3,865	.259	23	1,457	16	62,826	1
8	20	868	1.152	1	209	83	12,034	8
9	33	2,747	.364	17	572	158	6,310	17
10	4	4,829	.207	25	67	288	3,469	24
12	46	2,674	.374	16	950	129	7,724	15
13	13	2,621	.381	15	186	183	5,457	20
14	24	3,883	.258	24	267	349	2,865	25
15	14	3,257	.307	19	349	131	7,655	16
18	8	1,585	.631	7	760	17	59,927	2
19	35	2,279	.439	12	421	189	5,279	22
23	5	3,772	.265	22	101	187	5,355	21
24	19	3,365	.297	21	532	120	8,321	14
25	26	1,692	.591	8	247	178	5,616	19
26	5	5,916	.169	27	50	592	1,690	27
27	16	1,529	.654	6	96	255	3,925	23
28	64	1,084	.923	3	664	104	9,572	12
31	8	1,992	.502	11	188	85	11,799	9
32	14	2,402	.416	14	461	73	13,709	6
33	12	3,327	.301	20	240	166	6,011	18
34	8	1,914	.522	10	150	102	9,796	11
36	12	3,058	.327	18	381	96	10,383	10
37	38	1,087	.920	4	707	58	17,121	5
Total Cities	515				10,777			
Average	19	2,143	.467		399	102	9,767	

each column represents the average number of incremental saltwater boat ramps required in each specified time period for each city size having saltwater access.

The estimates of incremental resource requirement units were developed from the aggregate comparisons of supply and demand relationships in each of the urban areas and include non-resident demands. More detailed analyses of resource requirements for the specified time periods, including those needed to

correct inadequate distributions of recreation facilities are presented in the supplementary reports, Part 2: Metropolitan Areas, Part 3: Cities, and Part 4: Towns.

In a few cases, data in this appendix may vary slightly from data presented in the individual chapters. These variations are due to minor corrections made in the appendix but not made in the chapters because of the sequence of compiling this volume.

TABLE D.6

REGIONAL COMPARISONS OF SELECTED DATA FOR PUBLICLY-ADMINISTERED
URBAN PARKS, TOWNS, 1971

REGION	NUMBER OF PARKS	PEOPLE PER PARK	PARKS PER 1,000		LAND ACRES	PEOPLE PER ACRE	ACRES PER 1,000	
			UNITS	RANK			UNITS	RANK
1	26	1,405	.712	5	171	214	4,680	23
2	16	1,407	.711	6	79	285	3,509	26
3	21	1,448	.691	7	257	118	8,452	11
4	9	1,945	.514	15	99	177	5,656	19
5	34	1,687	.593	11	712	81	12,414	7
6	6	2,272	.440	21	24	568	1,761	32
7	22	1,204	.831	3	400	66	15,100	3
8	13	1,994	.502	17	223	116	8,604	10
9	7	2,829	.354	26	124	159	6,263	17
10	9	2,864	.349	27	102	253	3,957	25
11	2	4,614	.217	36	106	87	11,488	8
12	19	2,426	.412	23	878	52	19,052	2
13	9	2,900	.345	28	127	206	4,865	21
14	24	2,718	.368	25	180	362	2,760	29
15	11	1,576	.635	9	222	78	12,806	6
16	5	2,078	.481	18	35	297	3,368	27
17	14	784	1.276	1	360	30	32,799	1
18	29	1,054	.949	2	237	129	7,752	15
19	19	1,920	.521	14	221	165	6,058	18
20	8	3,666	.273	34	237	124	8,081	12
21	7	3,128	.320	30	308	71	14,066	4
22	6	3,831	.261	35	153	150	6,656	16
23	20	1,215	.823	4	320	76	13,172	5
24	30	2,218	.451	20	639	104	9,603	9
25	5	2,337	.428	22	28	417	2,396	30
26	5	3,004	.333	29	15	1,001	.999	33
27	0	---	---	37	0	---	---	37
28	13	3,357	.298	32	88	496	2,016	31
29	1	3,241	.309	31	3	1,080	.926	34
30	4	2,155	.464	19	28	308	3,249	28
31	33	1,700	.588	12	450	125	8,020	14
32	5	3,386	.295	33	10	1,693	.590	36
33	30	1,527	.655	8	222	206	4,845	22
34	21	1,988	.503	16	180	232	4,310	24
35	4	2,439	.410	24	8	1,219	.820	35
36	13	1,726	.579	13	181	124	8,067	13
37	10	1,678	.596	10	82	205	4,887	20
Total Towns	510				7,509			
Average	14	1,976	.506		203	134	7,450	

--- indicate not applicable.

TABLE D.7
REGIONAL COMPARISONS OF URBAN FACILITY UNITS AVAILABLE IN 1971 PER THOUSAND POPULATION
FOR SELECTED PUBLICLY-ADMINISTERED URBAN OUTDOOR RECREATION FACILITIES BY CITY SIZE

Region	TENNIS COURTS, DOUBLES								BASKETBALL COURTS, FULL							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Courts Per 1000 Population	Rank														
1	.331	1	.153	17	.135	20	.277	4	.394	1	†	0	.054	18	.294	1
2	---	---	.222	12	.347	6	.274	5	---	---	.083	10	.043	19	.068	18
3	---	---	.129	19	.200	11	.164	18	---	---	.193	2	.066	15	.131	4
4	.128	17	---	---	.333	7	.150	22	.034	16	---	---	.166	4	.048	25
5	.286	5	†	0	.157	16	.222	9	.051	13	†	0	.035	22	.042	28
6	---	---	.100	21	†	0	.074	32	---	---	.075	11	†	0	.056	22
7	.188	8	.304	3	.192	13	.208	11	.077	10	†	0	.307	2	.108	7
8	---	---	.176	13	.115	23	.139	24	---	---	.117	7	.115	8	.116	5
9	---	---	.131	18	.050	29	.118	28	---	---	.032	20	.100	9	.045	26
10	.088	21	.157	16	.230	9	.095	30	.017	19	.052	17	.038	20	.019	34
11	.184	10	---	---	.222	10	.184	15	.058	12	---	---	†	0	.057	21
12	.185	9	.170	15	.108	25	.161	19	.037	15	.065	14	†	0	.045	26
13	.096	19	.676	1	.153	17	.286	2	.154	4	.088	9	.038	21	.107	8
14	.172	12	.279	4	.076	27	.190	14	.017	19	.064	15	.015	23	.037	30
15	---	---	.174	14	.352	5	.222	9	---	---	.043	19	.294	3	.111	6
16	.074	23	---	---	†	0	.073	33	.026	18	---	---	†	0	.026	32
17	.328	2	---	---	1.272	1	.468	1	.016	21	---	---	.363	1	.067	19
18*Midland	.271	6	.231	11	.354	4	.260	6	†	0	†	0	.161	5	.028	31
*Odessa	.218	7	---	---	---	---	---	---	†	0	---	---	---	---	---	---
19	---	---	.275	5	.111	24	.224	8	---	---	.050	18	.055	17	.052	23
20	.313	3	---	---	.137	19	.278	3	.101	7	---	---	.068	13	.095	10
21	.137	15	---	---	.182	14	.150	22	.196	3	---	---	†	0	.136	3
22	---	---	---	---	.130	21	.130	26	---	---	---	---	.086	10	.086	14
23	.181	11	†	0	.250	8	.175	16	.067	11	.052	16	.083	11	.067	19
24	---	---	.234	10	.164	15	.199	13	---	---	.015	23	.059	16	.038	29
25	.095	20	.091	22	†	0	.094	31	.083	9	.136	5	†	0	.084	15
26	---	---	.066	24	.066	28	.067	35	---	---	.100	8	.066	14	.090	12
27	.140	14	.125	20	†	0	.127	27	.087	8	.166	3	†	0	.087	13
28	.162	13	.261	6	†	0	.161	19	.341	2	.145	4	†	0	.218	2
29	.127	18	---	---	.666	2	.132	25	.105	6	---	---	†	0	.104	9
30	---	---	---	---	†	0	†	0	---	---	---	---	†	0	†	0
31	---	---	.250	7	.196	12	.208	11	---	---	.125	6	.071	12	.083	16
32	---	---	.088	23	.117	22	.099	29	---	---	.029	21	†	0	.020	33
33	.131	16	.250	7	.152	18	.152	21	.029	17	.200	1	.130	7	.069	17
34*Brownsville	.088	21	.400	2	.357	3	.230	7	.039	14	.066	13	.142	6	.093	11
*McAllen	.303	4	---	---	---	---	---	---	.134	5	---	---	---	---	---	---
35	.072	24	---	---	†	0	.063	36	†	0	---	---	†	0	†	0
36	---	---	.054	25	.090	26	.068	34	---	---	.027	22	†	0	.017	35
37	---	---	.244	9	†	0	.172	17	---	---	.073	12	†	0	.052	23
AVERAGE	.142		.202		.167		.153		.071		.074		.068		.071	

TABLE D.7 (Continued)

Region	BASEBALL/SOFTBALL FIELDS								FOOTBALL/SOCCER FIELDS							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK	FIELDS PER 1000	POPULATION RANK
1	.835	1	.153	25	.297	20	.672	2	.480	1	†	0	.027	13	.350	1
2	---	---	.055	26	.347	13	.171	31	---	---	.055	8	.217	1	.120	3
3	---	---	1.129	1	.300	19	.722	1	---	---	.290	1	†	0	.148	2
4	.154	16	---	---	.333	16	.174	29	.013	16	---	---	†	0	.012	27
5	.204	12	.363	10	.421	9	.289	16	.092	2	†	0	.035	12	.066	5
6	---	---	.350	11	.285	21	.334	8	---	---	.025	15	†	0	.019	22
7	.133	18	.434	7	.346	14	.222	23	.044	4	†	0	.076	4	.043	9
8	---	---	.764	2	.346	14	.508	3	---	---	.117	4	.038	9	.069	4
9	---	---	.252	17	.450	7	.290	15	---	---	.054	9	.050	7	.054	7
10	.116	19	.208	21	.307	17	.126	32	.022	9	†	0	.038	9	.022	20
11	.206	11	---	---	.666	1	.209	25	.029	6	---	---	†	0	.029	14
12	.333	3	.252	17	.391	10	.300	12	.018	13	.041	11	†	0	.027	16
13	.134	17	.441	6	.269	23	.259	19	.019	11	.059	7	.038	9	.036	10
14	.275	5	.269	15	.169	31	.241	21	.017	14	.032	13	†	0	.019	22
15	---	---	.261	16	.470	6	.318	10	---	---	.021	16	.058	6	.032	12
16	.074	22	---	---	.100	34	.075	35	.027	7	---	---	†	0	.027	16
17	.188	15	---	---	.636	3	.254	20	---	---	†	0	.182	2	.027	16
18*Midland	.491	2	.385	9	.516	5	.375	5	†	0	.231	3	.129	3	.061	6
*Odessa	.231	10	---	---	---	---	---	---	.051	3	---	---	---	---	---	---
19	---	---	.250	19	.388	11	.293	14	---	---	.037	12	.027	13	.034	11
20	.262	6	---	---	.448	8	.298	13	.008	18	---	---	†	0	.007	28
21	.294	4	---	---	.545	4	.368	6	.019	11	---	---	†	0	.014	24
22	---	---	---	---	.173	30	.173	30	---	---	---	---	†	0	†	0
23	.240	9	.421	8	.666	1	.286	17	.012	17	†	0	.041	8	.013	26
24	---	---	.296	13	.358	12	.330	9	---	---	†	0	†	0	†	0
25	.197	14	.159	24	.250	25	.196	26	.027	7	.045	10	†	0	.028	15
26	---	---	.200	22	.266	24	.224	22	---	---	†	0	†	0	†	0
27	.241	8	.250	19	†	0	.221	24	.021	10	.083	5	†	0	.025	19
28	.256	7	.464	4	.181	27	.305	11	.017	14	.072	6	†	1	.030	13
29	.111	20	---	---	†	0	.111	33	†	0	---	---	†	0	†	0
30	---	---	---	---	.111	33	.111	33	---	---	---	---	†	0	†	0
31	---	---	.500	3	.303	18	.347	7	---	---	†	0	.017	15	.014	24
32	---	---	.294	14	.235	26	.277	18	---	---	.029	14	†	0	.020	21
33	.029	24	†	0	.152	32	.045	36	†	0	†	0	†	0	†	0
34*Brownsville	.107	21	.333	12	.285	22	.185	28	†	0	.266	2	.071	5	.044	8
*McAllen	.202	13	---	---	---	---	---	---	.044	4	---	---	---	---	---	---
35	.043	23	---	---	†	0	.038	37	†	0	---	---	†	0	†	0
36	---	---	.189	23	.181	28	.186	27	---	---	†	0	†	0	†	0
37	---	---	.463	5	.176	29	.379	4	---	---	†	0	†	0	†	0
AVERAGE	.187		.310		.315		.218		.033		.045		.027		.034	

TABLE D.7 (Continued)

Region	PICNIC TABLES								PLAYGROUND ACRES							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	TABLES PER 1000 POPULATION RANK	POPULATION RANK	TABLES PER 1000 POPULATION RANK	POPULATION RANK	TABLES PER 1000 POPULATION RANK	POPULATION RANK	TABLES PER 1000 POPULATION RANK	POPULATION RANK	ACRES PER 1000 POPULATION RANK	POPULATION RANK	ACRES PER 1000 POPULATION RANK	POPULATION RANK	ACRES PER 1000 POPULATION RANK	POPULATION RANK	ACRES PER 1000 POPULATION RANK	POPULATION RANK
1	1.315	13	1.153	21	1.486	22	1.339	24	.173	19	1.230	4	.702	13	.362	24
2	---	---	4.872	3	4.130	3	4.620	3	---	---	1.083	6	.826	11	.993	4
3	---	---	4.516	4	1.933	16	3.249	4	---	---	1.000	7	.900	8	.952	5
4	.342	22	---	---	1.444	23	.462	36	.215	17	---	---	1.000	7	.300	27
5	1.531	9	1.090	22	3.859	5	2.296	8	.255	15	.272	23	1.070	4	.535	14
6	---	---	2.025	11	2.714	12	2.207	10	---	---	1.250	3	.500	22	1.057	3
7	.922	19	4.347	5	4.192	2	2.096	14	.088	22	1.130	5	1.038	5	.438	19
8	---	---	1.000	26	1.769	20	1.455	22	---	---	2.059	1	.576	14	1.155	1
9	---	---	1.516	15	3.600	6	1.901	17	---	---	.626	12	.850	10	.670	9
10	.621	21	2.684	7	.461	31	.672	34	.161	20	.157	26	.500	22	.175	34
11	1.462	11	---	---	.444	32	1.455	22	.306	11	---	---	.333	28	.307	26
12	1.481	10	2.634	8	2.956	9	2.421	6	.425	9	.943	8	.891	9	.807	7
13	1.557	8	1.088	23	4.115	4	2.013	16	.673	2	.912	9	1.538	1	.948	6
14	.292	23	1.774	12	2.600	13	1.624	21	.448	7	.570	13	.523	20	.523	15
15	---	---	2.522	9	.764	27	2.050	15	---	---	.435	17	.411	26	.429	20
16	1.175	15	---	---	.100	34	1.159	26	.040	23	---	---	.500	22	.048	36
17	1.406	12	---	---	2.909	10	1.630	20	.125	21	---	---	1.272	3	.294	28
18*Midland	1.169	16	1.077	24	4.258	1	2.281	9	.508	4	.308	22	1.032	6	.475	17
*Odessa	2.538	2	---	---	---	---	---	---	.256	15	1.350	---	---	---	---	---
19	---	---	1.262	19	2.500	14	1.643	18	---	---	.105	2	.555	17	1.101	2
20	2.271	3	---	---	1.517	21	2.115	12	.338	10	---	---	.758	12	.420	21
21	1.921	6	---	---	2.818	11	2.183	11	.450	6	---	---	.545	18	.478	16
22	---	---	---	---	.652	28	.652	35	---	---	---	---	.565	16	.565	12
23	2.173	4	1.736	13	1.791	19	2.111	13	.295	12	.105	27	.416	25	.292	29
24	---	---	3.281	6	1.910	17	2.590	5	---	---	.562	14	.507	21	.536	13
25	.861	20	1.159	20	2.083	15	.880	32	.205	18	.386	18	.250	31	.211	33
26	---	---	.466	27	1.866	18	.942	31	---	---	.533	15	.133	33	.404	22
27	1.184	14	1.041	25	†	0	1.071	29	.456	5	.208	25	†	0	.396	23
28	.974	18	1.449	17	1.386	24	1.196	25	.444	8	.348	20	.568	15	.439	18
29	1.110	17	---	---	†	0	1.106	28	.257	13	---	---	.333	29	.258	30
30	---	---	---	---	.777	26	.777	33	---	---	---	---	.111	34	.111	35
31	---	---	12.187	1	3.142	8	5.150	2	---	---	.250	24	.392	27	.361	25
32	---	---	1.500	16	.352	33	1.127	27	---	---	.353	19	.058	36	.257	31
33	2.853	1	1.675	14	.978	25	2.401	7	.614	3	.700	11	.543	19	.617	10
34*Brownsville	2.079	5	2.133	10	.571	29	1.640	19	.225	16	.533	15	1.285	2	.685	8
*McAllen	1.561	7	---	---	---	---	---	---	.955	1	---	---	---	---	---	---
35	†	0	---	---	†	0	†	0	†	0	---	---	.200	30	.025	37
36	---	---	1.324	18	.545	30	1.032	30	---	---	.324	21	.090	35	.237	32
37	---	---	10.829	2	3.352	7	8.627	1	---	---	.732	10	.176	32	.568	11
AVERAGE	1.230		2.499		2.131		1.499		.258		.712		.653		.363	

TABLE D.7 (Continued)

Region	SWIMMING POOLS								BOAT LANES, FRESHWATER							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Square Yards Per 1000 Population	Rank	Square Yards Per 1000 Population	Rank	Square Yards Per 1000 Population	Rank	Square Yards Per 1000 Population	Rank	Lanes Per 1000 Population	Rank	Lanes Per 1000 Population	Rank	Lanes Per 1000 Population	Rank	Lanes Per 1000 Population	Rank
1	34.645	8	30.000	18	47.297	19	36.956	21	+	0	+	0	+	0	+	0
2	---	---	26.000	21	157.260	4	77.914	4	---	---	+	0	+	0	+	0
3	---	---	41.806	14	10.400	30	26.384	28	---	---	+	0	+	0	+	0
4	25.456	11	---	---	89.777	9	32.466	23	+	0	---	---	+	0	+	0
5	2.551	24	+	0	88.508	11	31.826	24	+	0	+	0	.017	7	.006	19
6	---	---	52.725	9	40.000	22	49.494	12	---	---	+	0	.071	4	.019	8
7	4.200	23	79.956	5	154.230	5	44.691	16	+	0	+	0	+	0	+	0
8	---	---	79.058	6	72.000	13	74.298	15	---	---	.058	1	+	0	.023	7
9	---	---	34.945	17	49.550	17	37.765	19	---	---	+	0	+	0	+	0
10	19.053	19	23.864	22	+	0	18.449	34	.031	1	+	0	+	0	.029	6
11	36.894	7	---	---	88.888	10	35.252	22	.011	5	---	---	+	0	.011	13
12	102.962	1	53.487	7	51.391	16	65.018	6	+	0	+	0	.217	3	.045	3
13	21.788	16	36.764	16	36.346	24	29.775	26	+	0	+	0	+	0	+	0
14	29.310	10	42.569	13	64.153	14	45.463	14	+	0	+	0	.230	2	.069	2
15	---	---	30.000	18	10.764	29	24.838	29	---	---	+	0	+	0	+	0
16	21.023	17	---	---	+	0	20.701	32	.001	9	---	---	+	0	.001	20
17	21.875	15	---	---	167.273	3	43.281	17	.016	3	---	---	+	0	.013	10
18*Midland	34.067	9	86.307	4	152.870	2	61.436	7	+	0	+	0	+	0	+	0
*Odessa	41.730	6	---	---	---	---	---	---	+	0	---	---	---	---	---	---
19	---	---	29.187	20	32.333	26	30.103	25	---	---	+	0	.027	6	.009	14
20	44.042	5	---	---	10.344	31	37.269	20	+	0	---	---	+	0	+	0
21	23.529	13	---	---	95.590	8	45.067	15	+	0	---	---	.454	1	.136	1
22	---	---	---	---	52.173	15	52.173	8	---	---	---	---	+	0	+	0
23	92.862	2	1.263	25	134.625	6	90.219	3	.008	8	+	0	+	0	.007	16
24	---	---	14.062	24	41.671	20	28.296	27	---	---	.031	3	+	0	.015	9
25	10.281	21	23.818	23	125.000	7	11.605	36	+	0	+	0	+	0	+	0
26	---	---	+	0	41.000	21	13.789	35	---	---	+	0	+	0	+	0
27	24.298	12	48.583	12	+	0	24.337	31	.009	7	+	0	+	0	.007	16
28	11.837	20	149.754	2	4.545	32	51.848	9	+	0	.029	4	+	0	.009	14
29	9.937	22	---	---	+	0	9.831	37	.012	4	---	---	+	0	.012	11
30	---	---	---	---	229.555	1	229.555	1	---	---	---	---	+	0	+	0
31	---	---	87.500	3	27.517	27	40.822	18	---	---	+	0	+	0	+	0
32	---	---	52.941	8	32.647	25	46.580	13	---	---	+	0	+	0	+	0
33	20.653	18	50.500	11	19.760	28	24.677	30	.010	6	+	0	+	0	.007	16
34*Brownsville	46.205	4	41.666	15	36.380	23	51.341	10	.029	2	+	0	+	0	.012	11
*McAllen	66.022	3	---	---	+	0	20.551	33	+	0	---	---	+	0	+	0
35	23.463	14	---	---	+	0	20.551	33	+	0	---	---	+	0	+	0
36	---	---	51.108	10	48.863	18	50.159	11	---	---	.054	2	+	0	.034	4
37	---	---	196.341	1	79.764	12	161.969	2	---	---	.024	5	.058	5	.034	4
AVERAGE	25.934		52.043		56.504		32.902		.008		.007		.039		.011	

TABLE D.7 (Continued)

Region	CAMPSITES								FISHING PIERS, BARGES, MARINAS, FRESHWATER							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Campsites Per 1000 Population	Rank	Campsites Per 1000 Population	Rank	Campsites Per 1000 Population	Rank	Campsites Per 1000 Population	Rank	Linear Yards Per 1000 Population	Rank	Linear Yards Per 1000 Population	Rank	Linear Yards Per 1000 Population	Rank	Linear Yards Per 1000 Population	Rank
1	+	0	+	0	.648	6	.136	13	+	0	+	0	+	0	+	0
2	---	---	.333	5	.043	16	.222	10	---	---	+	0	+	0	+	0
3	---	---	.645	3	.266	13	.459	8	---	---	+	0	+	0	+	0
4	.550	2	---	---	+	0	.492	6	+	0	---	---	+	0	+	0
5	+	0	+	0	.087	15	.030	22	+	0	+	0	.105	5	.036	9
6	---	---	.450	4	1.000	4	.593	5	---	---	+	0	+	0	+	0
7	+	0	+	0	.884	5	.165	12	+	0	+	0	+	0	+	0
8	---	---	.235	7	+	0	.092	17	---	---	+	0	+	0	+	0
9	---	---	+	0	.600	7	.109	16	---	---	+	0	+	0	+	0
10	+	0	+	0	+	0	+	0	.126	3	+	0	+	0	.117	6
11	+	0	---	---	+	0	+	0	.143	1	---	---	+	0	.142	5
12	+	0	+	0	.543	8	.112	15	+	0	+	0	4.347	2	.897	2
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	.021	8	1.553	2	.476	7	+	0	+	0	5.384	1	1.619	1
15	---	---	+	0	+	0	+	0	---	---	.435	1	+	0	.318	4
16	+	0	---	---	+	0	+	0	.022	4	---	---	+	0	.002	10
17	+	0	---	---	6.636	1	.975	4	+	0	---	---	+	0	+	0
18*Midland	.050	4	+	0	.290	11	.066	19	+	0	+	0	+	0	+	0
*Odessa	+	0							+	0						
19	---	---	.012	9	+	0	.009	23	---	---	+	0	.277	4	.086	7
20	.017	5	---	---	.344	10	.081	18	+	0	---	---	+	0	+	0
21	+	0	---	---	.454	9	.136	13	.136	2	---	---	1.500	3	.546	3
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	+	0	15.789	1	1.458	3	1.126	3	+	0	+	0	+	0	+	0
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	+	0	+	0	+	0	+	0	.017	5	+	0	+	0	.017	11
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	.412	3	+	0	+	0	.341	9	+	0	+	0	+	0	+	0
28	+	0	+	0	.181	14	.035	20	+	0	+	0	+	0	+	0
29	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	.267	12	.208	11	---	---	+	0	.089	6	.069	8
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	+	0	.250	6	+	0	.034	21	+	0	+	0	+	0	+	0
34*Brownsville	5.861	1	+	0	+	0	2.418	2	+	0	+	0	+	0	+	0
*McAllen	+	0							+	0						
35	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	5.171	2	+	0	3.651	1	---	---	+	0	+	0	+	0
AVERAGE	.121		.525		.370		.203		.049		.013		.599		.110	

TABLE D.7 (Continued)

Region	GOLF HOLES								TRAIL MILES							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Holes Per 1000 Population	Rank	Holes Per 1000 Population	Rank	Holes Per 1000 Population	Rank	Holes Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank
1	.213	4	.692	3	+	0	.203	13	.039	7	+	0	+	0	.028	15
2	---	---	+	0	+	0	+	0	---	---	.055	7	+	0	.034	13
3	---	---	.580	4	+	0	.295	10	---	---	.129	4	+	0	.066	4
4	.181	8	---	---	+	0	.162	15	.181	1	---	---	+	0	.162	1
5	.184	7	+	0	.157	13	.162	15	.041	6	+	0	.244	2	.108	2
6	---	---	.450	7	+	0	.334	9	---	---	+	0	+	0	+	0
7	.201	6	+	0	.346	9	.194	14	+	0	+	0	.189	3	.036	12
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	.065	6	+	0	.054	6
10	.170	10	+	0	+	0	.159	17	.025	10	+	0	+	0	.023	17
11	.062	16	---	---	+	0	.062	24	.012	14	---	---	.033	8	.012	21
12	.166	11	.292	8	.782	4	.363	7	.093	2	+	0	.325	1	.090	3
13	+	0	+	0	+	0	+	0	+	0	+	0	.038	7	.009	23
14	+	0	+	0	+	0	+	0	.052	5	.021	11	.088	9	.025	16
15	---	---	+	0	.529	6	.143	21	---	---	+	0	+	0	+	0
16	.121	14	---	---	+	0	.119	23	.004	16	---	---	+	0	.004	26
17	.141	13	---	---	.818	2	.240	11	+	0	---	---	+	0	+	0
18*Midland	.305	3	.692	2	+	0	.149	20	+	0	.131	3	+	0	.018	19
*Odessa	+	0	---	---	---	---	---	---	.019	11	---	---	+	0	---	---
19	---	---	.112	12	.250	12	.155	18	---	---	.625	1	.055	4	.060	5
20	+	0	---	---	.310	11	.061	26	.068	3	---	---	+	0	.054	6
21	.350	2	---	---	.409	7	.368	6	.019	11	---	---	+	0	.014	20
22	---	---	---	---	.391	8	.391	4	---	---	---	---	+	0	+	0
23	.177	9	+	0	+	0	.151	19	.031	9	+	0	.041	6	.030	14
24	---	---	.281	9	.672	5	.483	2	---	---	.015	12	+	0	.008	24
25	.050	18	+	0	+	0	.048	28	.019	11	.045	8	+	0	.019	18
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	.158	12	+	0	+	0	.131	22	.053	4	+	0	+	0	.044	9
28	+	0	.130	11	+	0	.039	29	+	0	.029	9	+	0	.009	22
29	.056	17	---	---	+	0	.055	27	+	0	---	---	+	0	+	0
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	.562	5	.321	10	.375	5	---	---	+	0	.053	5	.042	10
32	---	---	.529	6	+	0	.356	8	---	---	+	0	+	0	+	0
33	.088	15	+	0	+	0	.062	24	.005	15	.025	10	+	0	.007	25
34*Brownsville	.352	1	+	0	+	0	.218	12	+	0	.266	2	+	0	.040	11
*McAllen	.203	5	---	---	---	---	---	---	.034	8	---	---	+	0	---	---
35	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
36	---	---	.243	10	.818	2	.457	3	---	---	.081	5	+	0	.051	8
37	---	---	.878	1	1.058	1	.930	1	---	---	+	0	+	0	+	0
AVERAGE	.102		.179		.205		.124		.022		.031		.041		.025	

TABLE D.7 (Continued)

Region	COMMUNITY RECREATION CENTERS							
	METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Centers Per 1000 Population	Rank	Centers Per 1000 Population	Rank	Centers Per 1000 Population	Rank	Centers Per 1000 Population	Rank
1	.008	21	.153	3	+	0	.017	34
2	---	---	.111	4	.043	22	.086	6
3	---	---	.097	6	.066	13	.082	7
4	.114	1	---	---	.111	8	.114	1
5	+	0	+	0	.070	12	.024	30
6	---	---	.075	8	.142	6	.093	4
7	.045	7	.043	14	.192	5	.072	8
8	---	---	.176	2	.038	24	.092	5
9	---	---	.032	18	.100	9	.045	15
10	.028	12	+	0	+	0	.026	28
11	.037	9	---	---	+	0	.037	22
12	.019	16	.073	9	.065	14	.058	10
13	.078	3	+	0	+	0	.036	23
14	+	0	.064	11	.092	10	.056	11
15	---	---	.043	14	.235	3	.095	3
16	.032	10	---	---	+	0	.032	25
17	+	0	---	---	.363	1	.053	12
18*Midland	.016	18	.231	1	.322	2	.105	2
*Odessa	.064	4						
19	---	---	.037	16	.055	17	.043	18
20	.025	13	---	---	+	0	.020	32
21	.019	16	---	---	.045	20	.027	27
22	---	---	---	---	.043	23	.043	18
23	.020	15	.105	5	.208	4	.040	21
24	---	---	.015	22	.044	21	.031	26
25	.045	7	.045	13	.083	11	.046	14
26	---	---	.033	17	+	0	.022	31
27	.022	14	.083	7	+	0	.025	29
28	.051	5	.058	12	+	0	.044	16
29	.050	6	---	---	+	0	.049	13
30	---	---	---	---	+	0	+	0
31	---	---	+	0	.053	18	.042	20
32	---	---	+	0	.058	16	.020	32
33	.029	11	.025	20	.065	14	.034	24
34*Brownsville	.010	20	.066	10	.047	19	.044	16
*McAllen	.079	2						
35	.014	19	---	---	+	0	.013	36
36	---	---	.027	19	.136	7	.068	9
37	---	---	.024	21	+	0	.017	34
AVERAGE	.037		.053		.070		.043	

--- indicate regions not having metros or cities.

† indicates facilities were not available or units per 1000 population were less than .001.

* Midland, Odessa, Brownsville, and McAllen are metro areas. Figures for cities, towns, and total urban areas are listed adjacent to Odessa and Brownsville where applicable.

TABLE D.8
REGIONAL COMPARISONS OF URBAN RESIDENT PARTICIPATION
FOR SELECTED URBAN OUTDOOR RECREATION ACTIVITIES BY CITY SIZE, 1970-2000

Region	SWIMMING 1970.								SWIMMING 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	14.88	15	40.97	1	38.82	4	21.19	14	16.60	19	47.70	2	39.12	7	23.91	17
2	---	---	14.81	17	21.12	17	17.21	20	---	---	19.25	17	27.41	16	22.50	20
3	---	---	22.14	11	47.64	1	34.53	2	---	---	29.93	11	68.40	1	48.37	2
4	18.53	11	---	---	33.92	6	20.10	17	23.44	11	---	---	44.04	6	25.37	15
5	16.26	14	4.61	27	16.25	22	15.38	21	23.32	13	6.25	27	21.89	21	21.54	21
6	---	---	18.87	13	27.28	12	20.88	15	---	---	20.83	15	32.35	14	23.45	19
7	10.89	20	14.98	16	8.15	32	11.02	26	14.23	20	22.56	13	10.46	33	14.79	26
8	---	---	5.34	26	3.15	37	4.00	37	---	---	7.34	25	3.75	37	5.19	37
9	---	---	7.67	23	9.34	29	8.01	35	---	---	9.96	23	11.68	30	10.36	36
10	20.62	10	22.38	10	24.98	15	20.83	16	28.18	8	32.04	7	36.64	10	28.71	12
11	41.06	1	---	---	42.00	2	41.07	1	55.61	1	---	---	58.62	2	55.63	1
12	8.30	24	9.49	21	12.46	26	9.81	28	10.22	24	12.42	20	16.76	25	12.78	29
13	14.54	16	5.87	24	18.43	19	12.67	24	23.42	12	7.81	24	29.08	17	19.65	23
14	12.70	19	12.43	18	11.70	27	12.29	25	17.06	18	15.90	18	15.17	27	16.01	25
15	---	---	9.64	20	14.81	25	10.98	27	---	---	12.12	21	16.72	26	13.25	28
16	28.04	5	---	---	32.07	8	28.10	6	36.65	6	---	---	45.66	4	36.84	6
17	9.25	22	---	---	8.22	31	9.09	31	12.49	21	---	---	10.80	32	12.24	30
18*Midland	34.38	3	34.92	3	31.08	10	28.43	5	39.79	3	43.47	3	38.31	8	33.17	9
*Odessa	17.98	12	---	---	---	---	---	---	19.81	15	---	---	---	---	---	---
19	---	---	24.12	9	15.80	23	22.06	12	---	---	31.31	10	27.15	19	30.31	10
20	9.46	21	---	---	3.98	36	8.55	34	12.41	22	---	---	4.93	36	11.19	33
21	9.14	23	---	---	8.13	33	8.83	32	11.80	23	---	---	11.72	29	11.78	31
22	---	---	---	---	9.35	28	9.35	29	---	---	---	---	13.40	28	13.40	27
23	14.15	17	15.84	15	6.00	35	13.55	23	19.61	16	20.49	16	6.96	35	18.71	24
24	---	---	26.64	8	19.28	18	22.99	11	---	---	31.79	9	24.05	20	28.05	13
25	30.67	4	31.26	4	37.67	5	30.74	4	38.70	4	40.23	4	45.50	5	38.80	5
26	---	---	5.78	25	16.36	21	9.31	30	---	---	6.87	26	21.71	22	11.62	32
27	26.20	7	18.83	14	27.86	11	25.69	9	36.27	7	21.66	14	33.05	13	34.81	8
28	13.57	18	27.50	6	26.32	14	20.10	17	17.21	17	31.99	8	33.19	12	25.25	16
29	34.84	2	---	---	41.67	3	23.76	10	45.76	2	---	---	56.08	3	45.86	3
30	---	---	---	---	15.22	24	15.22	22	---	---	---	---	20.62	24	20.62	22
31	---	---	10.47	19	7.09	34	7.80	36	---	---	13.15	19	9.78	34	10.49	35
32	---	---	19.67	12	16.72	20	18.71	19	---	---	24.39	12	20.90	23	23.23	18
33	23.54	8	29.81	5	32.22	7	25.74	8	27.39	9	34.56	5	36.60	11	29.74	11
34*Brownsville	21.10	9	26.76	7	31.65	9	21.88	13	24.84	10	32.46	6	38.31	8	26.26	14
*McAllen	17.27	13	---	---	---	---	---	---	21.29	14	---	---	---	---	---	---
35	26.49	6	---	---	21.22	16	25.86	7	37.76	5	---	---	27.27	18	36.59	7
36	---	---	37.91	2	26.47	13	33.59	3	---	---	50.11	1	30.60	15	42.78	4
37	---	---	8.58	22	8.91	30	8.67	33	---	---	10.87	22	10.89	31	10.58	34
AVERAGE	27.41		17.23		18.98		25.08		36.52		22.14		25.07		33.40	

TABLE D.8 (Continued)

Region	SWIMMING 1980								SWIMMING 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	18.70	19	54.51	2	40.90	12	27.35	22	23.43	22	72.99	5	47.45	18	36.36	23
2	---	---	24.57	15	34.77	18	28.81	18	---	---	36.88	14	51.61	14	43.52	18
3	---	---	45.18	5	91.06	1	66.98	2	---	---	62.22	6	153.78	1	104.85	2
4	29.01	13	---	---	57.92	5	31.50	14	42.57	12	---	---	92.72	5	46.21	15
5	31.76	10	7.88	27	28.35	22	28.79	19	53.21	10	11.75	26	45.42	20	47.38	13
6	---	---	22.78	17	37.45	15	25.90	23	---	---	27.06	18	50.23	15	31.20	25
7	18.01	20	31.84	12	12.98	33	19.08	26	27.26	18	55.18	7	18.82	33	29.36	27
8	---	---	9.78	25	4.31	37	6.54	37	---	---	15.56	24	5.52	37	9.77	37
9	---	---	12.47	23	14.71	30	13.06	36	---	---	18.32	23	23.20	30	19.88	35
10	37.07	8	43.77	6	49.70	9	38.07	11	59.54	8	74.49	4	83.70	8	62.26	9
11	73.17	1	---	---	78.85	2	73.22	1	117.77	1	---	---	131.71	2	117.94	1
12	12.31	24	15.68	20	21.94	25	16.16	29	17.03	24	24.50	19	36.53	24	25.31	28
13	35.05	9	10.00	24	42.55	11	28.47	20	67.54	7	15.48	25	77.64	9	51.90	11
14	22.36	16	19.99	18	19.04	27	20.39	25	35.22	16	30.61	17	27.80	28	31.20	25
15	---	---	15.52	21	20.47	26	16.67	28	---	---	23.65	20	29.35	27	24.83	29
16	45.11	6	---	---	58.92	4	45.51	7	69.29	5	---	---	95.23	4	70.40	7
17	15.87	21	---	---	13.64	31	15.56	30	24.50	20	---	---	20.49	32	24.00	30
18*Midland	44.51	7	52.10	3	50.58	7	38.54	10	56.68	9	77.43	2	65.92	10	49.75	12
*Odessa	21.72	17	---	---	---	---	---	---	26.30	19	---	---	---	---	---	---
19	---	---	39.65	8	43.09	10	40.45	9	---	---	45.53	12	87.99	6	54.89	10
20	15.65	22	---	---	6.12	36	14.10	33	24.30	21	---	---	8.70	36	21.80	32
21	15.13	23	---	---	15.91	29	15.35	31	23.20	23	---	---	26.02	29	23.92	31
22	---	---	---	---	17.97	28	17.97	27	---	---	---	---	31.46	26	31.46	24
23	25.66	14	25.39	14	8.09	35	24.49	24	42.89	11	36.78	15	10.29	35	40.95	22
24	---	---	37.01	10	29.24	20	33.35	13	---	---	50.87	10	41.28	23	46.53	14
25	47.75	5	50.62	4	56.00	6	47.91	6	69.11	6	76.25	3	84.61	7	69.53	8
26	---	---	7.92	26	28.83	21	14.32	32	---	---	10.14	27	45.20	21	19.91	34
27	48.30	4	24.56	16	36.37	16	45.28	8	78.24	4	32.19	16	46.63	19	71.16	6
28	21.19	18	36.13	11	40.83	14	30.72	16	30.33	17	48.45	11	59.53	12	44.94	16
29	57.45	2	---	---	70.00	3	57.57	3	89.41	2	---	---	105.99	3	89.54	3
30	---	---	---	---	26.88	23	28.88	17	---	---	---	---	42.31	22	42.31	20
31	---	---	15.79	19	12.97	34	13.57	34	---	---	22.26	21	21.33	31	21.52	33
32	---	---	29.62	13	25.80	24	28.33	21	---	---	45.15	13	35.59	25	41.86	21
33	31.10	11	39.30	9	40.90	12	33.62	12	41.54	13	52.26	9	53.08	13	44.53	17
34*Brownsville	29.05	12	41.06	7	45.83	8	31.22	15	39.50	14	53.00	8	63.06	11	42.67	19
*McAllen	25.57	15	---	---	---	---	---	---	36.25	15	---	---	---	---	---	---
35	50.68	3	---	---	32.54	19	48.79	5	85.77	3	---	---	49.10	16	82.46	4
36	---	---	63.62	1	35.62	17	53.14	4	---	---	100.16	1	48.39	17	80.91	5
37	---	---	13.45	22	13.30	32	13.41	35	---	---	19.41	22	18.48	34	19.16	36
AVERAGE	47.17		27.87		32.56		43.16		75.28		41.80		52.90		68.96	

TABLE D.8 (Continued)

Region	SWIMMING 2000								CHILD'S PLAY - 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	28.23	23	92.84	5	53.15	25	46.72	24	14.01	7	7.57	4	8.93	2	12.61	7
2	---	---	51.21	14	71.82	13	61.22	18	---	---	5.97	18	6.35	19	6.12	29
3	---	---	91.89	6	230.04	1	155.29	2	---	---	5.74	20	7.16	8	6.43	25
4	58.92	12	---	---	134.93	6	63.48	14	12.88	12	---	---	6.97	12	12.28	9
5	80.95	9	16.71	26	68.77	14	71.86	12	14.62	5	4.15	25	5.76	24	10.73	11
6	---	---	32.30	20	64.32	17	36.66	28	---	---	6.67	11	8.77	3	7.17	20
7	38.50	18	85.51	7	25.90	33	41.61	26	10.50	15	5.76	19	5.08	28	8.65	15
8	---	---	23.12	24	7.33	37	14.29	37	---	---	4.73	24	4.13	36	4.36	36
9	---	---	26.89	22	34.45	30	29.70	34	---	---	5.63	22	6.48	17	5.80	30
10	87.99	8	115.15	2	128.59	7	93.90	10	12.76	13	7.25	6	7.60	5	12.41	8
11	174.35	1	---	---	200.77	2	174.75	1	18.86	1	---	---	7.39	6	18.78	1
12	22.45	24	36.93	18	55.40	21	37.73	27	7.60	22	6.38	13	7.36	7	6.88	22
13	112.03	5	23.12	24	124.45	8	83.02	11	13.66	9	5.06	23	6.14	20	9.28	14
14	51.44	14	43.65	16	37.79	29	44.49	25	8.84	19	5.72	21	5.94	22	6.63	24
15	---	---	33.89	19	40.37	27	35.12	29	---	---	6.11	16	7.13	9	6.37	27
16	95.93	6	---	---	138.59	5	98.36	8	14.41	6	---	---	5.89	23	14.28	5
17	35.35	19	---	---	28.96	32	34.74	30	10.19	16	---	---	4.88	29	9.37	13
18*Midland	69.74	10	105.80	4	90.90	10	63.44	15	18.86	1	7.22	7	8.74	4	14.45	4
*Odessa	31.15	22	---	---	---	---	---	---	12.91	11	6.34	14	---	---	---	---
19	---	---	85.12	8	153.34	3	99.37	7	---	---	---	---	6.03	21	6.26	28
20	35.27	20	---	---	11.80	36	31.56	33	5.27	24	---	---	4.86	30	5.21	34
21	33.09	21	---	---	38.64	28	34.38	31	5.83	23	---	---	4.80	32	5.51	32
22	---	---	---	---	50.05	26	50.05	23	---	---	---	---	6.41	18	6.41	26
23	68.60	11	46.78	15	12.64	35	65.47	13	8.69	20	6.69	10	4.83	31	8.25	17
24	---	---	66.81	10	55.36	22	61.81	17	---	---	7.33	5	7.00	11	7.17	20
25	95.14	7	107.71	3	120.00	9	95.91	9	13.36	10	6.51	11	6.83	14	13.10	6
26	---	---	12.62	27	66.77	15	26.26	35	---	---	7.68	3	6.92	13	7.42	19
27	117.45	4	40.19	17	56.90	20	103.83	6	15.63	4	8.16	1	9.38	1	14.52	3
28	40.90	17	64.38	12	82.62	11	63.27	16	9.90	18	7.06	9	7.07	10	8.53	16
29	127.03	3	---	---	144.93	4	127.14	3	16.63	3	---	---	6.76	15	16.53	2
30	---	---	---	---	53.62	23	53.62	22	---	---	---	---	4.46	35	4.46	35
31	---	---	29.32	21	32.78	31	32.04	32	---	---	6.16	15	5.55	26	5.68	31
32	---	---	63.22	13	53.42	24	59.77	19	---	---	6.04	17	3.86	37	5.33	33
33	52.98	13	66.46	11	66.07	16	56.42	20	13.95	8	7.08	8	6.70	16	11.89	10
34*Brownsville	51.17	15	68.45	9	81.83	12	55.35	21	11.17	14	4.12	26	5.31	27	9.41	12
*McAllen	47.99	16	---	---	---	---	---	---	10.11	17	---	---	---	---	---	---
35	129.41	2	---	---	61.86	19	124.23	4	8.25	21	---	---	4.67	34	7.82	18
36	---	---	144.60	1	62.85	18	114.39	5	---	---	7.82	2	4.77	33	6.67	23
37	---	---	26.45	23	24.73	34	26.00	36	---	---	3.75	27	5.69	25	4.28	37
AVERAGE	110.14		62.39		79.75		101.33		14.08		6.24		6.32		12.14	

TABLE D.8 (Continued)

Region	CHILD'S PLAY - 1975								CHILD'S PLAY - 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	16.11	9	7.34	4	8.54	3	13.79	9	18.39	11	6.83	6	8.18	3	14.89	12
2	---	---	5.96	18	6.44	16	6.15	30	---	---	6.03	17	6.29	18	6.14	29
3	---	---	5.63	21	6.93	9	6.25	29	---	---	5.53	22	6.68	14	6.08	30
4	15.63	12	---	---	6.95	8	14.82	8	18.93	9	---	---	6.81	9	17.88	8
5	20.06	6	4.16	25	5.72	23	13.78	10	26.90	4	4.17	25	5.62	23	17.58	9
6	---	---	6.54	10	8.43	4	6.97	22	---	---	6.48	9	7.98	4	6.80	24
7	13.32	15	5.68	20	5.01	28	10.54	16	16.58	15	5.71	20	4.91	29	12.83	16
8	---	---	4.68	24	4.06	36	4.31	36	---	---	4.65	24	4.09	36	4.32	36
9	---	---	5.62	22	6.35	17	5.79	32	---	---	5.62	21	6.32	17	5.80	32
10	16.60	8	7.14	5	7.55	5	15.83	6	20.97	8	7.14	5	7.51	5	19.58	5
11	23.77	1	---	---	7.33	6	23.63	1	29.68	2	---	---	7.14	7	29.46	1
12	9.41	22	6.36	13	7.34	7	7.29	21	11.45	22	6.33	13	7.33	6	7.68	22
13	21.13	3	5.05	23	6.17	20	12.58	12	30.27	1	5.03	23	6.19	19	16.49	10
14	11.66	19	5.74	19	5.97	22	7.45	20	14.94	17	5.78	19	6.00	21	8.45	19
15	---	---	6.17	15	6.69	14	6.30	28	---	---	6.21	14	6.72	11	6.33	28
16	18.57	7	---	---	5.63	24	18.29	4	22.97	7	---	---	5.26	26	22.46	4
17	13.56	14	---	---	4.86	31	12.28	13	16.83	13	---	---	4.83	31	15.16	11
18*Midland	21.84	2	6.85	8	8.68	2	16.27	5	25.04	6	6.48	9	8.68	2	18.21	7
*Odessa	14.72	13	---	---	---	---	---	---	16.67	14	---	---	---	---	---	---
19	---	---	6.18	14	6.02	21	6.14	31	---	---	6.06	16	6.01	20	6.04	31
20	7.06	24	---	---	4.83	32	6.69	25	9.01	24	---	---	4.88	30	8.34	20
21	7.53	23	---	---	4.95	30	6.77	24	9.43	23	---	---	4.96	27	8.19	21
22	---	---	---	---	6.34	18	6.34	27	---	---	---	---	6.36	15	6.36	27
23	11.45	20	6.52	11	4.68	34	10.65	15	14.54	19	7.25	4	4.60	33	13.40	15
24	---	---	6.93	6	6.86	12	6.90	23	---	---	6.61	7	6.75	10	6.68	25
25	15.88	10	6.40	12	6.87	11	15.52	7	18.88	10	6.38	12	6.83	8	18.37	6
26	---	---	7.73	3	6.90	10	7.46	19	---	---	7.83	2	6.71	12	7.49	23
27	20.32	5	8.04	1	9.09	1	18.33	3	25.53	5	7.93	1	8.71	1	22.47	3
28	12.24	17	6.87	7	6.86	12	9.39	18	14.81	18	6.60	8	6.70	13	10.10	18
29	21.06	4	---	---	6.65	15	20.91	2	27.13	3	---	---	6.36	15	26.93	2
30	---	---	---	---	4.70	33	4.70	35	---	---	---	---	4.60	33	4.60	35
31	---	---	6.16	16	5.55	25	5.68	33	---	---	6.15	15	5.58	24	5.70	33
32	---	---	5.97	17	3.62	37	5.19	34	---	---	5.90	18	3.58	37	5.12	34
33	15.81	11	6.72	9	6.33	19	13.17	11	17.64	12	6.39	11	5.95	22	14.45	13
34*Brownsville	13.28	16	3.96	26	5.09	27	10.98	14	15.60	16	3.83	26	4.96	27	12.65	17
*McAllen	11.99	18	---	---	---	---	---	---	13.72	21	---	---	---	---	---	---
35	11.13	21	---	---	4.96	29	10.44	17	14.47	20	---	---	4.82	32	13.47	14
36	---	---	7.75	2	4.55	35	6.55	26	---	---	7.72	3	4.35	35	6.46	26
37	---	---	3.60	27	5.54	26	4.13	37	---	---	3.53	27	5.57	25	4.08	37
AVERAGE	17.72		6.18		6.28		14.97		22.00		6.14		6.24		18.31	

TABLE D.8 (Continued)

Region	CHILD'S PLAY - 1990								CHILD'S PLAY - 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	23.61	13	6.45	5	7.70	3	17.06	16	29.64	16	5.99	12	7.22	5	18.63	17
2	---	---	6.02	15	6.31	16	6.15	29	---	---	6.02	11	6.24	14	6.13	28
3	---	---	5.29	22	6.33	15	5.77	31	---	---	5.08	22	5.99	19	5.50	33
4	26.74	9	---	---	6.48	13	25.27	8	36.06	9	---	---	6.27	12	34.27	8
5	44.00	2	4.00	25	5.45	25	26.94	6	66.02	2	3.82	25	5.28	23	38.78	5
6	---	---	6.28	6	7.40	4	6.48	24	---	---	6.08	9	7.15	6	6.22	26
7	24.31	12	5.60	20	4.83	30	18.48	14	33.67	11	5.51	21	4.76	29	25.46	14
8	---	---	4.37	24	3.98	36	4.14	36	---	---	4.48	24	3.96	35	4.19	36
9	---	---	5.55	21	6.17	19	5.75	32	---	---	5.58	18	6.16	16	5.80	30
10	31.30	8	7.11	4	7.39	5	27.99	5	43.55	7	7.06	5	7.28	4	37.23	7
11	43.37	3	---	---	6.94	8	42.91	1	59.23	3	---	---	6.81	7	58.44	1
12	16.17	22	6.28	6	7.30	6	8.72	22	21.72	22	6.24	7	7.30	3	9.74	22
13	53.44	1	5.02	23	6.31	16	25.94	7	84.77	1	5.08	22	6.34	10	37.96	6
14	22.68	15	5.79	18	6.00	20	10.89	21	32.70	14	5.82	16	6.01	18	14.26	20
15	---	---	6.25	8	6.60	10	6.33	26	---	---	6.31	6	6.48	9	6.34	25
16	34.10	6	---	---	4.82	31	32.84	3	46.61	6	---	---	4.44	31	44.21	3
17	25.18	11	---	---	4.70	32	22.61	11	35.35	10	---	---	4.98	27	32.45	9
18*Midland	32.16	7	6.04	14	8.80	1	22.65	10	40.31	8	7.83	3	8.76	1	27.63	13
*Odessa	21.30	19	---	---	---	---	---	---	26.59	20	---	---	---	---	---	---
19	---	---	5.77	19	5.92	21	5.80	30	---	---	5.52	20	5.85	20	5.59	32
20	13.91	24	---	---	4.96	28	12.48	18	20.02	23	---	---	4.96	28	17.64	18
21	14.05	23	---	---	5.06	27	11.77	19	19.88	24	---	---	5.15	25	16.46	19
22	---	---	---	---	6.20	18	6.20	28	---	---	---	---	6.18	15	6.18	27
23	22.04	17	6.20	11	4.51	34	20.23	13	31.46	15	5.87	14	4.21	33	29.00	12
24	---	---	6.16	13	6.49	12	6.31	27	---	---	5.77	17	6.26	13	5.98	29
25	25.59	10	6.26	9	6.62	9	24.67	9	33.24	13	6.14	8	6.55	8	31.87	10
26	---	---	7.92	1	6.51	11	7.52	23	---	---	8.04	1	6.15	17	7.56	23
27	37.97	5	7.78	3	8.40	2	32.21	4	53.39	5	7.69	4	7.99	2	43.90	4
28	20.83	20	6.25	10	6.46	14	11.23	20	27.95	17	5.91	13	4.11	34	11.70	21
29	39.34	4	---	---	6.95	7	39.08	2	54.85	4	---	---	6.34	10	54.53	2
30	---	---	---	---	4.90	29	4.90	35	---	---	---	---	4.36	32	4.36	35
31	---	---	6.17	12	5.55	23	5.68	33	---	---	6.04	10	5.52	22	5.63	31
32	---	---	5.87	17	3.27	37	4.97	34	---	---	5.86	15	3.12	37	4.89	34
33	22.33	16	5.94	16	5.47	25	17.87	15	27.20	19	5.58	18	5.04	26	21.52	16
34*Brownsville	21.31	18	3.46	26	4.69	33	16.81	17	27.95	17	2.84	27	4.57	30	21.61	15
*McAllen	17.99	21	---	---	---	---	---	---	22.29	21	---	---	---	---	---	---
35	22.97	14	---	---	5.59	22	21.40	12	33.53	12	---	---	5.77	21	31.41	11
36	---	---	7.82	2	4.09	35	6.43	25	---	---	7.97	2	3.87	36	6.46	24
37	---	---	3.28	27	5.40	26	3.84	37	---	---	3.05	26	5.21	24	3.61	37
AVERAGE	32.20		6.05		6.18		26.41		43.99		5.97		6.09		35.60	

TABLE D.8 (Continued)

Region	BASEBALL/SOFTBALL - 1970								BASEBALL/SOFTBALL - 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	2.21	12	8.35	1	11.48	1	4.39	6	2.58	13	8.69	1	12.07	1	5.08	5
2	---	---	3.58	11	2.72	16	3.25	12	---	---	4.26	9	3.35	15	3.90	9
3	---	---	5.33	4	6.51	4	5.90	3	---	---	6.38	4	7.65	4	6.99	2
4	1.69	16	---	---	2.07	23	1.73	29	1.94	17	---	---	2.50	23	1.99	29
5	1.79	15	1.15	24	3.08	14	2.19	22	2.32	15	1.62	23	4.12	8	2.91	17
6	---	---	7.13	2	3.65	8	6.30	2	---	---	7.82	2	4.08	9	6.97	3
7	.53	23	4.48	8	5.18	5	2.10	23	.62	23	5.54	6	5.90	5	2.39	25
8	---	---	2.75	16	1.38	30	1.91	25	---	---	3.44	15	1.67	29	2.37	26
9	---	---	2.77	15	1.62	28	2.54	16	---	---	3.56	13	1.95	28	3.18	15
10	2.06	14	2.90	14	2.29	20	2.09	24	2.44	14	3.47	14	2.77	17	2.50	24
11	2.38	10	---	---	2.35	19	2.38	19	2.80	8	---	---	2.75	18	2.80	19
12	1.38	20	2.08	22	.84	36	1.77	28	2.13	16	2.48	20	1.01	36	2.10	28
13	.88	21	.48	27	1.14	35	.81	35	1.37	21	.61	27	1.65	30	1.19	34
14	.36	24	1.02	25	1.27	32	.90	34	.48	24	1.33	25	1.57	33	1.16	35
15	---	---	1.61	2	1.46	29	1.57	31	---	---	1.91	22	1.50	35	1.81	30
16	6.66	1	---	---	10.47	2	6.72	1	7.50	1	---	---	11.87	2	7.60	1
17	3.33	4	---	---	3.08	14	3.30	11	3.95	4	---	---	3.51	12	3.88	10
18*Midland	2.34	11	6.35	3	7.99	3	3.57	8	2.71	10	7.44	3	8.80	3	4.05	8
*Odessa	2.43	8	---	---	---	---	---	---	2.72	9	---	---	---	---	---	---
19	---	---	3.25	13	1.66	27	2.86	14	---	---	3.93	10	2.27	26	3.53	14
20	.69	22	---	---	1.36	31	.80	36	.86	22	---	---	1.61	31	.98	36
21	2.16	13	---	---	1.20	33	1.86	26	2.60	12	---	---	1.56	34	2.29	27
22	---	---	---	---	1.20	33	1.20	33	---	---	---	---	1.58	32	1.58	33
23	1.60	19	2.29	20	2.12	22	1.69	30	1.71	20	2.64	19	2.28	25	1.81	30
24	---	---	4.98	6	3.24	11	3.85	7	---	---	5.64	5	3.02	16	4.37	7
25	2.41	9	4.81	7	3.28	10	2.48	17	2.69	11	5.38	7	3.55	11	2.78	20
26	---	---	.95	26	.42	37	.77	37	---	---	1.14	26	.61	37	.97	37
27	2.66	7	2.11	21	3.13	13	2.65	15	3.15	7	2.33	21	3.42	14	3.11	16
28	1.62	18	3.59	10	2.47	18	2.40	18	1.89	18	3.88	11	2.70	19	2.74	22
29	3.30	5	---	---	4.50	7	3.31	10	3.80	5	---	---	4.75	7	3.81	11
30	---	---	---	---	1.86	25	1.86	26	---	---	---	---	2.53	21	2.53	23
31	---	---	3.90	9	1.98	24	2.38	19	---	---	4.72	8	2.36	24	2.86	18
32	---	---	2.50	18	5.15	6	3.36	9	---	---	2.89	17	5.63	6	3.79	12
33	5.57	3	2.71	17	3.20	12	4.81	4	5.79	3	2.85	18	3.44	13	5.05	6
34*Brownsville	5.69	2	3.35	12	2.51	17	3.10	13	6.52	2	3.69	12	2.68	20	3.57	13
*McAllen	1.64	17	---	---	---	---	---	---	1.75	19	---	---	---	---	---	---
35	2.85	6	---	---	3.40	9	4.70	5	3.59	6	---	---	3.72	10	5.27	4
36	---	---	2.36	19	2.29	20	2.33	21	---	---	2.93	16	2.51	22	2.77	21
37	---	---	1.23	23	1.71	26	1.36	32	---	---	1.39	24	2.21	27	1.61	32
AVERAGE	2.78		2.94		2.91		2.82		3.19		3.44		3.42		3.25	

TABLE D.8 (Continued)

Region	BASEBALL/SOFTBALL - 1980								BASEBALL/SOFTBALL - 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	2.94	13	8.91	1	12.86	2	5.83	4	3.65	13	9.67	4	14.91	2	7.49	4
2	---	---	4.93	9	3.98	13	4.54	10	---	---	6.34	10	5.28	12	5.86	8
3	---	---	8.03	4	8.69	4	8.34	1	---	---	9.84	3	10.95	3	10.35	1
4	2.19	17	---	---	2.90	21	2.25	29	2.70	19	---	---	3.55	23	2.76	31
5	2.88	14	1.86	23	5.15	8	3.62	16	4.22	8	2.59	24	7.68	6	5.37	13
6	---	---	8.65	3	4.91	9	7.85	3	---	---	10.35	2	6.23	9	9.61	3
7	.75	23	6.61	5	6.43	5	2.66	27	1.00	23	9.00	5	7.80	5	3.23	29
8	---	---	4.17	12	1.88	34	2.81	25	---	---	5.59	11	2.31	34	3.70	26
9	---	---	4.41	11	2.34	28	3.86	15	---	---	6.40	9	2.99	28	5.31	14
10	2.84	15	4.03	15	3.20	17	2.91	23	3.65	13	5.14	13	4.11	16	3.78	22
11	3.22	8	---	---	2.99	18	3.22	20	4.06	9	---	---	3.84	20	4.06	20
12	2.48	16	2.94	20	1.25	36	2.50	28	3.25	16	3.88	19	1.77	36	3.30	28
13	1.90	20	.73	27	2.02	29	1.54	34	2.79	17	1.03	27	3.11	27	2.25	33
14	.59	24	1.71	24	1.98	31	1.47	35	.82	24	2.62	23	2.98	29	2.18	34
15	---	---	2.30	22	1.72	35	2.17	30	---	---	3.05	22	2.25	35	2.89	30
16	8.16	1	---	---	12.94	1	8.30	2	9.83	1	---	---	15.43	1	10.07	2
17	4.51	5	---	---	4.26	11	4.47	11	5.68	5	---	---	5.37	11	5.64	10
18*Midland	2.99	10	8.83	2	9.98	3	4.58	8	3.66	12	11.51	1	10.41	4	5.41	12
*Odessa	2.98	11	---	---	---	---	---	---	3.70	11	---	---	---	---	---	---
19	---	---	4.63	10	2.91	20	4.23	13	---	---	5.35	12	4.09	17	5.07	15
20	1.06	22	---	---	1.97	32	1.21	36	1.47	22	---	---	2.66	33	1.66	36
21	3.05	9	---	---	1.91	33	2.73	26	4.01	10	---	---	2.84	32	3.72	23
22	---	---	---	---	2.01	30	2.01	32	---	---	---	---	3.58	22	3.58	27
23	1.92	19	3.17	18	2.61	26	2.04	31	2.31	20	4.32	17	2.96	30	2.46	32
24	---	---	6.31	6	3.38	16	4.93	6	---	---	8.01	6	3.99	18	6.19	6
25	2.98	11	6.01	7	3.99	12	3.09	21	3.56	15	7.26	7	4.87	13	3.71	25
26	---	---	1.22	26	.59	37	1.03	37	---	---	1.48	26	.77	37	1.28	37
27	3.66	7	2.69	21	3.73	14	3.59	17	4.69	7	3.30	20	4.44	14	4.57	17
28	2.18	18	4.11	13	2.96	19	3.06	22	2.74	18	4.66	16	3.42	24	3.72	23
29	4.56	4	---	---	5.45	7	4.57	9	5.46	6	---	---	6.95	7	5.47	11
30	---	---	---	---	2.83	22	2.83	24	---	---	---	---	3.85	19	3.85	21
31	---	---	5.33	8	2.76	25	3.31	18	---	---	6.83	8	3.66	21	4.33	18
32	---	---	3.24	17	6.03	6	4.17	14	---	---	4.15	18	6.71	8	5.03	16
33	5.92	3	2.95	19	3.72	15	5.21	5	6.54	3	3.25	21	4.30	15	5.81	9
34*Brownsville	7.32	2	4.11	13	2.80	24	4.65	7	9.38	2	4.85	15	3.23	26	5.92	7
*McAllen	1.83	21	---	---	---	---	---	---	2.01	21	---	---	---	---	---	---
35	4.40	6	---	---	4.42	10	4.40	12	6.41	4	---	---	5.99	10	6.38	5
36	---	---	3.53	16	2.81	23	3.26	19	---	---	4.91	14	3.27	25	4.30	19
37	---	---	1.60	25	2.52	27	1.85	33	---	---	1.89	25	2.96	30	2.18	34
AVERAGE	3.59		3.97		3.98		3.68		4.41		5.05		5.18		4.57	

TABLE D.8 (Continued)

Region	BASEBALL/SOFTBALL - 2000								PICNICKING - 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	4.49	11	10.25	5	16.76	2	9.34	4	4.48	14	3.65	21	2.28	35	4.01	21
2	---	---	7.73	11	6.66	11	7.21	10	---	---	2.55	27	2.33	32	2.47	35
3	---	---	12.50	2	12.90	3	12.69	1	---	---	6.46	3	4.23	9	5.38	11
4	3.25	19	---	---	4.23	25	3.31	31	5.01	11	---	---	4.15	10	4.92	13
5	5.80	7	3.34	24	10.60	4	7.44	7	4.22	18	3.23	24	2.83	25	3.66	27
6	---	---	12.07	3	7.70	10	11.47	3	---	---	4.91	10	3.17	19	4.49	15
7	1.29	23	11.22	4	8.98	6	3.75	29	3.75	22	4.87	11	4.13	11	4.01	21
8	---	---	6.90	12	2.79	34	4.60	24	---	---	3.05	26	1.97	36	2.39	30
9	---	---	8.73	7	3.83	28	6.91	11	---	---	3.71	20	2.49	31	3.46	29
10	4.49	11	6.33	14	5.06	15	4.70	23	4.49	13	4.83	12	2.78	26	4.43	17
11	4.90	10	---	---	4.66	19	4.89	21	4.47	15	---	---	3.02	23	4.46	16
12	4.03	16	4.85	19	2.35	36	4.15	28	4.42	16	3.30	23	3.16	20	3.55	28
13	3.83	17	1.37	27	4.33	23	3.06	33	4.33	17	3.22	25	3.41	16	3.78	25
14	1.07	24	3.78	22	4.27	24	3.07	32	4.11	19	3.85	18	3.59	14	3.84	24
15	---	---	3.93	21	2.62	35	3.68	30	---	---	4.76	13	2.56	29	4.18	19
16	11.25	2	---	---	17.71	1	11.62	2	10.70	3	---	---	4.58	5	10.61	2
17	6.88	5	---	---	6.33	12	6.83	12	5.21	10	---	---	3.08	21	4.88	14
18*Midland	4.47	13	14.35	1	10.08	5	6.20	15	3.50	23	4.62	14	3.56	15	3.92	23
*Odessa	4.42	14	---	---	---	---	---	---	4.52	12	---	---	---	---	---	---
19	---	---	7.91	10	5.45	14	7.39	8	---	---	5.45	9	3.74	13	5.02	12
20	1.94	22	---	---	3.49	31	2.19	36	1.00	24	---	---	4.37	7	1.55	37
21	5.11	9	---	---	3.86	26	4.82	22	5.53	9	---	---	4.93	4	3.27	32
22	---	---	---	---	4.93	18	4.93	20	---	---	---	---	3.07	22	3.07	34
23	2.63	20	5.69	15	3.51	30	2.85	34	4.09	20	5.63	8	4.47	6	4.21	18
24	---	---	9.75	6	4.60	20	7.50	6	---	---	6.95	2	5.70	2	6.33	7
25	4.14	15	8.50	8	5.71	13	4.33	26	4.08	21	6.36	5	4.37	7	4.15	20
26	---	---	1.70	26	.93	37	1.50	37	---	---	3.47	22	2.31	33	3.08	33
27	5.73	8	3.98	20	5.05	16	5.53	18	6.99	7	3.82	19	2.53	30	6.38	6
28	3.37	18	5.13	17	3.86	26	4.33	26	6.29	8	6.24	6	5.30	3	6.12	8
29	6.66	6	---	---	8.15	7	6.67	13	9.11	5	---	---	3.38	17	9.06	4
30	---	---	---	---	4.36	22	4.36	25	---	---	---	---	1.86	37	1.86	36
31	---	---	8.28	9	4.56	21	5.35	19	---	---	7.59	1	5.72	1	6.11	9
32	---	---	5.01	18	7.81	9	5.99	16	---	---	4.37	15	2.57	28	3.78	25
33	7.04	4	3.45	23	4.99	17	6.33	14	7.41	6	5.94	7	4.11	12	6.70	5
34*Brownsville	11.68	1	5.27	16	3.47	32	7.32	9	15.23	2	4.12	16	2.70	27	16.85	1
*McAllen	2.11	21	---	---	---	---	---	---	28.12	1	---	---	---	---	---	---
35	8.70	3	---	---	7.84	8	8.63	5	10.28	4	---	---	2.97	24	9.40	3
36	---	---	6.58	13	3.77	29	5.54	17	---	---	3.96	17	2.29	34	3.33	31
37	---	---	2.24	25	3.42	33	2.55	35	---	---	6.42	4	3.22	18	5.54	10
AVERAGE	5.22		6.29		6.37		5.47		5.72		4.67		3.63		5.34	

TABLE D.8 (Continued)

Region	PICNICKING - 1975								PICNICKING - 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	4.97	12	3.86	20	2.40	35	4.34	18	5.47	11	3.86	20	2.56	34	4.64	17
2	---	---	2.73	27	2.45	33	2.61	35	---	---	2.92	27	2.57	33	2.77	35
3	---	---	6.57	5	4.28	10	5.47	11	---	---	6.65	6	4.30	10	5.53	12
4	5.31	10	---	---	4.10	12	5.19	13	5.61	9	---	---	4.26	11	5.64	11
5	4.68	14	3.47	22	3.05	26	4.01	24	5.13	13	3.71	21	3.26	25	4.35	21
6	---	---	5.03	11	3.26	21	4.63	15	---	---	5.15	10	3.68	17	4.84	15
7	4.08	21	5.12	10	4.34	8	4.29	19	4.53	18	5.41	9	4.56	6	4.66	16
8	---	---	3.28	26	2.19	36	2.62	34	---	---	3.53	24	2.32	36	2.81	34
9	---	---	3.75	21	2.77	30	3.52	29	---	---	3.66	22	2.94	30	3.47	30
10	4.56	16	5.00	12	3.19	24	4.51	17	4.62	16	5.16	11	3.51	22	4.59	18
11	4.55	17	---	---	3.43	19	4.54	16	4.60	17	---	---	3.82	16	4.59	18
12	4.50	18	3.42	24	3.26	21	3.65	28	4.53	18	3.58	23	3.96	14	3.74	28
13	4.64	15	3.29	25	3.53	17	3.95	25	4.84	15	3.43	25	3.52	21	4.07	24
14	4.19	19	3.95	19	3.61	16	3.92	27	4.25	20	4.02	19	3.56	20	3.95	27
15	---	---	4.81	13	2.57	31	4.28	20	---	---	4.89	13	2.81	31	4.41	20
16	10.45	3	---	---	5.03	4	10.34	2	10.06	3	---	---	5.39	4	9.93	2
17	5.25	11	---	---	3.24	23	4.95	14	5.29	12	---	---	3.13	27	4.99	14
18*Midland	3.79	23	4.76	14	3.47	18	4.13	22	4.06	22	4.42	16	3.40	23	4.32	22
*Odessa	4.79	13	---	---	---	---	---	---	5.11	14	---	---	---	---	---	---
19	---	---	5.68	8	3.85	13	5.24	12	---	---	6.00	8	3.94	15	5.52	13
20	1.10	24	---	---	4.33	9	1.62	37	1.20	24	---	---	4.36	9	1.71	37
21	5.54	9	---	---	4.82	5	3.22	31	5.56	10	---	---	4.84	5	3.19	32
22	---	---	---	---	3.17	25	3.17	32	---	---	---	---	3.35	24	3.35	31
23	3.95	22	5.28	9	4.44	7	4.06	23	3.93	23	4.97	12	4.48	8	4.03	25
24	---	---	6.93	2	5.68	2	6.33	6	---	---	6.87	4	5.64	2	6.29	7
25	4.11	20	6.80	3	4.50	6	4.20	21	4.16	21	7.26	1	4.56	6	4.26	23
26	---	---	3.43	23	2.44	34	3.12	33	---	---	3.39	26	2.37	35	3.08	33
27	7.15	6	4.02	17	2.95	27	6.53	5	7.26	6	4.09	18	3.25	26	6.61	5
28	6.39	8	6.43	6	5.47	3	6.24	7	6.50	8	6.80	5	5.53	3	6.42	6
29	8.67	5	---	---	3.80	14	8.62	4	9.27	4	---	---	3.64	18	9.22	3
30	---	---	---	---	1.81	37	1.81	36	---	---	---	---	1.77	37	1.77	36
31	---	---	7.40	1	5.72	1	6.07	9	---	---	7.18	2	5.74	1	6.05	10
32	---	---	4.48	16	2.81	29	3.93	26	---	---	4.48	15	3.01	29	3.98	26
33	6.96	7	6.01	7	4.13	11	6.09	8	6.53	7	6.04	7	4.21	12	6.12	8
34*Brownsville	15.66	2	4.49	15	2.85	28	16.57	1	16.03	2	4.65	14	3.13	27	16.32	1
*McAllen	26.60	1	---	---	---	---	---	---	25.11	1	---	---	---	---	---	---
35	9.73	4	---	---	3.72	15	9.06	3	9.23	5	---	---	4.02	13	8.68	4
36	---	---	3.97	18	2.51	32	3.42	30	---	---	4.11	17	2.81	31	3.62	29
37	---	---	6.72	4	3.32	20	5.79	10	---	---	7.06	3	3.60	19	6.12	8
AVERAGE	5.66		4.84		3.74		5.34		5.66		5.01		3.86		5.38	

TABLE D.8 (Continued)

Region	PICNICKING - 1990								PICNICKING - 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	6.50	8	4.17	19	2.73	33	5.17	15	7.74	6	4.54	15	2.89	33	5.67	15
2	---	---	3.17	27	2.70	34	2.96	35	---	---	3.54	24	2.91	32	3.23	33
3	---	---	6.78	4	4.45	9	5.69	13	---	---	6.90	6	4.61	10	5.85	12
4	6.26	9	---	---	4.32	12	6.12	9	6.93	10	---	---	4.39	13	6.78	8
5	6.16	10	4.00	22	3.59	22	5.06	17	7.37	8	4.30	18	3.90	20	5.85	12
6	---	---	5.34	11	3.89	18	5.08	16	---	---	5.47	12	3.85	21	5.25	18
7	5.42	14	5.77	10	4.95	5	5.38	14	6.45	12	6.12	9	5.28	6	6.21	11
8	---	---	4.02	21	2.57	35	3.18	32	---	---	4.10	20	2.79	34	3.37	32
9	---	---	3.25	26	3.25	29	3.25	31	---	---	3.32	25	3.48	26	3.38	31
10	4.74	17	5.99	9	4.15	16	4.78	20	4.83	19	6.89	7	4.74	9	5.00	20
11	4.72	19	---	---	4.69	8	4.72	21	4.84	18	---	---	5.55	4	4.85	21
12	4.66	20	3.84	23	3.35	26	3.93	27	4.73	20	4.07	21	3.34	29	4.05	27
13	4.96	16	3.58	24	3.73	19	4.20	24	5.09	17	3.65	23	3.72	23	4.25	24
14	4.41	21	4.06	20	3.50	24	4.01	26	4.49	21	4.05	22	3.39	28	4.01	28
15	---	---	4.93	13	2.95	32	4.52	22	---	---	4.89	13	3.24	30	4.58	22
16	10.10	3	---	---	6.16	1	9.93	2	10.04	3	---	---	6.78	1	9.85	2
17	5.34	15	---	---	3.02	31	5.05	18	5.40	16	---	---	3.17	31	5.18	19
18*Midland	4.74	17	4.32	15	3.10	30	4.83	19	5.49	15	4.22	19	2.65	35	5.36	17
*Odessa	5.97	12	---	---	---	---	---	---	6.87	11	---	---	---	---	---	---
19	---	---	6.55	7	4.18	15	6.03	10	---	---	7.13	4	4.35	15	6.55	9
20	1.45	24	---	---	4.23	14	1.90	36	1.71	24	---	---	4.16	16	2.10	36
21	5.63	13	---	---	4.81	6	3.18	32	5.66	14	---	---	4.80	8	3.16	34
22	---	---	---	---	3.68	20	3.68	30	---	---	---	---	3.93	19	3.93	29
23	3.85	23	4.32	15	4.37	11	3.91	28	3.78	23	3.20	26	4.04	17	3.75	30
24	---	---	6.70	5	5.53	4	6.17	8	---	---	6.93	5	5.47	5	6.29	10
25	4.24	22	8.18	1	4.75	7	4.39	23	4.31	22	8.99	1	5.15	7	4.51	23
26	---	---	3.33	25	2.49	36	3.10	34	---	---	3.20	26	2.61	36	3.05	35
27	7.52	6	4.22	17	3.53	23	6.80	6	7.79	5	4.38	17	3.84	22	7.00	7
28	6.73	7	7.46	3	6.11	2	6.89	5	6.95	9	8.16	3	6.72	2	7.46	5
29	7.90	5	---	---	3.48	25	7.86	4	7.58	7	---	---	3.62	24	7.56	4
30	---	---	---	---	1.75	37	1.75	37	---	---	---	---	1.68	37	1.68	37
31	---	---	6.61	6	5.73	3	5.92	11	---	---	6.04	10	5.70	3	5.77	14
32	---	---	4.61	14	3.27	27	4.14	25	---	---	4.67	14	3.44	27	4.23	25
33	6.12	11	6.19	8	4.30	13	5.86	12	5.72	13	6.35	8	4.49	12	5.62	16
34*Brownsville	17.75	2	5.20	12	3.67	21	16.83	1	19.65	2	5.67	11	4.02	18	17.54	1
*McAllen	23.70	1	---	---	---	---	---	---	22.37	1	---	---	---	---	---	---
35	8.67	4	---	---	4.39	10	8.29	3	8.22	4	---	---	4.54	11	7.94	3
36	---	---	4.22	17	3.27	27	3.87	29	---	---	4.42	16	3.57	25	4.11	26
37	---	---	7.69	2	4.01	17	6.71	7	---	---	8.28	2	4.39	13	7.26	6
AVERAGE	5.61		5.37		4.11		5.43		5.64		5.76		4.40		5.53	

TABLE D.8 (Continued)

Region	FOOTBALL/SOCCER - 1970								FOOTBALL/SOCCER - 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	.49	20	.78	10	.46	18	.50	28	.49	20	.77	11	.45	20	.51	26
2	---	---	.48	20	.39	25	.44	30	---	---	.43	21	.39	26	.41	31
3	---	---	+	0	.54	13	.26	35	---	---	+	0	.51	12	.24	35
4	1.63	7	---	---	.57	10	1.52	7	1.64	6	---	---	.53	11	1.54	7
5	.73	16	+	0	.40	23	.56	23	.72	16	+	0	.39	26	.55	24
6	---	---	.61	16	.49	16	.58	21	---	---	.64	16	.54	10	.62	20
7	1.15	12	.64	13	.32	33	.90	13	1.14	13	.55	18	.33	32	.90	13
8	---	---	.92	6	.20	36	.48	29	---	---	.94	5	.21	36	.50	27
9	---	---	.16	24	.37	28	.20	36	---	---	.16	23	.31	33	.19	36
10	1.37	8	.64	13	.36	30	1.31	9	1.36	8	.71	13	.42	22	1.29	9
11	1.30	10	---	---	.34	32	1.29	10	1.29	10	---	---	.46	19	1.28	10
12	.11	24	.48	20	.32	33	.36	33	.10	24	.68	14	.30	34	.46	30
13	.66	18	.56	17	.11	37	.51	27	.66	18	.54	19	.11	37	.49	28
14	1.18	11	1.78	2	.42	21	1.22	11	1.16	11	1.79	2	.42	22	1.22	11
15	---	---	.19	23	.55	11	.29	34	---	---	.16	23	.50	14	.25	34
16	1.69	6	---	---	.65	8	1.67	5	1.61	7	---	---	.60	8	1.59	5
17	.39	21	---	---	1.03	5	.79	16	.74	15	---	---	1.08	4	.79	16
18*Midland	.75	15	2.89	1	3.78	1	1.04	12	.23	23	2.98	1	3.70	1	1.04	12
*Odessa	.21	23	---	---	---	---	---	---	.35	22	---	---	---	---	---	---
19	---	---	.69	12	.21	35	.57	22	---	---	.72	12	.30	34	.62	20
20	.36	22	---	---	.39	25	.37	31	.37	21	---	---	.40	25	.38	32
21	.96	14	---	---	.40	23	.79	16	.92	14	---	---	.39	26	.76	17
22	---	---	---	---	.53	14	.53	25	---	---	---	---	.49	15	.49	28
23	.68	17	.53	18	.35	31	.65	19	.70	17	.62	17	.36	30	.67	19
24	---	---	.91	7	.49	16	.70	18	---	---	.86	7	.51	12	.69	18
25	1.35	9	.78	10	.55	11	1.32	8	1.34	9	.79	9	.47	18	1.32	8
26	---	---	.63	15	.42	21	.56	23	---	---	.67	15	.41	24	.58	23
27	.59	19	.79	9	.60	9	.61	20	.58	19	.78	10	.59	9	.60	22
28	1.15	12	.50	19	.44	19	.83	15	1.16	11	.48	20	.48	16	.80	14
29	4.36	2	---	---	1.13	4	4.33	2	4.16	2	---	---	.95	5	4.13	2
30	---	---	---	---	.37	28	.37	31	---	---	---	---	.36	30	.36	33
31	---	---	.82	8	.44	19	.52	26	---	---	.82	8	.44	21	.52	25
32	---	---	.21	22	2.14	3	.84	14	---	---	.20	22	2.01	3	.80	14
33	2.06	5	.96	5	.53	14	1.67	5	1.93	5	.87	6	.48	16	1.57	6
34*Brownsville	3.19	3	1.29	4	.87	6	2.37	3	3.10	3	1.32	4	.82	7	2.31	3
*McAllen	2.25	4	---	---	---	---	---	---	2.14	4	---	---	---	---	---	---
35	5.46	1	---	---	.85	7	4.91	1	5.36	1	---	---	.83	6	4.85	1
36	---	---	1.39	3	2.65	2	1.87	4	---	---	1.42	3	2.51	2	1.83	4
37	---	---	.07	25	.38	27	.16	37	---	---	.07	25	.37	29	.15	37
AVERAGE	1.43		.67		.60		1.24		1.42		.69		.58		1.23	

TABLE D.8 (Continued)

Region	FOOTBALL/SOCCER - 1980								FOOTBALL/SOCCER - 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	.50	20	.74	11	.44	20	.51	27	.51	20	.76	10	.45	20	.52	25
2	---	---	.46	20	.38	26	.43	31	---	---	.42	21	.39	25	.41	31
3	---	---	+	0	.48	16	.23	34	---	---	+	0	.51	12	.24	34
4	1.66	6	---	---	.51	14	1.56	5	1.66	6	---	---	.46	19	1.58	5
5	.75	15	+	0	.38	26	.56	23	.78	15	+	0	.41	22	.59	22
6	---	---	.67	14	.61	8	.65	20	---	---	.68	14	.39	25	.63	20
7	1.17	11	.60	17	.35	30	.94	13	1.22	11	.68	14	.37	28	1.00	13
8	---	---	.96	5	.22	36	.52	25	---	---	.87	6	.26	35	.52	25
9	---	---	.16	23	.35	30	.21	36	---	---	.15	23	.32	32	.21	36
10	1.36	8	.71	12	.43	22	1.28	9	1.35	8	.70	13	.40	24	1.24	10
11	1.29	10	---	---	.33	33	1.28	9	1.28	10	---	---	.37	28	1.27	9
12	.10	24	.67	14	.27	35	.46	29	.09	24	.68	14	.28	33	.46	29
13	.65	18	.51	19	.11	37	.48	28	.61	18	.48	19	.10	37	.45	30
14	1.13	13	1.80	2	.41	24	1.21	11	1.14	12	1.84	2	.44	21	1.24	10
15	---	---	.14	24	.47	17	.22	35	---	---	.15	23	.56	8	.23	35
16	1.51	7	---	---	.54	11	1.48	6	1.44	7	---	---	.52	10	1.40	6
17	.74	16	---	---	.85	6	.75	16	.72	16	---	---	1.01	5	.76	16
18*Midland	.23	23	2.65	1	3.64	1	1.02	12	.20	23	2.59	1	3.72	1	1.04	12
*Odessa	.37	22	---	---	---	---	---	---	.38	22	---	---	---	---	---	---
19	---	---	.71	12	.28	34	.61	21	---	---	.74	12	.26	35	.63	20
20	.38	21	---	---	.42	23	.39	32	.39	21	---	---	.48	15	.41	31
21	.93	14	---	---	.38	26	.78	15	.92	14	---	---	.37	28	.78	14
22	---	---	---	---	.45	18	.45	30	---	---	---	---	.48	15	.48	28
23	.71	17	.55	18	.37	29	.68	18	.72	16	.55	18	.28	33	.69	17
24	---	---	.82	7	.53	13	.68	18	---	---	.80	7	.53	9	.67	19
25	1.34	9	.79	9	.57	9	1.32	8	1.34	9	.79	8	.50	13	1.31	8
26	---	---	.61	16	.39	25	.54	24	---	---	.59	17	.38	26	.53	24
27	.58	19	.77	10	.57	9	.59	22	.58	19	.79	8	.49	14	.59	22
28	1.14	12	.46	20	.45	18	.75	16	1.14	12	.45	20	.47	18	.69	17
29	4.08	2	---	---	.91	4	4.05	2	3.83	2	---	---	.87	6	3.80	2
30	---	---	---	---	.35	30	.35	33	---	---	---	---	.35	31	.35	33
31	---	---	.82	7	.44	20	.52	25	---	---	.88	5	.41	22	.51	27
32	---	---	.19	22	2.07	3	.82	14	---	---	.18	22	1.89	3	.77	15
33	1.79	5	.86	6	.50	15	1.48	6	1.68	5	.75	11	.48	15	1.39	7
34*Brownsville	3.01	3	1.37	3	.86	5	2.27	3	3.04	3	1.39	3	1.03	4	2.31	3
*McAllen	2.03	4	---	---	---	---	---	---	1.95	4	---	---	---	---	---	---
35	5.25	1	---	---	.80	7	4.78	1	5.23	1	---	---	.80	7	4.83	1
36	---	---	1.34	4	2.52	2	1.79	4	---	---	1.38	4	2.45	2	1.78	4
37	---	---	.07	25	.54	11	.19	37	---	---	.06	25	.52	10	.19	37
AVERAGE	1.41		.68		.57		1.23		1.39		.67		.56		1.22	

TABLE D.8 (Continued)

Region	FOOTBALL/SOCCER - 2000								GOLF - 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	.52	20	.69	12	.46	19	.53	25	4.55	5	5.22	1	5.01	1	4.68	3
2	---	---	.39	21	.42	24	.40	31	---	---	3.42	4	2.85	7	3.21	12
3	---	---	+	0	.46	19	.21	34	---	---	3.18	7	4.34	2	3.74	7
4	1.68	5	---	---	.47	15	1.61	5	4.28	6	---	---	3.20	5	4.17	4
5	.79	15	+	0	.40	28	.59	23	4.82	3	1.38	19	2.14	13	3.62	8
6	---	---	.69	12	.55	9	.67	18	---	---	3.37	5	3.17	6	3.32	10
7	1.26	11	.61	17	.40	28	1.03	13	3.78	10	2.18	14	1.06	24	2.98	14
8	---	---	.93	5	.15	36	.49	27	---	---	1.37	20	.59	30	.90	32
9	---	---	.15	23	.30	33	.20	36	---	---	1.48	16	1.25	20	1.43	26
10	1.34	8	.70	11	.42	24	1.20	11	4.04	7	3.54	3	2.78	8	3.98	5
11	1.27	10	---	---	.44	23	1.26	9	5.61	2	---	---	3.70	3	5.60	2
12	.08	24	.67	14	.27	34	.46	30	2.26	19	1.41	17	1.36	18	1.61	24
13	.63	18	.52	19	.10	37	.47	28	3.62	11	.96	24	1.48	17	2.31	20
14	1.10	12	1.88	2	.42	24	1.24	10	2.26	19	1.33	21	.75	27	1.41	27
15	---	---	.15	23	.50	11	.21	34	---	---	1.29	22	1.10	23	1.24	29
16	1.35	7	---	---	.48	14	1.30	7	2.72	15	---	---	1.64	16	2.70	16
17	.72	17	---	---	.90	6	.73	15	3.29	12	---	---	1.28	19	2.98	14
18*Midland	.22	23	2.81	1	3.72	1	1.06	12	7.63	1	2.60	9	3.24	4	5.64	1
*Odessa	.34	22	---	---	---	---	---	---	4.80	4	---	---	---	---	---	---
19	---	---	.75	9	.24	35	.64	20	---	---	3.67	2	2.29	11	3.32	10
20	.40	21	---	---	.40	28	.40	31	2.28	18	---	---	.39	37	1.97	21
21	.89	14	---	---	.47	15	.79	14	2.10	21	---	---	.40	36	1.58	25
22	---	---	---	---	.50	11	.50	26	---	---	---	---	.67	28	.67	36
23	.74	16	.53	18	.35	31	.72	16	2.69	16	1.41	17	.59	30	2.44	19
24	---	---	.77	7	.52	10	.66	19	---	---	2.51	10	1.14	21	1.83	22
25	1.33	9	.77	7	.47	15	1.30	7	3.93	8	3.25	6	2.73	9	3.91	6
26	---	---	.63	16	.56	8	.61	21	---	---	.84	26	1.05	25	.91	31
27	1.10	12	.80	6	.47	15	.58	24	3.79	9	2.76	8	2.53	10	3.61	9
28	.59	19	.43	20	.45	22	.61	21	2.62	17	2.48	11	1.85	14	2.46	18
29	3.68	2	---	---	.91	5	3.66	2	3.18	13	---	---	2.25	12	3.17	13
30	---	---	---	---	.34	32	.34	33	---	---	---	---	1.11	22	1.11	30
31	---	---	.67	14	.42	24	.47	28	---	---	1.23	23	.60	29	.74	35
32	---	---	.17	22	1.72	3	.71	17	---	---	1.67	15	.43	34	1.26	28
33	1.57	6	.71	10	.46	19	1.31	6	2.89	14	2.45	13	1.83	15	2.67	17
34*Brownsville	2.99	3	1.22	4	1.28	4	2.32	3	1.12	22	.51	27	.58	32	.81	34
*McAllen	1.86	4	---	---	---	---	---	---	.56	24	---	---	---	---	---	---
35	5.17	1	---	---	.82	7	4.84	1	.70	23	---	---	.42	35	.66	37
36	---	---	1.40	3	2.48	2	1.80	4	---	---	2.46	12	.53	33	1.73	23
37	---	---	.06	25	.49	13	.17	37	---	---	.87	25	.95	26	.89	33
AVERAGE	1.38		.66		.54		1.21		3.92		2.11		1.64		3.41	

TABLE D.8 (Continued)

Region	GOLF - 1975								GOLF - 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	5.15	7	5.79	1	4.95	2	5.16	4	5.78	10	6.39	1	5.06	6	5.67	8
2	---	---	4.43	4	3.86	6	4.20	12	---	---	5.48	5	5.00	7	5.28	12
3	---	---	4.03	5	6.01	1	4.98	7	---	---	5.70	3	7.73	1	6.67	3
4	5.14	8	---	---	4.28	4	5.06	5	6.06	7	---	---	5.45	5	6.01	6
5	6.70	3	1.85	21	3.00	11	5.02	6	8.91	4	2.09	22	3.97	11	6.63	4
6	---	---	3.67	7	3.81	8	3.70	15	---	---	3.99	10	4.60	9	4.12	17
7	4.63	10	3.18	11	1.33	23	3.84	14	5.80	9	4.51	8	1.52	24	4.81	14
8	---	---	2.03	17	.73	30	1.25	31	---	---	2.57	18	.88	31	1.57	31
9	---	---	2.09	16	1.74	19	2.01	26	---	---	2.85	16	2.16	19	2.67	27
10	5.29	6	4.59	2	3.61	9	5.19	3	6.70	5	5.80	2	4.62	8	6.55	5
11	7.19	2	---	---	4.58	3	7.16	1	8.92	3	---	---	5.81	3	8.89	1
12	2.89	20	1.87	19	1.95	18	2.13	25	3.63	20	2.40	20	2.66	16	2.73	24
13	6.06	4	1.30	24	2.31	14	3.68	16	9.18	2	1.75	24	3.31	13	5.40	11
14	3.13	18	1.88	18	1.06	27	1.99	27	4.21	15	2.52	19	1.40	26	2.68	25
15	---	---	1.69	22	1.17	25	1.56	29	---	---	2.16	21	1.41	25	1.99	30
16	3.44	15	---	---	2.21	16	3.41	17	4.14	16	---	---	2.70	15	4.10	18
17	4.37	12	---	---	1.62	20	3.96	13	5.43	13	---	---	1.99	21	4.95	13
18*Midland	8.66	1	3.57	8	4.05	5	6.44	2	9.67	1	4.42	9	5.63	4	7.40	2
*Odessa	5.32	5	---	---	---	---	---	---	5.96	8	---	---	---	---	---	---
19	---	---	4.53	3	3.85	7	4.36	10	---	---	5.51	4	5.82	2	4.59	15
20	3.02	19	---	---	.50	36	2.61	21	3.81	18	---	---	.62	35	3.30	21
21	2.82	21	---	---	.65	33	2.18	24	3.64	19	---	---	1.02	30	2.91	23
22	---	---	---	---	.97	28	.98	36	---	---	---	---	1.34	27	1.34	33
23	3.54	14	1.86	20	.72	31	3.23	18	4.57	14	2.62	17	.87	32	4.21	16
24	---	---	3.01	12	1.43	22	2.25	23	---	---	3.56	12	1.69	22	2.68	25
25	4.72	11	3.97	6	3.32	10	4.69	8	5.57	11	4.77	6	3.99	10	5.53	9
26	---	---	.95	26	1.22	24	1.04	33	---	---	1.13	26	1.58	23	1.27	35
27	4.99	9	3.24	10	2.83	13	4.66	9	6.35	6	3.71	11	3.25	14	5.83	7
28	3.29	16	2.89	13	2.22	15	2.96	20	4.01	17	3.30	13	2.51	17	3.45	19
29	4.23	13	---	---	2.85	12	4.22	11	5.45	12	---	---	3.64	12	5.43	10
30	---	---	---	---	1.45	21	1.45	30	---	---	---	---	2.12	20	2.12	29
31	---	---	1.64	23	.82	29	1.00	34	---	---	2.05	23	1.10	29	1.31	34
32	---	---	2.29	15	.60	35	1.73	28	---	---	2.95	15	.56	36	2.15	28
33	3.27	17	2.85	14	2.06	17	3.03	19	3.60	21	3.16	14	2.23	18	3.34	20
34*Brownsville	1.37	22	.79	27	.71	32	1.00	34	1.61	22	.82	27	.75	33	1.16	37
*McAllen	.68	24	---	---	---	---	---	---	.76	24	---	---	---	---	---	---
35	1.04	23	---	---	.41	37	.97	37	1.50	23	---	---	.40	37	1.38	32
36	---	---	3.40	9	.63	34	2.36	22	---	---	4.53	7	.70	34	3.10	22
37	---	---	1.04	25	1.11	26	1.06	32	---	---	1.20	25	1.26	28	1.22	36
AVERAGE	4.98		2.70		2.16		4.37		6.16		3.38		2.77		5.44	

TABLE D.8 (Continued)

Region	GOLF - 1990								GOLF - 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	7.14	13	7.96	3	5.42	12	6.77	15	8.63	15	9.29	7	5.67	14	7.79	16
2	---	---	8.14	2	7.72	5	7.95	10	---	---	11.13	3	11.09	3	11.11	9
3	---	---	7.08	6	11.97	1	9.36	5	---	---	9.44	6	16.58	2	12.72	5
4	8.04	10	---	---	7.87	4	8.03	9	10.19	11	---	---	10.81	5	10.22	12
5	14.20	2	3.06	23	6.31	8	10.50	2	20.58	2	4.06	26	9.09	9	15.09	3
6	---	---	4.66	14	5.84	10	4.88	20	---	---	5.30	17	7.70	11	5.62	24
7	8.15	8	7.47	5	2.23	26	7.02	13	10.77	9	11.02	4	2.91	27	9.43	14
8	---	---	4.02	18	1.16	31	2.37	33	---	---	5.97	16	1.47	32	3.45	33
9	---	---	4.84	12	3.12	20	4.29	24	---	---	7.47	10	4.47	18	6.35	22
10	10.00	5	8.65	1	6.89	7	9.69	4	13.89	5	12.01	1	9.58	8	13.35	4
11	12.81	3	---	---	8.25	3	12.75	1	17.16	3	---	---	11.09	3	17.07	1
12	5.31	20	3.69	20	4.46	14	4.21	26	7.33	20	5.25	18	6.83	13	6.02	23
13	17.27	1	2.96	24	6.31	8	9.83	3	28.07	1	4.43	23	10.36	6	15.47	2
14	6.91	15	4.15	17	2.37	23	4.48	23	10.53	10	6.37	13	3.60	22	6.92	20
15	---	---	3.38	21	1.97	27	3.09	30	---	---	4.92	20	2.62	29	4.48	30
16	5.85	16	---	---	3.86	16	5.76	17	7.56	19	---	---	5.06	15	7.42	18
17	8.09	9	---	---	3.36	18	7.50	11	11.23	8	---	---	4.52	17	10.59	11
18*Midland	11.84	4	6.33	8	7.31	6	9.14	6	13.99	4	8.72	8	9.82	7	11.09	10
*Odessa	7.25	12	---	---	---	---	---	---	8.64	14	---	---	---	---	---	---
19	---	---	5.89	9	10.98	2	7.01	14	---	---	9.91	5	17.63	1	11.52	7
20	5.71	18	---	---	1.09	33	4.97	19	7.89	17	---	---	1.48	31	6.88	21
21	5.64	19	---	---	1.85	28	4.68	21	8.20	16	---	---	3.04	24	7.00	19
22	---	---	---	---	2.42	22	2.42	32	---	---	---	---	3.84	21	3.84	32
23	6.96	14	4.32	15	1.13	32	6.52	16	9.74	12	6.76	12	1.40	33	9.29	15
24	---	---	4.86	11	2.32	24	3.71	27	---	---	6.29	15	3.01	25	4.86	27
25	7.45	11	6.48	7	5.50	11	7.39	12	9.53	13	8.41	9	7.21	12	9.46	13
26	---	---	1.48	26	2.30	25	1.71	35	---	---	1.95	25	2.98	26	2.21	35
27	9.49	6	5.01	10	4.09	15	8.51	8	13.08	6	6.37	13	5.05	16	11.49	8
28	5.76	17	4.18	16	3.27	19	4.50	22	7.82	18	5.10	19	4.09	20	5.53	25
29	8.65	7	---	---	5.21	13	8.62	7	12.68	7	---	---	8.15	10	12.65	6
30	---	---	---	---	3.50	17	3.50	28	---	---	---	---	4.36	19	4.36	31
31	---	---	3.09	22	1.83	29	2.10	34	---	---	4.48	22	2.70	28	3.08	34
32	---	---	4.70	13	.86	35	3.38	29	---	---	6.87	11	1.09	36	4.84	28
33	4.57	21	3.94	19	2.71	21	4.22	25	5.55	21	4.71	21	3.21	23	5.12	26
34*Brownsville	2.30	23	1.04	27	1.03	34	1.64	36	3.04	23	1.22	27	1.28	34	2.15	36
*McAllen	1.01	24	---	---	---	---	---	---	1.22	24	---	---	---	---	---	---
35	2.89	22	---	---	.80	37	2.70	31	5.00	22	---	---	1.24	35	4.71	29
36	---	---	7.54	4	.82	36	5.04	18	---	---	11.58	2	.99	37	7.67	17
37	---	---	1.58	25	1.74	30	1.62	37	---	---	1.84	26	2.11	30	1.91	37
AVERAGE	8.96		4.86		4.27		7.99		12.07		6.90		6.02		10.84	

TABLE D.8 (Continued)

Region	TENNIS - 1970								TENNIS, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITIES		TOWNS		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	1.20	13	1.30	11	.46	26	1.03	21	1.21	14	.77	25	.52	31	1.03	22
2	---	---	.72	25	.65	19	.69	35	---	---	.77	25	.64	24	.72	34
3	---	---	1.02	16	.87	13	.95	23	---	---	1.13	15	.92	13	1.03	22
4	1.28	12	---	---	1.13	4	1.27	15	1.49	12	---	---	1.07	7	1.45	14
5	1.09	15	.23	27	.55	25	.84	25	1.15	15	.46	27	.58	30	.89	26
6	---	---	.92	19	+	0	.70	33	---	---	.96	19	.27	35	.80	32
7	.86	21	1.02	16	.63	21	.84	25	.88	21	1.11	16	.67	23	.88	27
8	---	---	.76	23	.30	31	.48	36	---	---	.78	23	.31	34	.50	36
9	---	---	.82	22	.37	29	.73	31	---	---	.78	23	.41	33	.69	35
10	3.77	4	1.13	14	.84	15	3.59	4	5.21	4	1.53	10	.92	13	4.88	4
11	8.83	2	---	---	1.01	10	8.77	2	13.08	2	---	---	.92	13	12.97	2
12	.65	23	.98	18	.58	24	.82	28	.66	23	1.00	18	.59	27	.84	30
13	.55	24	1.93	4	.80	16	1.04	19	.60	24	1.91	5	.77	22	1.06	20
14	.93	20	1.72	7	.61	23	1.18	16	.92	20	1.70	8	.60	26	1.16	17
15	---	---	1.48	9	1.10	6	1.38	13	---	---	1.64	9	1.17	5	1.52	13
16	6.39	3	---	---	.33	30	6.30	3	9.04	3	---	---	1.21	4	8.87	3
17	.99	17	---	---	1.28	2	1.03	21	1.02	18	---	---	1.35	3	1.07	19
18*Midland	1.08	16	1.44	10	.97	11	1.04	19	1.13	16	1.19	13	.93	12	1.04	21
*Odessa	.94	18	---	---	---	---	---	---	.95	19	---	---	---	---	---	---
19	---	---	1.92	5	.62	22	1.60	9	---	---	2.12	2	.59	27	1.76	9
20	1.73	9	---	---	.87	13	1.59	10	1.74	11	---	---	.91	16	1.61	11
21	.84	22	---	---	1.20	3	.95	23	.87	22	---	---	1.17	5	.96	24
22	---	---	---	---	.80	16	.80	29	---	---	---	---	.85	18	.85	29
23	2.84	5	.35	26	1.06	8	2.55	6	3.34	6	1.09	17	.96	11	3.03	6
24	---	---	2.03	3	1.09	7	1.56	11	---	---	2.10	4	1.07	7	1.61	11
25	11.47	1	3.04	1	.27	32	11.13	1	17.97	1	4.31	1	.47	32	17.42	1
26	---	---	.84	20	.42	27	.70	33	---	---	.95	20	.61	25	.84	30
27	2.61	7	1.05	15	.15	34	2.29	7	3.13	7	1.17	14	.59	27	2.74	7
28	1.70	10	1.65	8	.26	33	1.46	12	1.79	9	1.75	7	.97	10	1.63	10
29	2.77	6	---	---	1.13	4	2.75	5	3.35	5	---	---	1.90	1	3.33	5
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	1.23	12	1.04	9	1.08	17	---	---	1.23	12	1.04	9	1.08	18
32	---	---	.83	21	.64	20	.77	30	---	---	.80	22	.80	20	.80	32
33	2.07	8	1.75	6	.91	12	1.85	8	2.51	8	1.82	6	.89	17	2.17	8
34*Brownsville	.94	18	2.06	2	1.35	1	1.31	14	1.04	17	2.11	3	1.43	2	1.41	15
*McAllen	1.64	11	---	---	---	---	---	---	1.75	10	---	---	---	---	---	---
35	1.16	14	---	---	.42	27	1.07	18	1.46	13	---	---	.83	19	1.39	16
36	---	---	.75	24	.71	18	.73	31	---	---	.95	20	.78	21	.86	28
37	---	---	1.15	13	+	0	.84	25	---	---	1.25	11	.18	36	.96	24
AVERAGE	6.06		1.35		.72		4.82		9.21		1.50		.79		7.28	

TABLE D.8 (Continued)

Region	TENNIS, 1980.								TENNIS, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITIES		TOWNS		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	1.21	14	.89	22	.12	37	.93	25	1.24	14	1.23	14	.54	33	1.05	24
2	---	---	.82	24	.64	27	.75	34	---	---	.85	25	.64	28	.75	34
3	---	---	1.21	13	.95	14	1.09	18	---	---	1.49	11	.94	20	1.23	17
4	1.72	12	---	---	1.19	8	1.68	13	2.25	9	---	---	1.23	9	2.18	11
5	1.17	15	.46	27	.61	28	.92	26	1.23	15	.71	26	.64	28	.97	26
6	---	---	.91	21	.31	36	.79	32	---	---	1.02	22	.39	34	.91	29
7	.91	19	1.20	14	.70	25	.91	28	.97	19	1.19	15	.74	25	.96	28
8	---	---	.80	25	.33	35	.52	36	---	---	.87	24	.39	34	.59	36
9	---	---	.74	26	.52	32	.69	35	---	---	.64	27	.78	24	.69	35
10	.6.16	4	2.19	4	.92	17	5.69	4	7.91	4	3.90	2	1.37	6	7.18	4
11	16.51	2	---	---	1.16	9	16.36	2	24.00	2	---	---	2.06	2	23.73	2
12	.67	23	1.06	18	.60	29	.88	29	.68	23	1.24	13	.56	32	.97	26
13	.58	24	1.97	7	.75	23	1.08	20	.61	24	1.93	9	.72	26	1.09	21
14	.91	19	1.68	10	.59	30	1.15	17	.90	21	1.61	10	.57	30	1.11	20
15	---	---	1.83	8	1.25	6	1.70	11	---	---	2.13	7	1.26	8	1.95	13
16	10.23	3	---	---	1.75	2	9.99	3	12.19	3	---	---	3.12	1	11.80	3
17	1.01	18	---	---	1.42	4	1.07	21	1.01	18	---	---	1.34	7	1.05	24
18*Midland	1.17	15	1.18	15	.94	15	1.04	23	1.20	16	1.15	18	.99	17	1.08	22
*Odessa	.91	19	---	---	---	---	---	---	.96	20	---	---	---	---	---	---
19---	---	---	2.37	2	.66	26	1.97	9	---	---	2.91	3	.70	27	2.42	9
20	1.81	10	---	---	.83	20	1.65	14	1.87	12	---	---	.85	23	1.70	15
21	.84	22	---	---	1.15	10	.92	26	.84	22	---	---	1.11	12	.91	29
22	---	---	---	---	.78	21	.78	33	---	---	---	---	.87	21	.87	33
23	3.83	5	1.10	17	1.00	13	3.48	6	4.83	5	1.11	19	.99	17	4.41	6
24	---	---	2.23	3	1.11	11	1.70	11	---	---	2.46	5	1.10	13	1.85	14
25	21.94	1	5.46	1	.76	22	21.22	1	28.35	1	7.89	1	1.00	16	27.32	1
26	---	---	.96	20	.59	30	.85	30	---	---	1.04	21	.57	30	.91	29
27	3.49	7	1.15	16	.86	18	3.04	7	4.03	7	1.19	15	1.13	11	3.47	7
28	1.79	11	2.05	6	1.40	5	1.81	10	1.76	13	2.76	4	2.02	3	2.25	10
29	3.78	6	---	---	1.82	1	3.76	5	4.52	6	---	---	1.74	5	4.50	5
30	---	---	---	---	.35	34	.35	37	---	---	---	---	.35	36	.35	37
31	---	---	1.23	12	1.05	12	1.09	18	---	---	1.10	20	1.06	14	1.07	23
32	---	---	.86	23	.75	23	.82	31	---	---	.90	23	.86	22	.89	32
33	2.88	8	1.80	9	.93	16	2.45	8	3.50	8	2.06	8	.96	19	2.95	8
34*Brownsville	1.11	17	2.19	4	1.62	3	1.50	16	1.17	17	2.42	6	1.91	4	1.66	16
*McAllen	1.88	9	---	---	---	---	---	---	2.15	10	---	---	---	---	---	---
35	1.69	13	---	---	1.21	7	1.64	15	2.06	11	---	---	1.20	10	1.98	12
36	---	---	1.01	19	.84	19	.95	24	---	---	1.18	17	1.05	15	1.13	19
37	---	---	1.33	11	.36	33	1.07	21	---	---	1.45	12	.35	36	1.16	18
AVERAGE	11.49		1.68		.85		9.11		16.07		2.20		1.06		12.88	

TABLE D.8 (Continued)

Region	TENNIS, 2000								BASKETBALL, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	1.24	15	1.72	12	.70	28	1.15	20	1.10	13	.26	18	.09	25	.85	19
2	---	---	.92	24	.69	30	.81	34	---	---	.64	12	+	0	.39	31
3	---	---	1.76	10	1.00	19	1.41	17	---	---	.41	15	+	0	.21	32
4	2.82	9	---	---	1.25	12	2.73	11	1.50	9	---	---	.19	21	1.36	10
5	1.30	14	.72	26	.67	31	1.02	28	.15	23	.23	21	.05	27	.12	35
6	---	---	1.04	20	.55	33	.97	30	---	---	.23	21	4.38	2	1.22	12
7	1.03	18	1.43	15	.79	25	1.03	27	2.93	4	1.79	3	1.80	7	2.52	7
8	---	---	.93	22	.44	36	.66	36	---	---	1.53	4	+	0	.60	25
9	---	---	.65	27	1.04	17	.79	35	---	---	1.19	6	+	0	.95	18
10	9.69	4	6.38	2	2.13	4	8.74	4	3.96	2	3.22	1	3.26	4	3.91	3
11	32.85	2	---	---	3.34	2	32.40	2	1.40	10	---	---	1.34	9	1.40	9
12	.66	23	1.54	13	.59	32	1.15	20	1.29	11	1.29	5	.06	26	1.04	16
13	.63	24	1.95	9	.70	28	1.12	22	.16	22	.16	25	1.25	10	.41	28
14	.85	21	1.54	13	.55	33	1.06	24	3.24	3	.29	16	.28	20	1.08	15
15	---	---	2.50	7	1.37	10	2.29	13	---	---	.77	9	.73	13	.76	21
16	14.31	3	---	---	5.01	1	13.79	3	.40	19	---	---	.33	18	.40	30
17	1.00	19	---	---	1.36	11	1.04	25	.85	15	---	---	.77	12	.83	20
18*Midland	1.24	15	1.13	18	.93	22	1.08	23	1.21	12	.29	16	+	0	1.19	13
*Odessa	.95	20	---	---	---	---	---	---	1.93	6	---	---	---	---	---	---
19	---	---	3.61	4	.71	27	3.00	10	---	---	.72	11	.73	13	.72	22
20	1.92	12	---	---	.80	24	1.74	16	1.53	8	---	---	.10	24	1.30	11
21	.85	21	---	---	1.05	15	.90	33	.42	18	---	---	.40	17	.41	28
22	---	---	---	---	1.00	19	1.00	29	---	---	---	---	3.87	3	3.87	4
23	6.12	5	.80	25	.88	23	5.63	5	5.51	1	.18	27	+	0	4.73	1
24	---	---	2.82	6	1.11	14	2.07	14	---	---	.16	25	.54	16	.11	36
25	35.96	1	12.05	1	1.50	7	34.63	1	1.03	14	1.06	7	1.09	11	1.03	17
26	---	---	1.00	21	.75	26	.94	31	---	---	.42	14	11.32	1	4.06	2
27	4.77	7	1.19	17	1.47	8	4.07	7	.28	21	.26	18	.30	19	2.54	6
28	1.76	13	3.75	3	2.92	3	3.01	9	.79	16	.78	8	.18	22	.69	23
29	5.27	6	---	---	1.81	6	5.25	6	2.84	5	---	---	2.25	6	2.83	5
30	---	---	---	---	.34	37	.34	37	---	---	---	---	+	0	+	0
31	---	---	1.12	19	1.02	18	1.04	25	---	---	.21	23	.05	27	.69	23
32	---	---	.93	22	.94	21	.93	32	---	---	.73	10	+	0	.49	27
33	4.26	8	2.46	8	1.05	15	3.59	8	.52	17	2.36	2	2.97	5	1.15	14
34*Brownsville	1.21	17	2.84	5	2.01	5	1.76	15	.33	20	.26	18	+	0	.21	32
*McAllen	2.35	11	---	---	---	---	---	---	.14	24	---	---	---	---	---	---
35	2.43	10	---	---	1.24	13	2.34	12	1.63	7	---	---	1.70	8	1.64	8
36	---	---	1.40	16	1.39	9	1.39	19	---	---	.21	23	.18	22	.20	34
37	---	---	1.73	11	.49	35	1.40	18	---	---	.58	13	.57	15	.57	26
AVERAGE	21.46		3.06		1.43		17.24		1.60		.80		.83		1.41	

TABLE D.8 (Continued)

Region	BASKETBALL, 1975								BASKETBALL, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	3.16	7	.39	18	.07	34	2.28	14	5.24	7	.45	18	.06	34	3.57	11
2	---	---	1.79	9	.13	24	1.13	21	---	---	2.92	7	.12	29	1.76	18
3	---	---	1.03	12	.10	27	.59	29	---	---	1.64	10	.19	21	.95	23
4	4.37	5	---	---	.17	22	3.98	5	7.22	4	---	---	.17	23	6.61	3
5	.15	23	.23	24	.10	27	.14	35	.15	22	.23	25	.14	27	.15	36
6	---	---	.24	22	4.35	4	1.17	20	---	---	.25	23	4.29	6	1.11	21
7	2.94	10	1.80	8	1.78	10	2.54	9	2.93	13	1.80	9	1.75	11	2.55	17
8	---	---	1.56	10	.10	27	.69	27	---	---	1.44	13	.11	31	.65	28
9	---	---	3.09	3	.10	27	2.39	11	---	---	4.96	2	.17	23	3.70	10
10	4.64	4	3.88	2	3.94	5	4.58	3	5.34	6	4.53	4	4.61	4	5.26	4
11	1.46	14	---	---	1.60	12	1.46	19	1.52	14	---	---	1.49	12	1.52	19
12	2.99	9	2.98	4	.06	35	2.39	11	4.67	8	4.68	3	.05	35	3.76	9
13	.16	22	.15	27	1.76	11	.52	30	.16	24	.15	27	2.23	10	.63	29
14	6.36	2	.43	17	.42	17	2.07	16	9.50	2	.57	17	.54	17	3.10	16
15	---	---	.82	15	.84	13	.82	24	---	---	.80	15	.78	15	.80	26
16	.66	17	---	---	.80	15	.66	28	.91	16	---	---	.94	13	.91	24
17	.84	16	---	---	.81	14	.83	23	.83	17	---	---	.85	14	.83	25
18*Midland	3.29	6	.89	14	.11	26	2.55	8	5.37	5	1.47	12	.11	31	3.86	8
*Odessa	3.13	8	---	---	---	---	---	---	4.32	9	---	---	---	---	---	---
19	---	---	.72	16	.69	16	.71	26	---	---	.74	16	.75	16	.74	27
20	2.80	11	---	---	.10	27	2.36	13	4.07	11	---	---	.10	33	3.43	13
21	.43	19	---	---	.39	18	.42	31	.44	19	---	---	.50	18	.46	30
22	---	---	---	---	3.89	6	3.90	6	---	---	---	---	3.90	7	3.91	7
23	9.30	1	.31	20	.12	25	8.08	1	13.10	1	.28	21	.12	29	11.49	1
24	---	---	.24	22	.10	27	.17	34	---	---	.30	20	.14	27	.23	33
25	2.66	12	2.66	5	2.60	7	2.66	7	4.29	10	4.30	5	4.36	5	4.29	6
26	---	---	.95	13	11.36	1	4.28	4	---	---	1.57	11	11.25	2	4.53	5
27	.34	20	.39	18	.35	19	.35	32	.40	20	.38	19	.38	19	.40	31
28	.85	15	1.82	7	.20	20	1.08	22	.93	15	2.86	8	.16	25	1.52	19
29	5.42	3	---	---	5.70	3	5.43	2	8.01	3	---	---	8.18	3	8.01	2
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	.21	25	.10	27	.13	36	---	---	.21	26	.16	25	.17	35
32	---	---	1.10	11	.20	20	.80	25	---	---	1.43	14	.18	22	1.01	22
33	.53	18	5.61	1	7.36	2	2.24	15	.51	18	8.98	1	11.71	1	3.27	15
34*Brownsville	.32	21	.26	21	+	0	1.83	18	.32	21	.27	22	+	0	.21	34
*McAllen	.15	23	---	---	---	---	---	---	.15	22	---	---	---	---	---	---
35	2.55	13	---	---	2.47	8	2.54	9	3.47	12	---	---	3.61	8	3.48	12
36	---	---	.19	26	.15	23	.18	33	---	---	.25	23	.28	20	.26	32
37	---	---	1.94	6	2.02	9	1.96	17	---	---	3.33	6	3.23	9	3.30	14
AVERAGE	2.59		1.59		1.14		2.30		3.57		2.41		1.49		3.20	

TABLE D.8 (Continued)

Region	BASKETBALL, 1990								BASKETBALL, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	9.36	6	.57	18	.08	35	5.70	10	13.49	6	.76	17	.10	35	7.14	12
2	---	---	5.28	7	.25	26	3.02	17	---	---	7.60	6	.41	23	4.11	16
3	---	---	2.83	10	.25	26	1.63	21	---	---	4.10	9	.38	28	2.40	20
4	12.96	4	---	---	.15	33	12.03	3	18.69	3	---	---	.15	33	17.58	3
5	.15	22	.24	26	.27	24	.20	36	.15	23	.24	26	.39	24	.25	36
6	---	---	.25	25	4.28	8	.98	24	---	---	.26	25	4.39	7	.82	27
7	2.94	13	1.70	13	1.73	11	2.57	18	2.93	13	1.84	13	1.72	13	2.60	19
8	---	---	1.57	14	.25	26	.81	28	---	---	1.49	14	.44	21	.90	25
9	---	---	8.76	2	.25	26	6.04	9	---	---	12.52	2	.39	24	8.02	8
10	6.71	10	5.91	6	6.02	6	6.61	5	8.10	11	7.29	7	2.12	10	7.50	11
11	1.64	14	---	---	1.68	12	1.54	20	1.76	15	---	---	1.76	12	1.76	23
12	8.09	7	8.06	3	.04	36	6.41	7	11.44	7	11.46	3	.07	36	9.07	6
13	.11	24	.14	27	3.20	10	.83	26	.11	24	.13	27	4.22	8	1.08	24
14	15.77	2	.84	15	.83	15	5.29	12	22.02	2	1.13	15	1.10	14	7.64	10
15	---	---	.81	16	.84	14	.82	27	---	---	.81	16	.74	16	.80	28
16	1.42	15	---	---	1.48	13	1.42	23	1.93	14	---	---	2.00	11	1.93	22
17	.87	17	---	---	.67	17	.84	25	.86	17	---	---	.90	15	.86	26
18*Midland	9.54	5	2.88	9	.24	30	6.53	6	13.67	5	3.94	11	.39	24	9.13	5
*Odessa	6.74	9	---	---	---	---	---	---	9.11	10	---	---	---	---	---	---
19	---	---	.74	17	.69	16	.73	29	---	---	.73	18	.71	17	.73	29
20	6.61	11	---	---	.12	34	5.57	11	9.15	9	---	---	.13	34	7.72	9
21	.46	20	---	---	.49	18	.47	31	.46	20	---	---	.46	19	.46	32
22	---	---	---	---	3.87	9	3.87	16	---	---	---	---	3.92	9	3.93	17
23	20.71	1	.44	20	.28	23	18.49	1	28.31	1	.53	20	.35	29	25.69	1
24	---	---	.40	23	.26	25	.34	34	---	---	.52	21	.39	24	.47	31
25	7.55	8	7.55	4	7.62	4	7.55	4	10.81	8	10.80	4	10.85	4	10.81	4
26	---	---	2.74	11	11.30	3	5.12	15	---	---	3.96	10	11.37	3	5.82	15
27	.53	18	.53	19	.49	18	.52	30	.64	18	.66	19	.63	18	.64	30
28	1.06	16	4.96	8	.19	32	2.52	19	1.19	16	7.03	8	.19	31	3.66	18
29	13.18	3	---	---	13.03	2	13.18	2	18.35	4	---	---	18.11	2	18.35	2
30	---	---	---	---	.34	20	.35	32	---	---	---	---	.33	30	.34	35
31	---	---	.44	20	.29	22	.33	35	---	---	.45	23	.42	22	.43	33
32	---	---	2.08	12	.34	20	1.48	22	---	---	2.80	12	.46	19	1.98	21
33	.51	19	15.57	1	20.43	1	5.25	14	.51	19	22.22	1	29.18	1	7.12	13
34*Brownsville	.30	21	.35	24	+	0	.15	37	.29	21	.41	24	+	0	.22	37
*McAllen	.13	23	---	---	---	---	---	---	.16	22	---	---	---	---	---	---
35	5.27	12	---	---	5.18	7	5.26	13	7.06	12	---	---	7.01	6	7.05	14
36	---	---	.42	22	.23	31	.35	32	---	---	.52	21	.19	31	.40	34
37	---	---	6.05	5	6.10	5	6.06	8	---	---	8.08	5	8.78	5	8.79	7
AVERAGE	5.52		4.06		2.30		5.02		7.53		5.74		2.69		6.83	

TABLE D.8 (Continued)

Region	WALKING, 1970								WALKING, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	21.98	5	3.39	23	25.43	7	21.40	6	31.20	2	3.48	23	26.67	10	27.79	7
2	---	---	10.19	13	1.68	32	6.95	24	---	---	19.08	10	5.53	31	13.68	23
3	---	---	18.35	7	12.92	17	15.71	15	---	---	22.71	8	13.05	22	18.08	18
4	13.46	12	---	---	32.79	2	15.43	16	18.78	12	---	---	41.54	2	20.91	15
5	6.67	17	7.61	15	22.36	9	12.24	19	15.47	15	11.57	20	31.15	7	20.75	16
6	---	---	5.75	20	9.25	20	6.59	27	---	---	10.78	21	7.61	27	10.06	28
7	13.65	11	3.71	22	4.34	30	10.18	20	17.26	14	12.60	18	14.57	19	16.03	21
8	---	---	11.75	12	3.35	31	6.63	26	---	---	18.74	11	8.75	26	12.74	26
9	---	---	49.99	1	.25	36	39.97	1	---	---	58.83	1	.51	35	45.21	1
10	25.34	2	23.99	4	21.00	10	25.14	4	30.87	4	29.49	5	26.50	11	30.61	5
11	25.02	3	---	---	24.87	8	25.02	5	27.90	6	---	---	27.25	9	27.90	6
12	1.08	24	1.08	25	8.07	22	2.51	34	1.06	24	1.33	25	16.94	16	4.46	34
13	7.52	15	7.56	16	47.11	1	16.35	13	12.39	18	12.40	19	55.96	1	22.17	11
14	2.06	23	26.63	3	26.65	6	20.01	8	5.49	22	33.41	3	33.44	5	25.67	8
15	---	---	4.43	21	4.39	29	4.42	33	---	---	13.22	15	13.21	21	13.21	24
16	17.28	7	---	---	20.62	11	17.33	11	17.27	13	---	---	20.72	14	17.35	19
17	6.01	19	---	---	.26	35	5.12	31	14.81	16	---	---	.54	34	12.72	27
18*Midland	14.69	10	19.34	6	32.38	4	15.81	14	23.46	8	28.58	6	32.41	6	22.52	10
*Odessa	11.86	13	---	---	---	---	---	---	20.69	10	---	---	---	---	---	---
19	---	---	6.10	19	6.13	25	6.11	28	---	---	10.05	22	10.07	25	10.06	28
20	5.62	20	---	---	4.76	27	5.48	30	9.39	19	---	---	4.83	30	8.65	30
21	7.03	16	---	---	7.07	23	7.04	23	7.04	21	---	---	7.03	28	7.04	32
22	---	---	---	---	.27	34	.27	37	---	---	---	---	.49	36	.49	37
23	5.58	21	6.69	18	6.71	24	5.74	29	7.24	20	12.88	16	12.84	23	7.99	31
24	---	---	10.00	14	9.99	19	10.00	21	---	---	14.39	14	14.43	20	14.41	22
25	16.47	8	13.22	10	16.38	14	16.38	12	22.12	9	17.05	12	24.64	12	21.98	12
26	---	---	20.92	5	11.95	18	17.93	9	---	---	29.77	4	12.18	24	24.14	9
27	32.45	1	32.52	2	32.47	3	32.46	2	41.24	1	41.24	2	41.31	3	41.25	2
28	24.04	4	12.64	11	6.09	26	17.54	10	30.58	5	12.61	17	6.10	29	19.92	17
29	20.96	6	---	---	20.27	12	20.96	7	31.19	3	---	---	29.47	8	31.17	4
30	---	---	---	---	31.56	5	31.56	3	---	---	---	---	38.71	4	38.71	3
31	---	---	.82	26	.88	33	.87	36	---	---	1.23	27	1.32	33	1.30	36
32	---	---	7.29	17	8.15	21	7.57	22	---	---	16.13	13	17.08	15	16.44	20
33	6.30	18	.44	27	14.78	15	6.83	25	14.66	17	1.27	26	15.27	18	12.98	25
34*Brownsville	11.67	14	15.70	8	16.89	13	13.56	17	19.69	11	23.75	7	16.91	17	21.21	14
*McAllen	16.10	9	---	---	---	---	---	---	24.85	7	---	---	---	---	---	---
35	4.65	22	---	---	4.67	28	4.65	32	4.63	23	---	---	4.55	32	4.62	33
36	---	---	3.11	24	.18	37	2.00	35	---	---	3.12	24	.47	37	2.12	35
37	---	---	13.42	9	13.46	16	13.43	18	---	---	21.68	9	21.78	13	21.70	13
AVERAGE	18.21		13.71		13.67		17.09		23.09		18.35		17.86		21.90	

TABLE D.8 (Continued)

Region	WALKING, 1980								WALKING, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	39.90	2	3.56	23	27.97	12	33.59	6	57.84	3	3.60	23	30.58	17	43.43	10
2	---	---	27.86	9	9.37	27	20.17	23	---	---	45.44	9	17.12	23	32.67	20
3	---	---	27.04	10	13.08	25	20.41	22	---	---	35.62	14	13.17	25	25.17	24
4	24.12	12	---	---	50.26	2	26.37	16	34.79	15	---	---	67.88	2	37.19	17
5	13.01	19	15.54	20	39.93	6	29.26	12	41.82	11	23.50	20	57.50	5	46.30	8
6	---	---	15.80	19	7.98	28	14.13	28	---	---	25.78	18	10.51	27	23.05	27
7	20.87	15	21.33	14	24.91	15	21.69	20	28.10	16	39.05	13	45.57	11	32.58	21
8	---	---	25.98	11	14.15	23	18.97	25	---	---	40.20	11	24.90	18	31.38	23
9	---	---	67.64	1	.78	36	49.99	2	---	---	85.26	1	1.36	33	58.38	4
10	36.38	5	35.00	6	18.78	20	35.37	5	47.43	8	46.03	8	43.09	12	47.03	6
11	30.79	9	---	---	29.71	11	30.78	9	36.56	14	---	---	34.69	14	36.53	18
12	1.10	24	1.08	27	25.75	14	5.96	33	1.07	24	1.20	27	45.58	10	9.92	32
13	17.23	17	17.29	18	64.73	1	27.99	15	26.91	17	27.04	17	82.40	1	39.68	15
14	8.87	21	40.13	3	40.19	5	31.25	8	15.65	20	53.67	5	53.79	7	42.35	12
15	---	---	22.01	13	22.03	16	22.02	18	---	---	39.65	12	39.75	13	39.67	16
16	17.28	16	---	---	20.76	17	17.38	27	17.28	19	---	---	20.77	20	17.43	30
17	23.59	13	---	---	.85	34	20.43	21	41.16	12	---	---	1.34	35	36.17	19
18*Midland	32.23	8	36.80	5	32.51	9	29.16	13	49.84	7	54.40	4	32.59	15	42.28	13
*Odessa	29.45	10	---	---	---	---	---	---	47.02	9	---	---	---	---	---	---
19	---	---	14.00	21	14.08	24	14.02	29	---	---	21.88	21	22.04	19	21.91	28
20	13.14	18	---	---	4.88	31	11.80	30	20.68	18	---	---	4.96	31	18.17	29
21	7.03	22	---	---	7.00	29	7.02	32	7.02	22	---	---	7.03	29	7.02	33
22	---	---	---	---	.78	36	.78	37	---	---	---	---	1.36	33	1.36	37
23	8.90	20	18.91	16	18.91	18	10.15	31	12.22	21	31.02	15	31.16	16	14.27	31
24	---	---	18.81	17	18.86	19	18.83	26	---	---	27.65	16	18.99	21	23.73	26
25	33.32	7	20.26	15	32.66	8	32.89	7	50.17	6	23.99	19	48.99	8	49.17	5
26	---	---	38.56	4	12.05	26	30.45	10	---	---	56.23	3	12.26	26	43.97	9
27	50.03	1	50.14	2	50.14	3	50.05	1	67.61	1	67.67	2	67.80	3	67.64	1
28	37.14	3	12.61	22	6.14	30	21.74	19	50.26	5	12.63	22	6.26	30	23.85	25
29	37.14	3	---	---	38.18	7	41.39	4	61.88	2	---	---	55.60	6	61.83	2
30	---	---	---	---	45.63	4	45.63	3	---	---	---	---	59.79	4	59.79	3
31	---	---	1.64	26	1.82	33	1.78	36	---	---	2.64	26	2.72	32	2.70	35
32	---	---	24.95	12	25.80	13	25.24	17	---	---	42.62	10	39.72	13	41.62	14
33	23.00	14	2.01	25	15.80	22	19.22	24	39.69	13	3.56	24	16.83	24	31.94	22
34*Brownsville	27.69	11	31.75	7	17.04	21	28.24	14	43.71	10	47.80	6	17.16	22	42.51	11
*McAllen	33.65	6	---	---	---	---	---	---	51.22	4	---	---	---	---	---	---
35	4.64	23	---	---	4.82	32	4.66	34	4.63	23	---	---	8.38	28	4.97	34
36	---	---	3.19	24	.84	35	2.31	35	---	---	3.25	25	1.29	36	2.52	36
37	---	---	29.90	8	30.02	10	29.93	11	---	---	46.37	7	46.55	9	46.42	7
AVERAGE	29.20		22.39		21.45		27.51		39.89		30.41		29.82		37.73	

TABLE D.8 (Continued)

Region	WALKING, 2000								BICYCLING, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	75.78	3	3.65	24	33.19	18	50.43	17	22.17	4	5.48	18	19.14	11	20.48	9
2	---	---	63.12	7	24.96	22	44.59	20	---	---	12.42	11	.13	28	7.74	24
3	---	---	44.29	14	13.28	26	30.06	26	---	---	44.89	2	12.37	13	29.10	3
4	45.46	14	---	---	85.41	3	47.86	18	18.66	8	---	---	26.95	5	19.50	11
5	59.40	10	31.51	19	75.07	4	95.17	1	2.82	19	.69	27	10.58	16	5.38	29
6	---	---	35.86	18	11.00	28	32.47	25	---	---	6.13	17	.24	26	4.72	30
7	35.31	18	56.53	12	66.06	8	43.05	22	9.51	13	1.15	21	.11	33	6.27	27
8	---	---	54.45	13	35.65	17	43.92	21	---	---	24.41	7	.10	36	9.61	18
9	---	---	102.90	1	1.89	35	65.37	6	---	---	36.38	3	.13	28	29.07	4
10	58.47	12	57.07	11	54.14	14	57.97	10	45.37	1	45.40	1	44.89	3	45.35	1
11	42.33	15	---	---	39.64	15	42.29	23	21.88	5	---	---	21.84	8	21.88	6
12	1.09	24	1.25	27	62.66	11	14.09	32	+	0	1.10	23	.13	28	.63	33
13	36.64	17	36.80	16	100.10	1	51.44	16	.77	22	1.13	22	53.60	2	12.65	15
14	22.42	19	67.18	5	67.33	7	53.26	15	30.64	2	35.21	4	35.24	4	33.99	2
15	---	---	57.28	10	57.44	12	57.31	11	---	---	9.38	15	9.33	17	9.37	20
16	17.28	20	---	---	20.72	23	17.47	31	7.77	15	---	---	9.16	18	7.79	22
17	58.71	11	---	---	1.81	37	53.28	14	7.09	16	---	---	+	0	6.00	28
18*Midland	67.43	5	72.03	4	32.78	19	55.21	13	7.09	16	20.78	8	.11	33	7.46	26
*Odessa	64.61	7	---	---	---	---	---	---	9.16	14	---	---	---	---	---	---
19	---	---	29.79	20	29.96	21	29.82	27	---	---	7.78	16	7.80	19	7.78	23
20	38.21	16	---	---	5.10	31	24.55	28	5.26	18	---	---	86.10	1	18.58	12
21	7.03	22	---	---	7.02	29	7.03	33	.36	23	---	---	.13	28	.29	35
22	---	---	---	---	1.92	34	1.92	37	---	---	---	---	.13	28	.13	37
23	15.54	21	43.13	15	31.26	20	17.76	30	10.77	12	1.76	20	1.65	22	9.47	19
24	---	---	36.44	17	36.62	16	36.52	24	---	---	18.51	10	18.41	12	18.46	13
25	67.02	6	28.70	21	65.24	9	65.45	5	25.77	3	24.47	6	26.21	6	25.73	5
26	---	---	73.84	3	12.31	27	58.34	9	---	---	9.46	14	11.95	14	10.29	17
27	85.19	1	85.41	2	85.51	2	85.25	2	19.91	7	19.88	9	19.96	10	19.91	10
28	63.40	8	12.62	22	6.38	30	24.06	29	12.07	10	10.86	12	23.23	7	13.39	14
29	82.34	2	---	---	73.37	6	82.28	3	21.03	6	---	---	21.40	9	21.03	8
30	---	---	---	---	74.06	5	74.06	4	---	---	---	---	.37	25	.37	34
31	---	---	3.58	25	3.66	33	3.64	35	---	---	.82	25	.11	33	.26	36
32	---	---	60.25	9	55.61	13	58.62	8	---	---	1.04	24	3.22	21	1.75	31
33	56.38	13	5.15	23	17.82	24	44.89	19	11.09	11	.79	26	.15	27	7.99	21
34*Brownsville	59.71	9	63.99	6	17.17	25	57.03	12	14.14	9	5.15	19	1.64	23	7.61	25
*McAllen	68.82	4	---	---	---	---	---	---	2.53	20	---	---	---	---	---	---
35	4.66	23	---	---	4.54	32	4.65	34	1.34	21	---	---	1.27	24	1.33	32
36	---	---	3.12	26	1.89	35	2.79	36	---	---	30.95	5	5.82	20	21.46	7
37	---	---	62.85	8	62.96	10	62.88	7	---	---	10.60	13	10.61	15	10.61	16
AVERAGE	50.31		37.81		37.95		47.56		20.30		15.45		14.08		18.94	

TABLE D.8 (Continued)

Region	BICYCLING, 1975								BICYCLING, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	33.85	8	14.87	16	23.16	14	31.45	10	49.56	6	24.36	15	27.10	13	41.88	11
2	---	---	30.83	10	19.18	15	18.60	21	---	---	49.41	8	.26	29	28.97	20
3	---	---	63.53	1	15.19	16	40.36	4	---	---	82.15	1	17.94	16	51.65	8
4	35.31	6	---	---	41.72	6	35.91	7	51.96	5	---	---	56.56	6	52.35	7
5	9.89	18	.69	27	29.06	11	16.02	23	16.92	17	.70	27	47.58	10	26.76	22
6	---	---	15.24	15	.27	27	11.85	27	---	---	24.27	16	.31	26	19.17	25
7	20.43	16	1.94	21	.22	31	13.70	24	31.36	15	2.70	24	.23	33	21.41	24
8	---	---	29.20	11	.21	32	11.81	28	---	---	34.00	14	.22	35	14.00	29
9	---	---	36.38	7	.21	32	27.93	12	---	---	36.40	12	.26	29	26.86	21
10	62.11	2	62.15	2	61.63	3	62.09	1	78.84	1	78.84	2	78.40	3	78.82	1
11	64.68	1	---	---	30.23	10	30.25	11	38.61	14	---	---	38.68	12	38.62	12
12	+	0	1.92	22	.18	35	1.10	33	+	0	2.76	22	.27	28	1.64	33
13	.76	23	1.91	23	72.15	2	17.15	22	.76	23	2.77	21	90.65	2	21.74	23
14	48.33	3	51.69	3	51.67	4	50.75	2	65.99	2	68.13	4	70.19	4	68.11	2
15	---	---	27.63	13	27.58	12	27.62	13	---	---	45.91	11	45.94	11	45.92	10
16	7.82	19	---	---	9.46	20	7.86	30	7.88	19	---	---	9.44	20	7.93	30
17	24.75	14	---	---	.27	27	21.16	19	42.45	12	---	---	.28	27	36.58	15
18*Midland	24.77	13	34.24	9	.23	30	21.91	18	42.46	11	47.69	9	.23	33	36.25	16
*Odessa	26.78	10	---	---	---	---	---	---	44.47	9	---	---	---	---	---	---
19	---	---	12.67	17	12.64	19	12.66	26	---	---	17.57	18	17.55	18	17.56	26
20	10.35	17	---	---	104.62	1	25.71	14	15.43	18	---	---	123.11	1	32.86	19
21	1.19	22	---	---	.13	37	.88	34	2.01	22	---	---	.25	31	1.52	34
22	---	---	---	---	.24	29	.24	37	---	---	---	---	.22	35	.22	37
23	26.78	10	2.48	20	2.52	23	23.52	17	42.79	10	3.17	20	3.36	22	37.84	14
24	---	---	37.24	6	36.89	8	37.07	6	---	---	55.99	6	55.39	9	55.71	5
25	43.44	4	44.14	5	44.55	5	43.47	3	61.12	3	60.33	5	63.02	5	61.11	3
26	---	---	28.14	12	15.02	17	23.95	16	---	---	46.91	10	17.77	17	38.00	13
27	34.72	7	34.76	8	34.70	9	34.72	8	49.53	7	49.50	7	49.57	8	49.53	9
28	25.93	12	22.99	14	23.28	13	24.42	15	39.78	13	35.15	13	23.35	15	34.79	17
29	38.70	5	---	---	38.97	7	38.70	5	56.38	4	---	---	56.36	7	56.38	4
30	---	---	---	---	.36	26	.36	36	---	---	---	---	.35	25	.35	36
31	---	---	1.23	25	.17	36	.39	35	---	---	1.64	25	.22	35	.52	35
32	---	---	1.89	24	3.22	22	2.33	32	---	---	2.76	22	3.20	23	2.91	32
33	28.77	9	.79	26	.21	32	20.73	20	46.43	8	.79	26	.25	31	33.66	18
34*Brownsville	20.52	15	11.35	19	1.63	25	11.00	29	26.90	16	17.79	17	1.73	24	14.57	27
*McAllen	2.53	20	---	---	---	---	---	---	2.54	21	---	---	---	---	---	---
35	2.44	21	---	---	2.48	24	2.45	31	3.61	20	---	---	3.62	21	3.61	31
36	---	---	49.64	4	5.96	21	33.22	9	---	---	68.41	3	26.79	14	52.83	6
37	---	---	12.60	18	12.92	18	12.69	25	---	---	14.58	19	14.20	19	14.48	28
AVERAGE	32.77		24.62		21.18		30.44		45.25		33.86		28.95		42.06	

TABLE D.8 (Continued)

Region	BICYCLING, 1990								BICYCLING, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	76.95	9	43.32	14	35.14	14	61.22	14	104.33	12	62.22	13	43.12	14	77.93	16
2	---	---	86.43	6	.39	26	47.64	19	---	---	97.30	11	.55	25	50.31	23
3	---	---	119.37	1	23.61	16	74.78	8	---	---	156.69	1	29.25	17	98.21	12
4	9.28	17	---	---	86.24	8	14.86	29	118.53	5	---	---	115.81	10	118.37	7
5	31.06	15	.71	27	84.56	9	48.62	18	45.14	17	.72	27	121.52	8	70.81	18
6	---	---	42.41	15	.39	26	34.89	22	---	---	60.51	14	.55	25	52.34	22
7	53.23	13	4.92	21	4.09	23	37.73	21	75.10	14	6.12	21	.53	27	54.35	21
8	---	---	43.70	13	.39	26	18.73	27	---	---	53.33	15	.44	36	23.73	27
9	---	---	36.40	16	.39	26	24.86	25	---	---	36.39	18	.50	29	23.05	28
10	112.33	1	112.34	2	111.86	3	112.29	1	145.65	1	145.81	2	145.35	3	145.76	1
11	55.34	12	---	---	55.31	12	55.34	16	72.07	15	---	---	72.09	12	72.07	17
12	+	0	4.44	22	.37	31	2.60	34	+	0	6.10	24	.47	33	3.63	34
13	.78	23	4.40	25	127.64	2	31.11	23	.74	23	6.12	21	164.59	2	40.74	24
14	101.33	22	101.05	4	101.05	4	101.13	2	136.68	2	133.97	4	131.45	5	134.13	2
15	---	---	64.40	11	82.44	10	68.15	9	---	---	118.89	7	118.86	9	118.89	6
16	8.00	19	---	---	9.57	20	8.07	30	8.12	19	---	---	9.55	20	8.20	30
17	77.79	8	---	---	.34	37	68.08	10	113.12	8	---	---	.45	35	102.36	10
18*Midland	77.80	7	74.55	10	.37	31	64.99	13	113.12	8	101.58	10	.53	27	93.77	14
*Odessa	79.86	5	---	---	---	---	---	---	115.21	7	---	---	---	---	---	---
19	---	---	27.35	18	27.35	15	27.35	24	---	---	37.15	17	37.15	15	37.15	25
20	25.59	16	---	---	160.06	1	47.11	20	35.77	18	---	---	197.05	1	61.29	20
21	3.72	21	---	---	.37	31	2.87	33	5.40	21	---	---	.47	33	4.25	33
22	---	---	---	---	.39	26	.39	36	---	---	---	---	.50	29	.50	36
23	74.79	10	4.99	20	5.08	22	67.19	12	106.81	11	6.67	20	6.67	22	97.38	13
24	---	---	93.45	5	92.38	6	92.96	4	---	---	130.94	5	129.35	6	130.25	4
25	96.46	3	81.09	9	100.11	5	95.92	3	131.81	3	103.12	9	137.04	4	130.71	3
26	---	---	84.41	7	23.56	17	67.46	11	---	---	121.88	6	29.47	16	98.60	11
27	79.17	6	81.65	8	79.16	11	79.33	7	108.80	10	108.75	8	108.80	11	108.79	9
28	67.50	11	59.42	12	23.23	18	53.61	17	95.20	13	83.70	12	23.24	18	70.22	19
29	9.17	18	---	---	92.09	7	91.73	5	127.08	4	---	---	126.81	7	127.07	5
30	---	---	---	---	.35	35	.35	37	---	---	---	---	.34	37	.34	37
31	---	---	4.41	24	.35	35	1.21	35	---	---	6.04	25	.48	32	1.66	35
32	---	---	4.42	23	3.09	24	3.97	32	---	---	6.11	23	3.12	23	5.06	32
33	81.78	4	.75	26	.37	31	60.03	15	117.13	6	.77	26	.50	29	86.94	15
34*Brownsville	39.68	14	30.48	17	1.61	25	22.06	26	52.42	16	43.34	16	1.64	24	30.08	26
*McAllen	2.55	22	---	---	---	---	---	---	2.51	22	---	---	---	---	---	---
35	5.86	20	---	---	5.99	21	5.87	31	8.12	19	---	---	8.25	21	8.13	31
36	---	---	105.90	3	47.69	13	84.26	6	---	---	143.37	3	68.61	13	115.74	8
37	---	---	18.52	19	18.48	19	18.51	28	---	---	22.48	19	22.45	19	22.47	29
AVERAGE	68.44		52.85		44.36		64.12		95.49		73.79		59.81		89.31	

TABLE D.8 (Continued)

Region	NATURE STUDY, 1970								NATURE STUDY, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	.26	14	+	0	.27	9	.24	15	.27	14	+	0	.75	8	.35	17
2	---	---	.08	12	+	0	.05	21	---	---	.17	10	.13	15	.15	20
3	---	---	+	0	+	0	+	0	---	---	+	0	.10	20	.05	25
4	.34	11	---	---	+	0	.31	12	1.09	8	---	---	.18	12	1.00	10
5	.03	19	+	0	.05	11	.03	24	.03	22	+	0	.10	20	.05	25
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.03	19	+	0	+	0	.02	28	.03	22	+	0	.11	17	.04	34
8	---	---	+	0	+	0	+	0	---	---	+	0	.10	20	.06	24
9	---	---	.03	13	+	0	.03	24	---	---	.03	16	.10	20	.05	25
10	.58	6	.48	5	.48	4	.57	6	1.58	6	1.53	4	1.59	4	1.58	6
11	.38	10	---	---	.34	8	.38	10	1.09	8	---	---	1.14	6	1.09	9
12	.16	15	.17	9	.52	3	.24	15	.15	15	.15	12	1.72	3	.47	14
13	+	0	+	0	+	0	+	0	.05	16	+	0	.11	17	.05	25
14	.05	16	.03	13	.05	11	.04	22	.05	16	.03	16	.09	28	.05	25
15	---	---	.45	6	+	0	.33	11	---	---	1.58	3	.17	13	1.23	8
16	.30	13	---	---	.33	7	.30	13	.32	13	---	---	.40	9	.32	18
17	.33	12	---	---	+	0	.28	14	.88	10	---	---	+	0	.75	12
18*Midland	.83	5	.87	2	9.39	1	2.48	2	2.66	5	1.19	5	10.07	1	3.94	2
*Odessa	1.43	3	---	---	---	---	---	---	3.02	4	---	---	---	---	---	---
19	---	---	.14	10	+	0	.10	18	---	---	.44	8	.10	20	.36	16
20	.02	22	---	---	+	0	.08	19	.04	20	---	---	.10	20	.05	25
21	.48	7	---	---	.40	5	.46	7	1.52	7	---	---	1.56	5	1.53	7
22	---	---	---	---	+	0	+	0	---	---	---	---	.12	16	.12	21
23	.45	8	.18	8	.24	10	.41	9	.45	12	.16	11	.24	11	.42	15
24	---	---	+	0	.05	11	.03	24	---	---	.05	15	.10	20	.07	23
25	1.27	4	+	0	1.37	2	1.24	5	3.10	3	.06	14	3.08	2	3.00	3
26	---	---	2.42	1	+	0	1.61	3	---	---	2.48	1	+	0	1.69	5
27	.03	19	+	0	+	0	.02	28	.03	22	+	0	+	0	.02	35
28	2.17	2	.70	3	.35	6	1.41	4	3.98	2	.72	7	.35	10	2.19	4
29	.43	9	---	---	+	0	.42	8	.62	11	---	---	.95	7	.62	13
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	.05	11	.04	22	---	---	+	0	.11	17	.09	22
32	---	---	.31	7	+	0	.21	17	---	---	1.19	5	+	0	.80	11
33	5.02	1	.61	4	+	0	3.64	1	9.86	1	1.74	2	.07	29	7.30	1
34*Brownsville	.04	18	+	0	+	0	.03	24	.04	20	+	0	.10	20	.05	25
*McAllen	.05	16	---	---	---	---	---	---	.05	16	---	---	+	0	.05	25
35	+	0	---	---	+	0	+	0	.05	16	---	---	+	0	.05	25
36	---	---	.11	11	+	0	.07	20	---	---	.19	9	.16	14	.18	19
37	---	---	+	0	+	0	+	0	---	---	.07	13	+	0	.05	25
AVERAGE	.72		.22		.39		.62		1.67		.41		61		1.39	

TABLE D.8 (Continued)

Region	NATURE STUDY, 1980								NATURE STUDY, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	.26	14	+	0	1.25	7	.46	16	.27	15	+	0	2.10	7	.73	16
2	---	---	.18	11	.13	26	.16	20	---	---	.32	10	.26	22	.29	21
3	---	---	.09	13	.19	14	.14	21	---	---	.07	15	.26	22	.16	24
4	1.85	8	---	---	.17	18	1.70	10	3.36	8	---	---	.31	15	3.14	9
5	.06	17	+	0	.14	22	.09	25	.09	17	+	0	.27	20	.15	25
6	---	---	+	0	+	0	+	0	---	---	.08	14	.39	11	.14	27
7	.07	16	+	0	.12	27	.07	27	.09	17	+	0	.25	30	.11	33
8	---	---	+	0	.11	29	.07	27	---	---	+	0	.26	22	.15	25
9	---	---	.03	17	.17	18	.07	27	---	---	.03	19	.26	22	.10	35
10	2.62	6	3.54	1	2.59	5	2.66	5	4.71	7	4.67	2	4.69	5	4.71	5
11	1.80	9	---	---	1.83	6	1.80	8	3.22	9	---	---	3.19	6	3.22	8
12	.14	15	.15	12	2.88	3	.69	14	3.22	9	.15	12	5.30	3	1.22	13
13	.05	19	+	0	.11	29	.05	32	.11	16	.07	15	.21	34	.12	30
14	.05	19	.03	17	.14	22	.06	31	.08	21	.06	17	.26	22	.12	30
15	---	---	2.68	2	.16	21	2.10	7	---	---	4.86	1	.28	18	3.91	6
16	.35	13	---	---	.40	9	.35	18	.40	14	---	---	.45	9	.40	18
17	1.43	10	---	---	.28	11	1.27	12	2.46	11	---	---	.34	14	2.19	11
18*Midland	4.48	5	1.47	6	10.56	1	5.35	2	8.14	4	2.01	6	11.52	1	8.12	3
*Odessa	4.56	4	---	---	---	---	---	---	7.70	5	---	---	---	---	---	---
19	---	---	.71	8	.19	14	.59	15	---	---	1.28	7	.26	22	1.06	15
20	.06	17	---	---	.10	33	.07	27	.09	17	---	---	.24	31	.12	30
21	2.60	7	---	---	2.67	4	2.62	6	4.77	6	---	---	4.81	4	4.78	4
22	---	---	---	---	.11	29	.11	23	---	---	---	---	.29	16	.29	21
23	.45	12	.28	9	.25	12	.43	17	.46	13	.22	11	.28	18	.43	17
24	---	---	.04	16	.14	22	.09	25	---	---	.04	18	.26	22	.14	27
25	4.92	3	.05	15	4.94	2	4.76	3	8.57	3	.03	19	8.50	2	8.25	2
26	---	---	2.44	3	.20	13	1.75	9	---	---	2.44	4	.19	35	1.81	12
27	.02	24	+	0	+	0	.02	35	.02	24	+	0	+	0	.02	37
28	5.83	2	.72	7	.34	10	2.81	4	9.48	2	.71	8	.35	12	3.59	7
29	.83	11	---	---	.91	8	.83	13	1.22	12	---	---	.87	8	1.22	13
30	---	---	---	---	+	0	+	0	---	---	---	---	.35	12	.35	19
31	---	---	+	0	.17	18	.13	22	---	---	+	0	.24	31	.19	23
32	---	---	2.00	4	.19	14	1.39	11	---	---	3.70	3	.17	36	2.49	10
33	14.71	1	1.94	5	.12	27	10.89	1	24.38	1	2.38	5	.27	22	18.19	1
34*Brownsville	.04	23	+	0	.11	29	.05	32	.09	17	+	0	.29	16	.10	35
*McAllen	.05	19	---	---	---	---	---	---	.07	22	---	---	---	---	---	---
35	.05	19	---	---	+	0	.04	34	.06	23	---	---	.40	10	.11	33
36	---	---	.25	10	.14	22	.21	19	---	---	.42	9	.23	33	.35	19
37	---	---	.07	14	.18	17	.10	24	---	---	.13	13	.17	36	.14	27
AVERAGE	2.64		.60		.85		2.19		4.63		.97		1.45		3.87	

TABLE D.8 (Continued)

Region	NATURE STUDY, 2000								SIGHTSEEING, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	.26	14	.07	15	3.13	8	1.15	16	1.83	13	2.09	7	.46	23	1.58	19
2	---	---	.39	10	.42	13	.40	20	---	---	.48	18	.65	20	.54	32
3	---	---	.07	15	3.46	7	.21	24	---	---	1.74	8	5.54	5	3.58	9
4	4.87	8	---	---	.31	33	4.60	8	3.21	5	---	---	3.96	9	3.29	10
5	.12	18	+	0	.35	28	.20	26	1.49	15	5.53	3	2.73	12	2.23	16
6	---	---	.09	14	.55	10	.15	34	---	---	1.61	9	.73	18	1.40	22
7	.13	16	+	0	.40	15	.16	30	2.34	9	7.56	2	15.55	2	5.81	4
8	---	---	+	0	.29	35	.16	30	---	---	3.20	6	5.12	7	4.36	6
9	---	---	.06	18	.35	28	.17	28	---	---	1.29	13	.37	24	1.10	24
10	6.80	7	6.79	2	6.79	5	6.80	5	1.53	14	.32	20	.12	30	1.45	21
11	4.64	9	---	---	4.66	6	4.64	7	.70	19	---	---	+	0	.70	28
12	.16	15	.16	13	7.69	3	1.74	13	2.16	10	.31	21	+	0	.70	28
13	.11	19	.07	15	.40	15	.16	30	.82	17	.40	19	.11	31	5.32	5
14	.11	19	.06	18	.38	20	.16	30	.31	22	.16	25	.28	26	.24	34
15	---	---	7.07	1	.37	21	5.80	6	---	---	.06	26	.18	28	.10	35
16	.45	12	---	---	.53	11	.45	18	8.82	1	---	---	5.24	6	8.76	3
17	3.53	10	---	---	.45	12	3.24	11	8.59	2	---	---	19.27	1	10.24	2
18*Midland	11.79	4	2.53	5	12.47	1	10.84	3	.63	20	1.44	12	.65	20	.97	25
*Odessa	10.81	5	---	---	---	---	---	---	1.49	15	---	---	---	---	---	---
19	---	---	1.86	7	.40	15	1.55	15	---	---	3.22	5	.10	32	2.45	14
20	.13	16	---	---	.40	15	.17	28	.06	24	---	---	3.79	10	.67	30
21	6.92	6	---	---	6.91	4	6.92	4	.36	21	---	---	1.07	14	.58	31
22	---	---	---	---	.33	31	.33	22	---	---	---	---	.27	27	.27	33
23	.45	12	.18	11	.18	36	.43	19	3.02	7	.18	23	13.19	3	3.73	8
24	---	---	.06	18	.36	26	.19	27	---	---	1.07	15	2.99	11	2.02	17
25	12.22	3	.05	21	12.17	2	11.73	2	.82	17	.99	16	.55	22	.82	26
26	---	---	2.45	6	.37	21	1.93	12	---	---	+	0	+	0	+	0
27	.02	24	+	0	+	0	.02	37	2.12	11	.26	22	.15	29	1.82	18
28	13.13	2	.71	8	.37	21	3.83	9	4.87	4	.54	17	.35	25	2.75	12
29	1.62	11	---	---	1.81	9	1.82	14	2.62	8	---	---	+	0	2.60	13
30	---	---	---	---	.34	30	.34	21	---	---	---	---	.74	17	.74	27
31	---	---	+	0	.36	26	.28	23	---	---	4.93	4	4.01	8	4.20	7
32	---	---	5.35	3	.31	33	3.57	10	---	---	1.46	11	.86	16	1.26	23
33	34.06	1	2.85	4	.37	21	25.62	1	3.19	6	.17	24	.69	19	2.39	15
34*Brownsville	.10	21	+	0	.37	21	.12	36	2.10	12	1.29	13	.96	15	2.83	11
*McAllen	.08	23	---	---	---	---	---	---	4.96	3	---	---	+	0	.10	35
35	.10	21	---	---	.41	14	.13	35	.12	23	---	---	+	0	.10	35
36	---	---	.58	9	.40	15	.51	17	---	---	1.61	9	1.24	13	1.47	20
37	---	---	.17	12	.33	31	.21	24	---	---	23.59	1	7.77	4	19.23	1
AVERAGE	6.70		1.45		2.16		5.61		2.25		2.09		2.60		2.27	

TABLE D.8 (Continued)

Region	SIGHTSEEING, 1975								SIGHTSEEING, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	2.96	8	1.93	10	.67	21	2.39	15	4.18	6	1.93	12	.94	17	3.20	12
2	---	---	.51	18	.77	19	.62	32	---	---	.55	18	.90	18	.69	32
3	---	---	2.25	7	5.40	7	3.76	8	---	---	2.76	8	5.35	9	3.99	10
4	3.87	5	---	---	4.10	11	3.89	7	4.55	4	---	---	4.26	10	4.53	8
5	2.26	13	9.25	2	4.60	9	3.61	9	3.24	10	14.15	2	7.04	6	5.41	6
6	---	---	2.08	9	1.09	15	1.85	20	---	---	2.74	9	1.23	15	2.42	17
7	3.07	6	7.61	3	15.13	3	6.08	4	4.23	5	7.51	3	14.74	4	6.66	5
8	---	---	4.06	6	7.08	5	5.87	5	---	---	4.65	6	9.39	5	7.46	4
9	---	---	1.87	11	.51	22	1.56	22	---	---	2.51	10	.69	23	2.03	21
10	1.72	17	.31	22	.17	30	1.60	21	1.89	16	.35	23	.18	30	1.73	22
11	.81	20	---	---	+	0	.80	29	.88	20	---	---	.17	31	.87	29
12	2.63	10	.33	21	+	0	.81	28	3.15	11	.39	21	+	0	.93	27
13	1.86	16	.46	19	.22	29	1.04	25	2.88	12	.58	17	.21	28	1.52	24
14	.43	21	.28	23	.46	25	.37	34	.50	21	.45	20	.72	21	.54	34
15	---	---	.11	26	.17	30	.12	36	---	---	.09	26	.16	32	.11	35
16	9.06	1	---	---	5.43	6	8.98	3	9.16	2	---	---	5.53	8	9.06	3
17	9.06	1	---	---	19.72	2	10.62	2	9.43	1	---	---	19.89	2	10.89	2
18*Midland	.90	18	1.79	12	.46	25	1.23	24	1.21	18	2.36	11	.47	26	1.61	23
*Odessa	1.95	14	---	---	---	---	---	---	2.56	14	---	---	---	---	---	---
19	---	---	4.46	5	.10	32	3.42	10	---	---	6.08	4	.09	33	4.69	7
20	.08	24	---	---	5.03	8	.89	26	.10	24	---	---	6.44	7	1.13	26
21	.43	21	---	---	1.30	14	.69	31	.49	22	---	---	1.40	14	.74	30
22	---	---	---	---	.49	23	.49	33	---	---	---	---	.56	25	.56	33
23	1.88	15	.16	24	14.28	4	2.71	14	1.66	17	.14	24	15.30	3	2.47	15
24	---	---	1.39	15	2.97	12	2.15	17	---	---	1.76	13	2.99	12	2.34	18
25	.86	19	1.08	16	.47	24	.86	27	.91	19	1.11	16	.57	24	.91	28
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	2.32	12	.39	20	.24	28	1.98	18	2.48	15	.38	22	.19	29	2.09	20
28	5.54	3	.55	17	.35	27	2.86	12	6.24	3	.52	19	.34	27	2.91	14
29	2.75	9	---	---	+	0	2.72	13	4.02	7	---	---	+	0	3.98	11
30	---	---	---	---	.72	20	.72	30	---	---	---	---	.71	22	.71	31
31	---	---	5.34	4	4.12	10	4.38	6	---	---	5.33	5	4.14	11	4.39	9
32	---	---	1.49	14	.80	18	1.26	23	---	---	1.52	15	.75	20	1.26	25
33	2.99	7	.16	24	.83	17	2.29	16	2.79	13	.14	24	.99	16	2.18	19
34*Brownsville	2.63	10	1.58	13	.92	16	2.88	11	3.30	9	1.64	14	.86	19	2.99	13
*McAllen	4.39	4	---	---	---	---	---	---	3.81	8	---	---	---	---	---	---
35	.16	23	---	---	+	0	.14	35	.19	23	---	---	+	0	.17	36
36	---	---	2.17	8	1.41	13	1.89	19	---	---	2.94	7	1.68	13	2.47	15
37	---	---	27.77	1	19.56	1	25.53	1	---	---	31.63	1	20.67	1	28.67	1
AVERAGE	2.34		2.50		2.92		2.42		2.50		2.84		3.07		2.61	

TABLE D.8 (Continued)

Region	SIGHTSEEING, 1990								SIGHTSEEING, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank														
1	7.44	4	1.80	14	1.75	17	5.16	9	13.14	1	1.65	16	2.96	16	8.02	8
2	---	---	.74	19	1.16	20	.93	32	---	---	.79	19	1.53	20	1.14	30
3	---	---	4.32	9	5.22	9	4.74	10	---	---	6.45	9	4.99	9	5.78	12
4	6.17	7	---	---	4.47	10	6.05	8	8.12	8	---	---	4.54	10	7.91	9
5	6.28	6	29.85	2	14.81	4	11.10	2	11.57	3	55.86	1	28.66	1	21.11	2
6	---	---	4.58	8	2.34	13	4.18	12	---	---	7.03	6	3.85	12	6.60	10
7	7.36	5	7.30	4	13.75	5	8.48	6	12.29	2	7.14	5	12.82	7	11.80	4
8	---	---	5.77	6	12.32	6	9.55	4	---	---	5.97	10	15.11	6	11.08	6
9	---	---	4.26	10	.91	21	3.19	15	---	---	6.58	8	1.19	21	4.58	15
10	2.22	16	.39	23	.22	32	1.95	25	2.50	15	.45	23	.22	32	2.12	25
11	1.02	19	---	---	.09	33	1.01	30	1.12	18	---	---	.13	34	1.10	32
12	4.15	10	.47	22	+	0	1.20	28	5.20	10	.55	21	.04	37	1.43	27
13	3.90	11	.89	18	.31	28	2.04	23	4.92	11	1.11	18	.40	29	2.50	23
14	.74	21	1.15	17	1.53	18	1.13	29	1.03	20	2.56	13	3.22	15	2.26	24
15	---	---	.15	25	.28	29	.17	36	---	---	.20	25	.37	30	.24	36
16	9.62	2	---	---	5.79	8	9.46	5	10.14	5	---	---	6.11	8	9.91	7
17	10.16	1	---	---	20.15	2	11.41	3	10.75	4	---	---	20.81	3	11.71	5
18*Midland	2.10	17	3.45	11	.25	31	2.65	19	3.55	12	5.35	11	.13	34	4.37	16
*Odessa	4.43	9	---	---	---	---	---	---	7.35	9	---	---	---	---	---	---
19	---	---	10.67	3	.09	33	8.34	7	---	---	18.42	3	.08	36	14.59	3
20	.18	24	---	---	10.52	7	1.84	26	.30	24	---	---	16.90	5	2.93	20
21	.59	22	---	---	1.85	16	.91	33	.75	22	---	---	2.46	18	1.14	30
22	---	---	---	---	2.23	15	2.23	21	---	---	---	---	3.43	13	3.43	19
23	1.27	18	.22	24	17.06	3	1.96	24	.92	21	.27	24	18.09	4	1.42	28
24	---	---	2.86	12	2.89	12	2.88	18	---	---	4.45	12	2.85	17	3.75	17
25	.98	20	1.23	16	.62	26	.99	31	1.04	19	1.30	17	.66	25	1.05	33
26	---	---	+	0	+	0	+	0	---	---	+	0	.19	33	.05	37
27	2.81	14	.53	20	.28	29	2.34	20	3.08	14	.66	20	.42	27	2.54	22
28	7.82	3	.52	21	.35	27	2.95	17	9.52	6	.51	22	.34	31	2.79	21
29	3.16	12	---	---	.87	23	3.14	16	3.49	13	---	---	.91	22	3.47	18
30	---	---	---	---	.70	24	.70	34	---	---	---	---	.67	24	.67	34
31	---	---	5.95	5	4.25	11	4.61	11	---	---	6.71	7	4.32	11	4.83	14
32	---	---	1.63	15	.69	25	1.30	27	---	---	1.70	15	.62	26	1.32	29
33	2.58	15	.13	26	1.43	19	2.11	22	2.39	16	.11	26	2.11	19	2.08	26
34*Brownsville	5.25	8	2.08	13	.88	22	3.72	14	8.40	7	2.43	14	.73	23	5.17	13
*McAllen	2.95	13	---	---	---	---	---	---	2.27	17	---	---	---	---	---	---
35	.28	23	---	---	+	0	.25	35	.34	23	---	---	.41	28	.35	35
36	---	---	4.98	7	2.34	13	4.00	13	---	---	8.27	4	3.38	14	6.46	11
37	---	---	41.20	1	23.01	1	36.38	1	---	---	53.59	2	25.38	2	46.22	1
AVERAGE	2.70		3.99		3.52		2.93		3.01		5.43		4.24		3.42	

TABLE D.8 (Continued)

Region	DRIVING FOR PLEASURE, 1970								DRIVING FOR PLEASURE, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank
1	11.05	19	17.22	24	14.31	32	12.09	34	11.50	18	19.31	23	15.74	32	13.03	32
2	---	---	22.29	19	26.05	19	23.72	14	---	---	24.02	19	27.93	19	25.58	14
3	---	---	43.87	5	26.05	19	35.21	6	---	---	44.76	5	27.93	19	36.69	6
4	13.49	8	---	---	30.15	14	15.37	27	14.28	9	---	---	31.02	15	15.85	27
5	15.59	6	67.53	2	33.09	11	25.65	13	17.38	6	75.18	2	36.62	9	28.51	13
6	---	---	36.20	9	16.32	30	31.44	8	---	---	37.03	9	18.48	28	32.82	8
7	14.12	7	44.83	4	65.28	3	29.30	10	14.69	7	46.65	4	67.52	3	29.75	11
8	---	---	71.25	1	75.96	1	73.98	1	---	---	79.33	1	83.01	1	81.59	1
9	---	---	38.70	7	27.66	18	36.48	5	---	---	41.12	7	30.94	16	38.75	5
10	9.67	22	24.31	15	24.25	22	10.62	36	9.83	22	25.41	18	25.41	23	11.13	36
11	10.94	20	---	---	23.52	23	11.03	35	11.35	19	---	---	25.19	24	11.47	35
12	12.51	13	21.35	20	27.25	17	20.40	21	12.75	13	22.15	21	28.61	18	21.23	20
13	11.14	18	39.55	6	22.76	25	22.68	16	12.29	16	41.56	6	23.90	26	24.35	16
14	11.41	16	24.18	16	29.06	15	22.17	17	12.33	15	25.44	17	29.69	17	23.03	17
15	---	---	31.23	11	14.45	31	26.87	12	---	---	32.33	10	17.55	31	28.69	12
16	20.16	4	---	---	28.80	16	20.29	23	20.15	4	---	---	32.59	12	20.42	23
17	13.29	10	---	---	64.75	4	21.24	18	13.56	10	---	---	65.37	4	21.16	22
18*Midland	11.68	15	15.30	26	17.59	28	13.57	31	12.36	14	17.27	25	17.59	30	14.31	30
*Odessa	13.68	9	---	---	---	---	---	---	14.60	8	---	---	---	---	---	---
19	---	---	38.61	8	52.29	6	42.00	4	---	---	40.55	8	53.61	6	43.68	3
20	6.64	23	---	---	54.91	5	14.59	29	7.06	23	---	---	55.78	5	15.00	29
21	10.28	21	---	---	42.54	8	20.31	22	10.50	21	---	---	42.99	8	20.04	24
22	---	---	---	---	23.24	24	23.24	15	---	---	---	---	24.86	25	24.86	15
23	6.45	24	29.75	13	72.17	2	13.43	32	6.20	24	31.04	13	74.52	2	12.82	33
24	---	---	23.97	17	34.48	9	29.18	11	---	---	26.91	15	34.59	10	30.62	10
25	13.10	12	31.40	10	25.94	21	13.75	30	13.23	12	32.30	11	26.78	21	13.92	31
26	---	---	19.56	23	10.07	35	16.39	26	---	---	19.56	22	10.15	37	16.55	26
27	11.87	14	17.12	25	11.92	33	12.32	33	12.12	17	18.03	24	13.81	33	12.75	34
28	13.22	11	26.30	14	30.83	13	20.22	24	13.35	11	28.21	14	32.35	13	21.95	19
29	19.77	5	---	---	16.89	29	19.74	25	19.49	5	---	---	18.06	29	19.48	25
30	---	---	---	---	33.79	10	33.79	7	---	---	---	---	33.65	11	33.65	7
31	---	---	31.19	12	46.39	7	43.18	3	---	---	31.43	12	46.49	7	43.31	4
32	---	---	20.82	21	20.37	27	20.67	20	---	---	23.00	20	22.91	27	22.97	18
33	11.39	17	22.64	18	22.70	26	14.67	28	10.84	20	25.54	16	25.59	22	15.02	28
34*Brownsville	42.20	1	11.58	27	9.26	37	31.38	9	43.91	1	13.20	26	10.39	35	32.58	9
*McAllen	31.72	2	---	---	---	---	---	---	31.43	2	---	---	---	---	---	---
35	22.83	3	---	---	9.34	36	21.21	19	22.57	3	---	---	10.33	36	21.21	21
36	---	---	8.89	28	10.24	34	9.40	37	---	---	9.55	27	11.46	34	10.27	37
37	---	---	58.21	3	31.08	12	50.73	2	---	---	57.14	3	32.29	14	50.36	2
AVERAGE	13.38		30.63		32.56		17.89		13.52		31.94		33.50		18.10	

TABLE D.8 (Continued)

Region	DRIVING FOR PLEASURE, 1980								DRIVING FOR PLEASURE, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank
1	11.73	18	21.98	22	17.92	31	14.17	31	12.34	18	25.12	22	20.64	30	16.25	29
2	---	---	25.03	20	29.26	20	26.78	14	---	---	27.47	20	31.92	20	29.48	14
3	---	---	45.53	5	30.54	17	38.41	6	---	---	47.24	6	33.44	16	40.82	6
4	14.79	9	---	---	31.86	16	16.27	27	15.83	9	---	---	33.63	15	17.12	26
5	19.23	6	81.40	2	39.31	9	31.01	11	23.41	3	93.07	2	44.55	8	36.17	9
6	---	---	37.83	9	20.87	28	34.21	7	---	---	39.36	9	24.53	28	36.70	8
7	15.40	8	48.21	4	69.82	3	30.30	12	16.70	8	51.61	4	73.81	3	31.23	13
8	---	---	85.95	1	89.85	1	88.26	1	---	---	99.11	1	101.67	1	100.58	1
9	---	---	42.45	7	33.39	14	40.06	5	---	---	43.26	8	38.15	11	41.62	5
10	9.98	22	26.52	18	26.54	24	11.66	36	10.23	20	28.62	17	28.63	25	12.76	34
11	11.66	19	---	---	26.56	23	11.80	35	12.25	19	---	---	29.25	23	12.46	36
12	13.02	15	23.54	21	30.09	19	22.47	21	13.43	16	25.54	21	32.21	19	24.20	20
13	13.04	14	44.36	6	25.06	27	26.11	15	13.54	14	48.10	5	26.81	27	28.50	16
14	13.26	13	26.53	17	30.18	18	23.79	20	15.28	10	28.13	18	30.92	21	25.07	19
15	---	---	33.35	10	18.60	30	29.94	13	---	---	34.94	11	20.22	31	31.89	12
16	19.94	5	---	---	36.94	10	20.42	23	20.25	5	---	---	42.50	10	21.20	21
17	13.80	10	---	---	65.38	4	20.98	22	14.25	11	---	---	65.84	4	20.72	23
18*Midland	12.89	16	19.13	25	17.84	32	15.05	30	14.13	12	21.30	23	15.98	33	16.26	28
*Odessa	15.57	7	---	---	---	---	---	---	18.03	7	---	---	---	---	---	---
19	---	---	42.39	8	55.29	6	45.40	3	---	---	45.87	7	58.19	5	48.59	3
20	7.54	23	---	---	55.74	5	15.35	29	8.34	23	---	---	56.09	6	15.98	31
21	10.71	20	---	---	42.89	8	19.68	25	11.08	21	---	---	43.16	9	19.20	24
22	---	---	---	---	26.01	25	26.01	16	---	---	---	---	28.45	26	28.17	17
23	6.24	24	32.16	13	76.63	2	12.42	34	6.40	24	32.02	16	79.95	2	11.49	37
24	---	---	30.32	15	34.64	11	32.31	10	---	---	34.20	13	34.83	14	34.49	10
25	13.37	11	33.31	11	27.52	22	14.14	32	13.58	13	35.12	10	29.12	24	14.54	32
26	---	---	19.32	24	10.27	37	16.55	26	---	---	18.94	25	10.53	37	16.60	27
27	12.30	17	19.44	23	16.17	33	13.24	33	12.81	17	20.97	24	19.19	32	14.17	33
28	13.36	12	30.95	14	33.90	12	24.08	18	13.52	15	34.72	12	36.34	12	27.94	18
29	19.95	4	---	---	20.00	29	19.95	24	18.91	6	---	---	21.72	29	18.93	25
30	---	---	---	---	33.25	15	33.25	9	---	---	---	---	32.87	18	32.87	11
31	---	---	32.21	12	46.60	7	43.54	4	---	---	32.62	15	46.79	7	43.79	4
32	---	---	25.33	19	25.99	26	25.55	17	---	---	27.81	19	30.09	22	28.60	15
33	10.31	21	28.88	16	28.94	21	15.48	28	9.79	22	33.20	14	33.23	17	16.06	30
34*Brownsville	46.27	1	14.23	26	11.97	35	34.13	8	51.40	1	18.01	26	14.08	35	37.66	7
*McAllen	31.06	2	---	---	---	---	---	---	31.01	2	---	---	---	---	---	---
35	22.30	3	---	---	11.25	36	23.87	19	22.02	4	---	---	11.98	36	21.11	22
36	---	---	10.41	27	13.04	34	7.14	37	---	---	11.00	27	14.96	34	12.47	35
37	---	---	56.46	3	33.79	13	50.34	2	---	---	54.56	3	36.09	13	49.66	2
AVERAGE	13.67		33.21		34.35		18.35		13.86		35.11		35.70		18.63	

TABLE D.8 (Continued)

Region	DRIVING FOR PLEASURE, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank
1	12.94	18	29.11	21	23.94	30	19.09	24
2	---	---	29.73	19	34.39	19	31.99	15
3	---	---	48.84	7	37.39	15	43.59	6
4	16.79	10	---	---	35.26	16	17.90	27
5	28.22	3	103.37	2	49.20	7	41.39	8
6	---	---	40.89	9	28.04	28	39.14	9
7	17.99	8	54.69	3	77.69	3	32.52	13
8	---	---	103.67	1	105.91	1	104.93	1
9	---	---	45.91	8	41.96	11	44.44	4
10	10.45	21	30.56	16	30.56	25	13.95	34
11	12.74	19	---	---	31.76	22	13.03	36
12	13.73	15	27.36	22	33.70	20	25.80	20
13	14.00	13	51.13	5	28.17	27	30.62	17
14	17.38	9	29.26	20	31.28	23	26.10	19
15	---	---	36.10	14	21.93	32	33.42	12
16	20.36	6	---	---	48.98	8	21.99	21
17	14.62	12	---	---	66.06	4	19.53	23
18*Midland	15.12	11	23.64	23	13.00	35	17.33	28
*Odessa	20.81	5	---	---	---	---	---	---
19	---	---	49.18	6	61.02	5	51.66	2
20	9.13	23	---	---	56.20	6	16.58	30
21	11.33	20	---	---	43.44	10	18.80	25
22	---	---	---	---	29.92	26	29.92	18
23	6.56	24	29.88	18	81.84	2	10.40	37
24	---	---	38.71	11	35.03	17	37.11	10
25	13.78	14	36.89	13	30.61	24	14.89	33
26	---	---	18.52	26	10.82	37	16.58	30
27	13.20	17	22.81	24	22.88	31	15.22	32
28	13.69	16	38.90	10	38.90	12	32.38	14
29	18.63	7	---	---	24.46	29	18.66	26
30	---	---	---	---	33.51	4	33.51	11
31	---	---	32.68	15	47.00	9	43.97	5
32	---	---	30.47	17	34.68	18	31.95	16
33	9.29	22	38.15	12	38.12	14	16.77	29
34*Brownsville	57.49	1	21.06	25	16.26	34	41.74	7
*McAllen	30.72	2	---	---	---	---	---	---
35	21.65	4	---	---	12.78	36	20.97	22
36	---	---	11.64	27	17.18	33	13.69	35
37	---	---	53.42	4	38.23	13	49.45	3
AVERAGE	14.10		37.02		37.21		19.18	

--- indicate regions not having metros or cities.

+ indicates activity was applicable but annual days per household was less than .01.

* Odessa, Midland, Brownsville, and McAllen are metro areas. Figures for cities, towns, and total urban areas are listed adjacent to Odessa and Brownsville where applicable.

TABLE D.9

REGIONAL COMPARISONS OF URBAN RESIDENT PARTICIPATION FOR SELECTED SALTWATER URBAN OUTDOOR RECREATION ACTIVITIES BY CITY-SIZE, 1970-2000

Year	Region	SKIING, SALTWATER								SURFING [†] , SALTWATER			
		METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO	CITY	TOWN	TOTAL URBAN AREAS
		Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Rank	Annual Days Per Household	Annual Days Per Household	Annual Days Per Household	Annual Days Per Household
1970	24	---	---	.05	2	*	*	.05	1	---	+	*	+
	25	.04	3	.07	1	*	*	.04	2	+	+	*	+
	27	.04	3	*	*	*	*	.04	2	+	*	*	+
	28	.05	1	.04	3	+	0	.04	2	5.42	3.42	+	3.93
	33	.05	1	*	*	.08	1	.05	1	+	*	+	+
	34	*	*	*	*	+	0	+	0	*	*	+	+
	Average	.05		.05		.03		.04		.33	1.45	+	.40
1975	24	---	---	.05	2	*	*	.05	1	---	+	*	+
	25	.04	2	.06	1	*	*	.04	2	+	+	*	+
	27	.04	2	*	*	*	*	.04	2	+	*	*	+
	28	.05	1	.03	3	.07	1	.05	1	8.54	3.26	+	5.17
	33	.04	2	*	*	.07	1	.05	1	+	*	+	+
	34	*	*	*	*	+	0	+	0	*	*	+	+
	Average	.04		.04		.05		.04		.45	1.40	+	.51
1980	24	---	---	.04	2	*	*	.04	2	---	+	*	+
	25	.04	2	.05	1	*	*	.04	2	+	+	*	+
	27	.05	1	*	*	*	*	.05	1	+	*	*	+
	28	.05	1	.03	3	.06	1	.04	2	11.65	3.04	+	6.09
	33	.04	2	*	*	.06	1	.04	2	+	*	+	+
	34	*	*	*	*	+	0	+	0	*	*	+	+
	Average	.04		.04		.05		.04		.54	1.32	+	.58
1990	24	---	---	.04	1	*	*	.04	2	---	+	*	+
	25	.04	2	.03	3	*	*	.04	2	+	+	*	+
	27	.04	2	*	*	*	*	.04	2	+	*	*	+
	28	.05	1	.04	1	.04	2	.05	1	17.89	2.61	+	7.16
	33	.04	2	*	*	.05	1	.04	2	+	*	+	+
	34	*	*	*	*	+	0	+	0	*	*	+	+
	Average	.04		.04		.04		.04		.64	1.14	+	.66
2000	24	---	---	.03	3	*	*	.03	5	---	+	*	+
	25	.04	1	.05	1	*	*	.04	2	+	+	*	+
	27	.04	1	*	*	*	*	.04	2	+	*	*	+
	28	.03	4	.05	1	.06	1	.05	1	24.13	2.12	+	7.24
	33	.04	1	*	*	.05	2	.04	2	+	*	+	+
	34	*	*	*	*	+	0	+	0	*	*	+	+
	Average	.04		.04		.05		.04		.66	.96	+	.66

--- indicate Region 24 does not have a metro area.

* indicate (by region) metros, cities, or towns not having saltwater access.

+ indicates activity was applicable but annual days per household was less than .01.

† Surfing participation per household figures apply to Metros and Cities in Region 28, the only region in the state having urban areas where surfing participation was recorded, therefore, rankings are omitted.

TABLE D.9(Continued)

Year	Region	FISHING, SALTWATER								BOATING, SALTWATER							
		METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
		Annual Days Per Household	Rank														
1970	24	---	---	2.94	2	*	*	2.94	3	---	---	1.98	1	*	*	1.98	1
	25	.59	3	2.97	1	*	*	.66	4	.84	1	1.98	1	*	*	.87	3
	27	.07	4	*	*	*	*	.07	6	.83	4	*	*	*	*	.83	6
	28	11.08	1	2.93	3	.26	3	6.74	1	.84	1	1.98	1	.88	1	1.22	2
	33	7.37	2	*	*	.30	1	6.10	2	.84	1	*	*	.84	3	.84	5
	34	*	*	*	*	.29	2	.29	5	*	*	*	*	.87	2	.87	3
	Average	1.81		2.94		.29		1.83		.84		1.98		.86		.93	
1975	24	---	---	3.35	1	*	*	3.35	3	---	---	2.01	1	*	*	2.01	1
	25	.59	3	3.34	2	*	*	.68	4	.84	3	1.98	3	*	*	.88	3
	27	.06	4	*	*	*	*	.06	6	.85	1	*	*	*	*	.85	4
	28	11.49	1	3.33	3	.69	1	6.70	1	.83	4	1.99	2	.83	1	1.24	2
	33	7.79	2	*	*	.69	1	6.55	2	.85	1	*	*	.83	1	.84	5
	34	*	*	*	*	.41	3	.41	5	*	*	*	*	.82	3	.82	6
	Average	1.79		3.34		.62		1.86		.84		1.99		.83		.93	
1980	24	---	---	3.74	2	*	*	3.74	3	---	---	2.02	1	*	*	2.02	1
	25	.59	3	3.75	1	*	*	.69	4	.84	2	1.99	3	*	*	.88	3
	27	.06	4	*	*	*	*	.05	6	.84	2	*	*	*	*	.84	6
	28	11.91	1	3.73	3	1.12	1	6.69	2	.83	4	2.00	2	.84	3	1.27	2
	33	8.21	2	*	*	1.12	1	7.00	1	.85	1	*	*	.87	1	.85	5
	34	*	*	*	*	.54	3	.54	5	*	*	*	*	.86	2	.86	4
	Average	1.78		3.74		.99		1.91		.84		2.00		.85		.94	
1990	24	---	---	4.53	2	*	*	4.53	3	---	---	1.99	3	*	*	1.99	1
	25	.59	3	4.53	2	*	*	.74	4	.84	1	2.01	1	*	*	.88	3
	27	.07	4	*	*	*	*	.07	6	.84	1	*	*	*	*	.84	5
	28	12.76	1	4.55	1	1.91	1	6.70	2	.84	1	2.00	2	.86	2	1.34	2
	33	9.06	2	*	*	1.91	1	7.88	1	.84	1	*	*	.85	3	.84	5
	34	*	*	*	*	.73	3	.73	5	*	*	*	*	.88	1	.88	3
	Average	1.77		4.54		1.75		2.02		.84		2.00		.86		.94	
2000	24	---	---	5.34	1	*	*	5.34	3	---	---	1.99	3	*	*	1.99	1
	25	.59	3	5.34	1	*	*	.78	5	.84	1	2.00	2	*	*	.89	4
	27	.06	4	*	*	*	*	.06	6	.84	1	*	*	*	*	.84	5
	28	13.60	1	5.33	2	2.70	1	6.75	2	.84	1	2.01	1	.85	2	1.39	2
	33	9.89	2	*	*	2.70	1	8.74	1	.84	1	*	*	.82	3	.84	5
	34	*	*	*	*	1.10	3	1.10	4	*	*	*	*	.91	1	.91	3
	Average	1.78		5.33		2.56		2.15		.84		2.00		.85		.95	

--- indicate Region 24 does not have a metro area.
 * indicate (by region) metros, cities, or towns not having saltwater access.
 + indicates activity was applicable but annual days per household was less than .01.

TABLE D.10
REGIONAL COMPARISONS OF URBAN INCREMENTAL LAND RESOURCE REQUIREMENTS PER THOUSAND POPULATION
FOR SELECTED URBAN OUTDOOR RECREATION FACILITIES BY CITY SIZE, 1970-2000

Region	SWIMMING POOLS, 1970				SWIMMING POOLS, 1975			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	+	.069	.038	.013	.003	.047	.020	.010
2	---	.011	+	.006	---	.010	+	.006
3	---	.005	.108	.057	---	.023	.059	.040
4	.019	---	+	.017	.020	---	.002	.018
5	.043	.028	+	.027	.020	.005	+	.012
6	---	+	.019	.005	---	+	.004	.001
7	.026	+	+	.017	.010	+	+	.006
8	---	+	+	---	---	+	+	+
9	---	+	+	---	---	+	+	+
10	.034	.055	.088	.037	.028	.050	.054	.030
11	.067	---	.111	.067	.057	---	.097	.057
12	+	+	+	+	+	+	+	+
13	.014	+	.010	.009	.026	+	.031	.019
14	+	+	+	+	.011	+	+	.003
15	---	+	.032	.009	---	.002	.009	.004
16	.051	---	.141	.052	.030	---	.069	.031
17	+	---	+	+	.009	---	+	.008
18*Midland	.070	+	+	.023	.009	+	+	.003
Odessa	+	---	---	---	+	---	---	---
19	---	.036	+	.025	---	.026	.032	.027
20	+	---	.042	.001	+	---	.002	+
21	+	---	+	+	.005	---	+	.004
22	---	---	+	+	---	---	+	+
23	+	.052	+	.003	+	.017	+	.001
24	---	.032	+	.016	---	.015	+	.008
25	.048	.052	+	.047	.026	.033	.033	.026
26	---	.018	+	.012	---	.005	.011	.007
27	.022	+	.059	.023	.024	+	.021	.021
28	.131	+	.041	.074	.018	+	.024	.013
29	.067	---	.184	.069	.035	---	.061	.036
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	.011	.004
33	.032	+	.035	.028	.014	.005	.014	.013
34*Brownsville	+	+	.005	.001	+	.007	.007	.002
McAllen	+	---	---	---	+	---	---	---
35	.028	---	.050	.031	.030	---	.012	.027
36	---	.013	+	.008	---	.036	.011	.026
37	---	+	+	+	---	+	+	+
AVERAGE	.043	.011	.018	.036	.029	.009	.013	.025

TABLE D.10 (Continued)

Region	SWIMMING POOLS, 1980				SWIMMING POOLS, 1990			
	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population
1	.013	.052	.025	.019	.008	.125	.062	.031
2	---	.011	+	.006	---	.025	+	.013
3	---	.047	.069	.058	---	.061	.185	.120
4	.023	---	.046	.025	.055	---	.106	.058
5	.024	.005	+	.014	.060	.012	.028	.045
6	---	+	.002	.001	---	+	.003	.001
7	.010	+	+	.007	.028	.022	+	.022
8	---	+	+	---	---	+	+	---
9	---	+	.014	.003	---	.010	.035	.018
10	.031	.059	.062	.034	.074	.137	.148	.082
11	.070	---	.109	.070	.173	---	.249	.174
12	+	+	.010	.002	+	.021	.050	.022
13	.034	+	.040	.025	.092	.009	.101	.066
14	.018	.006	+	.008	.042	.030	.183	.026
15	---	.014	.013	.014	---	.033	.029	.032
16	.031	---	.074	.033	.082	---	.163	.085
17	.010	---	+	.008	.021	---	+	.019
18*Midland	.011	.012	+	.004	.023	.060	+	.015
Odessa	+	---	---	---	+	---	---	---
19	---	.030	.051	.035	---	.031	.141	.054
20	+	---	.003	+	.016	---	.004	.014
21	.012	---	+	.009	.028	---	+	.021
22	---	---	+	+	---	---	.037	.037
23	+	.018	+	.001	.054	.042	+	.050
24	---	.016	.004	.010	---	.037	.029	.033
25	.029	.038	.050	.029	.063	.087	.111	.065
26	---	.005	.021	.010	---	.009	.046	.020
27	.029	+	.018	.025	.067	.007	.038	.059
28	.019	+	.027	.013	.038	.004	.060	.028
29	.040	---	.051	.040	.103	---	.118	.103
30	---	---	+	+	---	---	+	---
31	---	+	+	+	---	+	.019	.015
32	---	.032	.014	.026	---	.018	.029	.022
33	.014	.015	.015	.014	.031	.034	.034	.032
34*Brownsville	+	.011	.003	.002	+	+	+	+
McAllen	+	---	---	---	+	---	---	---
35	.035	---	.015	.033	.092	---	.037	.087
36	---	.041	.018	.032	---	.104	.041	.081
37	---	+	+	+	---	+	+	+
AVERAGE	.035	.014	.019	.031	.090	.036	.058	.081

TABLE D.10 (Continued)

Region	SWIMMING POOLS, 2000				PLAYGROUND ACRES, 1970			
	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population
1	.006	.138	.059	.032	.002	+	+	.001
2	---	.015	+	.008	---	+	+	+
3	---	.099	.237	.163	---	+	+	+
4	.061	---	.106	.064	+	---	+	+
5	.076	.014	.071	.070	+	+	+	+
6	---	.010	+	.006	---	+	+	+
7	.029	.053	+	.027	.045	+	+	.029
8	---	+	+	+	---	+	+	+
9	---	.027	.048	.035	---	+	+	+
10	.084	.178	.192	.100	+	+	+	+
11	.209	---	.309	.210	+	---	+	+
12	+	.046	.069	.041	+	+	+	+
13	.125	.026	.136	.093	+	+	+	+
14	.055	.041	.031	.042	+	+	+	+
15	---	.043	.039	.042	---	+	+	+
16	.093	---	.201	.100	.129	---	+	.127
17	.030	---	+	.027	+	---	+	+
18*Midland	+	.073	+	.016	+	+	+	+
*Odessa	.022	---	---	---	+	---	---	---
19	---	.127	.216	.144	---	+	+	+
20	.025	---	.005	.022	+	---	+	+
21	.036	---	.003	.028	+	---	+	+
22	---	---	.061	.061	---	---	+	+
23	.116	.044	+	.105	+	+	+	+
24	---	.046	.035	.041	---	+	+	+
25	.077	.100	.121	.078	+	+	+	+
26	---	.011	.060	.024	---	+	+	+
27	.095	.016	.043	.082	+	+	.088	.007
28	.041	.053	.076	.056	+	+	+	+
29	.123	---	.099	.122	+	---	+	+
30	---	---	+	+	---	---	+	+
31	---	+	.029	.023	---	+	+	+
32	---	.052	.051	.051	---	+	+	+
33	.037	.039	.038	.037	+	+	+	+
34*Brownsville	.006	.005	.003	.004	+	+	+	+
*McAllen	+	---	---	---	+	---	---	---
35	.120	---	.024	.112	.087	---	+	.076
36	---	.133	.048	.101	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.112	.066	.084	.104	.015	+	.002	.012

TABLE D.10 (Continued)

Region	PLAYGROUND ACRES, 1975				PLAYGROUND ACRES, 1980			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL</u> <u>URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL</u> <u>URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	.036	+	+	.025	.033	+	+	.023
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	.012	---	+	.010	.060	---	+	.055
5	+	+	+	+	.081	+	+	.047
6	---	+	+	+	---	+	+	+
7	.033	+	+	.022	.044	+	+	.030
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.059	.008	+	.054	.071	.023	+	.065
11	.026	---	+	.026	.112	---	+	.111
12	+	+	+	+	+	+	+	+
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	+	+	+	---	+	+	+
16	.065	---	+	.063	.070	---	+	.068
17	.046	---	+	.040	.077	---	+	.067
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+	+	+	+	+	+	+	+
19	---	+	+	+	---	+	+	+
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	+	+	+	+	+	+	+	+
24	---	+	+	+	---	+	+	+
25	.011	+	+	.011	.060	+	+	.058
26	---	+	+	+	---	+	+	+
27	+	+	.035	.003	+	+	+	+
28	+	+	+	+	+	+	+	+
29	+	---	+	+	.074	---	+	.073
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	+	+	+	+	+	+	+	+
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+	+	+	+	+	+	+	+
35	.026	---	+	.023	.048	---	+	.043
36	---	+	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.023	+	.001	.018	.062	.001	+	.048

TABLE D.10 (Continued)

Region	PLAYGROUND ACRES, 1990				PLAYGROUND ACRES, 2000			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL</u>
	Land Acres Required Per 1,000 Population							
1	.060	+	+	.042	.038	+	+	.026
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	.147	---	+	.137	.160	---	+	.150
5	.202	+	+	.116	.265	+	+	.150
6	---	+	+	+	---	+	+	+
7	.095	+	+	.066	.108	+	+	.078
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.156	.037	+	.138	.166	.032	+	.142
11	.256	---	.008	.253	.279	---	.041	.275
12	+	+	+	+	+	+	+	+
13	+	+	+	+	.384	+	+	.157
14	+	+	+	+	.074	+	+	.023
15	---	+	+	+	---	+	+	+
16	.168	---	+	.161	.194	---	+	.183
17	.177	---	+	.156	.303	---	+	.275
18*Brownsville	+	+	+	+	+	+	+	+
*Odessa	+				+			
19	---	+	+	+	---	+	+	+
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.090	.008	+	.079	.203	.027	+	.181
24	---	+	+	+	---	+	+	+
25	.126	+	+	.120	.143	+	.007	.136
26	---	+	+	+	---	+	+	+
27	.075	+	.022	.063	.226	+	.033	.183
28	+	+	+	+	+	+	+	+
29	.183	---	+	.182	.226	---	+	.224
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	+	+	+	+	+	+	+	+
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+				+			
35	.092	---	+	.084	.135	---	+	.124
36	---	+	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.153	.002	.001	.120	.184	.003	.003	.145

TABLE D.10 (Continued)

Region	BASEBALL/SOFTBALL FIELDS, 1970				BASEBALL/SOFTBALL FIELDS, 1975			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	.057	+	.003	+	.185	.075	.030
2	---	.084	+	.051	---	.090	+	.054
3	---	+	+	+	---	+	+	+
4	+	---	+	+	+	---	+	+
5	+	+	+	+	+	+	+	+
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	+	+	+	+	+	+	+	+
11	+	---	+	+	+	---	+	+
12	+	+	+	+	+	+	+	+
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	+	+	+	---	+	+	+
16	.207	---	.576	.213	.102	---	.360	.108
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+				+			
19	---	+	+	+	---	+	+	+
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	+	+	+	+	+	+	+	+
24	---	+	+	+	---	+	+	+
25	+	+	+	+	+	.108	+	.003
26	---	+	+	+	---	+	+	+
27	+	+	.264	.021	+	+	+	+
28	+	+	+	+	+	+	+	+
29	+	---	.231	.003	+	---	.873	.009
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.264	.225	+	.216	.066	+	+	.045
34*Brownsville	.030	+	+	.012	.027	+	+	.012
*McAllen	+				+			
35	.042	---	.309	.075	.039	---	+	.036
36	---	+	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.030	.012	.015	.027	.012	.009	.012	.012

TABLE D.10 (Continued)

Region	BASEBALL/SOFTBALL FIELDS, 1980				BASEBALL/SOFTBALL FIELDS, 1990			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	.312	.201	.069	+	.336	.495	.135
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	.021	.009
4	+	---	+	+	+	---	+	+
5	+	+	+	+	+	+	+	+
6	---	+	+	+	---	+	+	+
7	+	+	+	+	---	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	+	.069	+	.003	.069	.225	.036	.075
11	+	---	+	+	+	---	+	+
12	+	+	+	+	+	+	+	+
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	+	+	+	---	+	+	+
16	.093	---	.369	.102	.198	---	.549	.213
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+	+	+	+	+	+	+	+
19	---	+	+	+	---	+	+	+
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	+	+	+	+	+	+	+	+
24	---	+	+	+	---	+	+	+
25	+	.090	.045	.003	+	.243	.234	.012
26	---	+	+	+	---	+	+	+
27	+	+	.087	.009	+	+	.129	.018
28	+	+	+	+	+	+	+	+
29	.015	---	+	.015	.114	---	+	.114
30	---	+	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.057	+	+	.042	.105	.057	+	.084
34*Brownsville	.057	+	+	.027	.036	+	+	.018
*McAllen	+	+	+	+	+	+	+	+
35	.072	---	+	.063	.153	---	+	.141
36	---	+	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.012	.012	.018	.015	.036	.036	.051	.039

TABLE D.10 (Continued)

Region	BASEBALL/SOFTBALL FIELDS, 2000				PICNIC TABLES, 1970			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	.258	.519	.135	+	.037	+	.003
2	---	+	+	+	---	+	+	+
3	---	+	.216	.099	---	+	+	+
4	.009	---	+	.009	.272	---	+	.243
5	+	+	+	+	+	.109	+	.008
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.084	.195	.165	.099	.133	+	.233	.133
11	.093	---	.123	.093	+	---	1.165	.008
12	+	+	+	+	.097	+	+	.024
13	+	+	+	+	+	+	+	+
14	+	+	+	+	.169	+	+	.045
15	---	+	+	+	---	+	+	+
16	.183	---	.537	.204	.288	---	.794	.295
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	.099	+	.007
*Odessa	+	+	+	+	+	+	+	+
19	---	.165	+	.132	---	.003	+	.002
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	.021	.021	---	---	.011	.011
23	+	+	+	+	+	.027	+	.002
24	---	.114	+	.066	---	+	+	+
25	.063	.234	.177	.069	.004	.432	.835	.024
26	---	+	+	+	---	.085	+	.056
27	+	+	.099	.015	.056	.051	.220	.069
28	+	+	.054	.015	1.357	.007	+	.692
29	.126	---	+	.123	.097	---	1.018	.106
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	.059	.020
33	.114	.051	.042	.096	+	+	+	+
34*Brownsville	.078	+	+	.039	.117	+	.018	.282
*McAllen	+	+	+	+	.645	+	+	+
35	.189	---	.315	.198	.384	---	.180	.359
36	---	.048	+	.030	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.078	.060	.087	.078	1.000	.025	.047	.084

TABLE D.10 (Continued)

Region	PICNIC TABLES, 1975				PICNIC TABLES, 1980			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	+	.077	+	.006	+	.052	+	.005
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	.059	---	+	.054	.057	---	+	.052
5	+	.022	+	.002	+	+	+	+
6	---	+	+	+	---	+	+	+
7	+	+	+	+	.008	+	+	.006
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.041	.115	.088	.046	.035	.102	.074	.040
11	+	---	.222	.002	+	---	.188	.002
12	.031	+	+	.007	.029	+	+	.007
13	+	+	+	+	+	+	+	+
14	.016	+	+	.005	.019	+	+	.006
15	---	+	.027	.007	---	+	.013	.003
16	.052	---	.135	.053	.041	---	.123	.043
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+				+			
19	---	.036	+	.028	---	.040	+	.031
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	.020	.020	---	---	.018	.018
23	+	.034	+	.002	+	.021	+	.002
24	---	+	+	+	---	+	+	+
25	.037	.146	.204	.042	.033	.130	.194	.038
26	---	.015	+	.011	---	.014	+	.010
27	.007	.020	.044	.012	.047	.010	.044	.043
28	.125	.060	+	.079	.121	.064	.039	.082
29	.030	---	.073	.031	.067	---	.140	.068
30	---	+	+	+	---	+	+	+
31	---	+	+	+	---	+	+	+
32	---	+	.014	.005	---	+	.013	.005
33	+	+	.005	.001	+	+	.023	.004
34*Brownsville	.019	+	+	.008	.017	+	+	.008
*McAllen	+				+			
35	.023	---	.051	.026	.018	---	+	.016
36	---	+	.010	.004	---	+	.018	.007
37	---	+	+	+	---	+	+	+
AVERAGE	.024	.020	.014	.022	.024	.021	.018	.023

TABLE D.10 (Continued)

Region	PICNIC TABLES, 1990				PICNIC TABLES, 2000			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	.056	.122	+	.051	.030	.108	.016	.036
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	.116	---	.012	.109	.092	---	.025	.088
5	+	.022	+	.002	+	.23	+	.002
6	---	+	+	+	---	+	+	+
7	.053	+	+	.037	.041	+	+	.030
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.061	.189	.125	.073	.040	.162	.106	.054
11	.045	---	.280	.048	.048	---	.214	.050
12	.027	+	+	.007	.050	+	+	.011
13	+	.013	+	.004	+	.018	+	.006
14	.028	+	+	.008	.028	+	+	.009
15	---	+	.023	.005	---	+	.040	.008
16	.095	---	.194	.100	.071	---	.142	.075
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+	+	+	+	+	+	+	+
19	---	.069	+	.055	---	.079	+	.064
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	.040	.040	---	---	.041	.041
23	+	.041	+	.003	+	.013	+	.001
24	---	+	+	+	---	+	+	+
25	.054	.238	.323	.064	.044	.183	.220	.052
26	---	.024	+	.017	---	.025	+	.019
27	.039	.010	.054	.039	.050	.021	.062	.050
28	.229	.114	.109	.150	.256	.116	.107	.148
29	.020	---	.197	.022	.038	---	.201	.039
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	.025	.009	---	+	.023	.008
33	+	.042	.036	.011	+	.050	.038	.012
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+	+	+	+	+	+	+	+
35	.033	---	.050	.037	.029	---	+	.027
36	---	+	.038	.014	---	.004	.033	.015
37	---	+	+	+	---	+	+	+
AVERAGE	.050	.048	.043	.049	.044	.049	.044	.045

TABLE D.10 (Continued)

Region	FOOTBALL/SOCCER FIELDS, 1970				FOOTBALL/SOCCER FIELDS, 1975			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	+	.285	.103	.042	+	+	+	+
2	---	+	+	+	---	+	+	+
3	---	+	.125	.061	---	+	+	+
4	.509	---	.217	.479	.065	---	.213	.080
5	+	.084	.015	.011	+	+	+	+
6	---	.023	.277	.087	---	+	+	+
7	.171	.163	+	.137	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	.049	.008	---	+	+	+
10	.186	.395	.296	.194	.034	.125	.103	.042
11	.209	---	2.470	.224	.049	---	.281	.053
12	+	+	.163	.034	+	.008	+	.004
13	.072	+	+	.034	+	+	+	+
14	.198	.243	.175	.213	+	+	+	+
15	---	+	.053	.015	---	+	+	+
16	.182	---	1.463	.201	.015	---	+	.015
17	.239	---	+	.201	+	---	+	+
18*Midland	.065	+	.247	.065	+	+	+	+
*Odessa	+				+			
19	---	.011	.027	.015	---	.038	+	.030
20	.160	---	.258	.179	+	---	+	+
21	.517	---	.175	.414	+	---	+	+
22	---	---	.167	.167	---	---	+	+
23	.357	.201	.156	.331	.042	+	+	.034
24	---	.179	.114	.144	---	+	+	+
25	.175	.258	2.603	.198	.046	.068	.281	.049
26	---	.129	.255	.171	---	+	+	+
27	.049	+	.334	.068	+	+	+	+
28	.194	+	.175	.133	+	+	+	+
29	.638	---	2.345	.654	.053	---	+	.053
30	---	---	.110	.110	---	---	+	+
31	---	.239	.068	.106	---	+	+	+
32	---	+	.448	.152	---	+	+	+
33	.315	.190	.167	.274	.034	+	+	.023
34*Brownsville	.445	+	+	.228	+	+	+	+
*McAllen	.129				+			
35	.714	---	.391	.676	.049	---	+	.046
36	---	.209	.338	.258	---	+	.152	.057
37	---	.023	.228	.084	---	+	+	+
AVERAGE	.224	.084	.209	.201	.034	.011	.019	.030

TABLE D.10 (Continued)

Region	FOOTBALL/SOCCER FIELDS, 1980				FOOTBALL/SOCCER FIELDS, 1990			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	+	+	+	+	+	.141	.068	.030
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	.057	---	+	.053	.114	---	+	.106
5	+	+	+	+	+	+	.015	.004
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	.194	.034	---	+	+	+
10	.027	+	.076	.027	.049	.095	.087	.057
11	.049	---	.205	.049	.084	---	.346	.087
12	+	.023	+	.015	+	+	.061	.011
13	+	+	+	+	+	+	+	+
14	.057	+	+	.015	+	.034	+	.015
15	---	+	+	+	---	+	+	+
16	.015	---	.156	.019	.030	---	.087	.034
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+	+	+	+	+	+	+	+
19	---	+	+	+	---	.030	+	.023
20	+	---	+	+	+	---	+	+
21	+	---	+	+	.053	---	+	.038
22	---	---	+	+	---	---	+	+
23	.038	+	+	.034	.065	.125	.182	.076
24	---	+	.057	.027	---	.042	+	.023
25	.038	.057	.452	.042	.065	.114	.448	.068
26	---	+	+	+	---	+	+	+
27	.015	+	+	.011	+	+	+	+
28	.030	+	.065	.027	+	+	+	+
29	.057	---	+	.057	.084	---	+	.084
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.015	+	.068	.023	.038	+	+	.027
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+	+	+	+	+	+	+	+
35	.091	---	+	.080	.080	---	+	.072
36	---	+	+	+	---	.068	+	.042
37	---	+	+	+	---	+	+	+
AVERAGE	.034	.008	.030	.030	.057	.027	.034	.049

TABLE D.10 (Continued)

Region	FOOTBALL/SOCCER FIELDS, 2000				GOLF HOLES, 1970			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	+	+	+	1.650	+	3.830	1.980
2	---	+	+	+	---	3.060	2.660	2.910
3	---	+	+	+	---	+	3.290	1.640
4	.072	---	+	.068	1.940	---	2.860	2.040
5	+	+	+	+	2.560	1.750	.350	1.740
6	---	+	+	+	---	+	2.200	.560
7	+	+	+	+	1.340	2.160	+	1.220
8	---	+	+	+	---	1.150	.770	.920
9	---	+	+	+	---	1.320	1.520	1.360
10	.027	.061	.061	.034	1.840	3.620	3.100	1.940
11	.057	---	.308	.061	4.090	---	6.500	4.110
12	+	.019	+	.011	.370	+	+	.090
13	+	+	+	+	3.100	.880	1.530	2.060
14	.046	+	.053	.030	2.940	1.290	.770	1.570
15	---	.008	+	.008	---	1.100	+	.790
16	.019	---	.057	.023	.960	---	2.890	.990
17	.182	---	+	.163	1.410	---	+	1.200
18*Midland	+	+	+	+	4.540	+	2.620	3.150
*Odessa	+	+	+	+	2.810	+	+	+
19	---	+	.106	.023	---	2.260	+	1.550
20	+	---	+	+	2.540	---	+	2.030
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.068	+	+	.057	.550	1.590	.820	.640
24	---	+	+	+	---	+	+	+
25	.049	.061	.334	.053	2.630	3.640	5.990	2.680
26	---	.076	+	.057	---	.680	.670	.670
27	.011	+	.061	.019	1.490	2.450	2.200	1.630
28	+	+	.034	.008	3.080	1.010	1.370	2.130
29	.065	---	1.015	.072	1.610	---	3.090	1.630
30	---	+	+	+	---	---	1.160	1.160
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	.590	.200
33	.019	.065	+	.023	1.220	2.000	1.530	1.380
34*Brownsville	+	+	+	+	+	.650	.480	.120
*McAllen	+	+	+	+	+	+	+	+
35	.103	---	+	.095	.430	---	.260	.410
36	---	.061	.099	.076	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.042	.019	.042	.038	2.280	1.090	1.110	1.990

TABLE D.10 (Continued)

Region	GOLF HOLES, 1975				GOLF HOLES, 1980			
	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population
1	.64	+	.74	.61	.650	1.040	.890	.740
2	---	.60	.88	.71	---	.640	.880	.740
3	---	+	1.55	.73	---	+	1.470	.710
4	1.21	---	1.11	1.20	1.260	---	1.060	1.240
5	1.53	+	.85	1.19	1.930	.880	.830	1.470
6	---	+	.69	.19	---	+	+	+
7	.77	.47	+	.58	.870	1.030	+	.740
8	---	.59	+	.24	---	.610	+	.250
9	---	.55	.71	.59	---	.660	1.010	.720
10	1.43	1.97	1.35	1.44	1.570	2.270	1.580	1.610
11	2.02	---	2.22	2.02	2.290	---	2.680	2.290
12	.52	+	+	.12	.820	+	+	.180
13	2.12	.56	.74	1.31	2.890	.270	.720	1.020
14	.81	.42	.31	.50	1.220	.610	.310	.700
15	---	.56	+	.42	---	.640	+	.490
16	.77	---	1.20	.77	.810	---	1.230	.820
17	.93	---	+	.80	.920	---	+	.800
18*Midland	.36	+	.35	.24	.750	+	1.080	.550
*Odessa	.14	---	---	---	.290	---	---	---
19	---	.93	.35	.80	---	1.130	2.000	1.320
20	.55	---	+	.46	.640	---	+	.530
21	+	---	+	+	.160	---	+	.120
22	---	---	+	+	---	---	+	+
23	.99	.45	.35	.90	1.250	.830	+	1.130
24	---	+	+	+	---	.390	+	.210
25	1.13	1.28	1.49	1.14	1.200	1.340	1.790	1.210
26	---	.31	.64	.42	---	+	+	+
27	9.37	.40	.71	1.05	1.310	.400	.580	1.160
28	.59	.63	.64	.61	.680	.620	.520	.620
29	.99	---	2.91	1.01	1.210	---	+	1.200
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.56	.46	.20	.49	.540	.420	.370	.500
34*Brownsville	+	.68	.26	.08	+	+	+	+
*McAllen	+	---	+	.23	.360	---	+	.320
35	.26	---	+	.04	---	.110	+	.680
36	---	.06	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	1.19	.43	.45	1.02	1.370	.570	.530	1.180

TABLE D.10 (Continued)

Region	GOLF HOLES, 1990				GOLF HOLES, 2000			
	METRO	CITY	TOWN	TOTAL	METRO	CITY	TOWN	TOTAL
	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	URBAN AREAS Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	URBAN AREAS Land Acres Required Per 1,000 Population
1	1.09	4.11	1.83	1.55	.570	3.450	1.570	1.100
2	---	1.48	2.20	1.81	---	.920	2.370	1.630
3	---	1.43	3.97	2.63	---	2.500	4.560	3.450
4	2.76	---	2.40	2.73	2.760	---	1.950	2.710
5	4.44	.89	2.23	3.41	5.100	.900	2.490	3.870
6	---	+	+	+	---	+	+	+
7	2.10	1.14	+	1.62	1.950	2.750	+	1.730
8	---	1.32	+	.57	---	1.410	+	.630
9	---	1.83	1.35	1.67	---	2.480	1.720	2.190
10	3.43	4.47	3.48	3.50	3.630	5.090	3.930	3.760
11	5.11	---	4.54	6.10	5.390	---	4.680	5.380
12	1.60	1.09	+	.99	2.130	1.790	1.060	1.710
13	6.89	1.26	2.79	4.02	8.890	1.430	3.390	4.950
14	2.61	1.39	.89	1.61	3.600	2.070	1.010	2.260
15	---	1.38	+	1.08	---	1.890	+	1.510
16	1.85	---	1.83	1.85	1.940	---	2.090	1.940
17	1.93	---	+	1.70	2.550	---	+	2.320
18*Midland	1.24	+	1.15	.98	.840	+	1.660	.840
*Odessa	.80	---	---	---	.640	---	---	---
19	---	.98	4.94	1.80	---	3.990	6.730	4.530
20	1.22	---	+	1.02	1.430	---	+	1.200
21	2.03	---	+	1.54	2.760	---	+	2.140
22	---	---	+	+	---	---	.540	.540
23	3.08	1.65	+	2.81	4.190	2.650	.580	3.930
24	---	1.44	+	.80	---	1.620	+	.920
25	2.46	2.83	3.13	2.48	2.730	2.800	2.930	2.730
26	---	.48	.61	.51	---	.610	.590	.600
27	2.91	.82	1.30	2.55	3.650	1.240	1.640	3.190
28	1.42	1.33	1.21	1.33	1.460	1.490	1.330	1.440
29	3.04	---	2.63	3.03	3.820	---	2.670	3.810
30	---	---	.11	1.09	---	---	1.050	1.050
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	.510	.460	.490
33	1.22	1.31	.64	1.15	1.330	.830	.700	1.180
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+	---	---	---	+	---	---	---
35	.82	---	1.00	.84	1.620	---	+	1.490
36	---	2.38	+	1.49	---	3.590	+	2.260
37	---	+	+	+	---	+	+	+
AVERAGE	3.13	1.50	1.34	2.76	3.470	2.180	1.680	3.150

TABLE D.10 (Continued)

Region	TENNIS COURTS, DOUBLES, 1970				TENNIS COURTS, DOUBLES, 1975			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	+	+	+	+	+	+	+
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	.001	+	.001
4	.003	---	+	.002	.006	---	+	.005
5	+	.011	+	.001	+	+	+	+
6	---	.001	+	.001	---	+	.002	.001
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	.001	+
10	.482	+	+	.045	.030	.013	+	.028
11	.116	---	+	.116	.089	---	+	.088
12	+	+	+	+	+	+	+	+
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	.001	+	.001	---	.007	+	.006
16	.082	---	.003	.080	.048	---	.016	.048
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+	+	+	+	+	+	+	+
19	---	+	+	+	---	.004	+	.003
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.022	.007	+	.019	.013	.012	+	.012
24	---	+	+	+	---	.002	+	.001
25	.163	.035	.003	.158	.130	.028	+	.126
26	---	.004	+	.003	---	.004	+	.003
27	.023	+	.001	.019	.011	.001	.009	.010
28	.006	+	.003	.003	.002	.001	.011	.004
29	.020	---	+	.020	.012	---	+	.012
30	---	---	.004	.004	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.012	+	+	.008	.010	+	+	.007
34*Brownsville	.001	+	+	.001	.001	+	+	.001
*McAllen	+	+	+	+	+	+	+	+
35	.006	---	.003	.005	.005	---	.013	.006
36	---	.004	+	.002	---	.003	+	.002
37	---	+	.002	.001	---	+	+	+
AVERAGE	.077	.002	+	.058	.059	.003	.001	.046

TABLE D.10 (Continued)

Region	TENNIS COURTS, DOUBLES, 1980				TENNIS COURTS, DOUBLES, 1990			
	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population
1	+	.002	+	+	+	.015	+	.001
2	---	+	+	+	---	+	+	+
3	---	.004	+	.002	---	.006	+	.003
4	.007	---	+	.006	.014	---	+	.013
5	+	+	+	+	+	+	+	+
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	.007	.001	---	+	.006	.002
10	.023	.018	+	.021	.042	.042	.012	.040
11	.085	---	.007	.084	.188	---	.020	.186
12	+	+	+	+	+	.005	+	.002
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	.006	+	.005	---	.011	+	.009
16	.031	---	.016	.030	.054	---	.033	.053
17	+	---	+	+	+	---	+	+
18*Midland	+	+	+	+	+	+	+	+
*Odessa	+				+			
19	---	.007	+	.006		.014	+	.011
20	+	---	+	+	+	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	.001	.001
23	.015	+	+	.013	.032	.004	+	.028
24	---	.005	+	.003	---	.009	+	.005
25	.100	.031	.008	.097	.174	.064	.010	.168
26	---	+	+	+	---	.003	+	.002
27	.099	+	.004	.007	.013	+	.008	.011
28	+	.009	.009	.005	+	.018	.016	.012
29	.011	---	+	.011	.021	---	+	.021
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	.001	+	.001	---	.004	+	.002
33	.009	+	+	.007	.017	.005	+	.013
34*Brownsville	.001	+	+	.001	+	+	+	+
*McAllen	+				+			
35	.005	---	+	.004	.014	---	+	.006
36	---	.003	.001	.002	---	.002	.004	.003
37	---	+	.007	.002	---	+	+	+
AVERAGE	.050	.004	.001	.040	.103	.012	.004	.083

TABLE D.10 (Continued)

Region	TENNIS COURTS, DOUBLES, 2000				BASKETBALL COURTS, FULL, 1970			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	0+	.015	.006	.003	+	.004	+	+
2	---	+	+	+	---	+	+	+
3	---	.008*	+	.004	---	+	+	+
4	.015	---	+	.014	.005	---	+	.005
5	+	+	+	+	+	.004	+	+
6	---	+	+	+	---	+	.029	.007
7	+	+	+	+	.007	.017	+	.007
8	---	+	+	+	---	+	+	+
9	---	+	.009	.003	---	.002	+	.002
10	.038	.059	.018	.038	.026	.010	.016	.025
11	.207	---	.032	.204	+	---	.022	+
12	+	.008*	.002	.005	.004	+	.001	.001
13	+	+	+	+	+	+	.002	.004
14	+	+	+	+	.021	+	+	.006
15	---	.014	+	.011	---	+	+	+
16	.056	---	.045	.056	+	---	.019	+
17	+	---	+	+	.003	---	+	.003
18*Midland	+	+	+	+	.010	.004	+	.008
*Odessa	+	+	+	+	.010	+	+	+
19	---	.018	+	.014	---	+	+	+
20	+	---	+	+	+	---	+	+
21	.003	---	+	.002	+	---	.002	+
22	---	---	.004	.004	---	---	.009	.009
23	.044	+	+	.038	.036	+	+	.031
24	---	.011	+	.006	---	+	+	+
25	.197	.075	.011	.190	+	+	.017	+
26	---	.003	.002	.002	---	+	.067	.022
27	.018	+	.009	.015	+	+	.002	+
28	+	.025	.022	.018	+	+	.001	+
29	.020*	---	+	.020	+	---	.015	+
30	---	---	.003	.003	---	---	.006	.006
31	---	+	+	+	---	+	+	+
32	---	+	.001	.001	---	+	.003	.001
33	.020*	.011	.002	.016	+	+	+	+
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+	+	+	+	+	+	+	+
35	.009	---	+	.009	.009	---	.005	.008
36	---	.006	.007	.006	---	+	.002	+
37	---	.002	+	.002	---	+	.003	+
AVERAGE	.118	.017	.008	.096	.005	.001	.003	.004

TABLE D.10 (Continued)

Region	BASKETBALL COURTS, FULL, 1975				BASKETBALL COURTS, FULL, 1980			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	+	+	+	+	+	+	+
2	---	+	+	+	---	.006	+	.004
3	---	+	+	+	---	+	+	+
4	.022	---	+	.020	.024	---	+	.022
5	+	+	+	+	+	+	+	+
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	.015	+	.012	---	.015	+	.013
10	.009	.020	.032	.010	.009	.014	+	.008
11	.002	---	+	.001	.020	---	.011	.002
12	.014	.012	+	.010	.013	.016	+	.012
13	+	+	.007	.002	+	+	+	+
14	.026	+	.001	.007	.027	+	.003	.009
15	---	+	+	+	---	+	+	+
16	+	---	+	+	.002	---	+	.002
17	+	---	+	+	+	---	+	+
18*Midland	.018	+	+	.008	.019	.017	+	.049
*Odessa	.006				.006			
19	---	+	+	+	---	+	+	+
20	.006	---	+	.005	.010	---	+	.008
21	+	---	+	+	+	---	.009	.002
22	---	---	.008	.008	---	---	+	+
23	.035	+	+	.029	.040	+	+	.034
24	---	+	+	+	---	+	+	+
25	.005	.001	.015	.005	.015	.015	.024	.015
26	---	+	+	+	---	+	.013	.004
27	+	+	+	+	+	+	.006	.001
28	+	+	.004	.001	+	.002	+	.001
29	.016	---	.058	.016	.021	---	+	.021
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	.001	+	.001	---	.006	+	.018
33	+	.001	.024	.004	+	.025	.037	.009
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+				+			
35	.008	---	.020	.009	.005	---	+	.004
36	---	+	+	+	---	+	+	+
37	---	.001	.012	.004	---	.013	.011	.013
AVERAGE	.006	.003	.004	.005	.009	.006	.003	.008

TABLE D.10 (Continued)

Region	BASKETBALL COURTS, FULL, 1990				BASKETBALL COURTS, FULL, 2000			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	.002	.007	+	.002	.018	+	+	.012
2	---	.015	+	.008	---	.009	+	.005
3	---	+	+	+	---	.037	+	.020
4	.054	---	+	.050	.056	---	+	.053
5	+	+	+	+	+	+	+	+
6	---	+	+	+	---	+	+	+
7	.002	+	+	.001	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	.032	+	.022	---	.033	+	.021
10	.016	.025	.026	.017	.014	.026	.024	.016
11	.004	---	.006	.004	.003	---	.008	.003
12	.027	.029	+	.022	.032	.037	+	.028
13	+	+	.014	.003	+	+	.007	.002
14	.055	+	+	.016	.060	+	.003	.020
15	---	.003	+	.002	---	+	+	+
16	.005	---	.003	.005	.005	---	.006	.005
17	+	---	+	+	+	---	+	+
18*Midland	.028	+	+	.017	.024	.016	+	.015
*Odessa	.016	---	+	+	.013	---	+	+
19	---	+	+	+	---	+	+	+
20	.016	---	+	.014	.014	---	+	.012
21	+	---	+	+	+	---	+	+
22	---	---	.006	.006	---	---	+	+
23	.089	+	+	.077	.108	+	+	.095
24	---	.001	+	+	---	.002	+	.001
25	.031	.034	.039	.031	.034	.037	.035	.034
26	---	.005	+	.003	---	.012	+	.009
27	+	+	+	+	+	+	.003	.001
28	+	.020	+	.009	+	.024	+	.011
29	.044	---	.053	.044	.047	---	.053	.027
30	---	---	+	+	---	---	.005	.005
31	---	+	+	+	---	+	+	+
32	---	.005	+	.003	---	.005	+	.003
33	+	.052	.070	.017	.002	.060	.081	.020
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+	---	+	+	+	---	+	+
35	.029	---	.020	.015	.014	---	+	.013
36	---	+	+	+	---	+	+	+
37	---	.021	.022	.021	---	.023	.020	.022
AVERAGE	.019	.014	.007	.017	.020	.018	.008	.019

TABLE D.10 (Continued)

Region	BOAT RAMPS, FRESHWATER, (2.0 lanes per ramp), 1970				BOAT RAMPS, FRESHWATER, (2.0 lanes per ramp), 1975			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL</u>
	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population
1	.019	+	.032	.020	.008	+	.030	.012
2	---	.034	+	.020	---	+	.053	.022
3	---	.040	.040	.040	---	+	+	+
4	.024	---	+	.022	.079	---	+	.006
5	.024	+	.020	.022	.012	+	.020	.014
6	---	.030	+	.023	---	+	+	+
7	.026	+	.046	.026	+	.056	+	.008
8	---	+	.047	.028	---	+	+	+
9	---	.026	.061	.032	---	+	.042	.010
10	.002	+	.094	.005	.013	.040	.032	.014
11	.013	---	.260	.014	.012	---	+	.012
12	.112	.019	+	.037	.020	.008	+	.010
13	.023	.035	.046	.032	+	+	+	+
14	.020	.025	+	.017	.019	+	+	.006
15	---	.026	.070	.038	---	+	+	+
16	.018	---	+	.017	.011	---	+	.011
17	.037	---	.109	.048	+	---	+	+
18*Midland	.020	+	.040	.020	.022	+	+	.007
*Odessa	.016	---	---	---	+	---	---	---
19	---	.016	.032	.020	---	.012	+	.010
20	.030	---	.041	.032	.008	---	+	.007
21	.023	---	+	.017	+	---	+	+
22	---	---	.053	.053	---	---	+	+
23	.029	.064	.049	.032	.017	+	.042	.018
24	---	+	.018	.010	---	+	.019	.010
25	.018	.028	+	.018	.012	+	.089	.012
26	---	+	.080	.026	---	.037	+	.025
27	.011	+	+	.008	.014	+	.042	.013
28	.020	+	.028	.016	.010	.012	+	.010
29	.007	---	+	.007	.010	---	+	.010
30	---	---	+	---	---	---	+	+
31	---	+	.043	.034	---	+	+	+
32	---	+	+	+	---	.035	+	.023
33	.012	+	.026	.012	.011	.028	+	.011
34*Brownsville	.024	+	.029	.019	+	+	+	+
*McAllen	.013	---	---	---	+	---	---	---
35	.017	---	+	.016	+	---	+	+
36	---	+	+	---	---	+	.048	.018
37	---	+	+	---	---	.028	+	.020
AVERAGE	.017	.016	.030	.018	.011	.008	.011	.011

TABLE D.10 (Continued)

Region	BOAT RAMPS, FRESHWATER, (2.0 lanes per ramp), 1980				BOAT RAMPS, FRESHWATER, (2.0 lanes per ramp), 1990			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	.008	.062	+	.011	.019	+	.044	.023
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	.029	.031	.030
4	.018	---	.064	.022	.028	---	+	.025
5	+	+	+	+	.024	.107	.019	.028
6	---	+	.078	.023	---	.032	+	.022
7	.013	+	+	.008	.025	+	.053	.026
8	---	+	+	+	---	+	+	+
9	---	.013	+	.011	---	.013	.026	.018
10	.012	+	.024	.012	.024	.030	.042	.025
11	.013	---	.065	.014	.029	---	.072	.029
12	.019	.016	+	.013	.016	.020	+	.016
13	.023	+	+	.011	.024	.030	.042	.030
14	+	.012	+	.005	.034	.022	+	.019
15	---	.019	+	.014	---	.016	+	.012
16	.012	---	.049	.013	.023	---	.028	.024
17	.018	---	+	.016	+	---	+	+
18*Midland	+	+	+	.007	.019	+	+	.008
*Odessa	.017	---	---	---	+	---	---	---
19	---	.011	+	.008	---	.019	.037	.023
20	.008	---	.043	.014	.010	---	+	.008
21	.019	---	+	.014	.017	---	+	.012
22	---	---	+	+	---	---	.038	.038
23	.012	+	+	.011	.031	.040	+	.030
24	---	.016	+	.008	---	.013	.017	.014
25	.013	.018	+	.013	.026	.024	.047	.026
26	---	+	+	+	---	.029	+	.020
27	.010	.048	+	.011	.022	+	.026	.020
28	.010	.011	.020	.012	.011	.024	.029	.020
29	.012	---	+	.012	.022	---	+	.022
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	.082	.023	.036
32	---	+	.064	.022	---	+	+	+
33	.010	+	.022	.010	.023	.023	.019	.023
34*Brownsville	.011	+	+	.011	+	+	+	+
*McAllen	.016	---	---	---	+	---	---	---
35	.016	---	+	.013	.025	---	.120	.034
36	---	+	+	+	---	.022	+	.013
37	---	+	+	+	---	.025	.066	.037
AVERAGE	.012	.010	.010	.012	.025	.022	.023	.024

TABLE D.10 (Continued)

Region	BOAT RAMPS, FRESHWATER, (2.0 lanes per ramp), 2000				WALKING TRAILS, 1970			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population
1	.012	.035	.037	.019	.504	+	.872	.544
2	---	+	+	+	---	+	+	+
3	---	.025	.029	.026	---	+	.264	.128
4	.026	---	+	.025	+	---	.912	.096
5	.012	+	.019	.014	+	+	+	+
6	---	+	+	+	---	.200	+	.152
7	.013	+	+	.010	.448	+	+	.288
8	---	+	+	+	---	.464	+	.184
9	---	.025	.041	.031	---	1,320	+	1,088
10	.022	.029	.037	.024	.728	.832	.624	.728
11	.029	---	.049	.029	.744	---	.864	.744
12	.032	.011	.016	.024	+	.064	+	.032
13	+	.029	+	.010	.312	.232	1,224	.504
14	.014	.011	+	.010	.032	.776	.856	.600
15	---	.036	.048	.038	---	.176	.464	.256
16	.025	---	.036	.025	.576	---	.768	.576
17	.019	---	+	.017	.128	---	+	.104
18*Midland	.020	.097	+	.025	.672	.632	1,048	.528
*Odessa	.025	---	---	---	.208	---	---	---
19	---	.025	+	.020	---	+	+	+
20	.022	---	+	.018	.136	---	.272	.160
21	.028	---	+	.022	.152	---	.368	.216
22	---	---	+	+	---	---	+	+
23	.040	+	+	.035	.064	.424	+	.080
24	---	.023	.030	.026	---	.248	.240	.248
25	.028	.028	+	.028	.432	+	.688	.424
26	---	.024	+	.018	---	.544	.536	.536
27	.023	+	.019	.022	.840	.984	.704	.840
28	.012	.025	.022	.020	.888	.344	.184	.592
29	.025	---	+	.025	.568	---	+	.568
30	---	---	.126	.126	---	---	.928	.928
31	---	+	+	+	---	+	+	+
32	---	.031	+	.019	---	.240	.472	.320
33	.029	.020	.017	.026	.192	+	.352	.192
34*Brownsville	+	+	+	+	.312	+	.384	.256
*McAllen	+	---	---	---	.184	---	---	---
35	.022	---	+	.020	.112	---	+	.104
36	---	.019	.031	.024	---	+	+	+
37	---	+	+	+	---	.384	.480	.416
AVERAGE	.026	.022	.019	.025	.504	.336	.344	.464

TABLE D.10 (Continued)

Region	WALKING TRAILS, 1975				WALKING TRAILS, 1980			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	.344	+	+	.240	.312	+	.360	.296
2	---	.240	.352	.288	---	.256	+	.144
3	---	.224	+	.120	---	.224	.232	.224
4	+	---	.448	.040	.200	---	.424	.224
5	.248	.704	+	.192	.328	+	.136	.232
6	---	.208	+	.152	---	.216	+	.152
7	.176	.376	+	.176	.088	.416	+	.120
8	---	+	.328	.192	---	.488	.336	.408
9	---	.352	+	.264	---	.264	+	.216
10	.280	.528	.432	.296	.288	.360	+	.272
11	.232	---	+	.232	.200	---	.432	.200
12	+	+	+	+	+	+	+	+
13	.152	.224	.592	.280	.152	.216	.288	.208
14	.126	.256	.248	.216	.120	.248	.248	.208
15	---	.296	+	.224	---	.384	.400	.392
16	.064	---	.480	.072	.056	---	+	.056
17	.368	---	+	.320	.368	---	+	.320
18*Midland	.288	+	+	.144	.304	.664	+	.248
*Odessa	.112	---	---	---	.232	---	---	---
19	---	.080	+	.064	---	.152	.264	.176
20	.112	---	+	.096	.168	---	+	.144
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.088	+	.280	.096	.104	.328	+	.120
24	---	.104	.256	.184	---	.208	.120	.168
25	.280	+	.592	.272	.456	+	.480	.440
26	---	.488	+	.336	---	.448	+	.312
27	.360	.320	.848	.408	.344	.320	.464	.352
28	.200	.080	+	.120	.200	.072	.136	.136
29	.376	---	2.328	.392	.376	---	+	.368
30	---	---	+	+	---	---	.888	.888
31	---	+	+	+	---	+	+	+
32	---	.232	+	.152	---	.224	.424	.296
33	.280	+	.160	.224	.312	+	+	.224
34*Brownsville	.224	+	+	.168	.152	+	+	.136
*McAllen	.200	---	---	---	.216	---	---	---
35	+	---	+	+	.096	---	+	.088
36	---	+	+	+	---	+	+	+
37	---	.368	.464	.400	---	.360	+	.256
AVERAGE	.224	.168	.152	.208	.264	.184	.136	.240

TABLE D.10 (Continued)

Region	WALKING TRAILS, 1990				WALKING TRAILS, 2000			
	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>	<u>METRO</u>	<u>CITY</u>	<u>TOWN</u>	<u>TOTAL URBAN AREAS</u>
	Land Acres Required Per 1,000 Population							
1	.568	.296	.296	.480	.304	+	.504	.312
2	---	.592	.352	.480	---	.368	+	.184
3	---	.384	+	.200	---	.496	+	.264
4	.544	---	.384	.536	.552	---	.784	.568
5	.648	+	.768	.648	.488	.720	.624	.552
6	---	.216	+	.144	---	.224	+	.136
7	.256	.456	+	.240	.256	.552	.392	.312
8	---	.528	+	.232	---	.560	.456	.504
9	---	.600	+	.408	---	.744	.136	.512
10	.544	.896	1,024	.592	.472	.840	.816	.528
11	.480	---	.480	.480	.408	---	.648	.408
12	+	+	.128	.024	+	+	1,912	.400
13	.312	.400	.560	.400	.320	.568	.816	.528
14	.224	.520	.048	.416	.296	.528	.576	.472
15	---	.800	.360	.704	---	.872	.960	.888
16	.096	---	.184	.104	.080	---	.360	.096
17	.512	---	+	.456	.512	---	+	.464
18*Midland	.496	+	+	.368	.400	.648	+	.392
*Odessa	.480	---	---	---	.512	---	---	---
19	---	.328	.248	.312	---	.056	.224	.088
20	.192	---	+	.160	.216	---	+	.176
21	.112	---	+	.080	.184	---	+	.144
22	---	---	+	+	---	---	+	+
23	.480	.528	.768	.264	.240	.424	+	.248
24	---	.352	+	.200	---	.384	.600	.472
25	.768	+	.624	.744	.824	.064	.936	.800
26	---	.760	+	.544	---	.808	+	.600
27	.720	.328	.872	.712	.776	.664	1,048	.808
28	.424	.104	+	.184	.232	.080	.072	.120
29	.824	---	+	.816	.864	---	+	.856
30	---	---	+	+	---	---	.840	.840
31	---	+	+	+	---	+	+	+
32	---	.648	.392	.560	---	.616	.728	.656
33	.640	+	.128	.488	.712	.136	.112	.560
34*Brownsville	.376	+	+	.224	.208	+	+	.160
*McAllen	.144	---	---	---	.176	---	---	---
35	+	---	+	+	+	---	+	+
36	---	+	+	+	---	.128	+	.080
37	---	.680	.440	.608	---	.616	.816	.672
AVERAGE	.520	.344	.280	.480	.512	.352	.480	.488

TABLE D.10 (Continued)

Region	BICYCLING TRAILS, 1970				BICYCLING TRAILS, 1975			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	.192	+	.216	.184	.168	.496	.200	.200
2	---	+	+	+	---	.240	+	.144
3	---	+	.264	.128	---	.224	+	.120
4	+	---	.456	.048	+	---	+	+
5	+	+	+	+	.080	+	+	.048
6	---	+	+	+	---	.208	+	.152
7	.176	+	+	.112	.088	+	+	.056
8	---	.464	+	.184	---	+	+	+
9	---	.352	+	.288	---	+	+	+
10	.488	.832	.624	.504	.280	.784	.216	.296
11	.248	---	+	.243	.144	---	.592	.152
12	+	+	+	+	+	.056	+	.032
13	.040	+	.616	.160	+	+	.296	.072
14	.136	.432	.368	.336	.128	.168	.248	.184
15	---	.176	+	.128	---	.152	.432	.224
16	.080	---	+	.080	.008	---	+	.008
17	.128	---	+	.104	.248	---	+	.216
18*Midland	.136	1.264	+	.176	.288	+	+	.144
*Odessa	.104				.112			
19	---	+	+	+	---	+	+	+
20	.064	---	1.088	.272	.056	---	.280	.096
21	.040	---	+	.024	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.064	+	+	.056	.168	+	+	.144
24	---	.128	.240	.184	---	.208	.126	.184
25	.256	+	.688	.248	.264	.288	+	.264
26	---	.272	+	.176	---	+	+	+
27	.176	.328	.352	.200	.200	+	+	.160
28	.136	.112	.184	.136	.200	.080	.168	.152
29	.224	---	+	.224	.216	---	+	.216
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.120	+	+	.080	.208	+	+	.144
34*Brownsville	.160	+	+	.072	.072	+	+	.032
*McAllen	.024				+			
35	.032	---	+	.024	+	---	+	+
36	---	+	+	+	---	+	+	+
37	---	.192	+	.136	---	+	+	+
AVERAGE	.208	.144	.152	.192	.168	.104	.072	.152

TABLE D.10 (Continued)

Region	BICYCLING TRAILS, 1980				BICYCLING TRAILS, 1990			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	.160	+	+	.112	.264	.296	.296	.272
2	---	.256	+	.144	---	.296	+	.160
3	---	.224	+	.112	---	.568	+	.304
4	.160	---	+	.144	.512	---	.768	.536
5	.080	+	+	.048	.160	+	.512	.280
6	---	+	+	+	---	.216	+	.144
7	.176	+	+	.120	.256	+	+	.176
8	---	+	+	+	---	+	+	+
9	---	.088	+	.072	---	+	+	+
10	.272	.544	+	.296	.552	.992	.832	.592
11	.152	---	+	.152	.336	---	.480	.336
12	+	+	+	+	+	+	+	+
13	+	+	.288	.072	+	+	.560	.136
14	.240	.248	.248	.248	.664	.440	.048	.512
15	---	.384	+	.296	---	.304	.720	.392
16	.008	---	+	.008	.016	---	.184	.024
17	.120	---	+	.104	.512	---	+	.456
18*Midland	.152	+	+	.096	.376	.656	+	.312
*Odessa	.112	---	+	.012	.320	.064	.248	.104
19	---	.152	+	.048	---	---	.336	.112
20	.056	---	+	.048	.064	---	+	+
21	+	---	+	+	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.240	+	+	.208	.560	+	+	.488
24	---	.312	.240	.280	---	.528	.552	.536
25	.296	.360	.480	.296	.592	+	.624	.568
26	---	.448	+	.312	---	.384	+	.272
27	.216	.320	.232	.224	.376	.328	.520	.392
28	.136	.216	+	.136	.280	.376	.096	.280
29	.240	---	+	.232	.496	---	+	.496
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.248	+	+	.176	.488	+	+	.352
34*Brownsville	.072	+	+	.032	+	+	+	+
*McAllen	+	---	+	+	+	---	+	.072
35	+	---	+	+	---	.440	.248	.368
36	---	.352	.288	.328	---	+	.440	.120
37	---	+	+	+	---	+	+	+
AVERAGE	.184	.168	.080	.176	.400	.240	.264	.368

TABLE D.10 (Continued)

Region	BICYCLING TRAILS, 2000				NATURE STUDY TRAILS, 1970			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	.192	.464	.248	.232	.016	+	+	.008
2	---	+	+	+	---	+	+	+
3	---	.664	.192	.448	---	+	+	+
4	.552	---	+	.520	+	---	+	+
5	.160	+	.496	.280	+	+	+	+
6	---	.224	+	.136	---	+	+	+
7	.256	+	+	.192	.024	+	+	.016
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.504	1.096	.816	.576	.024	+	+	.024
11	.328	---	.328	.328	.024	---	+	.024
12	+	.040	+	.024	+	+	+	+
13	+	+	.272	.064	.040	+	+	.016
14	.592	.448	.464	.496	.032	+	+	.008
15	---	.872	.320	.760	---	+	+	+
16	.016	---	+	.016	.032	---	+	.032
17	.384	---	+	.344	.032	---	+	.024
18*Midland	.400	.648	+	.336	.032	+	.520	.112
*Odessa	.344	---	---	---	.024	---	---	---
19	---	.112	.224	.136	---	+	+	+
20	.144	---	.376	.176	.016	---	+	.016
21	.088	---	+	.072	.040	---	+	.024
22	---	---	+	+	---	---	+	+
23	.704	+	+	.616	.008	+	+	.008
24	---	.608	.600	.600	---	+	+	+
25	.640	1.184	.704	.664	.064	+	+	.064
26	---	.648	.472	.600	---	.272	+	.176
27	.464	.328	.656	.488	.008	+	+	.008
28	.312	.456	.072	.312	.136	+	+	.072
29	.528	---	2.136	.536	.024	---	+	.024
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	+	+	+
33	.584	+	+	.432	.272	+	+	.192
34*Brownsville	.104	+	+	.056	.016	+	+	.016
*McAllen	+	---	---	---	.024	---	---	---
35	+	---	+	+	.032	---	+	.024
36	---	.496	.424	.472	---	+	+	+
37	---	.152	+	.112	---	+	+	+
AVERAGE	.424	.416	.264	.408	.040	.008	.016	.032

TABLE D.10 (Continued)

Region	NATURE STUDY TRAILS, 1975				NATURE STUDY TRAILS, 1980			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	+	+	+	+	+	+	+
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	+	---	+	+	.040	---	+	.040
5	.024	+	+	+	+	+	+	+
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.064	+	.216	.072	.072	.184	+	.072
11	.040	---	+	.040	.056	---	.432	.056
12	+	+	+	+	+	+	+	+
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	.152	+	.112	---	+	+	+
16	+	---	+	+	.008	---	+	.008
17	+	---	+	+	.120	---	+	.104
18*Midland	.144	+	+	.096	.152	+	+	.096
*Odessa	.112				.112			
19	---	+	+	+	---	+	+	+
20	+	---	+	+	+	---	+	+
21	.144	---	+	.104	+	---	+	+
22	---	---	+	+	---	---	+	+
23	.032	+	+	.024	+	+	+	+
24	---	+	+	+	---	+	+	+
25	.120	+	+	.112	.136	+	.952	.136
26	---	+	+	+	---	+	+	+
27	+	+	+	+	+	+	+	+
28	.136	+	+	.054	.136	+	+	.056
29	+	---	+	+	.016	---	+	.016
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	.224	+	.144
33	.312	+	+	.224	.336	+	+	.240
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+				+			
35	+	---	+	+	+	---	+	+
36	---	+	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.056	.008	.008	.048	.072	.016	.024	.056

TABLE D.10 (Continued)

Region	NATURE STUDY TRAILS, 1990				NATURE STUDY TRAILS, 2000			
	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population	<u>METRO</u> Land Acres Required Per 1,000 Population	<u>CITY</u> Land Acres Required Per 1,000 Population	<u>TOWN</u> Land Acres Required Per 1,000 Population	<u>TOTAL URBAN AREAS</u> Land Acres Required Per 1,000 Population
1	+	+	.144	.032	+	+	.128	.024
2	---	+	+	+	---	+	+	+
3	---	+	+	+	---	+	+	+
4	.120	---	+	.112	.104	---	+	.096
5	+	+	+	+	.080	+	+	.048
6	---	+	+	+	---	+	+	+
7	+	+	+	+	+	+	+	+
8	---	+	+	+	---	+	+	+
9	---	+	+	+	---	+	+	+
10	.144	.200	.184	.144	.144	.256	.248	.168
11	.120	---	+	.112	.120	---	.160	.120
12	+	+	+	+	+	+	.320	.064
13	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+
15	---	.200	+	.160	---	.240	+	.192
16	.008	---	+	.008	.008	---	+	.008
17	+	---	+	+	.128	---	+	.112
18*Midland	.248	+	+	.160	.136	+	+	.112
*Odessa	.160				.168			
19	---	.064	+	.048	---	+	+	+
20	+	---	+	+	+	---	+	+
21	.112	---	.336	.160	.184	---	+	.144
22	---	---	+	+	---	---	+	+
23	+	+	+	+	.024	+	+	.016
24	---	+	+	+	---	+	+	+
25	.288	+	.624	.280	.320	+	.232	.304
26	---	+	+	+	---	+	+	+
27	+	+	+	+	+	+	+	+
28	.216	+	+	.072	.152	.040	+	.056
29	.032	---	+	.032	.040	---	+	.040
30	---	---	+	+	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	+	+	+	---	.208	+	.128
33	.720	.152	+	.544	.824	.264	+	.640
34*Brownsville	+	+	+	+	+	+	+	+
*McAllen	+				+			
35	+	---	+	+	+	---	+	+
36	---	+	+	+	---	+	+	+
37	---	+	+	+	---	+	+	+
AVERAGE	.144	.032	.040	.120	.168	.048	.056	.144

TABLE D.10 (Continued)

Region	COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1970				COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1975			
	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	TOTAL URBAN AREAS Land Acres Required Per 1,000 Population
1	.696	.152	1.096	.736	.512	.496	.200	.448
2	---	.056	.088	.072	---	.480	.352	.424
3	---	.064	.528	.296	---	.440	+	.232
4	+	---	1.368	.144	+	---	.448	.040
5	+	.176	+	.016	.328	.704	.136	.288
6	---	.200	.144	.184	---	.416	+	.304
7	.624	.088	+	.416	.264	.376	+	.232
8	---	.920	.080	.416	---	+	.328	.192
9	---	1.680	.104	1.392	---	.352	+	.264
10	1.248	1.656	1.240	1.256	.616	1.312	.864	.656
11	1.016	---	.864	1.016	.416	---	.592	.416
12	+	.064	+	.032	+	.056	+	.032
13	.312	.232	1.840	.648	.152	.224	.888	.352
14	.136	1.200	1.224	.928	.256	.424	.504	.400
15	---	.352	.464	.384	---	.600	.432	.352
16	.688	---	.768	.688	.072	---	.480	.080
17	.248	---	.184	---	.616	---	+	.536
18 *Midland	.808	1.896	1.568	.792	.728	+	+	.384
*Odessa	.304	---	---	---	.336	---	---	---
19	---	+	+	+	---	.080	+	.064
20	.200	---	1.360	.432	.168	---	.280	.184
21	.152	---	.368	.216	.144	---	+	.104
22	---	---	.088	.088	---	---	+	+
23	.128	.424	+	.136	.280	+	.280	.264
24	---	.376	.480	.432	---	.344	.384	.360
25	.760	.048	1.368	.744	.656	.288	.592	.648
26	---	1.080	.536	.896	---	.488	+	.336
27	1.016	1.312	1.056	1.048	.560	.320	.848	.568
28	1.160	.464	.368	.800	.544	.168	.168	.336
29	.816	---	.616	.816	.592	---	2.328	.608
30	---	---	.920	.928	---	---	+	+
31	---	.128	+	.024	---	+	+	+
32	---	.240	.472	.320	---	.232	+	.152
33	.584	+	.352	.472	.800	+	.160	.592
34 *Brownsville	.472	+	.384	.320	.304	+	+	.200
*McAllen	.184	---	---	---	.200	---	---	---
35	.112	---	.208	.128	+	---	+	+
36	---	+	.088	.032	---	+	+	+
37	---	.584	.480	.552	---	.368	.464	.400
AVERAGE	.744	.496	.528	.688	.448	.280	.240	.456

TABLE D.10 (Continued)

Region	COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1980				COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1990			
	TOTAL				TOTAL			
	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	URBAN AREAS Land Acres Required Per 1,000 Population	METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	URBAN AREAS Land Acres Required Per 1,000 Population
1	.472	+	.360	.408	.832	.600	.728	.784
2	---	.512	+	.296	---	.888	.352	.640
3	---	.440	.232	.344	---	.952	+	.504
4	.400	---	.424	.408	1.176	---	1.152	1.176
5	.408	+	.136	.280	.808	+	1.272	.928
6	---	.216	+	.152	---	.440	+	.296
7	.264	.416	+	.240	.504	.456	+	.416
8	---	.488	.344	.408	---	.528	+	.232
9	---	.352	+	.288	---	.600	+	.408
10	.632	1.088	.472	.640	1.232	2.088	2.040	1.336
11	.408	---	.856	.416	.936	---	.968	.936
12	+	+	+	+	+	+	.128	.024
13	.152	.216	.576	.272	.312	.400	1.112	.536
14	.368	.488	.488	.456	.880	.960	.952	.936
15	---	.768	.400	.680	---	1.304	1.080	1.256
16	.080	---	+	.072	.120	---	.368	.136
17	.616	---	+	.536	1.024	---	+	.904
18*Midland	.600	.664	+	.440	1.120	.656	+	.840
*Odessa	.464	---	---	---	.960	---	---	---
19	---	.304	.264	.296	---	.456	.496	.464
20	.224	---	+	.192	.264	---	.336	.272
21	+	---	+	+	.216	---	.336	.248
22	---	---	+	+	---	---	+	+
23	.352	.328	+	.328	.768	.528	.768	.752
24	---	.520	.360	.448	---	.888	.552	.736
25	.888	.360	1.432	.872	1.648	+	1.256	1.584
26	---	.896	+	.616	---	1.144	+	.824
27	.560	.640	.696	.576	1.088	.656	1.392	1.104
28	.472	.280	.136	.336	.920	.480	.096	.536
29	.632	---	+	.624	1.352	---	+	1.344
30	---	---	.144	.888	---	---	+	+
31	---	+	+	+	---	+	+	+
32	---	.448	.424	.440	---	.648	.392	.560
33	.896	.040	+	.648	1.848	.152	.128	1.384
34*Brownsville	.224	+	+	.176	.376	+	+	.224
*McAllen	.216	---	---	---	.144	---	---	---
35	.096	---	+	.088	.168	---	+	.072
36	---	.352	.288	.328	---	.440	.248	.368
37	---	.360	+	.256	---	.680	.880	.736
AVERAGE	.528	.360	.232	.472	1.072	.616	.568	.968

TABLE D.10 (Continued)

Region	COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 2000			
	METRO	CITY	TOWN	TOTAL URBAN AREAS
	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population	Land Acres Required Per 1,000 Population
1	.496	.464	.880	.568
2	---	.368	+	.184
3	---	1.168	.192	.712
4	1.208	---	.784	1.176
5	.735	.720	1.120	.880
6	---	.448	+	.280
7	.520	.552	.392	.504
8	---	.560	.456	.504
9	---	.744	.136	.512
10	1.128	2.200	1.888	1.264
11	.856	---	1.136	.856
12	+	.040	2.232	.496
13	.320	.568	1.080	.592
14	.896	.976	1.040	.968
15	---	1.984	1.280	1.848
16	.104	---	.360	.112
17	1.016	---	+	.928
18*Midland	.994	1.304	+	.840
*Odessa	1.024			
19	---	.168	.448	.224
20	.360	---	.376	.360
21	.456	---	+	.360
22	---	---	+	+
23	.960	.424	+	.880
24	---	.992	1.192	1.080
25	1.784	1.240	2.344	1.768
26	---	1.456	.472	1.208
27	1.240	.992	1.712	1.296
28	.704	.576	.144	.488
29	1.432	---	2.136	1.432
30	---	---	.840	.840
31	---	+	+	+
32	---	.824	.728	.792
33	2.128	.400	.112	1.632
34*Brownsville	.312	+	+	.208
*McAllen	.176			
35	+	---	+	+
36	---	.624	.424	.552
37	---	.768	.816	.784
AVERAGE	1.104	.816	.808	1.040

--- indicates regions not having metros or cities

+ indicates land acres were not required or land acres required per 1,000 population were less than .001.

* Midland, Odessa, Brownsville, and McAllen are metro areas. Figures for cities, towns, and total urban areas are listed adjacent to Odessa and Brownsville were applicable.

TABLE D.11

REGIONAL COMPARISONS OF URBAN INCREMENTAL LAND RESOURCE REQUIREMENTS PER THOUSAND POPULATION FOR SELECTED SALTWATER URBAN OUTDOOR RECREATIONAL FACILITIES BY CITY-SIZE, 1970-2000

Year	Region	BOAT RAMPS, SALTWATER (2.0 LANES PER RAMP)			TOTAL
		METRO Land Acres Required Per 1,000 Population	CITY Land Acres Required Per 1,000 Population	TOWN Land Acres Required Per 1,000 Population	URBAN AREAS Land Acres Required Per 1,000 Population
1970	24	---	.037	*	.018
	25	.007	+	*	.007
	27	.005	*	*	.005
	28	.154	.086	+	.104
	33	.112	*	.602	.174
	34	*	*	.029	.005
	Average	.008	.007	.029	.011
1975	24	---	.017	*	.010
	25	.001	.022	*	.002
	27	.005	*	*	.004
	28	.020	.012	+	.014
	33	.011	*	.048	.014
	34	*	*	+	+
	Average	.001	.002	.002	.001
1980	24	---	+	*	+
	25	.001	+	*	.001
	27	+	*	*	*
	28	.010	+	.020	.008
	33	.010	*	.044	.013
	34	*	*	+	+
	Average	.001	+	.004	.001
1990	24	---	+	*	+
	25	.002	+	*	.002
	27	+	*	*	+
	28	.022	.016	+	.014
	33	.016	*	.038	.017
	34	*	*	+	+
	Average	.001	.001	.002	.001
2000	24	---	.012	*	.006
	25	.001	.010	*	.001
	27	+	*	*	+
	28	.035	.012	+	.014
	33	.017	*	.067	.022
	34	*	*	+	+
	Average	.001	.002	.004	.001

--- indicate Region 24 does not have a metro area.
 * indicates (by region) metros, cities, or towns not having saltwater access.
 + indicates land acres were not required or land acres required per 1,000 population were less than .001.

TABLE D.12
REGIONAL COMPARISONS OF URBAN INCREMENTAL FACILITY RESOURCE REQUIREMENTS PER THOUSAND POPULATION
FOR SELECTED URBAN OUTDOOR RECREATION FACILITIES BY CITY SIZE, 1970-2000

Region	SWIMMING POOLS, 1970								SWIMMING POOLS, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Square Yards Per 1,000 Population	Rank														
1	+	0	52.71	1	28.82	10	9.95	17	2.23	18	35.77	2	15.09	11	7.65	16
2	---	---	7.99	10	+	0	4.91	22	---	---	7.53	9	+	0	4.50	21
3	---	---	3.93	11	82.22	4	42.99	4	---	---	17.66	6	45.16	4	30.59	2
4	14.31	13	---	---	+	0	12.80	14	15.06	10	---	---	1.44	21	13.78	12
5	32.46	7	20.95	7	+	0	20.48	10	15.22	9	3.50	12	+	0	9.11	15
6	---	---	+	0	14.16	13	3.58	23	---	---	+	0	2.75	19	.75	29
7	19.55	11	+	0	+	0	12.58	15	7.23	14	+	0	+	0	4.77	20
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	26.18	8	41.42	2	67.01	5	28.15	7	20.89	5	38.06	1	40.98	5	22.44	5
11	50.65	4	---	---	84.54	3	50.89	3	43.16	1	---	---	73.35	1	43.42	1
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	10.47	14	+	0	7.39	14	6.56	20	19.81	6	+	0	23.74	8	14.55	11
14	+	0	+	0	+	0	+	0	8.55	13	+	0	+	0	2.39	25
15	---	---	+	0	24.23	12	6.67	19	---	---	1.86	14	6.83	17	3.14	22
16	38.43	5	---	---	107.10	2	39.45	5	22.59	3	---	---	52.07	2	23.22	4
17	.20	15	---	---	+	0	.17	27	6.81	15	---	---	+	0	6.86	18
18*Midland	53.14	2	+	0	+	0	17.45	12	6.53	16	+	0	+	0	2.15	26
*Odessa	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
19	---	---	27.42	5	+	0	18.82	11	---	---	19.37	5	24.05	7	20.43	7
20	+	0	---	---	31.71	8	.63	26	+	0	---	---	1.66	20	.27	30
21	+	0	---	---	+	0	+	0	3.86	17	---	---	+	0	2.77	24
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	+	0	39.61	3	+	0	2.51	24	+	0	12.88	7	+	0	.85	28
24	---	---	24.09	6	+	0	11.80	16	---	---	11.25	8	+	0	5.97	17
25	36.07	6	39.40	4	+	0	35.89	6	19.68	7	25.27	4	25.25	6	19.90	9
26	---	---	13.52	8	+	0	8.97	18	---	---	3.46	13	8.18	16	4.99	19
27	16.38	12	+	0	44.96	6	17.27	13	17.91	8	+	0	15.80	10	16.21	10
28	99.68	1	+	0	30.86	9	56.53	1	13.98	11	+	0	18.45	9	9.64	13
29	51.14	3	---	---	139.77	1	52.02	2	26.89	2	---	---	46.62	3	27.08	3
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	8.25	15	2.80	23
33	24.09	9	+	0	26.91	11	21.22	9	10.30	12	4.14	11	10.54	12	9.51	14
34*Brownsville	+	0	+	0	4.00	15	.67	25	+	0	5.43	10	5.63	18	1.25	27
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
35	21.05	10	---	---	38.24	7	23.18	8	22.42	4	---	---	8.79	13	20.85	6
36	---	---	10.00	9	+	0	6.21	21	---	---	27.12	3	8.31	14	20.01	8
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	32.55		8.27		12.57		27.06		22.04		7.06		9.58		18.77	

TABLE D.12 (Continued)

Region	SWIMMING POOLS, 1980								SWIMMING POOLS, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Square Yards Per 1,000 Population	Rank														
1	9.65	14	39.71	2	18.84	11	14.21	14	5.96	20	95.18	2	47.08	10	23.46	19
2	---	---	8.30	14	+	0	4.81	25	---	---	18.73	13	+	0	10.19	32
3	---	---	35.33	3	52.10	3	43.45	2	---	---	46.50	5	140.15	2	90.84	2
4	17.14	10	---	---	34.71	8	18.66	13	41.50	10	---	---	80.74	8	44.36	11
5	18.17	9	4.13	16	+	0	10.80	15	45.65	9	8.90	17	21.47	23	34.49	14
6	---	---	+	0	1.30	24	.38	31	---	---	+	0	2.59	27	.86	33
7	7.87	17	+	0	+	0	5.33	24	20.89	16	16.41	14	+	0	16.78	23
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	10.76	18	1.93	27	---	---	7.53	18	26.54	18	13.67	28
10	23.76	6	45.02	1	117.25	4	25.97	5	55.85	6	103.81	1	112.09	4	62.53	6
11	52.99	1	---	---	82.84	1	53.28	1	131.45	1	---	---	188.95	1	132.15	1
12	+	0	+	0	7.73	20	1.54	28	+	0	15.67	15	37.70	12	16.38	24
13	26.10	4	+	0	30.41	9	18.77	12	69.96	3	6.71	19	76.68	9	50.46	8
14	13.50	12	4.84	15	+	0	5.95	23	31.74	12	22.97	12	138.60	25	19.70	21
15	---	---	10.92	11	10.05	19	10.71	16	---	---	24.69	10	22.26	20	24.16	18
16	23.89	5	---	---	56.10	2	24.81	7	61.99	5	---	---	123.85	3	64.64	5
17	7.36	18	---	---	+	0	6.39	22	16.16	18	---	---	+	0	14.24	27
18*Midland	8.39	16	8.85	12	+	0	3.41	26	17.77	17	45.92	6	+	0	11.15	30
*Odessa	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
19	---	---	22.81	7	38.61	6	26.30	4	---	---	23.52	11	107.07	5	40.93	12
20	+	0	---	---	1.93	23	.31	32	11.78	19	---	---	2.84	26	10.34	31
21	9.02	15	---	---	+	0	6.61	21	20.92	15	---	---	+	0	15.84	25
22	---	---	---	---	+	0	+	0	---	---	---	---	28.38	16	28.38	15
23	+	0	13.82	8	+	0	.97	30	41.19	11	31.64	7	+	0	38.28	13
24	---	---	11.98	9	2.72	22	7.72	19	---	---	28.22	8	21.73	22	25.32	16
25	21.86	7	28.86	5	37.67	7	22.23	9	48.20	8	66.40	4	84.39	7	49.25	9
26	---	---	3.55	17	15.86	12	7.35	20	---	---	6.97	20	34.84	13	14.81	26
27	21.70	8	+	0	13.96	13	19.15	11	51.17	7	5.47	21	28.79	15	45.02	10
28	14.16	11	+	0	20.82	10	9.96	18	28.70	13	2.67	22	45.82	11	21.49	20
29	30.27	2	---	---	39.07	5	30.34	3	77.98	2	---	---	89.43	6	78.06	3
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	.35	25	.28	33	---	---	+	0	14.77	24	11.57	29
32	---	---	24.12	6	10.99	17	19.60	10	---	---	14.02	16	21.94	21	16.81	22
33	10.55	13	11.02	10	11.10	16	10.69	17	23.84	14	25.70	9	25.63	19	24.34	17
34*Brownsville	+	0	8.47	13	6.04	21	1.47	29	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
35	26.91	3	---	---	11.23	15	25.22	6	69.96	3	---	---	28.01	17	66.06	4
36	---	---	31.27	4	13.30	14	24.51	8	---	---	79.29	3	31.11	14	61.29	7
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	26.49		10.77		14.23		23.25		68.64		27.58		43.99		61.33	

TABLE D.12 (Continued)

Region	SWIMMING POOLS, 2000								PLAYGROUND ACRES, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Square Yards Per 1,000 Population	Rank	Square Yards Per 1,000 Population	Rank	Square Yards Per 1,000 Population	Rank	Square Yards Per 1,000 Population	Rank	Acres Per 1,000 Population	Rank	Acres Per 1,000 Population	Rank	Acres Per 1,000 Population	Rank	Acres Per 1,000 Population	Rank
1	4.64	21	105.07	9	44.67	15	24.23	24	.002	4	+	0	+	0	.001	5
2	---	---	11.59	20	+	0	5.90	32	---	---	+	0	+	0	+	0
3	---	---	75.32	6	180.27	2	124.06	2	---	---	+	0	+	0	+	0
4	46.65	11	---	---	80.70	8	48.70	14	+	0	---	---	+	0	+	0
5	57.51	10	10.85	21	53.64	11	53.10	13	+	0	+	0	+	0	+	0
6	---	---	7.67	23	+	0	4.74	33	---	---	+	0	+	0	+	0
7	22.00	17	40.27	9	+	0	20.56	27	.045	3	+	0	+	0	.029	3
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	20.63	17	36.47	17	26.57	23	---	---	+	0	+	0	+	0
10	64.05	8	135.37	1	145.91	5	76.01	8	+	0	+	0	+	0	+	0
11	158.57	1	---	---	234.44	1	159.72	1	+	0	---	---	+	0	+	0
12	+	0	34.98	11	52.67	12	31.35	20	+	0	+	0	+	0	+	0
13	94.66	2	19.49	18	103.41	6	70.69	10	+	0	+	0	+	0	+	0
14	41.57	12	30.81	15	23.52	23	32.22	18	+	0	+	0	+	0	+	0
15	---	---	32.57	14	29.37	20	31.93	19	---	---	+	0	+	0	+	0
16	70.99	7	---	---	152.97	4	75.65	9	.129	1	---	---	+	0	.127	1
17	22.93	16	---	---	+	0	20.86	26	+	0	---	---	+	0	+	0
18*Midland	16.82	19	55.79	7	+	0	11.80	31	+	0	+	0	+	0	+	0
*Odessa	+	0	---	---	---	---	---	---	+	0	---	---	+	0	+	0
19	---	---	96.42	4	163.68	3	109.69	3	---	---	+	0	+	0	+	0
20	19.18	18	---	---	4.10	26	16.78	30	+	0	---	---	+	0	+	0
21	27.20	15	---	---	2.13	28	21.61	25	+	0	---	---	+	0	+	0
22	---	---	---	---	46.63	13	46.63	15	---	---	---	---	+	0	+	0
23	87.82	5	33.43	13	+	0	79.97	6	+	0	+	0	+	0	+	0
24	---	---	34.73	12	26.67	22	31.23	21	---	---	+	0	+	0	+	0
25	58.23	9	76.28	5	92.14	7	59.33	12	+	0	+	0	+	0	+	0
26	---	---	8.36	22	45.82	14	17.89	28	---	---	+	0	+	0	+	0
27	71.97	6	11.89	19	32.77	19	62.25	11	+	9	+	0	.088	1	.007	4
28	30.93	13	40.35	8	57.81	10	42.80	16	+	0	+	0	+	0	+	0
29	93.07	3	---	---	74.83	9	92.96	4	+	0	---	---	+	0	+	0
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	22.32	24	17.50	29	---	---	+	0	+	0	+	0
32	---	---	39.42	10	38.39	16	39.05	17	---	---	+	0	+	0	+	0
33	27.87	14	29.85	16	29.15	21	28.29	22	+	0	+	0	+	0	+	0
34*Brownsville	4.89	20	3.57	24	2.19	27	2.97	34	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	+	0	+	0
35	91.05	4	---	---	18.11	25	85.28	5	.087	2	---	---	+	0	.076	2
36	---	---	101.24	3	36.07	18	77.03	7	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	85.37		50.04		64.12		79.14		.015		+		.002		.012	

TABLE D.12 (Continued)

Region	PLAYGROUND ACRES, 1975								PLAYGROUND ACRES, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Acres Per 1,000 Population	Rank														
1	.036	4	+	0	+	0	.025	5	.033	11	+	0	+	0	.023	11
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.012	8	---	---	+	0	.010	9	.060	7	---	---	+	0	.055	7
5	+	0	+	0	+	0	+	0	.081	2	+	0	+	0	.047	8
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.033	5	+	0	+	0	.022	7	.044	10	+	0	+	0	.030	10
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.059	2	.008	1	+	0	.054	2	.071	5	.023	1	+	0	.065	5
11	.026	6	---	---	+	0	.026	4	.112	1	---	---	+	0	.111	1
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	.065	1	---	---	+	0	.063	1	.070	6	---	---	+	0	.068	3
17	.046	3	---	---	+	0	.040	3	.077	3	---	---	+	0	.067	4
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.011	9	+	0	+	0	.011	8	.060	7	+	0	+	0	.058	6
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	+	0	+	0	.035	1	.003	10	+	0	+	0	+	0	+	0
28	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
29	+	0	---	---	+	0	+	0	.074	4	---	---	+	0	.073	2
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.026	6	---	---	+	0	.023	6	.048	9	---	---	+	0	.043	9
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.023		+		.001		.018		.062		.001		+		.048	

TABLE D.12 (Continued)

Region	PLAYGROUND ACRES, 1990								PLAYGROUND ACRES, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Acres Per 1,000 Population	Rank														
1	.060	13	+	0	+	0	.042	13	.038	15	+	0	+	0	.026	14
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.147	7	---	---	+	0	.137	6	.160	10	---	---	+	0	.150	8
5	.202	2	+	0	+	0	.116	8	.265	4	+	0	+	0	.150	8
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.095	9	+	0	+	0	.066	11	.108	13	+	0	+	0	.078	13
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.156	6	.037	1	+	0	.138	5	.166	9	.032	1	+	0	.142	10
11	.256	1	---	---	.008	2	.253	1	.279	3	---	---	.041	1	.275	1
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	+	0	+	0	+	0	+	0	.384	1	+	0	+	0	.157	7
14	+	0	+	0	+	0	+	0	.074	14	+	0	+	0	.023	15
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	.168	5	---	---	+	0	.161	3	.194	8	---	---	+	0	.183	4
17	.177	4	---	---	+	0	.156	4	.303	2	---	---	+	0	.275	1
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.090	11	.008	2	+	0	.079	10	.203	7	.027	2	+	0	.181	6
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.126	8	+	0	+	0	.120	7	.143	11	+	0	.007	3	.136	11
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	.075	12	+	0	.022	1	.063	12	.226	5	+	0	.033	2	.183	4
28	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
29	+	0	+	0	+	0	+	0	.226	5	---	---	+	0	.224	3
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.092	10	---	---	+	0	.084	9	.135	12	---	---	+	0	.124	12
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.153		.002		.001		.120		.184		.003		.003		.145	

TABLE D.12 (Continued)

Region	BASEBALL/SOFTBALL FIELDS, 1970								BASEBALL/SOFTBALL FIELDS, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank
1	+	0	.019	3	+	0	.001	7	+	0	.062	1	.025	3	.010	5
2	---	---	.028	2	+	0	.017	4	---	---	.030	3	+	0	.018	2
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
5	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
11	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	.069	2	---	---	.192	1	.071	2	.034	1	---	---	.120	2	.036	1
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	+	0	+	0	+	0	+	0	+	0	.036	2	+	0	.001	8
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	+	0	+	0	.088	3	.007	5	+	0	+	0	+	0	+	0
28	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
29	+	0	---	---	.077	4	.001	7	+	0	---	---	.291	1	.003	7
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.088	1	.075	1	+	0	.072	1	.022	2	+	0	+	0	.015	3
34*Brownsville	.010	4	+	0	+	0	.004	6	.009	4	+	0	+	0	.004	6
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.014	3	---	---	.103	2	.025	3	.013	3	---	---	+	0	.012	4
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.010		.004		.005		.009		.004		.003		.004		.004	

TABLE D.12 (Continued)

Region	BASEBALL/SOFTBALL FIELDS, 1980								BASEBALL/SOFTBALL FIELDS, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank
1	+	0	.104	1	.067	2	.023	2	+	0	.112	1	.165	2	.045	3
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	.007	6	.003	10
4	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
5	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	+	0	.023	3	+	0	.001	8	.023	5	.075	3	.012	5	.025	6
11	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	.031	1	---	---	.123	1	.034	1	.066	1	---	---	.183	1	.071	1
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	+	0	.030	2	.015	4	.001	8	+	0	.081	2	.078	3	.004	9
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	+	0	+	0	.029	3	.003	7	+	0	+	0	.043	4	.006	7
28	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
29	.005	5	---	---	+	0	.005	6	.038	3	---	---	+	0	.038	4
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.019	3	+	0	+	0	.014	4	.035	4	.019	4	+	0	.028	5
34*Brownsville	.019	3	+	0	+	0	.009	5	.012	6	+	0	+	0	.006	7
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.024	2	---	---	+	0	.021	3	.051	2	---	---	+	0	.047	2
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.004		.004		.006		.005		.012		.012		.017		.013	

TABLE D.12 (Continued)

Region	BASEBALL/SOFTBALL FIELD, 2000								PICNIC TABLES, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Tables Per 1000 Population	Rank						
1	+	0	.086	1	.173	2	.045	3	+	0	.149	6	+	0	.011	18
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	.072	4	.033	6	---	---	+	0	+	0	+	0
4	.003	9	---	---	+	0	.003	17	1.087	5	---	---	+	0	.972	5
5	+	0	+	0	+	0	+	0	+	0	.437	2	+	0	.030	16
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.028	6	.065	3	.055	6	.033	6	.531	7	---	0	.931	5	.531	6
11	.031	5	---	---	.041	7	.031	9	+	0	---	---	4.660	1	.033	15
12	+	0	+	0	+	0	+	0	.389	9	+	0	+	0	.094	11
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	.675	6	+	0	+	0	.180	10
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	.061	2	---	---	.179	1	.068	1	1.150	4	---	---	3.176	4	1.180	3
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	.394	3	+	0	.028	17
*Odessa	+	0							+	0						
19	---	---	.055	4	+	0	.044	4	---	---	.013	9	+	0	.009	19
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	.007	11	.007	14	---	---	---	---	.044	10	.044	14
23	+	0	+	0	+	0	+	0	+	0	.106	7	+	0	.007	20
24	---	---	.038	5	+	0	.022	11	---	---	+	0	+	0	+	0
25	.021	8	.078	2	.059	5	.023	10	.017	12	1.728	1	3.338	3	.094	11
26	---	---	+	0	+	0	+	0	---	---	.338	4	+	0	.224	9
27	+	0	+	0	.033	8	.005	15	.223	11	.204	5	.881	6	.276	8
28	+	0	+	0	.018	9	.005	15	5.426	1	.029	8	+	0	2.767	1
29	.042	3	---	---	+	0	.041	5	.388	10	---	---	4.011	2	.424	7
30	---	---	---	---	+	0	+	0	---	---	---	---	---	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	.236	8	.079	13
33	.038	4	.017	6	.014	10	.032	8	+	0	+	0	+	0	+	0
34*Brownsville	.026	7	+	0	+	0	.013	12	.469	8	+	0	.072	9	1.128	4
*McAllen	+	0							2.581	2						
35	.063	1	---	---	.105	3	.066	2	1.536	3	---	---	.718	7	1.434	2
36	---	---	.016	7	+	0	.010	13	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.026		.020		.029		.026		.398		.098		.186		.334	

TABLE D.12 (Continued)

Region	PICNIC TABLES, 1975								PICNIC TABLES, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Tables Per 1000 Population	Rank														
1	+	0	.308	3	+	0	.025	15	+	0	.207	4	+	0	.018	17
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.237	2	---	---	+	0	.215	2	.227	3	---	---	+	0	.207	3
5	+	0	.088	7	+	0	.006	21	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	.033	12	+	0	+	0	.022	15
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.164	4	.459	2	.350	4	.184	4	.139	6	.409	2	.297	5	.160	6
11	+	0	---	---	.886	1	.007	20	+	0	---	---	.750	2	.007	21
12	.122	6	+	0	+	0	.029	13	.115	8	+	0	+	0	.026	14
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	.065	10	+	0	+	0	.018	17	.076	9	+	0	+	0	.022	15
15	---	---	+	0	.108	8	.028	14	---	---	+	0	.050	12	.012	20
16	.206	3	---	---	.540	3	.213	3	.163	5	---	---	.490	4	.172	5
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
19	---	---	.144	5	+	0	.111	7	---	---	.160	5	+	0	.125	8
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	.079	9	.079	9	---	---	---	---	.073	9	.073	9
23	+	0	.135	6	+	0	.009	19	+	0	.083	6	+	0	.006	22
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.148	5	.583	1	.817	2	.167	5	.132	7	.521	1	.774	1	.150	7
26	---	---	.061	9	+	0	.042	11	---	---	.056	7	+	0	.039	11
27	.029	11	.081	8	.177	7	.047	10	.186	4	.040	8	.175	6	.173	4
28	.499	1	.240	4	+	0	.315	1	.482	1	.257	3	.156	7	.329	1
29	.121	7	---	---	.291	5	.123	6	.269	2	---	---	.558	3	.271	2
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	.056	10	.019	16	---	---	+	0	.053	11	.018	17
33	+	0	+	0	.020	12	.003	22	+	0	+	0	.091	8	.014	19
34*Brownsville	.075	9	+	0	+	0	.033	12	.066	11	+	0	+	0	.030	12
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
35	.092	8	---	---	.202	6	.105	8	.072	10	---	---	+	0	.064	10
36	---	---	+	0	.040	11	.015	18	---	---	+	0	.073	9	.027	13
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.096		.079		.057		.089		.097		.082		.073		.093	

TABLE D.12 (Continued)

Region	PICNIC TABLES, 1990								PICNIC TABLES, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Tables Per 1000 Population	Rank														
1	.223	5	.486	3	+	0	.204	7	.119	11	.431	4	.063	14	.143	11
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.465	2	---	---	.048	14	.434	2	.367	2	---	---	.098	12	.351	2
5	+	0	.089	9	+	0	.006	23	+	0	.090	8	+	0	.006	22
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.210	7	+	0	+	0	.148	11	.162	8	+	0	+	0	.118	12
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.243	4	.757	2	.499	5	.292	4	.158	9	.646	2	.424	6	.217	5
11	.178	8	---	---	1.119	2	.190	8	.190	6	---	---	.854	2	.200	7
12	.107	12	+	0	+	0	.026	19	.200	4	+	0	+	0	.042	17
13	+	0	.050	10	+	0	.017	21	+	0	.071	10	+	0	.025	21
14	.110	11	+	0	+	0	.032	18	.112	13	+	0	+	0	.035	18
15	---	---	+	0	.090	13	.020	20	---	---	+	0	.160	9	.032	20
16	.381	3	---	---	.776	4	.398	3	.284	3	---	---	.567	4	.300	3
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	.276	5	+	0	.219	6	---	---	.317	5	+	0	.254	4
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	.158	9	.158	9	---	---	---	---	.163	8	.163	9
23	+	0	.165	7	+	0	.013	22	+	0	.053	11	+	0	.004	23
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.216	6	.950	1	1.293	1	.255	5	.177	7	.730	1	.880	1	.207	6
26	---	---	.095	8	+	0	.068	14	---	---	.101	7	+	0	.075	14
27	.154	9	.041	11	.217	7	.155	10	.200	4	.083	9	.247	7	.200	7
28	.914	1	.454	4	.436	6	.600	1	1.024	1	.463	3	.426	5	.593	1
29	.080	13	---	---	.789	3	.086	13	.151	10	---	---	.802	3	.155	10
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	.099	12	.035	17	---	---	+	0	.091	13	.033	19
33	+	0	.168	6	.143	11	.042	16	+	0	.200	6	.153	10	.046	16
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.133	10	---	---	.200	8	.140	12	.117	12	---	---	+	0	.108	13
36	---	---	+	0	.153	10	.057	15	---	---	.016	12	.132	11	.059	15
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.201		.190		.171		.197		.177		.196		.177		.179	

TABLE D.12 (Continued)

Region	FOOTBALL/SOCCER FIELDS, 1970								FOOTBALL/SOCCER FIELDS, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank
1	+	0	.075	2	.027	26	.011	29	+	0	+	0	+	0	+	0
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	.033	23	.016	28	---	---	+	0	+	0	+	0
4	.134	4	---	---	.057	15	.126	3	.017	1	---	---	.056	3	.021	1
5	+	0	.022	12	.004	31	.003	34	+	0	+	0	+	0	+	0
6	---	---	.006	13	.073	10	.023	24	---	---	+	0	+	0	+	0
7	.045	15	.043	10	+	0	.036	20	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	.013	29	.002	35	---	---	+	0	+	0	+	0
10	.049	12	.104	1	.078	9	.051	14	.009	7	.033	1	.027	5	.011	7
11	.055	9	---	---	.650	2	.059	9	.013	3	---	---	.074	1	.014	3
12	+	0	+	0	.043	21	.009	30	+	0	.002	4	+	0	.001	12
13	.019	18	+	0	+	0	.009	30	+	0	+	0	+	0	+	0
14	.052	10	.064	4	.046	16	.056	10	+	0	+	0	+	0	+	0
15	---	---	+	0	.014	28	.004	32	---	---	+	0	+	0	+	0
16	.048	13	---	---	.385	4	.053	11	.004	9	---	---	+	0	.004	11
17	.063	8	---	---	+	0	.053	11	+	0	---	---	+	0	+	0
18*Midland	.017	19	+	0	.065	13	.017	27	+	0	+	0	+	0	+	0
*Odessa	+	0							+	0						
19	---	---	.003	15	.007	30	.004	32	---	---	.010	3	+	0	.008	9
20	.042	16	---	---	.068	11	.047	15	+	0	---	---	+	0	+	0
21	.136	3	---	---	.046	16	.109	4	+	0	---	---	+	0	+	0
22	---	---	---	---	.044	19	.044	17	---	---	---	---	+	0	+	0
23	.094	6	.053	7	.041	22	.087	5	.011	6	+	0	+	0	.009	8
24	---	---	.047	9	.030	24	.038	19	---	---	+	0	+	0	+	0
25	.046	14	.068	3	.685	1	.052	13	.012	5	.018	2	.074	1	.013	5
26	---	---	.034	11	.067	12	.045	16	---	---	+	0	+	0	+	0
27	.013	20	+	0	.088	8	.018	26	+	0	+	0	+	0	+	0
28	.051	11	+	0	.046	16	.035	21	+	0	+	0	+	0	+	0
29	.168	2	---	---	.617	3	.172	2	.014	2	---	---	+	0	.014	3
30	---	---	---	---	.029	25	.029	22	---	---	---	---	+	0	+	0
31	---	---	.063	5	.018	27	.028	23	---	---	+	0	+	0	+	0
32	---	---	+	0	.118	5	.040	18	---	---	+	0	+	0	+	0
33	.083	7	.050	8	.044	19	.072	6	.009	7	+	0	+	0	.006	10
34*Brownsville	.117	5	+	0	+	0	.060	8	+	0	+	0	+	0	+	0
*McAllen	.034	17							+	0						
35	.188	1	---	---	.103	6	.178	1	.013	3	---	---	+	0	.012	6
36	---	---	.055	6	.089	7	.068	7	---	---	+	0	.040	4	.015	2
37	---	---	.006	13	.060	14	.022	25	---	---	+	0	+	0	+	0
AVERAGE	.059		.022		.055		.053		.009		.003		.005		.008	

TABLE D.12 (Continued)

Region	FOOTBALL/SOCCER FIELDS, 1980								FOOTBALL/SOCCER FIELDS, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank
1	+	0	+	0	+	0	+	0	+	0	.037	1	.018	6	.008	11
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.015	2	---	---	+	0	.014	3	.030	1	---	---	+	0	.028	1
5	+	0	+	0	+	0	+	0	+	0	+	0	.004	8	.001	17
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	.051	3	.009	6	---	---	+	0	+	0	+	0
10	.007	9	+	0	.020	5	.007	8	.013	8	.025	4	.023	4	.015	7
11	.013	5	---	---	.054	2	.013	4	.022	2	---	---	.091	2	.023	2
12	+	0	.006	2	+	0	.004	13	+	0	+	0	.016	7	.003	16
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	.015	2	+	0	+	0	.004	13	+	0	.009	7	+	0	.004	15
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	.004	10	---	---	.041	4	.005	12	.008	10	---	---	.023	4	.009	10
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	.008	8	+	0	.006	13
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	.014	7	---	---	+	0	.010	9
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.010	6	+	0	+	0	.009	6	.017	5	.033	2	.048	3	.020	4
24	---	---	+	0	.015	8	.007	8	---	---	.011	6	+	0	.006	13
25	.010	6	.015	1	.119	1	.011	5	.017	5	.030	3	.118	1	.018	6
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	.004	10	+	0	+	0	.003	15	+	0	+	0	+	0	+	0
28	.008	8	+	0	.017	7	.007	8	+	0	+	0	+	0	+	0
29	.015	2	---	---	+	0	.015	2	.022	2	---	---	+	0	.022	3
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.004	10	+	0	.018	6	.006	11	.010	9	+	0	+	0	.007	12
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.024	1	---	---	+	0	.021	1	.021	4	---	---	+	0	.019	5
36	---	---	+	0	+	0	+	0	---	---	.018	5	+	0	.011	8
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.009		.002		.008		.008		.015		.007		.009		.013	

TABLE D.12 (Continued)

Region	FOOTBALL/SOCCER FIELDS, 2000								GOLF HOLES, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Fields Per 1000 Population	Rank	Holes Per 1000 Population	Rank						
1	+	0	+	0	+	0	+	0	.165	12	+	0	.383	3	.198	9
2	---	---	+	0	+	0	+	0	---	---	.306	3	.266	9	.291	3
3	---	---	+	0	+	0	+	0	---	---	+	0	.329	4	.164	12
4	.019	3	---	---	+	0	.018	5	.194	10	---	---	.286	8	.204	7
5	+	0	+	0	+	0	+	0	.256	8	.175	8	.035	24	.174	11
6	---	---	+	0	+	0	+	0	---	---	+	0	.220	11	.056	27
7	+	0	+	0	+	0	+	0	.134	16	.216	6	+	0	.122	19
8	---	---	+	0	+	0	+	0	---	---	.115	12	.077	19	.092	23
9	---	---	+	0	+	0	+	0	---	---	.132	10	.152	15	.136	18
10	.007	9	.016	3	.016	6	.009	10	.184	11	.362	2	.310	5	.194	10
11	.015	6	---	---	.081	3	.016	6	.409	2	---	---	.650	1	.411	1
12	+	0	.005	6	+	0	.003	16	.037	21	+	0	+	0	.009	31
13	+	0	+	0	+	0	+	0	.310	3	.088	15	.153	13	.206	6
14	.012	8	+	0	.014	9	.008	11	.294	5	.129	11	.077	19	.157	15
15	---	---	.002	7	+	0	.002	17	---	---	.110	13	+	0	.079	24
16	.005	10	---	---	.015	8	.006	12	.096	18	---	---	.289	7	.099	22
17	.048	1	---	---	+	0	.043	1	.141	15	---	---	+	0	.120	20
18*Midland	+	0	+	0	+	0	+	0	.454	1	+	0	.262	10	.315	2
*Odessa	+	0	+	0	+	0	+	0	.281	6	+	0	+	0	+	0
19	---	---	+	0	.028	4	.006	12	---	---	.226	5	+	0	.155	16
20	+	0	---	---	+	0	+	0	.254	9	---	---	+	0	.203	8
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.018	4	+	0	+	0	.015	7	.055	19	.159	9	.082	18	.064	26
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.013	7	.016	3	.088	2	.014	9	.263	7	.364	1	.599	2	.268	4
26	---	---	.020	1	+	0	.015	7	---	---	.068	16	.067	21	.067	25
27	.003	12	+	0	.016	6	.005	15	.149	14	.245	4	.220	11	.163	13
28	+	0	+	0	.009	10	.002	17	.308	4	.101	14	.137	16	.213	5
29	.017	5	---	---	.267	1	.019	4	.161	13	---	---	.309	6	.163	13
30	---	---	---	---	+	0	+	0	---	---	---	---	.116	17	.116	21
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	.059	22	.020	29
33	.005	10	.017	2	+	0	.006	12	.122	17	.200	7	.153	13	.138	17
34*Brownsville	+	0	+	0	+	0	+	0	+	0	.065	17	.048	23	.012	30
*McAllen	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
35	.027	2	---	---	+	0	.025	2	.043	20	---	---	.026	25	.041	28
36	---	---	.016	3	.026	5	.020	3	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.011		.005		.011		.010		.228		.109		.111		.199	

TABLE D.12 (Continued)

Region	GOLF HOLES, 1975								GOLF HOLES, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Holes Per 1000 Population	Rank														
1	.064	14	+	0	.074	10	.061	15	.065	17	.104	5	.089	10	.074	13
2	---	---	.060	6	.088	8	.071	14	---	---	.064	10	.088	11	.074	13
3	---	---	+	0	.155	3	.073	13	---	---	+	0	.147	5	.071	17
4	.121	6	---	---	.111	7	.120	4	.126	6	---	---	.106	8	.124	5
5	.153	4	+	0	.085	9	.119	5	.193	3	.088	7	.083	12	.147	3
6	---	---	+	0	.069	14	.019	27	---	---	+	0	+	0	+	0
7	.077	12	.047	11	+	0	.058	18	.087	12	.103	6	+	0	.074	13
8	---	---	.059	7	+	0	.024	24	---	---	.061	13	+	0	.025	25
9	---	---	.055	10	.071	12	.059	17	---	---	.066	9	.101	9	.072	16
10	.143	5	.197	1	.135	5	.144	2	.157	4	.227	1	.158	4	.161	2
11	.202	3	---	---	.222	2	.202	1	.229	2	---	---	.268	1	.229	1
12	.052	18	+	0	+	0	.012	28	.082	13	+	0	+	0	.018	28
13	.212	2	.056	8	.074	10	.131	3	.289	1	.027	18	.072	13	.102	10
14	.081	11	.042	14	.031	20	.050	19	.122	8	.061	13	.031	17	.070	18
15	---	---	.056	8	+	0	.042	22	---	---	.064	10	+	0	.049	24
16	.077	12	---	---	.120	6	.077	12	.081	14	---	---	.123	6	.082	11
17	.093	10	---	---	+	0	.080	10	.092	11	---	---	+	0	.080	12
18*Midland	.036	19	+	0	.035	17	.024	24	.075	15	+	0	.108	7	.055	21
*Odessa	.014	21	---	---	---	---	---	---	.029	21	---	---	---	---	---	---
19	---	---	.093	3	.035	17	.080	10	---	---	.113	3	.200	2	.132	4
20	.055	17	---	---	+	0	.046	21	.064	18	---	---	+	0	.053	22
21	+	0	---	---	+	0	+	0	.016	22	---	---	+	0	.012	29
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.099	8	.045	13	.035	17	.090	9	.125	7	.083	8	+	0	.113	9
24	---	---	+	0	+	0	+	0	---	---	.039	17	+	0	.021	25
25	.113	7	.128	2	.149	4	.114	6	.120	10	.134	2	.179	3	.121	6
26	---	---	.031	16	.064	15	.042	22	---	---	+	0	+	0	+	0
27	.937	1	.040	15	.071	12	.105	7	.131	5	.040	16	.058	14	.116	8
28	.059	15	.063	5	.064	15	.061	15	.068	16	.062	12	.052	15	.062	20
29	.099	8	---	---	.291	1	.101	8	.121	9	---	---	+	0	.120	7
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
34*Brownsville	.056	16	.046	12	.020	22	.049	20	.054	19	.042	15	.037	16	.050	23
*McAllen	+	0	.068	4	.026	20	.008	29	+	0	+	0	+	0	+	0
35	.026	20	---	---	+	0	.023	26	+	0	---	---	+	0	.032	25
36	---	---	.006	17	+	0	.004	30	---	---	.110	4	+	0	.068	19
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.119		.043		.045		.102		.137		.057		.053		.118	

TABLE D.12 (Continued)

Region	GOLF HOLES, 1990								GOLF HOLES, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Holes Per 1000 Population	Rank														
1	.109	20	.411	2	.183	11	.155	18	.057	22	.345	4	.157	15	.110	26
2	---	---	.148	7	.220	10	.181	12	---	---	.092	18	.237	9	.163	20
3	---	---	.143	9	.397	3	.263	8	---	---	.250	8	.456	3	.345	8
4	.276	8	---	---	.240	8	.273	7	.276	9	---	---	.195	11	.271	11
5	.444	3	.089	19	.223	9	.341	4	.510	3	.090	19	.249	8	.387	5
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.210	11	.114	16	+	0	.162	16	.195	14	.275	6	+	0	.173	18
8	---	---	.132	13	+	0	.057	30	---	---	.141	16	+	0	.063	30
9	---	---	.183	5	.135	13	.167	15	---	---	.248	9	.172	12	.219	15
10	.343	4	.447	1	.348	4	.350	3	.363	7	.509	1	.393	4	.376	7
11	.511	2	---	---	.454	2	.510	1	.539	2	---	---	.468	2	.538	1
12	.160	15	.109	17	+	0	.099	26	.213	13	.179	12	.106	17	.171	19
13	.689	1	.126	15	.279	6	.402	2	.889	1	.143	15	.339	5	.495	2
14	.261	9	.139	10	.089	17	.161	17	.360	8	.207	10	.101	19	.226	13
15	---	---	.138	11	+	0	.108	24	---	---	.189	11	+	0	.151	21
16	.185	14	---	---	.183	11	.185	11	.194	15	---	---	.209	10	.194	17
17	.193	13	---	---	+	0	.170	14	.255	12	---	---	+	0	.232	12
18*Midland	.124	17	+	0	.115	16	.098	27	.084	20	+	0	.166	13	.084	29
*Odessa	.080	22	---	---	---	---	---	---	.064	21	---	---	---	---	---	---
19	---	---	.098	18	.494	1	.180	13	---	---	.399	2	.673	1	.453	3
20	.122	18	---	---	+	0	.102	25	.143	18	---	---	+	0	.120	24
21	.203	12	---	---	+	0	.154	19	.276	9	---	---	+	0	.214	16
22	---	---	---	---	+	0	+	0	---	---	---	---	.054	23	.054	32
23	.308	5	.165	6	+	0	.281	6	.419	4	.265	7	.058	22	.393	4
24	---	---	.144	8	+	0	.080	29	---	---	.162	13	+	0	.092	28
25	.246	10	.283	3	.313	5	.248	10	.273	11	.280	5	.293	6	.273	10
26	---	---	.048	21	.061	19	.051	31	---	---	.061	21	.059	21	.060	31
27	.291	7	.082	20	.130	14	.255	9	.365	6	.124	17	.164	14	.319	9
28	.142	16	.133	12	.121	15	.133	21	.146	17	.149	14	.133	16	.144	23
29	.304	6	---	---	.263	7	.303	5	.382	5	---	---	.267	7	.381	6
30	---	---	---	---	.011	20	.109	23	---	---	---	---	.105	18	.105	27
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	.051	22	.046	24	.049	33
33	.122	18	.131	14	.064	18	.115	22	.133	19	.083	20	.070	20	.118	25
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	+	0	---	---
35	.082	21	---	---	.100	16	.084	28	.162	16	---	---	+	0	.149	22
36	---	---	.238	4	+	0	.149	20	---	---	.359	3	+	0	.226	13
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.313		.150		.134		.276		.347		.218		.168		.315	

TABLE D.12 (Continued)

Region	TENNIS COURTS, DOUBLE, 1970								TENNIS COURTS, DOUBLE, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank	Courts, Double Per 1000 Population	Rank
1	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	.007	11	+	0	.004	18
4	.020	11	---	---	+	0	.018	13	.046	9	---	---	+	0	.042	10
5	+	0	.087	2	+	0	.006	15	+	0	+	0	+	0	+	0
6	---	---	.006	6	+	0	.005	16	---	---	+	0	.017	5	.005	17
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	.009	6	.002	20
10	.371	4	+	0	+	0	.346	4	.230	4	.098	2	+	0	.214	4
11	.895	2	---	---	+	0	.889	2	.682	2	---	---	+	0	.677	2
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
15	---	---	.005	7	+	0	.004	17	---	---	.056	4	+	0	.042	10
16	.627	3	---	---	.024	3	.618	3	.373	3	---	---	.120	1	.367	3
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland *Odessa	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	.031	5	+	0	.024	13
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.169	6	.053	3	+	0	.148	6	.102	5	.090	3	+	0	.093	6
24	---	---	+	0	+	0	+	0	---	---	.014	8	+	0	.008	16
25	1.257	1	.273	1	.021	5	1.219	1	1.000	1	.219	1	+	0	.968	1
26	---	---	.034	4	+	0	.022	12	---	---	.031	5	+	0	.021	14
27	.175	5	+	0	.011	7	.146	7	.082	7	.010	9	.071	4	.075	7
28	.043	9	+	0	.023	4	.026	11	.017	11	.010	9	.086	3	.027	12
29	.155	7	---	---	+	0	.154	5	.096	6	---	---	+	0	.095	5
30	---	---	---	---	.029	1	.029	10	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.093	8	+	0	+	0	.065	8	.078	8	+	0	+	0	.055	8
34*Brownsville *McAllen	.010	12	+	0	+	0	.004	17	.009	12	+	0	+	0	.004	18
35	.043	9	---	---	.026	2	.041	9	.039	10	---	---	.101	2	.046	9
36	---	---	.027	5	+	0	.017	14	---	---	.024	7	+	0	.015	15
37	---	---	+	0	.015	6	.004	17	---	---	+	0	+	0	+	0
AVERAGE	.590		.015		.002		.447		.453		.023		.009		.350	

TABLE D.12 (Continued)

Region	TENNIS COURTS, DOUBLE, 1980								TENNIS COURTS, DOUBLE, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Courts, Double Per 1000 Population	Rank														
1	+	0	.013	9	+	0	.001	21	+	0	.112	4	+	0	.011	21
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	.028	7	+	0	.014	17	---	---	.048	8	+	0	.025	15
4	.050	9	---	---	+	0	.046	9	.110	8	---	---	+	0	.102	7
5	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	.051	6	.009	18	---	---	+	0	.045	7	.015	20
10	.176	4	.136	2	+	0	.165	4	.326	4	.323	2	.093	4	.310	4
11	.654	2	---	---	.054	5	.648	2	1.445	1	---	---	.151	2	1.429	1
12	+	0	+	0	+	0	+	0	+	0	.035	10	+	0	.019	17
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
15	---	---	.048	5	+	0	.037	12	---	---	.088	6	+	0	.069	12
16	.237	3	---	---	.123	1	.234	3	.413	3	---	---	.251	1	.406	3
17	+	0	---	---	+	0	+	0	+	0	+	0	+	0	+	0
18*Midland	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*Odessa	+	0	---	---	+	0	.044	10	+	0	.106	5	+	0	.084	11
19	---	---	.057	4	+	0	+	0	+	0	---	---	+	0	+	0
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	.003	11	---	---	+	0	.003	23
22	---	---	---	---	+	0	+	0	---	---	---	---	.008	9	.008	22
23	.115	5	+	0	+	0	.099	5	.244	5	.033	11	+	0	.215	5
24	---	---	.039	6	+	0	.021	14	---	---	.066	7	+	0	.037	14
25	.771	1	.238	1	.060	3	.747	1	1.336	2	.495	1	.078	5	1.291	2
26	---	---	+	0	+	0	+	0	---	---	.024	13	+	0	.017	18
27	.066	8	+	0	.029	7	.057	7	.097	10	+	0	.065	6	.086	10
28	+	0	.071	3	.069	2	.042	11	+	0	.140	3	.121	3	.090	9
29	.086	6	---	---	+	0	.086	6	.159	6	---	---	+	0	.158	6
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.007	10	+	0	.005	19	---	---	.027	12	+	0	.017	18
33	.073	7	+	0	+	0	.053	8	.132	7	.037	9	+	0	.100	8
34*Brownsville	.009	11	+	0	+	0	.004	20	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	+	0	.032	13	+	0	---	---	+	0	.047	13
35	.036	10	---	---	+	0	.017	15	.105	9	---	---	+	0	.023	16
36	---	---	.022	8	.009	8	.017	15	---	---	.018	14	.031	8	.023	16
37	---	---	+	0	.057	4	.016	16	---	---	+	0	+	0	+	0
AVERAGE	.388		.034		.011		.304		.795		.090		.033		.636	

TABLE D.12 (Continued)

Region	TENNIS COURTS, DOUBLE, 2000								BASKETBALL COURTS, FULL, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Courts, Double Per 1000	Rank	Courts, Double Per 1000	Rank	Courts, Double Per 1000	Rank	Courts, Double Per 1000	Rank	Courts, Full Per 1,000	Rank	Courts, Full Per 1,000	Rank	Courts, Full Per 1,000	Rank	Courts, Full Per 1,000	Rank
1	+	0	.115	5	.047	9	.023	21	+	0	.019	5	+	0	.001	21
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	.062	10	+	0	.033	17	---	---	+	0	+	0	+	0
4	.113	9	---	---	+	0	.106	11	.027	8	---	---	+	0	.024	11
5	+	0	+	0	+	0	+	0	+	0	.022	3	+	0	.002	19
6	---	---	+	0	+	0	+	0	---	---	+	0	.147	2	.037	7
7	+	0	+	0	+	0	+	0	.033	7	.086	1	+	0	.036	8
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	.069	6	.026	19	---	---	.011	6	+	0	.009	13
10	.291	5	.453	2	.141	4	.292	5	.130	2	.052	7	.078	6	.126	2
11	1.591	1	---	---	.244	2	1.570	1	+	0	---	---	.108	3	.001	21
12	+	0	.063	9	.013	14	.039	16	.019	9	+	0	.005	18	.006	14
13	+	0	+	0	+	0	+	0	+	0	+	0	.010	16	.002	19
14	+	0	+	0	+	0	+	0	.104	3	+	0	+	0	.028	10
15	---	---	.109	6	+	0	.088	12	---	---	+	0	+	0	+	0
16	.433	3	---	---	.343	1	.428	3	+	0	---	---	.096	4	.001	21
17	+	0	---	---	+	0	+	0	.016	10	---	---	+	0	.013	12
18*Midland	+	0	+	0	+	0	+	0	.050	5	.020	4	+	0	.040	6
*Odessa	+	0	---	---	+	0	.111	10	.051	4	---	---	+	0	+	0
19	---	---	.138	4	+	0	+	0	---	---	+	0	+	0	+	0
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	.023	11	---	---	+	0	.018	23	+	0	---	---	.011	13	.003	18
22	---	---	---	---	.027	10	.027	18	---	---	---	---	.044	8	.044	4
23	.336	4	+	0	+	0	.296	4	.181	1	+	0	+	0	.155	1
24	---	---	.086	7	+	0	.049	14	---	---	+	0	+	0	+	0
25	1.515	2	.575	1	.088	5	1.461	2	+	0	+	0	.086	5	.001	21
26	---	---	.020	12	.015	12	.019	22	---	---	+	0	.333	1	.112	3
27	.139	8	+	0	.066	7	.119	9	+	0	+	0	.011	13	.001	21
28	+	0	.190	3	.168	3	.137	7	+	0	+	0	.006	17	.001	21
29	.155	6	---	---	+	0	.154	6	+	0	---	---	.077	7	.001	21
30	---	---	---	---	.026	11	.026	19	---	---	---	---	.029	9	.029	9
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	.011	15	.004	25	---	---	+	0	.015	11	.005	15
33	.154	7	.083	8	.014	13	.126	8	+	0	+	0	+	0	+	0
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	+	0	.066	13	+	0	---	---	.026	10	.041	5
35	.072	10	---	---	+	0	.066	13	.043	6	---	---	.026	10	.041	5
36	---	---	.047	11	.053	8	.049	14	---	---	+	0	.011	13	.004	16
37	---	---	.019	13	+	0	.014	24	---	---	+	0	.015	11	.004	16
AVERAGE	.910		.132		.062		.735		.024		.004		.016		.020	

TABLE D.12 (Continued)

Region	BASKETBALL COURTS, FULL, 1975								BASKETBALL COURTS, FULL, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank	Courts, Full Per 1,000 Population	Rank
1	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
2	---	---	+	0	+	0	+	0	---	---	.032	8	+	0	.018	15
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.110	3	---	---	+	0	.099	2	.121	3	---	---	+	0	.110	2
5	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	.077	2	+	0	.059	4	---	---	.077	4	+	0	.063	6
10	.043	7	.098	1	.162	2	.050	5	.043	9	.068	6	+	0	.042	11
11	.008	12	---	---	+	0	.007	16	.010	12	---	---	.054	5	.011	18
12	.070	6	.059	3	+	0	.050	5	.066	7	.082	3	+	0	.062	7
13	+	0	+	0	.037	8	.009	15	+	0	+	0	+	0	+	0
14	.130	2	+	0	.004	10	.037	10	.137	2	+	0	.015	8	.044	9
15	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
16	+	0	---	---	+	0	+	0	.010	12	---	---	+	0	.009	19
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	.091	4	+	0	+	0	.042	8	.094	5	.083	2	+	0	.049	8
*Odessa	.028	9	---	---	---	---	---	---	.029	10	---	---	---	---	---	---
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	.028	9	---	---	+	0	.023	12	.050	8	---	---	+	0	.042	11
21	+	0	---	---	+	0	+	0	+	0	---	---	.044	6	.012	17
22	---	---	---	---	.040	7	.040	9	---	---	---	---	+	0	+	0
23	.173	1	+	0	+	0	.146	1	.199	1	+	0	+	0	.172	1
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.027	11	.005	7	.074	5	.027	11	.074	6	.074	5	.119	2	.074	4
26	---	---	+	0	+	0	+	0	---	---	+	0	.063	3	.019	14
27	+	0	+	0	+	0	+	0	+	0	+	0	.029	7	.003	20
28	+	0	+	0	.021	9	.004	18	+	0	.009	10	+	0	.003	20
29	.080	5	---	---	.291	1	.082	3	.104	4	---	---	+	0	.103	3
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.007	4	+	0	.005	17	---	---	.028	9	+	0	.018	15
33	+	0	.006	5	.120	3	.019	14	+	0	.127	1	.183	1	.044	9
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
35	.039	8	---	---	.101	4	.046	7	.024	11	---	---	+	0	.021	13
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	.006	5	.058	6	.021	13	---	---	.067	7	.057	4	.064	5
AVERAGE	.029		.016		.018		.026		.044		.031		.016		.039	

TABLE D.12 (Continued)

Region	BASKETBALL COURTS, FULL, 1990								BASKETBALL COURTS, FULL, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Courts, Full Per 1,000 Population	Rank														
1	.011	14	.037	9	+	0	.011	22	.091	8	+	0	+	0	.062	14
2	---	---	.074	8	+	0	.040	15	---	---	.046	11	+	0	.023	20
3	---	---	+	0	+	0	+	0	---	---	.187	2	+	0	.100	8
4	.268	3	---	---	+	0	.249	2	.282	3	---	---	+	0	.265	2
5	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.011	14	+	0	+	0	.007	24	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	.161	3	+	0	.109	6	---	---	.165	5	+	0	.103	7
10	.082	9	.124	5	.128	4	.087	8	.071	10	.129	6	.118	4	.080	11
11	.020	13	---	---	.030	10	.021	18	.016	14	---	---	.041	6	.016	21
12	.133	8	.144	4	+	0	.112	5	.160	6	.184	4	+	0	.140	5
13	+	0	+	0	.070	7	.017	19	+	0	+	0	.034	7	.008	23
14	.275	2	+	0	+	0	.081	11	.298	2	+	0	.014	10	.098	10
15	---	---	.013	12	+	0	.010	23	---	---	+	0	+	0	+	0
16	.023	12	---	---	.046	8	.024	17	.024	13	---	---	.030	8	.025	19
17	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
18*Midland	.140	7	+	0	+	0	.085	9	.118	7	.081	9	+	0	.077	12
*Odessa	.080	11	---	---	+	0	+	0	.064	12	---	---	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	.002	14	+	0	.001	26
20	.081	10	---	---	+	0	.068	13	.071	10	---	---	+	0	.060	15
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	.032	9	.032	16	---	---	---	---	+	0	+	0
23	.444	1	+	0	+	0	.387	1	.542	1	+	0	+	0	.476	1
24	---	---	.003	13	+	0	.002	25	---	---	.010	13	+	0	.005	24
25	.154	5	.172	2	.196	3	.155	4	.169	5	.186	3	.176	3	.170	4
26	---	---	.024	11	+	0	.017	19	---	---	.061	10	+	0	.045	17
27	+	0	+	0	+	0	+	0	+	0	+	0	.016	9	.003	25
28	+	0	.100	7	+	0	.043	14	+	0	.118	7	+	0	.056	16
29	.219	4	---	---	.263	2	.219	3	.236	4	---	---	.267	2	.236	3
30	---	---	---	---	+	0	+	0	---	---	---	---	.026	11	.026	18
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.027	10	+	0	.017	19	---	---	.026	12	+	0	.016	21
33	+	0	.262	1	.350	1	.084	10	.008	15	.299	1	.404	1	.100	8
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	+	0	+	0
35	.147	6	---	---	.100	6	.074	12	.072	9	---	---	+	0	.066	13
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	.106	6	.110	5	.107	7	---	---	.116	8	.102	5	.112	6
AVERAGE	.093		.070		.037		.085		.101		.088		.040		.094	

TABLE D.12 (Continued)

Region	SURFACE ACRES, FRESHWATER, 1970								SURFACE ACRES, FRESHWATER, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Surface Acres Per 1,000 Population	Rank														
1	.984	10	1.044	15	2.682	11	1.339	9	.749	11	.925	3	1.008	8	.817	4
2	---	---	1.058	14	1.910	19	1.386	8	---	---	.506	18	.661	16	.569	18
3	---	---	1.015	16	1.908	20	1.460	7	---	---	.607	12	.653	18	.629	14
4	.563	14	---	---	1.657	25	.678	25	.913	2	---	---	.665	15	.890	2
5	+	0	1.484	6	+	0	.102	34	+	0	.613	10	.374	30	.172	31
6	---	---	.596	19	2.127	17	.983	21	---	---	.568	15	.138	33	.451	25
7	+	0	1.337	7	2.001	18	.603	27	+	0	.466	20	.548	25	.174	30
8	---	---	1.670	3	2.778	10	2.333	3	---	---	.530	17	.572	22	.555	20
9	---	---	+	0	4.949	4	.887	23	---	---	+	0	1.099	6	.259	28
10	+	0	1.242	8	7.449	2	.317	30	+	0	1.017	2	1.860	3	.122	33
11	+	0	---	---	13.547	1	.095	35	.251	16	---	---	2.955	1	.274	27
12	7.595	1	1.520	5	+	0	2.676	1	1.200	1	.674	7	+	0	.160	11
13	1.435	4	+	0	2.567	12	1.261	15	.752	10	+	0	.705	13	.506	24
14	1.489	3	+	0	+	0	.398	29	.860	3	+	0	+	0	.241	29
15	---	---	+	0	.404	31	.111	33	---	---	+	0	.645	19	.166	32
16	1.276	7	---	---	1.636	26	1.281	14	.813	5	---	---	1.141	4	.820	3
17	.751	13	---	---	2.824	9	1.055	20	.697	13	---	---	.479	27	.666	10
18*Midland	1.614	2	.946	17	1.733	21	1.298	13	.780	8	.577	14	.423	28	.554	21
*Odessa	.944	12	---	---	---	---	---	---	.429	15	---	---	---	---	---	---
19	---	---	1.567	4	2.303	15	1.798	6	---	---	.711	6	.735	11	.716	9
20	+	0	---	---	3.273	7	.651	26	+	0	---	---	.318	31	.052	36
21	.428	15	---	---	+	0	.300	31	.841	4	---	---	.089	34	.629	14
22	---	---	---	---	2.523	13	2.523	2	---	---	---	---	.755	10	.755	7
23	+	0	2.545	1	3.952	5	.484	28	+	0	.765	5	.729	12	.113	34
24	---	---	1.204	9	1.398	28	1.303	11	---	---	.610	11	.658	17	.632	13
25	+	0	1.137	11	3.680	6	.062	36	+	0	.874	4	1.114	5	.036	37
26	---	---	.338	20	3.195	8	1.300	12	---	---	1.380	1	.644	20	1.143	1
27	1.344	5	+	0	1.675	24	1.252	16	.805	6	.483	19	.848	9	.782	5
28	1.335	6	+	0	.229	32	.722	24	.727	12	+	0	1.030	7	.514	33
29	.953	11	---	---	.617	30	.949	22	.764	9	---	---	2.331	2	.779	6
30	---	---	---	---	5.245	3	1.973	5	---	---	---	---	.565	23	.565	19
31	---	---	1.820	2	2.388	14	2.263	4	---	---	.567	16	.511	26	.523	22
32	---	---	1.071	13	1.536	27	1.226	17	---	---	.635	8	.561	24	.610	17
33	1.090	8	1.152	10	1.681	23	1.192	18	.801	7	.598	13	.620	21	.746	8
34*Brownsville	+	0	.914	18	1.317	29	.278	32	+	0	.339	22	.384	29	.083	35
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
35	1.014	9	---	---	2.255	16	1.168	19	.683	14	---	---	.202	32	.628	16
36	---	---	1.117	12	1.694	22	1.336	10	---	---	.634	9	.682	14	.652	12
37	---	---	+	0	+	0	+	0	---	---	.395	21	+	0	.282	26
AVERAGE	.458		.800		1.894		.672		.327		.468		.638		.379	

TABLE D.12 (Continued)

Region	SURFACE ACRES, FRESHWATER, 1980								SURFACE ACRES, FRESHWATER, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Surface Acres Per 1,000 Population	Rank														
1	.750	12	1.089	2	1.180	5	.869	5	1.335	13	2.429	2	2.670	3	1.721	7
2	---	---	.479	20	.527	27	.499	24	---	---	.961	24	1.234	22	1.085	23
3	---	---	.662	11	.705	15	.683	17	---	---	1.476	8	1.456	14	1.467	12
4	.968	3	---	---	.637	22	.939	2	2.120	2	---	---	1.394	16	2.067	2
5	+	0	.878	5	.630	23	.282	31	+	0	1.068	21	1.418	15	.584	31
6	---	---	.511	17	.325	33	.457	25	---	---	1.042	22	+	0	.697	30
7	+	0	.361	24	.412	31	.126	33	+	0	.972	23	.916	25	.280	33
8	---	---	.605	13	.303	34	.429	27	---	---	1.121	19	.856	29	.971	25
9	---	---	+	0	1.717	2	.308	30	---	---	+	0	2.159	6	.698	29
10	+	0	1.137	1	1.624	3	.138	32	+	0	2.980	1	3.026	2	.384	32
11	1.039	2	---	---	2.463	1	1.053	1	2.211	1	---	---	4.143	1	2.235	1
12	1.229	1	.900	4	+	0	.794	10	1.692	8	1.417	11	+	0	1.195	20
13	.868	8	.373	23	.682	19	.665	18	1.477	11	1.507	6	1.255	21	1.433	14
14	.914	4	.389	22	+	0	.429	27	1.775	6	1.173	16	.018	33	1.080	24
15	---	---	.738	9	.955	10	.791	12	---	---	1.770	4	1.535	12	1.719	8
16	.891	7	---	---	1.267	4	.902	3	1.833	4	---	---	2.351	5	1.855	3
17	.736	13	---	---	.504	29	.705	15	1.316	14	---	---	.596	30	1.230	19
18*Midland	.807	11	.413	21	.506	28	.591	20	1.194	16	1.148	17	.997	24	1.170	21
*Odessa	.490	16	---	---	---	---	---	---	1.235	15	---	---	---	---	---	---
19	---	---	.745	8	.899	11	.779	13	---	---	1.480	7	1.637	10	1.513	11
20	+	0	---	---	.619	24	.101	35	+	0	---	---	.509	32	.082	36
21	.906	5	---	---	.654	20	.839	7	1.813	5	---	---	1.900	8	1.834	4
22	---	---	---	---	.873	13	.873	4	---	---	---	---	1.577	11	1.577	10
23	+	0	.786	6	.860	14	.113	34	+	0	1.582	5	1.340	18	.192	34
24	---	---	.711	10	.696	16	.704	16	---	---	1.463	10	1.375	17	1.424	15
25	+	0	.937	3	1.131	6	.041	37	+	0	1.931	3	2.429	4	.098	35
26	---	---	.756	7	.878	12	.793	11	---	---	1.475	9	1.155	23	1.385	17
27	.862	9	.199	25	.989	9	.824	9	1.654	9	1.356	12	1.867	9	1.662	9
28	.728	14	+	0	1.023	7	.503	23	1.366	12	1.134	18	1.952	7	1.406	16
29	.845	10	---	---	.558	25	.843	6	1.759	7	---	---	.526	31	1.750	5
30	---	---	---	---	.442	30	.442	26	---	---	---	---	.874	27	.874	28
31	---	---	.508	18	.549	26	.540	22	---	---	.958	25	.871	28	.890	27
32	---	---	.533	16	.640	21	.570	21	---	---	1.078	20	1.285	19	1.151	22
33	.903	6	.657	12	.695	17	.839	7	1.839	3	1.310	15	1.494	13	1.722	6
34*Brownsville	+	0	.494	19	.384	32	.091	36	+	0	.457	26	+	0	.028	37
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	---	---	---	---
35	.695	15	---	---	.994	8	.727	14	1.518	10	---	---	.900	26	1.461	13
36	---	---	.570	15	.690	18	.615	19	---	---	1.318	14	1.258	20	1.295	18
37	---	---	.581	14	+	0	.416	29	---	---	1.332	13	+	0	.961	26
AVERAGE	.523		.578		.730		.552		1.104		1.394		1.496		1.777	

TABLE D.12 (Continued)

Region	SURFACE ACRES, FRESHWATER, 2000								BOAT RAMPS, FRESHWATER, (2.0 LANES PER RAMP), 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Surface Acres Per 1,000 Population	Rank	Surface Acres Per 1,000 Population	Rank	Surface Acres Per 1,000 Population	Rank	Surface Acres Per 1,000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank
1	.801	17	2.761	1	2.941	2	1.464	20	.016	14	+	0	.027	16	.017	17
2	---	---	+	0	1.045	23	.513	32	---	---	.028	4	+	0	.017	17
3	---	---	1.540	11	1.512	17	1.527	18	---	---	.033	2	.033	14	.033	3
4	2.136	3	---	---	1.025	24	2.069	2	.020	6	---	---	+	0	.018	15
5	+	0	1.447	14	1.308	20	.577	31	.020	6	+	0	.017	21	.018	15
6	---	---	1.208	19	+	0	.746	29	---	---	.025	5	+	0	.019	14
7	+	0	.481	24	.930	26	.204	34	.022	5	+	0	.038	10	.022	12
8	---	---	.985	21	.400	31	.662	30	---	---	+	0	.039	9	.023	11
9	---	---	+	0	2.357	5	.883	28	---	---	.022	7	.051	6	.027	7
10	+	0	1.842	5	2.655	3	.352	33	.002	24	+	0	.078	3	.004	33
11	2.222	2	---	---	3.598	1	2.243	1	.011	19	---	---	.217	1	.012	28
12	2.559	1	1.799	7	+	0	1.580	15	.093	1	.016	10	+	0	.031	5
13	1.434	12	1.426	16	1.219	21	1.379	21	.019	9	.029	3	.038	10	.027	7
14	1.934	7	1.384	17	+	0	1.182	24	.017	11	.021	9	+	0	.014	23
15	---	---	1.996	2	1.803	9	1.957	4	---	---	.022	7	.058	5	.032	4
16	1.951	6	---	---	2.581	4	1.987	3	.015	15	---	---	+	0	.014	23
17	1.369	13	---	---	+	0	1.246	23	.031	2	---	---	.091	2	.040	2
18*Midland	1.093	15	.976	22	.705	29	1.049	26	.017	11	+	0	.033	14	.017	17
*Odessa	1.190	14	---	---	---	---	---	---	.013	18	---	---	---	---	---	---
19	---	---	1.735	9	1.738	11	1.735	11	---	---	.013	11	.027	16	.017	17
20	+	0	---	---	.565	30	.090	36	.025	3	---	---	.034	13	.027	7
21	2.126	4	---	---	1.163	22	1.911	6	.019	9	---	---	+	0	.014	23
22	---	---	---	---	1.769	10	1.769	9	---	---	---	---	.044	7	.044	1
23	+	0	1.831	6	.872	27	.185	35	.024	4	.053	1	.041	8	.027	7
24	---	---	1.533	10	1.528	16	1.542	17	---	---	+	0	.015	22	.008	30
25	1.579	11	1.942	3	2.318	6	1.601	14	.015	15	.023	6	+	0	.015	22
26	---	---	1.736	8	1.717	12	1.731	12	---	---	+	0	.067	4	.022	12
27	1.874	8	1.119	20	2.136	8	1.868	7	.009	22	+	0	+	0	.007	31
28	1.004	16	1.887	4	2.190	7	1.749	10	.017	11	+	0	.023	19	.013	26
29	1.869	9	---	---	1.336	18	1.866	8	.006	23	---	---	+	0	.006	32
30	---	---	---	---	1.676	13	1.676	13	---	---	---	---	+	0	+	0
31	---	---	.839	23	1.000	25	.966	27	---	---	+	0	.036	12	.028	6
32	---	---	1.363	18	1.321	19	1.348	22	---	---	+	0	+	0	+	0
33	2.078	5	1.514	13	1.602	14	1.942	5	.010	21	+	0	.022	20	.010	29
34*Brownsville	+	0	.325	25	+	0	.020	37	.020	6	+	0	.024	18	.016	21
*McAllen	+	0	---	---	---	---	---	---	.011	19	---	---	---	---	---	---
35	1.618	10	---	---	.733	28	1.548	16	.014	17	---	---	+	0	.013	26
36	---	---	1.436	15	1.532	15	1.471	19	---	---	+	0	+	0	+	0
37	---	---	1.524	12	+	0	1.107	25	---	---	+	0	+	0	+	0
AVERAGE	1.537		1.570		1.610		1.548		.014		.013		.025		.015	

TABLE D.12 (Continued)

Region	BOAT RAMPS, FRESHWATER (2.0 LANES PER RAMP), 1975								BOAT RAMPS, FRESHWATER (2.0 LANES PER RAMP), 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank
1	.007	14	+	0	.025	8	.010	10	.007	20	.052	1	+	0	.009	16
2	---	---	+	0	.044	2	.018	3	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.006	16	---	---	+	0	.005	24	.015	4	---	---	.053	3	.018	2
5	.010	7	+	0	.017	9	.012	8	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	.065	1	.019	1
7	+	0	.047	1	+	0	.007	21	.011	9	+	0	+	0	.007	23
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	.035	4	.008	15	---	---	.011	7	+	0	.009	16
10	.011	6	.033	2	.027	7	.012	8	.010	12	+	0	.020	7	.010	13
11	.010	7	---	---	+	0	.010	10	.011	9	---	---	.054	2	.012	5
12	.017	2	.007	9	+	0	.008	15	.016	2	.013	5	+	0	.011	9
13	+	0	+	0	+	0	+	0	.019	1	+	0	+	0	.009	16
14	.016	3	+	0	+	0	.005	24	+	0	.010	8	+	0	.004	27
15	---	---	+	0	+	0	+	0	---	---	.016	3	+	0	.012	5
16	.009	10	---	---	+	0	.009	13	.010	12	---	---	.041	5	.011	9
17	+	0	---	---	+	0	+	0	.015	4	---	---	+	0	.013	4
18*Midland	.018	1	+	0	+	0	.006	22	+	0	+	0	+	0	.006	26
*Odessa	+	0	---	---	+	0	+	0	.014	6	---	---	+	0	+	0
19	---	---	.010	7	+	0	.008	15	---	---	.009	9	+	0	.007	23
20	.007	14	---	---	+	0	.006	22	.007	20	---	---	.036	6	.012	5
21	+	0	---	---	+	0	+	0	.016	2	---	---	+	0	.012	5
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.014	4	+	0	.035	4	.015	5	.010	12	+	0	+	0	.009	16
24	---	---	+	0	.016	10	.008	15	---	---	.013	5	+	0	.007	23
25	.010	7	+	0	.074	1	.010	10	.011	9	.015	4	+	0	.011	9
26	---	---	.031	3	+	0	.021	1	---	---	+	0	+	0	+	0
27	.012	5	+	0	.035	4	.013	7	.008	17	.040	2	+	0	.009	16
28	.008	12	.010	7	+	0	.008	15	.008	17	.009	9	.017	9	.010	13
29	.008	12	---	---	+	0	.008	15	.010	12	---	---	+	0	.010	13
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.029	4	+	0	.019	2	---	---	+	0	.053	3	.018	2
33	.009	10	.023	5	+	0	.009	13	.008	17	+	0	.018	8	.008	22
34*Brownsville	+	0	+	0	+	0	+	0	.009	16	+	0	+	0	.009	16
*McAllen	+	0	---	---	+	0	+	0	.013	7	---	---	+	0	+	0
35	+	0	---	---	+	0	+	0	.012	8	---	---	+	0	.011	9
36	---	---	+	0	.040	3	.015	5	---	---	+	0	+	0	+	0
37	---	---	.023	5	+	0	.017	4	---	---	+	0	+	0	+	0
AVERAGE	.009		.007		.009		.009		.010		.008		.008		.010	

TABLE D.12 (Continued)

Region	BOAT RAMPS, FRESHWATER (2.0 LANES PER RAMP), 1990								BOAT RAMPS, FRESHWATER (2.0 LANES PER RAMP), 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank	Ramps Per 1000 Population	Rank
1	.016	15	+	0	.037	6	.019	15	.010	19	.029	3	.031	5	.016	22
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	.024	7	.026	11	.025	5	---	---	.021	8	.024	10	.022	7
4	.023	4	---	---	+	0	.021	12	.022	7	---	---	+	0	.021	10
5	.020	8	.089	1	.016	17	.023	9	.010	19	+	0	.016	12	.012	27
6	---	---	.027	4	+	0	.018	18	---	---	+	0	+	0	+	0
7	.021	6	+	0	.044	4	.022	10	.011	18	+	0	+	0	.008	28
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	.011	18	.022	14	.015	24	---	---	.021	8	.034	4	.026	4
10	.020	8	.025	5	.035	7	.021	12	.018	12	.024	5	.031	5	.020	14
11	.024	3	---	---	.060	2	.024	8	.024	3	---	---	.041	2	.024	5
12	.013	18	.017	15	+	0	.013	25	.027	2	.019	13	.013	15	.020	14
13	.020	8	.025	5	.035	7	.025	5	+	0	.024	5	+	0	.008	28
14	.028	1	.018	13	+	0	.016	23	.012	17	.009	17	+	0	.008	28
15	---	---	.013	17	+	0	.010	28	---	---	.030	2	.040	3	.032	2
16	.019	11	---	---	.023	13	.020	14	.021	8	---	---	.030	7	.021	10
17	+	0	---	---	+	0	+	0	.016	16	---	---	+	0	.014	26
18*Midland	.016	15	+	0	+	0	.007	30	.017	15	.081	1	+	0	.021	10
*Odessa	+	0							.021	8						
19	---	---	.016	16	.031	10	.019	15	---	---	.021	8	+	0	.017	19
20	.088	20	---	---	+	0	.007	30	.018	12	---	---	+	0	.015	24
21	.014	17	---	---	+	0	.010	28	.023	5	---	---	+	0	.018	17
22	---	---	---	---	.032	9	.032	1	---	---	---	---	+	0	+	0
23	.026	2	.033	3	+	0	.025	5	.033	1	+	0	+	0	.029	3
24	---	---	.011	18	.014	19	.012	26	---	---	.019	13	.025	9	.022	7
25	.022	5	.020	10	.039	5	.022	10	.023	5	.023	7	+	0	.023	6
26	---	---	.024	7	+	0	.017	20	---	---	.020	12	+	0	.015	24
27	.018	13	+	0	.022	14	.017	20	.019	11	+	0	.016	12	.018	17
28	.009	19	.020	10	.024	12	.017	20	.010	19	.021	8	.018	11	.017	19
29	.018	13	---	---	+	0	.018	18	.021	8	---	---	+	0	.021	10
30	---	---	---	---	+	0	+	0	---	---	---	---	.105	1	.105	1
31	---	---	.068	2	.019	16	.030	3	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	.026	4	+	0	.016	22
33	.019	11	.019	12	.016	17	.019	15	.024	3	.017	15	.014	14	.022	7
34*Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0							+	0						
35	.021	6	---	---	.100	1	.028	4	.018	12	---	---	+	0	.017	19
36	---	---	.018	13	+	0	.011	27	---	---	.016	16	.026	8	.020	14
37	---	---	.021	9	.055	3	.031	2	---	---	+	0	+	0	+	0
AVERAGE	.021		.018		.019		.020		.022		.018		.016		.021	

TABLE D.12 (Continued)

Region	WALKING TRAILS, 1970								WALKING TRAILS, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	.063	8	+	0	.109	5	.068	10	.043	4	+	0	+	0	.030	11
2	---	---	+	0	+	0	+	0	---	---	.030	10	.044	9	.036	7
3	---	---	+	0	.033	20	.016	26	---	---	.028	12	+	0	.015	24
4	+	0	---	---	.114	4	.012	29	+	0	---	---	.056	7	.005	30
5	+	0	+	0	+	0	+	0	.031	9	.088	1	+	0	.024	16
6	---	---	.025	14	+	0	.019	25	---	---	.026	14	+	0	.019	21
7	.056	9	+	0	+	0	.036	17	.022	14	.047	4	+	0	.022	19
8	---	---	.058	7	+	0	.023	23	---	---	+	0	.041	10	.024	16
9	---	---	.165	1	+	0	.136	1	---	---	.044	6	+	0	.033	10
10	.091	4	.104	3	.078	11	.091	5	.035	6	.066	2	.054	8	.037	6
11	.093	3	---	---	.108	6	.093	4	.029	10	---	---	+	0	.029	12
12	+	0	.008	16	+	0	.004	31	+	0	+	0	+	0	+	0
13	.039	11	.029	13	.153	1	.063	13	.019	15	.028	12	.074	3	.035	8
14	.004	21	.097	4	.107	7	.075	6	.016	16	.032	9	.031	13	.027	15
15	---	---	.022	15	.058	15	.032	18	---	---	.037	8	+	0	.028	13
16	.072	6	---	---	.096	8	.072	8	.008	20	---	---	.060	5	.009	28
17	.016	18	---	---	+	0	.013	27	.046	2	---	---	+	0	.040	5
18*Midland	.084	5	.079	5	.131	2	.066	12	.036	5	+	0	+	0	.018	23
*Odessa	.026	13	+	0	+	0	+	0	.014	17	---	---	+	0	.008	29
19	---	---	+	0	+	0	+	0	---	---	.010	16	+	0	.012	26
20	.017	17	---	---	.034	19	.020	24	.014	17	---	---	+	0	+	0
21	.019	16	---	---	.046	17	.027	21	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.008	20	.053	8	+	0	.010	30	.011	19	+	0	.035	11	.012	26
24	---	---	.031	11	.030	21	.031	20	---	---	.013	15	.032	12	.023	18
25	.054	10	+	0	.086	10	.053	14	.035	6	+	0	.074	3	.034	9
26	---	---	.068	6	.067	12	.067	11	---	---	.061	3	+	0	.042	4
27	.105	2	.123	2	.088	9	.105	3	.045	3	.040	7	.106	2	.051	1
28	.111	1	.043	10	.023	22	.074	7	.025	12	.010	16	+	0	.015	24
29	.071	7	---	---	+	0	.071	9	.047	1	---	---	.291	1	.049	3
30	---	---	---	---	.116	3	.116	2	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.030	12	.059	14	.040	16	---	---	.029	11	+	0	.019	21
33	.024	14	+	0	.044	18	.024	22	.035	6	+	0	.020	14	.028	13
34*Brownsville	.039	11	+	0	.048	16	.032	18	.028	11	+	0	+	0	.021	20
*McAllen	.023	15	---	---	+	0	+	0	.025	12	---	---	+	0	+	0
35	.014	19	---	---	+	0	.013	27	+	0	---	---	+	0	+	0
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	.048	9	.060	13	.052	15	---	---	.046	5	.058	6	.050	2
AVERAGE	.063		.042		.043		.058		.028		.021		.019		.026	

TABLE D.12 (Continued)

Region	WALKING TRAILS, 1980								WALKING TRAILS, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	.039	6	+	0	.045	8	.037	9	.071	6	.037	17	.037	13	.060	12
2	---	---	.032	11	+	0	.018	25	---	---	.074	7	.044	12	.060	12
3	---	---	.028	13	.029	13	.028	15	---	---	.048	13	+	0	.025	25
4	.025	12	---	---	.053	5	.028	15	.068	7	---	---	.048	10	.067	10
5	.041	5	+	0	.017	14	.029	14	.081	4	+	0	.096	3	.081	5
6	---	---	.027	15	+	0	.019	24	---	---	.027	18	+	0	.018	29
7	.011	21	.052	4	+	0	.015	29	.032	16	.057	11	+	0	.030	22
8	---	---	.061	2	.042	9	.051	3	---	---	.066	8	+	0	.029	23
9	---	---	.033	10	+	0	.027	18	---	---	.075	6	+	0	.051	17
10	.036	9	.045	6	+	0	.034	11	.068	7	.112	1	.128	1	.074	7
11	.025	12	---	---	.054	4	.025	21	.060	11	---	---	.060	7	.060	12
12	+	0	+	0	+	0	+	0	+	0	+	0	.016	16	.003	32
13	.019	16	.027	15	.036	10	.026	19	.039	15	.050	12	.070	6	.050	18
14	.015	18	.031	12	.031	12	.026	19	.028	17	.065	9	.006	18	.052	16
15	---	---	.048	5	.050	7	.049	4	---	---	.100	2	.045	11	.088	4
16	.007	22	---	---	+	0	.007	32	.012	22	---	---	.023	15	.013	30
17	.046	3	---	---	+	0	.040	7	.064	9	---	---	+	0	.057	15
18*Midland	.038	8	.083	1	+	0	.031	13	.062	10	+	0	+	0	.046	19
*Odessa	.029	10	---	---	---	---	---	---	.060	11	---	---	---	---	---	---
19	---	---	.019	18	.033	11	.022	22	---	---	.041	15	.031	14	.039	20
20	.021	15	---	---	+	0	.018	25	.024	19	---	---	+	0	.020	28
21	+	0	---	---	+	0	+	0	.014	21	---	---	+	0	.010	31
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.013	19	.041	8	+	0	.015	29	.026	18	.066	8	.096	3	.033	21
24	---	---	.026	17	.015	16	.021	23	---	---	.044	14	+	0	.025	25
25	.057	1	+	0	.060	2	.055	2	.096	2	+	0	.078	5	.093	2
26	---	---	.056	3	+	0	.039	8	---	---	.095	3	+	0	.068	9
27	.043	4	.040	9	.058	3	.044	6	.090	3	.041	15	.109	2	.089	3
28	.025	12	.009	19	.017	14	.017	27	.053	13	.013	19	+	0	.023	27
29	.047	2	---	---	+	0	.046	5	.103	1	---	---	+	0	.102	1
30	---	---	---	---	.111	1	.111	1	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.028	13	.053	5	.037	9	---	---	.081	5	.049	9	.070	8
33	.039	6	+	0	+	0	.028	15	.080	5	+	0	.016	16	.061	11
34*Brownsville	.019	16	+	0	+	0	.017	27	.047	14	+	0	+	0	.028	24
*McAllen	.027	11	---	---	---	---	---	---	.018	20	---	---	---	---	---	---
35	.012	20	---	---	+	0	.011	31	+	0	---	---	+	0	+	0
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	.045	6	+	0	.032	12	---	---	.085	4	.055	8	.076	6
AVERAGE	.033		.023		.017		.030		.065		.043		.035		.060	

TABLE D.12 (Continued)

Region	WALKING TRAILS, 2000								BICYCLING TRAILS, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	.038	13	+	0	.063	15	.039	22	.024	5	+	0	.027	10	.023	9
2	---	---	.046	17	+	0	.023	26	---	---	+	0	+	0	+	0
3	---	---	.062	14	+	0	.033	24	---	---	+	0	.033	8	.016	17
4	.069	5	---	---	.098	9	.071	9	+	0	---	---	.057	5	.006	25
5	.061	8	.090	5	.078	12	.069	11	+	0	+	0	+	0	+	0
6	---	---	.028	18	+	0	.017	30	---	---	+	0	+	0	+	0
7	.032	15	.069	12	.049	17	.039	22	.022	6	+	0	+	0	.014	19
8	---	---	.070	11	.057	16	.063	15	---	---	.058	3	+	0	.023	9
9	---	---	.093	4	.017	20	.064	14	---	---	.044	5	+	0	.036	3
10	.059	9	.105	2	.102	6	.066	12	.061	1	.104	2	.078	3	.063	1
11	.051	10	---	---	.081	11	.051	19	.031	3	---	---	+	0	.031	5
12	+	0	+	0	.239	1	.050	20	+	0	+	0	+	0	+	0
13	.040	12	.071	10	.102	6	.066	12	.005	18	+	0	.077	4	.020	14
14	.037	14	.066	13	.072	14	.059	16	.017	9	.054	4	.046	6	.042	2
15	---	---	.109	1	.120	3	.111	1	---	---	.022	9	+	0	.016	17
16	.010	22	---	---	.045	18	.012	32	.010	15	---	---	+	0	.010	21
17	.064	6	---	---	+	0	.058	18	.016	12	---	---	+	0	.013	20
18*Midland	.050	11	.081	7	+	0	.049	21	.017	9	.158	1	+	0	.022	12
*Odessa	.064	6	---	---	---	---	---	---	.013	14	---	---	+	0	+	0
19	---	---	.007	23	.028	19	.011	33	---	---	+	0	+	0	+	0
20	.027	18	---	---	+	0	.022	27	.008	16	---	---	.136	1	.034	4
21	.023	20	---	---	+	0	.018	29	.005	18	---	---	+	0	.003	26
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.030	16	.053	15	+	0	.031	25	.008	16	+	0	+	0	.007	24
24	---	---	.048	16	.075	13	.059	16	---	---	.016	10	.030	9	.023	9
25	.103	2	.008	22	.117	4	.100	5	.032	2	+	0	.086	2	.031	5
26	---	---	.101	3	+	0	.075	8	---	---	.034	7	+	0	.022	12
27	.097	3	.083	6	.131	2	.101	4	.022	6	.041	6	.044	7	.025	8
28	.029	17	.010	21	.009	22	.015	31	.017	9	.014	11	.023	11	.017	15
29	.108	1	---	---	+	0	.107	2	.028	4	---	---	+	0	.028	7
30	---	---	---	---	.105	5	.105	3	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.077	8	.091	10	.082	7	---	---	+	0	+	0	+	0
33	.089	4	.017	19	.014	21	.070	10	.015	13	+	0	+	0	.010	21
34*Brownsville	.026	19	+	0	+	0	.020	28	.020	8	+	0	+	0	.009	23
*McAllen	.022	21	---	---	---	---	---	---	.003	21	---	---	+	0	+	0
35	+	0	---	---	+	0	+	0	.004	20	---	---	+	0	.003	26
36	---	---	.016	20	+	0	.010	34	---	---	+	0	+	0	+	0
37	---	---	.077	8	.102	6	.084	6	---	---	.024	8	+	0	.017	15
AVERAGE	.064		.044		.060		.061		.026		.018		.019		.024	

TABLE D.12 (Continued)

Region	BICYCLING TRAILS, 1975								BICYCLING TRAILS, 1980							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	.021	9	.062	2	.025	7	.025	6	.020	9	+	0	+	0	.014	18
2	---	---	.030	4	+	0	.018	13	---	---	.032	8	+	0	.018	13
3	---	---	.028	5	+	0	.015	17	---	---	.028	10	+	0	.014	18
4	+	0	---	---	+	0	+	0	.020	9	---	---	+	0	.018	13
5	.010	15	+	0	+	0	.006	21	.010	16	+	0	+	0	.006	24
6	---	---	.026	6	+	0	.019	10	---	---	+	0	+	0	+	0
7	.011	14	+	0	+	0	.007	20	.022	8	+	0	+	0	.015	16
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	.011	13	+	0	.009	22
10	.035	2	.098	1	.027	6	.037	1	.034	2	.068	1	+	0	.037	3
11	.018	11	---	---	.074	1	.019	10	.019	11	---	---	+	0	.019	12
12	+	0	.007	11	+	0	.004	22	+	0	+	0	+	0	+	0
13	+	0	+	0	.037	3	.009	19	+	0	+	0	.036	2	.009	22
14	.016	12	.021	8	.031	5	.023	7	.030	4	.031	9	.031	4	.031	7
15	---	---	.019	9	.054	2	.028	3	---	---	.048	3	+	0	.037	3
16	.001	18	---	---	+	0	.001	24	.001	19	---	---	+	0	.001	27
17	.031	4	---	---	+	0	.027	4	.015	14	---	---	+	0	.013	20
18*Midland	.036	1	+	0	+	0	.018	13	.019	11	+	0	+	0	.012	21
*Odessa	.014	13	---	---	---	---	---	---	.014	15	---	---	---	---	---	---
19	---	---	+	0	+	0	+	0	---	---	.019	12	+	0	.015	16
20	.007	17	---	---	.035	4	.012	18	.007	18	---	---	+	0	.006	24
21	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.021	9	+	0	+	0	.018	13	.030	4	+	0	+	0	.026	10
24	---	---	.026	6	.016	9	.023	7	---	---	.039	7	.030	5	.035	6
25	.033	3	.036	3	+	0	.033	2	.037	1	.045	4	.060	1	.037	3
26	---	---	+	0	+	0	+	0	---	---	.056	2	+	0	.039	2
27	.025	7	+	0	+	0	.020	9	.027	7	.040	6	.029	6	.028	9
28	.025	7	.010	10	.021	8	.019	10	.017	13	.027	11	+	0	.017	15
29	.027	5	---	---	+	0	.027	4	.030	4	---	---	+	0	.029	8
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.026	6	+	0	+	0	.018	13	.031	3	+	0	+	0	.022	11
34*Brownsville	.009	16	+	0	+	0	.004	22	.009	17	+	0	+	0	.004	26
*McAllen	+	0	---	---	---	---	---	---	+	0	---	---	+	0	+	0
35	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
36	---	---	+	0	+	0	+	0	---	---	.044	5	.036	2	.041	1
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.021		.013		.009		.019		.023		.021		.010		.022	

TABLE D.12 (Continued)

Region	BICYCLING TRAILS, 1990								BICYCLING TRAILS, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	.033	14	.037	11	.037	12	.034	18	.024	15	.058	9	.031	14	.029	19
2	---	---	.037	11	+	0	.020	21	---	---	+	0	+	0	+	0
3	---	---	.071	3	+	0	.038	15	---	---	.083	4	.024	16	.056	12
4	.064	5	---	---	.096	2	.067	3	.069	5	---	---	+	0	.065	8
5	.020	16	+	0	.064	8	.035	16	.020	16	+	0	.062	6	.035	18
6	---	---	.027	13	+	0	.018	22	---	---	.028	13	+	0	.017	22
7	.032	15	+	0	+	0	.022	20	.032	14	+	0	+	0	.024	20
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.069	4	.124	1	.104	1	.074	1	.063	7	.137	2	.102	2	.072	6
11	.042	11	---	---	.060	9	.042	13	.041	12	---	---	.041	11	.041	16
12	+	0	+	0	+	0	+	0	+	0	.005	16	+	0	.003	28
13	+	0	+	0	.070	5	.017	23	+	0	+	0	.034	13	.008	26
14	.083	1	.055	5	.006	17	.064	5	.074	3	.056	11	.058	8	.062	9
15	---	---	.038	10	.090	3	.049	9	---	---	.109	3	.040	12	.095	1
16	.002	18	---	---	.023	15	.003	28	.002	20	---	---	+	0	.002	29
17	.064	5	---	---	+	0	.057	8	.048	10	---	---	+	0	.043	14
18*Midland	.047	9	.082	2	+	0	.039	14	.050	9	.081	5	+	0	.042	15
*Odessa	.040	12	---	---	---	---	---	---	.043	11	---	---	---	---	---	---
19	---	---	.008	14	.031	13	.013	26	---	---	.014	15	.028	15	.017	22
20	.008	17	---	---	.042	11	.014	25	.018	17	---	---	.047	10	.022	21
21	+	0	---	---	+	0	+	0	.011	19	---	---	+	0	.009	25
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.070	3	+	0	+	0	.061	7	.088	1	+	0	+	0	.077	3
24	---	---	.066	4	.069	6	.067	3	---	---	.076	7	.075	5	.075	4
25	.074	2	+	0	.078	4	.071	2	.080	2	.148	1	.088	3	.083	2
26	---	---	.048	7	+	0	.034	18	---	---	.081	5	.059	7	.075	4
27	.047	9	.041	9	.065	7	.049	9	.058	8	.041	12	.082	4	.061	10
28	.035	13	.047	8	.012	16	.035	16	.039	13	.057	10	.009	17	.039	17
29	.062	7	---	---	+	0	.062	6	.066	6	---	---	.267	1	.067	7
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.061	8	+	0	+	0	.044	12	.073	4	+	0	+	0	.054	13
34*Brownsville	+	0	+	0	+	0	+	0	.013	18	+	0	+	0	.007	27
*McAllen	+	0	---	---	+	0	.009	27	+	0	---	---	+	0	+	0
35	---	---	.055	5	.031	13	.046	11	---	---	.062	8	.053	9	.059	11
36	---	---	+	0	.055	10	.015	24	---	---	.019	14	+	0	.014	24
37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AVERAGE	.050		.030		.033		.046		.053		.052		.033		.051	

TABLE D.12 (Continued)

Region	NATURE STUDY TRAILS, 1970								NATURE STUDY TRAILS, 1975							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	.002	16	+	0	+	0	.001	17	+	0	+	0	+	0	+	0
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
5	+	0	+	0	+	0	+	0	.003	10	+	0	+	0	.001	10
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	.003	10	+	0	+	0	.002	13	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.003	10	+	0	+	0	.003	7	.008	7	+	0	.027	1	.009	6
11	.003	10	---	---	+	0	.003	7	.005	8	---	---	+	0	.005	8
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	.005	4	+	0	+	0	.002	13	+	0	+	0	+	0	+	0
14	.004	6	+	0	+	0	.001	17	+	0	+	0	+	0	+	0
15	---	---	+	0	+	0	+	0	---	---	.019	1	+	0	.014	2
16	.004	6	---	---	+	0	.004	6	+	0	---	---	+	0	+	0
17	.004	6	---	---	+	0	.003	7	+	0	---	---	+	0	+	0
18*Midland	.004	6	+	0	.065	1	.014	3	.018	2	+	0	+	0	.012	5
*Odessa	.003	10	---	---	+	0	+	0	.014	6	---	---	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	.002	16	---	---	+	0	.002	13	+	0	---	---	+	0	+	0
21	.005	4	---	---	+	0	.003	7	.018	2	---	---	+	0	.013	4
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.001	19	+	0	+	0	.001	17	.004	9	+	0	+	0	.003	9
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.008	3	+	0	+	0	.008	5	.015	5	+	0	+	0	.014	2
26	---	---	.034	1	+	0	.022	2	---	---	+	0	+	0	+	0
27	.001	19	+	0	+	0	.001	17	+	0	+	0	+	0	+	0
28	.017	2	+	0	+	0	.009	4	.017	4	+	0	+	0	.008	7
29	.003	10	---	---	+	0	.003	7	+	0	---	---	+	0	+	0
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
33	.034	1	+	0	+	0	.024	1	.039	1	+	0	+	0	.028	1
34*Brownsville	.002	16	+	0	+	0	.002	13	+	0	+	0	+	0	+	0
*McAllen	.003	10	---	---	+	0	+	0	+	0	---	---	+	0	+	0
35	.004	6	---	---	+	0	.003	7	+	0	---	---	+	0	+	0
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.005		.001		.002		.004		.007		.001		.001		.006	

TABLE D.12 (Continued)

Region	NATURE STUDY TRAILS, 1980								NATURE STUDY TRAILS, 1990							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank														
1	+	0	+	0	+	0	+	0	+	0	+	0	.018	4	.004	11
2	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
3	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
4	.005	9	---	---	+	0	.005	9	.015	7	---	---	+	0	.014	7
5	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
6	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
7	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
8	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
9	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
10	.009	7	.023	2	+	0	.009	6	.018	6	.025	1	.023	3	.018	6
11	.007	8	---	---	.054	2	.007	7	.015	7	---	---	+	0	.014	7
12	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
13	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
14	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
15	---	---	+	0	+	0	+	0	---	---	.025	1	+	0	.020	3
16	.001	11	---	---	+	0	.001	11	.001	11	---	---	+	0	.001	13
17	.015	5	---	---	+	0	.013	4	+	0	---	---	+	0	+	0
18 *Midland	.019	2	+	0	+	0	.012	5	.031	3	+	0	+	0	.020	3
*Odessa	.014	6							.020	5						
19	---	---	+	0	+	0	+	0	---	---	.008	4	+	0	.006	10
20	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
21	+	0	---	---	+	0	+	0	.014	9	---	---	.042	2	.020	3
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
24	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
25	.017	3	+	0	.119	1	.017	3	.036	2	+	0	.078	1	.035	2
26	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
27	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+.3	0
28	.017	3	+	0	+	0	.007	7	.027	4	+	0	+	0	.009	9
29	.002	10	---	---	+	0	.002	10	.004	10	---	---	+	0	.004	11
30	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.028	1	+	0	.018	2	---	---	+	0	+	0	+	0
33	.042	1	+	0	+	0	.030	1	.090	1	.019	3	+	0	.068	1
34 *Brownsville	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0
*McAllen	+	0							+	0						
35	+	0	---	---	+	0	+	0	+	0	---	---	+	0	+	0
36	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
37	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
AVERAGE	.009		.002		.003		.007		.018		.004		.005		.015	

TABLE D.12 (Continued)

Region	NATURE STUDY TRAILS, 2000								COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1970							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank						
1	+	0	+	0	.016	5	.003	15	.087	8	.019	17	.137	8	.092	12
2	---	---	+	0	+	0	+	0	---	---	.007	22	.011	28	.009	32
3	---	---	+	0	+	0	+	0	---	---	.008	20	.066	15	.037	24
4	.013	10	---	---	+	0	.012	10	+	0	---	---	.171	3	.018	28
5	.010	11	+	0	+	0	.006	13	+	0	.022	16	+	0	.002	36
6	---	---	+	0	+	0	+	0	---	---	.025	15	.018	26	.023	27
7	+	0	+	0	+	0	+	0	.078	10	.011	19	+	0	.052	19
8	---	---	+	0	+	0	+	0	---	---	.115	7	.010	31	.052	19
9	---	---	+	0	+	0	+	0	---	---	.210	2	.013	27	.174	1
10	.018	6	.032	2	.031	2	.021	4	.156	1	.207	3	.155	6	.157	2
11	.015	9	---	---	.020	4	.015	7	.127	3	---	---	.108	11	.127	4
12	+	0	+	0	.040	1	.008	11	+	0	.008	20	+	0	.004	33
13	+	0	+	0	+	0	+	0	.039	13	.029	14	.230	1	.081	14
14	+	0	+	0	+	0	+	0	.017	19	.150	5	.153	7	.116	5
15	---	---	.030	3	+	0	.024	3	---	---	.044	12	.058	19	.048	21
16	.001	14	---	---	+	0	.001	17	.086	9	---	---	.096	12	.086	13
17	.016	8	---	---	+	0	.014	8	.031	15	---	---	.023	25	.030	25
18*Midland	.017	7	+	0	+	0	.014	8	.101	6	.237	1	.196	2	.099	10
*Odessa	.021	4	+	0	+	0	+	0	.038	14	+	0	+	0	+	0
19	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
20	+	0	---	---	+	0	+	0	.025	16	---	---	.170	5	.054	17
21	.023	3	---	---	+	0	.018	5	.019	18	---	---	.046	21	.027	26
22	---	---	---	---	+	0	+	0	---	---	---	---	.011	28	.011	31
23	.003	13	+	0	+	0	.002	16	.016	20	.053	10	+	0	.017	29
24	---	---	+	0	+	0	+	0	---	---	.047	11	.060	16	.054	17
25	.040	2	+	0	.029	3	.038	2	.095	7	.006	23	.171	3	.093	11
26	---	---	+	0	+	0	+	0	---	---	.135	6	.067	14	.112	7
27	+	0	+	0	+	0	+	0	.127	3	.164	4	.132	9	.131	3
28	.019	5	.005	5	+	0	.007	12	.145	2	.058	9	.046	21	.100	9
29	.005	12	---	---	+	0	.005	14	.102	5	---	---	.077	13	.102	8
30	---	---	---	---	+	0	+	0	---	---	---	---	.115	10	.116	5
31	---	---	+	0	+	0	+	0	---	---	.016	18	+	0	.003	35
32	---	---	.026	4	+	0	.016	6	---	---	.030	13	.059	18	.040	22
33	.103	1	.033	1	+	0	.080	1	.073	11	+	0	.044	23	.059	16
34*Brownsville	+	0	+	0	+	0	+	0	.059	12	+	0	.048	20	.040	22
*McAllen	+	0	---	---	+	0	+	0	.023	17	---	---	---	---	---	---
35	+	0	---	---	+	0	+	0	.014	21	---	---	.026	24	.016	30
36	---	---	+	0	+	0	+	0	---	---	+	0	.011	28	.004	33
37	---	---	+	0	+	0	+	0	---	---	.073	8	.060	16	.069	15
AVERAGE	.021		.006		.007		.018		.093		.062		.066		.086	

TABLE D.12 (Continued)

Region	COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1975 TOTAL								COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1980 TOTAL							
	METRO		CITY		TOWN		URBAN AREAS		METRO		CITY		TOWN		URBAN AREAS	
	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank
1	.064	9	.062	4	.025	17	.056	8	.059	8	+	0	.045	10	.051	15
2	---	---	.060	6	.044	13	.053	9	---	---	.064	7	+	0	.037	22
3	---	---	.055	7	+	0	.029	22	---	---	.055	11	.029	15	.043	18
4	+	0	---	---	.056	10	.005	31	.050	13	---	---	.053	7	.051	15
5	.041	12	.088	2	.017	20	.036	19	.051	11	+	0	.017	17	.035	25
6	---	---	.052	9	+	0	.038	18	---	---	.027	20	+	0	.019	31
7	.033	15	.047	10	+	0	.029	22	.033	16	.052	12	+	0	.030	28
8	---	---	+	0	.041	14	.024	25	---	---	.061	8	.043	12	.051	15
9	---	---	.044	11	+	0	.033	20	---	---	.044	15	+	0	.036	24
10	.077	4	.164	1	.108	3	.082	1	.079	3	.136	1	.059	6	.080	5
11	.052	10	---	---	.074	5	.052	10	.051	11	---	---	.107	2	.052	14
12	+	0	.007	20	+	0	.004	32	+	0	+	0	+	0	+	0
13	.019	19	.028	17	.111	2	.044	15	.019	20	.027	20	.072	4	.034	26
14	.032	16	.053	8	.063	7	.050	11	.046	14	.061	8	.061	5	.057	10
15	---	---	.075	3	.054	11	.069	6	---	---	.096	3	.050	9	.085	3
16	.009	21	---	---	.060	8	.010	29	.010	22	---	---	+	0	.009	33
17	.077	4	---	---	+	0	.067	7	.077	5	---	---	+	0	.067	9
18*Midland	.091	2	+	0	+	0	.048	13	.075	6	.083	4	+	0	.055	12
*Odessa	.042	11	---	---	---	---	---	---	.058	10	---	---	---	---	---	---
19	---	---	.010	19	+	0	.008	30	---	---	.038	18	.033	14	.037	22
20	.021	18	---	---	.035	15	.023	26	.028	17	---	---	+	0	.024	29
21	.018	20	---	---	+	0	.013	28	+	0	---	---	+	0	+	0
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.035	14	+	0	.035	15	.033	20	.044	15	.041	17	+	0	.041	20
24	---	---	.043	13	.048	12	.045	14	---	---	.065	6	.045	10	.056	11
25	.082	3	.036	15	.074	5	.081	2	.111	2	.045	13	.179	1	.109	2
26	---	---	.061	5	+	0	.042	16	---	---	.112	2	+	0	.077	7
27	.070	7	.040	14	.106	4	.071	5	.070	7	.080	5	.087	3	.072	8
28	.068	8	.021	18	.021	18	.042	16	.059	8	.035	19	.017	17	.042	19
29	.074	6	---	---	.291	1	.076	3	.079	3	---	---	+	0	.078	6
30	---	---	---	---	+	0	+	0	---	---	---	---	.018	16	.111	1
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.029	16	+	0	.019	27	---	---	.056	10	.053	7	.055	12
33	.100	1	+	0	.020	19	.074	4	.112	1	.005	22	+	0	.081	4
34*Brownsville	.038	13	+	0	+	0	.025	24	.028	17	+	0	+	0	.022	30
*McAllen	.025	17	---	---	---	---	---	---	.027	19	---	---	---	---	---	---
35	+	0	---	---	+	0	+	0	.012	21	---	---	+	0	.011	32
36	---	---	+	0	+	0	+	0	---	---	.044	15	.036	13	.041	20
37	---	---	.046	12	.058	9	.050	11	---	---	.045	13	+	0	.032	27
AVERAGE	.056		.035		.030		.051		.066		.045		.029		.059	

TABLE D.12 (Continued)

Region	COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 1990								COMBINED WALKING, BICYCLING, NATURE STUDY TRAILS, 2000							
	METRO		CITY		TOWN		TOTAL URBAN AREAS		METRO		CITY		TOWN		TOTAL URBAN AREAS	
	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank	Miles Per 1000 Population	Rank
1	.104	13	.075	12	.091	12	.098	14	.062	16	.058	19	.110	12	.071	21
2	---	---	.111	6	.044	17	.080	18	---	---	.046	23	+	0	.023	33
3	---	---	.119	5	+	0	.063	22	---	---	.146	6	.024	24	.089	19
4	.147	5	---	---	.144	5	.147	6	.151	6	---	---	.098	15	.147	8
5	.101	14	+	0	.159	3	.116	10	.919	1	.090	13	.140	9	.110	12
6	---	---	.055	18	+	0	.037	27	---	---	.056	20	+	0	.035	30
7	.063	16	.057	17	+	0	.052	24	.065	15	.069	18	.049	21	.063	24
8	---	---	.066	14	+	0	.029	30	---	---	.070	17	.057	18	.063	24
9	---	---	.075	12	+	0	.051	25	---	---	.093	13	.017	26	.064	23
10	.154	14	.261	1	.255	1	.167	4	.141	7	.275	1	.236	4	.158	6
11	.117	10	---	---	.121	8	.117	8	.107	13	---	---	.142	8	.107	14
12	+	0	+	0	.016	21	.003	34	+	0	.005	22	.279	2	.062	26
13	.039	18	.050	20	.139	6	.067	20	.040	19	.071	16	.135	10	.074	20
14	.110	12	.120	4	.119	9	.117	8	.112	12	.122	9	.130	11	.121	10
15	---	---	.163	2	.135	7	.157	5	---	---	.248	2	.160	6	.231	1
16	.015	23	---	---	.046	16	.017	32	.013	22	---	---	.045	23	.014	34
17	.128	8	---	---	+	0	.113	11	.127	9	---	---	+	0	.116	11
18*Midland	.140	6	.082	9	+	0	.105	12	.118	11	.163	4	+	0	.105	15
*Odessa	.120	9	---	---	---	---	---	---	.128	8	---	---	---	---	---	---
19	---	---	.057	17	.062	14	.058	23	---	---	.021	24	.056	19	.028	31
20	.033	19	---	---	.042	18	.034	28	.045	18	---	---	.047	22	.045	28
21	.027	20	---	---	.042	18	.031	29	.057	17	---	---	+	0	.045	28
22	---	---	---	---	+	0	+	0	---	---	---	---	+	0	+	0
23	.096	15	.066	14	.096	11	.094	15	.120	10	.053	21	+	0	.110	12
24	---	---	.111	6	.069	13	.092	16	---	---	.124	7	.149	7	.135	9
25	.206	2	+	0	.157	4	.198	1	.223	3	.155	5	.293	1	.221	2
26	---	---	.143	3	+	0	.103	13	---	---	.182	3	.059	17	.151	7
27	.136	7	.082	9	.174	2	.138	7	.155	5	.124	7	.214	5	.162	5
28	.115	11	.060	16	.012	23	.067	20	.088	14	.072	15	.018	25	.061	27
29	.169	3	---	---	+	0	.168	3	.179	4	---	---	.267	3	.179	4
30	---	---	---	---	+	0	+	0	---	---	---	---	.105	13	.105	15
31	---	---	+	0	+	0	+	0	---	---	+	0	+	0	+	0
32	---	---	.081	11	.049	15	.070	19	---	---	.103	10	.091	16	.099	17
33	.231	1	.019	21	.016	21	.173	2	.266	2	.050	22	.014	27	.204	3
34*Brownsville	.047	17	+	0	+	0	.028	31	.039	20	+	0	+	0	.026	32
*McAllen	.018	22	---	---	---	---	---	---	.022	21	---	---	---	---	---	---
35	.021	21	---	---	+	0	.009	33	+	0	---	---	+	0	+	0
36	---	---	.055	18	.031	20	.046	26	---	---	.078	13	.053	20	.069	22
37	---	---	.085	8	.110	10	.092	16	---	---	.096	11	.012	14	.098	18
AVERAGE	.134		.077		.071		.121		.138		.102		.101		.130	

--- indicate regions not having metros or cities.

+ indicates facilities were not required or units per 1,000 population were less than .001.

* Midland, Odessa, Brownsville, and McAllen are metro areas. Figures for cities, towns, and total urban areas are listed adjacent to Odessa and Brownsville were applicable.

TABLE D.13

REGIONAL COMPARISONS OF URBAN INCREMENTAL FACILITY RESOURCE REQUIREMENTS PER THOUSAND POPULATION FOR SELECTED SALTWATER URBAN OUTDOOR RECREATION FACILITIES BY CITY-SIZE, 1970-2000

Year	Region	METRO		CITY		TOWN		TOTAL URBAN AREAS	
		Ramps Per 1,000 Population	Rank						
1970	24	---	---	.031	2	*	*	.015	3
	25	.006	3	+	0	*	*	.006	4
	27	.004	4	*	*	*	*	.004	5
	28	.128	1	.072	1	+	0	.087	2
	33	.093	2	*	*	.502	1	.145	1
	34	*	*	*	*	.024	2	.004	5
	Average	.007		.006		.024		.009	
1975	24	---	---	.014	2	*	*	.008	3
	25	.001	4	.018	1	*	*	.002	5
	27	.004	3	*	*	*	*	.003	4
	28	.017	1	.010	3	+	0	.012	1
	33	.009	2	*	*	.040	1	.012	1
	34	*	*	*	*	+	0	+	0
	Average	.001		.002		.002		.001	
1980	24	---	---	+	0	*	*	+	0
	25	.001	3	+	0	*	*	.001	3
	27	+	0	*	*	*	*	+	0
	28	.008	1	+	0	.017	2	.007	2
	33	.008	1	*	*	.037	1	.011	1
	34	*	*	*	*	+	0	+	0
	Average	.001		+		.003		.001	
1990	24	---	---	+	0	*	*	+	0
	25	.002	3	+	0	*	*	.002	3
	27	+	0	*	*	*	*	+	0
	28	.018	1	.013	1	+	0	.012	2
	33	.013	2	*	*	.032	1	.014	1
	34	*	*	*	*	+	0	+	0
	Average	.001		.001		.002		.001	
2000	24	---	---	.010	1	*	*	.005	3
	25	.001	3	.008	3	*	*	.001	4
	27	+	0	*	*	*	*	+	0
	28	.029	1	.010	1	+	0	.012	2
	33	.014	2	*	*	.056	1	.018	1
	34	*	*	*	*	+	0	+	0
	Average	.001		.002		.003		.001	

--- indicate Region 24 does not have a metro area.
 * indicates (by region) metros, cities, or towns not having saltwater access.
 + indicates ramps were not required or ramps per 1,000 population were less than .001.

Appendix E

PARTIAL LISTING OF STATE AND FEDERAL PROGRAMS APPLICABLE TO OUTDOOR RECREATION



STATE PROGRAMS

The following information is presented as a partial listing of State Programs and Agencies whose activities may have an impact on the provision of outdoor recreational opportunity or outdoor recreation planning in Texas. The list is partial in that new programs may have been added since its compilation from documents listed below. Resources made available through the programs listed may vary from time to time. Policy guidelines, agency priorities, or funding levels may preclude aid to the extent desired and the user should be aware that each agency or commission may change its policies and/or programs after publication of this list. Interested users are urged to contact the agency involved to determine its capabilities to meet his needs. Users are also encouraged to utilize the documents listed below

as general reference materials providing more detailed information.

1. **Catalog of State Services to Local Governments**, September 1970 edition, out of print but may be available from a local public library or the Texas State Library, Austin, Texas.
2. **Guide to Texas State Agencies**, 1972, 4th edition, Lyndon B. Johnson School of Public Affairs, Austin, Texas, Price \$10.00.
3. **The Legal Basis for Planning in Texas: A Handbook**, January 1973, Division of Planning Coordination, Office of the Governor, Austin, Texas.

PARTIAL LISTING OF STATE PROGRAMS APPLICABLE TO OUTDOOR RECREATION			
PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Airport Technical Assistance	Any political subdivision	Texas Aeronautics Commission	Chief Engineer Texas Aeronautics Commission 204 West 16th Street Austin, TX 78701

PARTIAL LISTING OF STATE PROGRAMS APPLICABLE TO OUTDOOR RECREATION

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Approval of Bond Issues for Districts	Districts created under Texas Water Rights Commission	Texas Water Rights Commission	Sam Houston State Office Building Box 12396, Capitol Station Austin, TX 78711
Assistance in the Fine Arts	Local governmental agencies, private groups, communities and other educational institutions	University of Texas at Austin	Dean of College of Fine Arts University of Texas at Austin Drama Building 101 Austin, TX 78712
Attorney Generals Seminar on Eminent Domain	Any interested person	Attorney Generals Office	Attorney Generals Office Box R, Capitol Station Austin, TX 78711
Boat Ramp Construction and Maintenance Access Roads and Comfort Stations on Public Waters	Subdivisions of government, recognized civic organizations	Texas Parks and Wildlife Department	John H. Reagan Building Austin, TX 78701
Business Enterprises Program: Commission for the Blind	Any unit of local government	Texas State Commission for the Blind	317 Sam Houston State Office Building Austin, TX 78701
Camp and Recreational Area Sanitation	Public agencies, professional designers, business firms, private citizens	Texas State Department of Health	Division of Sanitary Engineering 1100 West 49th Street Austin, TX 78756
Center for Environmental Studies	Any governmental unit or municipalities	North Texas State University	North Texas State University Denton, TX 76203
City Manager Internship Program	Any city with council-manager government which meets standards of International City Management Association	North Texas State University	Chairman, Department of Political Science North Texas State University Denton, TX 76203
Coastal and Ocean Engineering Short Course	Any individual with educational background (usually bachelor's degree) in Science or Engineering	Texas A&M University	Short Course Director Division of Coastal and Ocean Engineering Texas A&M University College Station, TX 77843

PARTIAL LISTING OF STATE PROGRAMS APPLICABLE TO OUTDOOR RECREATION

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Community development; Tourism	Any community interested in economic development through tourism	Texas Tourist Development Agency	Chief of Community Relations Texas Tourist Development Agency Box TT, Capitol Station Austin, TX 78711
Community Service Seminars	Regional planning commission, councils of government, policymakers	Texas A&M University	Community Service Seminar Program Department of Economics Texas A&M University College Station, TX 78743
Concentrated Employment Program	City and county governments and local non-profit organizations	Texas Employment Commission	Administrator Texas Employment Commission Austin, TX 78701
Consultant Services on Aging	Any municipality, volunteer organization, individual, institution	Office of the Governor	Executive Director Governor's Committee on Aging Box 12125, Capitol Station Austin, TX 78711
Creation of Water Control and Improvement Districts	Any town, community, county, private development or subdivision	Texas Water Rights Commission	Texas Water Rights Commission Sam Houston State Office Building Austin, TX 78711
Dam and Reservoir Project Approval	Any individual, city, water district or other political subdivision	Texas Water Rights Commission	Texas Water Rights Commission Sam Houston State Office Building Austin, TX 78711
Ecologically based recreation and open space	Any governmental unit except districts, councils of government, regional development councils organized under state law	Stephen F. Austin State University	Special Programs School of Forestry Stephen F. Austin State University Nacogdoches, TX 75961
Employment Service Small Communities Team	Small communities needing services	Texas Employment Commission	Chief of Placement Department Texas Employment Commission Austin, TX 78701
Enforcement of Effluent Standards	Any person, public or private corporation affected by wastewater discharge	Texas Water Quality Board	Director, Field Operations Texas Water Quality Board 1108 Lavaca Street Austin, TX 78701

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Environmental Conservation	Any governmental unit except districts, councils of government, regional development councils organized under state law	Stephen F. Austin State University	Special Programs School of Forestry SFA Box 6109 Nacogdoches, TX 75961
Financial Assistance to Political Subdivisions in Development of Water Supply Projects	Any political subdivision (city, water district, etc.) of the state	Texas Water Development Board	Texas Water Development Board 301 West 2nd Street Box 12386 Capitol Station Austin, TX 78711
Flood Plain Information Program	Local governmental units having severe flood hazards	Texas Water Development Board	Texas Water Development Board 301 West 2nd Street Box 12386 Capitol Station Austin, TX 78711
Forest Property Valuation	Any governmental unit except districts, councils of government, regional development councils organized under state law	Stephen F. Austin State University	Special Programs School of Forestry SFA Box 6109 Nacogdoches, TX 75961
Freshwater Fisheries Lake Surveys and Management	All lake owners who meet specific requirements	Texas Parks and Wildlife Department	John H. Reagan Building Austin, TX 78701
Herbarium Plant—Identification Service	Parks and Wildlife Department of any county, city, etc., physicians seeking information on possible toxic plants	University of Texas at Austin	Director, UT Herbarium University of Texas at Austin Building 222 Austin, TX 78712
Hunter Safety Training Program—Hunting and Fishing Laws	Any interested groups	Texas Parks and Wildlife Local Texas Parks and Wildlife Law Enforcement Offices	Director, I&E Division Texas Parks and Wildlife John H. Reagan Building Austin, TX 78701
Institute for Small Museums	Representatives of cities and counties, private organizations and groups, and individuals	Texas State Historical Survey Committee	Museum Consultant Texas State Historical Survey Committee 108 West 15th Street Austin, TX 78711
Land and Water Conservation program	State of Texas and political subdivisions (cities, counties, river authorities and water districts.) Only outdoor recreation proposals which cannot be financed in any other manner are eligible.	Texas Parks and Wildlife Department	John H. Reagan Building Austin, TX 78701

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Live Wildlife Conservation Education Program	This program is restricted to Fairs, Boat and Sport Shows, Livestock Expositions and Similiar events. Interested organizations should contact the administering agency for further information.	Texas Parks and Wildlife Department	Wildlife Exhibits Supervisor John H. Reagan Building Austin, TX 78701
Local Planning Assistance Program	Cities of 50,000 population or less	Office of the Governor	Local Planning Assistance Program Office of the Governor Drawer P, Capitol Station Austin, TX 78711
Local Sales and Use Tax Act	Any municipality may adopt the Local Sales and Use Tax by complying with provisions of the Act	State Comptroller of Public Accounts	State Comptroller Capitol Station Austin, TX 78711
Grant Program: National Endowment for the Arts	Cities, counties, non-profit organizations, service clubs	Texas Fine Arts Commission	Executive Director Texas Fine Arts Commission 825 Brown Building Austin, TX 78701
Off-Duty Police Office in Civic and Recreational Programs	Regional planning commissions, councils of governments, units of local government	Office of the Governor	Criminal Justice Council Office of the Governor 730 Littlefield Building Austin, TX 78701
Older Americans Act	Any municipality, volunteer organization, educational institutions, local committee on aging	Office of the Governor	Executive Director Governor's Committee on Aging Box 12125, Capitol Station Austin, TX 78711
Outdoor Recreation Planning Assistance	Municipalities with populations of 7,500 or less, Counties with populations of 15,000 or less	Texas Parks and Wildlife Department	Executive Director John H. Reagan Building Austin, TX 78701
Park Administration Projects	Communities requesting assistance within reasonable distance	Texas Tech University	Department of Park Administration, Horticulture and Entomology Texas Tech University Lubbock, TX 79409
Planning of Manpower Development and Training	Local governments who desire to establish manpower planning	Office of the Governor	Manpower Planning Staff Office of the Governor Capitol Station Austin, TX 78711

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Prevention and Control of Forest Tree Pests in a Municipality	Any municipality	Texas A&M University	Director Texas Forest Service College Station, TX 78743
Public Beach Cleaning and Maintenance Fund	Any city or county of Texas which borders on Gulf of Mexico	Texas Parks and Wildlife Department	Executive Director John H. Reagan Building Austin, TX 78701
Public Health Education, Physical Education and Recreation Services	Any city, county or regional organization interested in promoting sports, recreation, etc.	Texas Tech University	Department of Health, Physical Education and Recreation for Men Texas Tech University Tech Station Lubbock, TX
Public Relations Seminar	City, county or regional groups or organizations	Texas Tech University	Department of Journalism Texas Tech University Tech Station Lubbock, TX 79409
Reclamation Engineer Services and Authority	Any district, individual or corporation	Texas Water Development Board	Chief Engineer Texas Water Development Board Box 12386 Austin, TX 78711
Recreation for Senior Citizens in Hospitals, Nursing Homes and Institutions	Recreation directors and others in public and private institutions, hospitals, nursing homes, etc.	North Texas State University	Director University Center for Community Services North Texas State University Denton, TX 76201
Southwest Park and Recreation Training Institute	Any city, county, state or federal agency may enroll park and recreation personnel	Texas Tech University	Department of Park Administration, Horticulture and Entomology Texas Tech University Tech Station Lubbock, TX 79409
State Parks Facilities Information	All socio-economic groups	Texas Parks and Wildlife Department	I&E Division John H. Reagan Building Austin, TX 78701
Surplus Property Donation	Educational institutions, educational radio and TV, public libraries, medical institutions, Civil Defense organizations	Texas Surplus Property Agency	Executive Director, Texas Surplus Property Agency 3507 Copeland Box 8120, Wainwright Station San Antonio, TX 78208

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Swimming Pool Operator Training	Municipalities, local health department, YMCA's, etc., or any group wanting assistance	Texas State Department of Health	Division of Sanitary Engineering Texas State Department of Health 111 West 49th Street Austin, TX 78756
Technical Assistance to Local Government	Any city greater than 12,000 or county may apply, private groups may find assistance.	Office of the Governor	Technical Assistance Coordinator Division of State-Local Relations Office of the Governor Drawer P, Capitol Station Austin, TX 78711
Texas Airport Grant and Loan Program	Any political subdivision less than 50,000	Texas Aeronautics Commission	Airport Facilities Supervisor Texas Aeronautics Commission 204 West 16th Street Austin, TX 78701
Texas Antiquities Committee	Any qualified person or group who meets the criteria in the Code and Regulations	Texas Antiquities Committee	Executive Secretary Texas Antiquities Committee 108 West 15th Street Box 12276, Capitol Station Austin, TX 78711
Texas Communities Tomorrow	City administrators, community leaders, local industrial development organizations	Office of the Governor	Community Development Coordinator Division of State-Local Relations Office of the Governor Austin, TX 78711
Texas Outdoor Recreation Plan	All interested groups	Texas Parks and Wildlife Department	Head, Comprehensive Planning John H. Reagan Building Austin, TX 78701
Texas State Historical Survey Committee Services	Cities, counties, private organizations, etc., interested in preservation of local history	Texas State Historical Survey Committee	Executive Director Texas State Historical Survey Committee 108 West 15th Street Box 12276, Capitol Station Austin, TX 78711

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Topographic Mapping Program	Bona fide map users	Texas Water Development Board	Chief Engineer, Texas Water Development Board, OR Chairman, Texas Mapping Advisory Committee Box 12386 Austin, TX 78711
"Touring Program," Cultural Activities Support	Cities, counties, non-profit organizations, service clubs	Texas Fine Arts Commission	Texas Fine Arts Commission 825 Brown Building Austin, TX 78701
Trees for City Parks	Any governmental unit except districts, councils of governments, etc., organized under state law	Stephen F. Austin State University	Special Programs School of Forestry Stephen F. Austin Box 6109 Nacogdoches, TX 75961
University Center for Community Services	All local governmental officials and employees	North Texas State University	Director, University Center for Community Services North Texas State University 1501 Maple Street Denton, TX 76201
Upstream Watershed Protection and Flood Prevention	Soil and Water Conservation Districts and other political subdivisions	Texas State Soil and Water Conservation Board	Texas State Soil and Water Conservation Board 1018 First National Building Temple, TX 76501
Urban Service Program	Local, regional, state officials in urban areas	University of Texas at Arlington	Director, Institute of Urban Studies University of Texas at Arlington University Station Arlington, TX 76010
Water Safety Education Program	All Interested groups	Texas Parks and Wildlife Department	Executive Director John H. Reagan Building Austin, TX 78701
Water Use Permit Program	Any individual, city, water district, etc.	Texas Water Rights Commission	Texas Water Rights Commission Sam Houston State Office Building Box 12397, Capitol Station Austin, TX 78711

PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO	ADMINISTERING STATE AGENCY	AGENCY ADDRESS
Wildlife Conservation and State Parks Films Library	All interested groups (must be 18 yrs. of age)	Texas Parks and Wildlife Department	Director, I&E Division John H. Reagan Building Austin, TX 78701
Winedale Restoration Conference	Representatives of cities, counties, private groups interested in restoration	Texas State Historical Survey Committee	Restoration Architect Texas State Historical Survey Committee 108 West 15th Street Box 12276, Capitol Station Austin, TX 78711

FEDERAL PROGRAMS

The following information is presented as a partial list of available Federal programs related to outdoor recreation. The user is encouraged to contact the appropriate agency if interested in a particular program. In many instances, he may be referred to a local or regional office for fulfillment of his request.

It should be noted that a list of this type may be incomplete due to continuing changes in the organization of agencies, policies, and directives from the President of the United States and Congress. The user must determine the availability of services for his interests. Users are also encouraged to consult the most current issues of the following documents as general reference materials which provide more detailed information. The list provided was extracted from these documents.

1. Federal Outdoor Recreation Programs, Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.
2. Catalog of U. S. Federal Domestic Assistance Programs, Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

LISTING OF FEDERAL GRANT AND CREDIT PROGRAMS

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Special Programs for the Aging			X	X		X			Office of the Secretary	Department of Health, Education and Welfare Washington, D.C. 20201
Airports Federal Aid		X	X						Federal Aviation Administration	Washington, D.C. 20590
Assistance to States for Tree Planting and Reforestation		X							Forest Service	Department of Agriculture Washington, D.C. 20250
Comprehensive Planning Assistance		X	X						Office of Planning and Management Assistance, Community Planning and Development	Department of Housing & Urban Development Washington, D.C. 20410

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Cooperative Forest Management Grants		X			X	X	X		Forest Service	Department of Agriculture Washington, D.C. 20250
Economic Development Business Loans						X		X	Economic Development Administration	Washington, D.C. 20230
Economic Development Loan Guarantees						X		X	Economic Development Administration	Washington, D.C. 20230
Economic Development Planning Grants	X	X	X	X	X		X	X	Economic Development Administration	Washington, D.C. 20230
Economic Opportunity Loans						X		X	Small Business Administration	Washington, D.C. 20416
Farm Operating Loans								X	Farmers Home Administration	Dept. of Agriculture Washington, D.C. 20578
Farm Recreation Enterprise Loans						X		X	Farmers Home Administration	Department of Agriculture Washington, D.C. 20250
Federal Real Property Grants	X	X	X		X				Property Management and Disposal Service	General Services Administration Washington, D.C. 20240
Fish Restoration		X							U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Game Fish Distribution	X	X	X		X			X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Highway Beautification Aid		X							Bureau of Public Roads	Federal Highway Administrator Department of Transportation Washington, D.C. 20590
Highway Systems Federal Aid		X							Bureau of Public Roads	Federal Highway Administrator Department of Transportation Washington, D.C. 20590
Indian Lands Soil Conservation Aid			X					X	Bureau of Indian Affairs	Department of Interior Washington, D.C. 20240

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Indian Industrial and Tourism Development and On-the-job-Training					X	X				
Juvenile Justice and Delinquency Prevention		X	X						Law Enforcement Assistance Administration	Justice Department Washington, D.C. 20240
Land and Water Conservation Fund Grants		X	X	X					Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Land Sales, Army Corps of Engineers						X		X	Corps of Engineers	Department of Army Washington, D.C. 20310
Land Sales, Bureau of Land Management		X	X		X				Bureau of Land Management	Department of Interior Washington, D.C. 20240
Local Developments Company Loans		X	X		X	X			Small Business Administration	Washington, D.C. 20416
Mental Health Training Grants				X					National Institute of Mental Health	Department of Health, Education and Welfare Washington, D.C. 20203
Mortgage Insurance for Land Development, Experimental Homes, Subdivisions, or Communities						X		X	Federal Housing Administration	Department of Housing and Urban Development Washington, D.C. 20411
National Register of Historic Places	X	X	X		X	X		X	National Park Service	Department of Interior Washington, D.C. 20240
On-the-Job Training Programs		X	X	X	X	X		X	Manpower Administration	Department of Labor Washington, D.C. 20210
Operation Mainstream		X	X	X	X			X	Manpower Administration	Department of Labor Washington, D.C. 20210
Physical Education and Recreation for the Handicapped				X	X				Office of Education	Department of Health, Education and Welfare Washington, D.C. 20201

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Public Domain Grants for Historic Monuments		X	X	X					Bureau of Land Management	Department of Interior Washington, D.C. 20240
Public Works and Development Facilities Grants	X	X	X		X				Economic Development Administration	Washington, D.C. 20230
Public Works and Development Facilities Loans	X	X	X		X				Economic Development Administration	Washington, D.C. 20230
Recreation and Transportation Programs		X	X						Department of Labor	Washington, D.C. 20250
Rehabilitation Services Administration Training and Teaching Grants				X	X			X	Rehabilitation Services Administration	Department of Health, Education and Welfare Washington, D.C. 20201
Retired Senior Volunteer Program			X		X				Action	Action 806 Connecticut Ave., N.W. Washington, D.C. 20525
River Basin Planning Grants	X	X							Water Resources Council	Washington, D.C. 20005
Rural Electrification Loans						X		X	Rural Electrification Administration	Department of Agriculture Washington, D.C. 20250
Rural Recreational Facility Loans								X	Farmers Home Administration	Department of Agriculture Washington, D.C. 20250
Small Business Investment Company Loans						X			Small Business Administration	Washington, D.C. 20416
Small Business Loans						X		X	Small Business Administration	Washington, D.C. 20416
Small Reclamation Projects	X	X	X						Bureau of Reclamation	Department of Interior Washington, D.C. 20240
Small Watershed Projects		X	X						Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
State Extension Service Aid		X	X	X		X		X	Federal Extension Service	Department of Agriculture Washington, D.C. 20250

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Summer Youth Program		X	X						Manpower Administration	Department of Labor Washington, D.C. 20250
Tree Planting and Reforestation		X				X		X	Forest Service	Department of Agriculture Washington, D.C. 20250
Veterans Loan Guarantees						X		X	Veterans Administration	Washington, D.C. 20420
Water Resources Planning		X							Water Resources Council	Washington D.C. 20230
Watershed Loans			X						Farmers Home Administration	Department of Agriculture Washington, D.C. 20250
Wildlife Restoration Federal Aid		X							Bureau of Sport Fisheries and Wildlife	Department of Interior Washington, D.C. 20240
TECHNICAL ASSISTANCE AND RESOURCE MANAGEMENT PROGRAMS										
Aeronautical Recreation Assistance					X			X	Federal Aviation Administration	Washington, D.C. 20590
Beach Erosion Control	X	X	X						Corps of Engineers	Department of Army Washington, D.C. 20310
Economic Development Technical Assistance			X	X	X	X	X	X	Economic Development Administration	Washington, D.C. 20230
Federal Lands Administered by the Bureau of Indian Affairs			X				X		Bureau of Indian Affairs	Department of Interior Washington, D.C. 20240
Federal Surplus Property Program	X	X	X	X	X	X	X	X	Bureau of Outdoor Recreation	Dept. of Interior Washington, D.C. 20240
Fish and Wildlife Extension Services				X	X	X		X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Fishery Management Aid on Federal and Indian Lands	X								U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Forestry Aid to Federal Agencies	X								Forest Service	Department of Agriculture Washington, D.C. 20250

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Forestry Assistance, General		X	X		X	X		X	Forest Service	Department of Agriculture Washington, D.C. 20250
Indian Industrial Development			X			X		X	Bureau of Indian Affairs	Department of Interior Washington, D.C. 20240
Military Reservation Natural Resource Management			X		X			X	Departments of Army, Navy, and Air Force	Department of Defense The Pentagon Washington, D.C. 20301
Multiple-Purpose Water Resource Development		X	X		X	X		X	Corps of Engineers	Department of Army Washington, D.C. 20310
National Fish Hatchery System								X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
National Forest System		X	X		X	X		X	Forest Service	Department of Agriculture Washington, D.C. 20240
National Park Service "Donations"					X	X		X	National Park Service	Department of Interior Washington, D.C. 20240
National Park System	X					X		X	National Park Service	Department of Interior Washington, D.C. 20240
National Recreation Areas		X						X	National Park Service and Forest Service	Department of Interior Washington, D.C. 20240 and Department of Agriculture Washington, D.C. 20250
National Wilderness Preservation System				X	X			X	National Park Service; Forest Service; and U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240 and Department of Agriculture Washington, D.C. 20250
National Wildlife Refuge System	X	X	X		X	X		X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Natural Registered Landmarks			X		X			X	National Park Service	Department of Interior Washington, D.C. 20240

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Park and Recreation Area Technical Assistance	X	X	X						National Park Service	Department of Interior Washington, D.C. 20240
Physical Fitness and Sports Assistance			X	X	X	X		X	Office of the Secretary	Department of Health, Education, and Welfare Washington, D.C. 20201
Reclamation Projects Management	X	X	X			X		X	Bureau of Reclamation	Department of Interior Washington, D.C. 20240
Resource Conservation and Development Projects			X		X	X			Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
Rural Environmental Conservation Program						X		X		
Service Corps of Retired Executives						X		X	Small Business Administration	Washington, D.C. 20416
Small Boat Harbors		X	X						Corps of Engineers	Department of Army Washington, D.C. 20310
Small Business Technical Assistance						X		X	Small Business Administration	Washington, D.C. 20416
Soil Conservation Assistance		X	X		X	X		X	Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
State Extension Specialists Advisory Services		X							Federal Extension Service	Department of Agriculture Washington, D.C. 20250
Statistical Assistance	X								Bureau of the Census	Department of Commerce Washington, D.C. 20230
Waterfowl Production Areas			X					X	Bureau of Sport Fisheries and Wildlife	Department of Interior Washington, D.C. 20240
Water Pollution Control- Research, Development, and Demonstration		X	X	X	X		X	X	Office of Research and Development	Environmental Protection Agency Washington, D.C. 20460
Wildlife Damage Prevention	X	X	X						U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Wildlife Enhancement	X	X	X		X	X		X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Wildlife Research Information	X	X	X	X	X	X	X	X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
LISTING OF FEDERAL RESEARCH, INFORMATION, AND MISCELLANEOUS PROGRAMS										
Agricultural Economic Research		X	X	X				X	Economic Research Service	Department of Agriculture Washington, D.C. 20250
Agricultural Experiment Station Recreation Research				X					Cooperative State Research Service	Department of Agriculture Washington, D.C. 20250
Agricultural Extension Work Coordination in the States, Territories, and Possessions	X	X							Federal Extension Service	Department of Agriculture Washington, D.C. 20250
Aquatic Plant Control	X	X							Corps of Engineers	Department of Army Washington, D.C. 20310
Assistance to Vessels in Distress								X	U.S. Coast Guard	Department of Transportation Washington, D.C. 20591
Boating Accident Studies					X			X	U.S. Coast Guard	Department of Transportation Washington, D.C. 20591
Bureau of Land Management Recreation Research	X	X		X	X			X	Bureau of Land Management	Department of Interior Washington, D.C. 20240
Bureau of Outdoor Recreation "Donations"					X	X		X	Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Coast Guard Auxiliary								X	U.S. Coast Guard	Department of Transportation Washington, D.C. 20591
Courtesy Motorboat Examination								X	U.S. Coast Guard	Department of Transportation Washington, D.C. 20591

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Extension Services Research	X	X		X					Federal Extension Service	Department of Agriculture Washington, D.C. 20250
Federal Surplus Real Property Sales		X	X		X	X		X	Property Management and Disposal Service	General Services Administration Washington, D.C. 20405
Fish and Wildlife River Basin Studies	X					X			U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
Forest Cooperative-Aid Research Grants				X					Forest Service	Department of Agriculture Washington, D.C. 20250
Forest Recreation Research		X		X	X	X		X	Forest Service	Department of Agriculture Washington, D.C. 20250
Forest Research Grants				X	X		X		Forest Service	Department of Agriculture Washington, D.C. 20250
Highway Planning and Research		X		X			X		Federal Highway Administration	Department of Transportation Washington, D.C. 20590
Lake Survey								X	Corps of Engineers	Department of Army Washington, D.C. 20310
Mental Health Training Grants		X	X	X	X		X		Public Health Service	Department of Health, Education and Welfare Washington, D.C. 20203
National Park Resource Studies	X	X		X	X		X		National Park Service	Department of Interior Washington, D.C. 20240
National Park System Studies and Master Planning	X			X					National Park Service	Department of Interior Washington, D.C. 20240
Nationwide Outdoor Recreation Plan	X	X	X	X	X	X			Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Outdoor Recreation Coordination	X								Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Outdoor Recreation Reporting	X	X	X	X	X	X	X	X	Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Outdoor Recreation Research				X			X		Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Outdoor Recreation Special Area Studies	X	X						X	Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Outdoor Recreation Water Resources Planning	X								Bureau of Outdoor Recreation	Department of Interior Washington, D.C. 20240
Park Practice Publications	X	X	X	X	X				National Park Service	Department of Interior Washington, D.C. 20240
Physical Education and Recreation Research for Handicapped Children				X	X		X		Office of Education	Department of Health, Education and Welfare Washington, D.C. 20201
Physical Education and Recreation for the Handicapped				X	X		X		Office of Education	Department of Health, Education and Welfare Washington, D.C. 20201
Physical Fitness Information		X	X	X	X	X		X	Office of the Secretary	Department of Health, Education, and Welfare Washington, D.C. 20201
Pinchot Institute for Conservation Studies	X	X			X	X			Forest Service	Department of Interior Washington, D.C. 20240
Plant Material Centers		X				X			Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
Reclamation of Surface Mined Lands for Recreation									Bureau of Outdoor Recreation	Dept. of Interior Washington, D.C. 20240
Resource Conservation and Development Project Leadership			X		X	X		X	Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
River and Harbor Improvement			X			X		X	Corps of Engineers	Department of Army Washington, D.C. 20310

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
River Basin Investigations		X	X						Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
Soil and Water Conservation				X	X	X			Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
Soil Survey and Snow Survey Activities	X	X	X	X	X	X			Soil Conservation Service	Department of Agriculture Washington, D.C. 20250
Strip and Surface Mining Area Restoration Studies		X	X		X				Bureau of Mines	Department of Interior Washington, D.C. 20240
Surveys and Answers	X	X	X			X			Social and Economic Statistics Administration	Department of Commerce Washington, D.C. 20430
Tennessee Valley Authority Conservation Education Programs	X	X			X	X		X	Tennessee Valley Authority	Knoxville, Tenn. 37902
Topographic Surveys and Mapping Services	X	X	X		X		X		Geological Survey	Department of Interior Washington, D.C. 20240
Travel and Information Services								X	National Park Service	Department of Interior Washington, D.C. 20240
Visitor Information Services								X	Bureau of Land Management, Bureau of Reclamation, U.S. Fish and Wildlife Service, Corps of Engineers, Forest Service, National Park Service, and Tennessee Valley Authority	Department of Interior Washington, D.C. 20240; Department of Army Washington, D.C. 20310; Department of Agriculture Washington, D.C. 20250; Knoxville, Tenn. 37902
Visitor Interpretive Centers								X	Bureau of Land Management, Bureau of Reclamation, U.S. Fish and Wildlife Service, Corps of Engineers, Forest Service, National Park Service, and Tennessee Valley Authority	Department of Interior Washington, D.C. 20240; Department of Army Washington, D.C. 20310; Department of Agriculture Washington, D.C. 20250; Knoxville, Tenn. 37902

FEDERAL OUTDOOR RECREATION PROGRAMS	PROGRAM PRIMARILY APPLICABLE TO								ADMINISTERING FEDERAL AGENCY	AGENCY ADDRESS
	Federal and Interstate	State	Local Government	Educational Institutions	Non-Profit Organizations	Private Enterprises	Research Organizations	Individuals		
Visitor Travel Data		X	X			X			United States Travel Service	Department of Commerce Washington, D.C. 20230
Visitor Travel Service		X	X					X	United States Travel Service	Department of Commerce Washington, D.C. 20230
Vocational Educational Research and Training				X					Office of Education	Department of Health, Education and Welfare Washington, D.C. 20201
Water Pollution Control-Data Publications Service	X	X	X	X	X	X	X	X	Office of Water and Hazardous Materials	Environmental Protection Agency Washington, D.C. 20460
Water Pollution Control Training Grants	X	X	X	X	X		X	X	Office of Water and Hazardous Materials	Environmental Protection Agency Washington, D.C. 20460
Water Resources Scientific Information Center (WRSIC)	X	X	X	X	X	X	X		Office of Water Resources Research	Department of Interior Washington, D.C. 20240
Weather and River Forecasts						X		X	Weather Bureau	Department of Commerce Washington, D.C. 20230
Wildlife and Fishery Research	X							X	U.S. Fish and Wildlife Service	Department of Interior Washington, D.C. 20240
LISTING OF FEDERAL TRAINING PROGRAMS										
Coast Guard Auxiliary Public Education and Member Processing								X	U.S. Coast Guard	Department of Transportation Washington, D.C. 20591
National Park Service Training Centers	X	X	X						National Park Service	Department of Interior Washington, D.C. 20240
Small Arms Firing School					X			X	Office of the Director of Civilian Marksmanship	Department of Army Washington, D.C. 20310
Student Work Conservation								X	National Park Service	Department of Interior Washington, D.C. 20240
Water Pollution Control Research, Development and Demonstration	X	X	X					X	Office of Research and Development	Environmental Protection Agency Washington, D.C. 20240

Appendix F

SUMMARY OF LAND AND WATER CONSERVATION FUND PROJECTS AND MONIES DISTRIBUTED TO URBAN LOCAL GOVERNMENTS 1967-1975

The Land and Water Conservation Fund was authorized in 1965, by Public Law 88-578. Appropriations, as authorized by Congress on an annual basis, are distributed to the state and local governmental units through the Bureau of Outdoor Recreation.

As originally established in 1965, the Fund was supported by entrance and user fees charged at designated Federal recreation areas, proceeds from the sale of surplus Federal real property, and a Federal tax on motor boat fuel. In 1968, Congress supplemented those funds with revenues from the General Fund or Outer Continental Shelf mineral lease receipts. The following information summarizes Land and Water Conservation Fund grants awarded to cities and counties of Texas for urban parks since the beginning of the program in 1967. Figures presented are based on the fiscal year used by the State of Texas, i.e., from September 1 through the following August 31. (Example: Fiscal year 67 covers the time frame from 1 September 1966 to 31 August 1967.) Charts included illustrate the relative proportions of grants awarded to various city sizes and trends.

Table F.1 shows a general increase over the nine-year span from 1967 to 1975 in the total amount of Federal matching money granted to the municipalities in the various city-size categories. City sizes receiving the most in terms of matching federal LWCF grants were towns in 1967 and 1969, cities in 1970, and metro areas in 1968 and 1971 through 1975. From 1971 through 1975, the total amount of grants received generally decreased as the city-size category decreased. Data from Table F.1 is illustrated graphically in Figures F.1 and F.2.

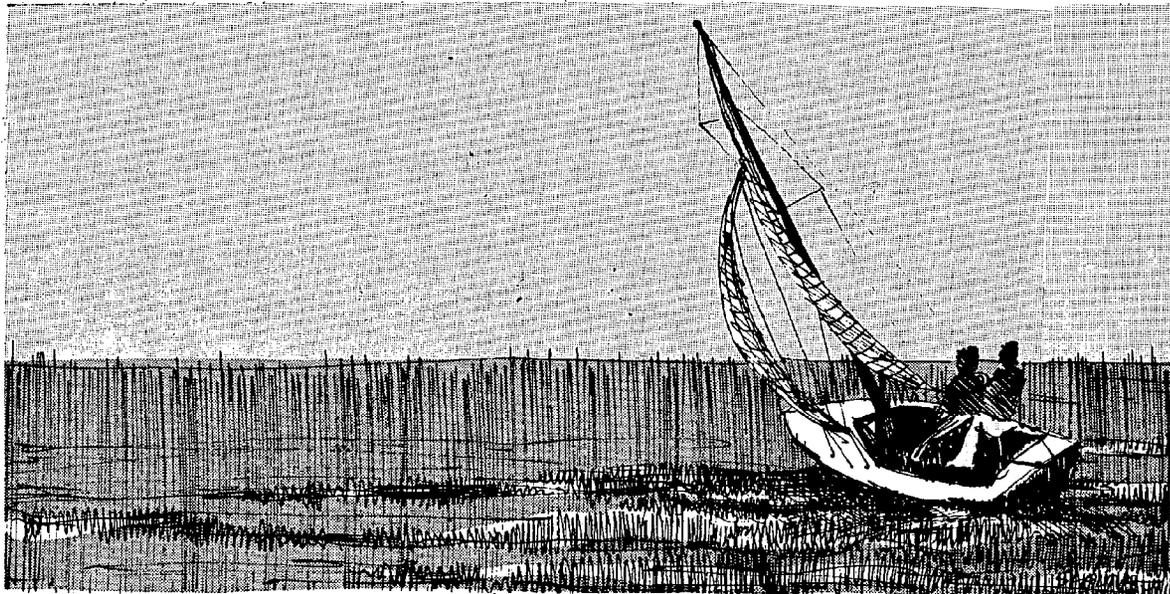


TABLE F.1

ANNUAL DISTRIBUTION OF LAND AND WATER CONSERVATION FUND MONIES TO URBAN AREAS BY CITY SIZE, 1967-1975^a

CITY SIZE	1967	1968	1969	1970	1971
Metro Areas	\$ 134,383	\$ 820,346	\$ 216,422	\$ 159,439	\$1,835,677
Cities	124,092	82,018	182,672	404,070	590,873
Towns	564,000	191,375	218,400	53,825	148,129
Small Communities	14,424	120,650	0	30,000	99,325
TOTAL	\$ 836,899	\$1,214,389	\$ 617,494	\$ 647,334	\$2,674,004
	1972	1973	1974	1975 ^b	TOTAL
Metro Areas	\$2,760,847	\$1,530,645	\$ 988,808	\$1,243,336	\$9,689,903
Cities	664,302	649,410	257,571	1,068,100	4,023,108
Towns	250,200	485,630	234,050	1,173,472	3,319,081
Small Communities	248,950	174,200	138,840	370,600	1,196,989
TOTAL	\$3,924,299	\$2,839,885	\$1,619,269	\$3,855,508	\$18,229,081

a. Includes only projects for urban municipal or urban county parks, totalled by city-size category for state fiscal years in which project was approved.

b. Partial listing for the fiscal year 1975 which ends August 31, 1975. Data collected covers the period through May 31, 1975.

The total dollar amounts in federal matching money have generally increased over the years. During the five year period from 1967 to 1971, almost 45 percent of the matching funds were provided in 1971. Of the funds provided to metro areas during this five year period, nearly 58 percent was received in 1971. Cities and small communities received almost 43 percent and 38 percent, respectively, of the total funds provided to each of these city-size categories from 1967 to 1971 in the year 1971. Partial figures for 1975 are over 21 percent of the nine year total. Even though the total funds provided annually have fluctuated significantly over the nine-year period, the general trend clearly shows that the total amount available has steadily increased. Further increases are also expected to be needed in the future to assist local governments in meeting their funding requirements.

Table F.2 and Figures F.1 and F.2 illustrate that for fiscal years 1967 through 1970, both the total

amounts of grants and the number of cities receiving grants remained relatively small, fluctuating somewhat over the years. However, beginning in fiscal year 1971 and continuing through 1975, the total amount of funds and the number of cities receiving these grants have shown a tremendous increase. When fiscal year 1967 is compared with fiscal year 1972, it can be seen that the total federal matching money has increased by 369 percent from \$836,899 in 1967 to \$3,924,299 in 1972. Even though fiscal year 1975 was only three-fourths completed at the time these figures were tabulated, the total matching funds have increased 361 percent from \$836,899 in 1967 to \$3,855,508 in 1975 while the number of urban areas receiving grants has increased by 246 percent from 13 in 1967 to 45 in 1975. Of special note is the fact that all monies appropriated to the State of Texas from the Land and Water Conservation Fund have been expended.

Table F.3 gives a breakdown of urban local Land and Water Conservation Fund projects awarded on a

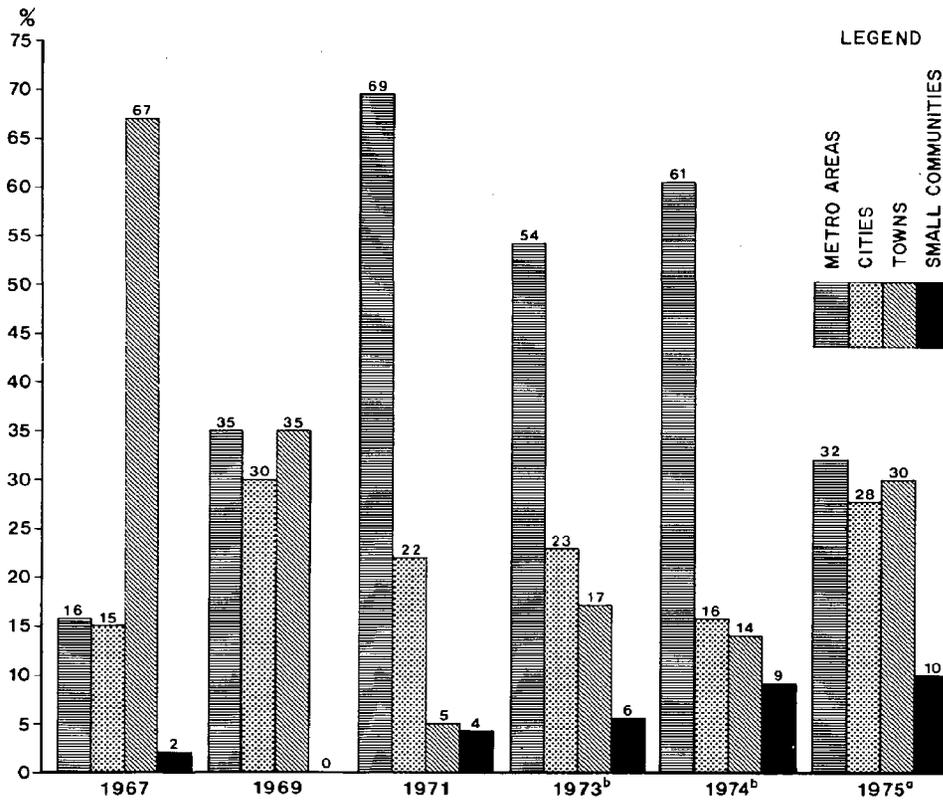
planning region basis. Only three of the 37 regions, 29, 32, and 35, had no Land and Water Conservation Fund projects for urban municipal or urban county parks for the nine-year period, fiscal years 1967 through 1975.

A good indication of the increasing interest by local governments in receiving grants under the Land and Water Conservation Fund program can be seen by comparing 1967 with 1975. In 1967, the municipalities in only 10 of the 37 regions received grants, while in the partial year 1975 municipalities in 34 of the regions had received grants.

The regions that have received the most total dollars in federal matching money are Region 11 with over 2.0 million, followed by Region 25 with close to \$1.9 million, and Region 28 with \$1.4 million. In most instances, the regions containing major metropolitan areas have shown a tremendous increase in the dollar amounts in the past several years, principally Regions 10, 11, 16, 23, 25, 28, and 34.

Figure F.1

ANNUAL DISTRIBUTION OF LAND AND WATER CONSERVATION FUNDS TO URBAN AREAS BY CITY SIZE, 1967-75



^aPartial listing for fiscal year 1975 which ends on August 31, 1975.

^bThe total amounts of Land and Water Conservation Funds available for allocations in 1973 and 1974 were reduced at the federal level.

Figure F.2

TOTAL ANNUAL LAND AND WATER CONSERVATION FUNDS ALLOCATED TO URBAN AREAS, 1967-1975

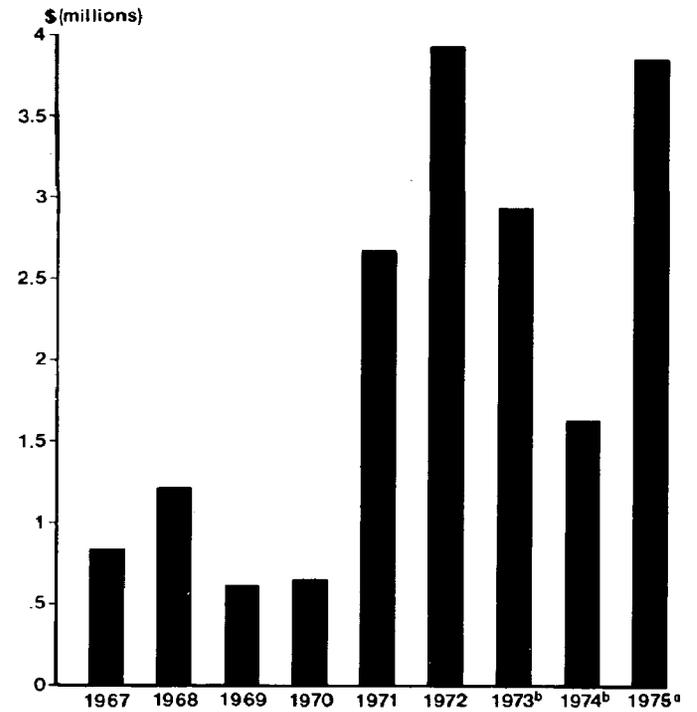


Table F.2 (Continued)

1972 (Continued)						1975 ^b - STATE FISCAL YEAR		
NUMBER	CITY LOCATION	FEDERAL MATCHING MONEY	NUMBER	CITY LOCATION	FEDERAL MATCHING MONEY	NUMBER	CITY LOCATION	FEDERAL MATCHING MONEY
LCWF PROJECTS			LCWF PROJECTS			LCWF PROJECTS		
23	Marble Falls	69,100	29	Terrell	168,400	1	Fort Stockton	\$ 133,572
24	Mesquite	185,800	30	Bellville	46,550	2	Hidalgo	115,000
25	New Braunfels	76,075	31	Pear Ridge	32,650	3	Dennison	11,300
26	Brownsville	400,500	32	Plano	57,700	4	Nacogdoches	127,860
27	San Antonio	212,815	33	Lake Worth	45,400	5	South Houston	212,220
28	Austin	63,000	34	Baytown	14,850	6	Webster	55,450
29	Fort Worth	105,400	35	Canadian	25,400	7	League City	103,800
30	Orange	60,100	36	El Campo	55,200	8	Nederlands	200,400
31	Lufkin	105,912	37	Imperial	18,900	9	Hallsville	7,900
32	Abilene	25,800	38	San Augustine	43,180	10	Carthage	135,500
33	Corpus Christi	20,622	39	Victoria	75,200	11	Mansfield	83,631
34	Baytown	142,900	40	Garland	97,385	12	Smithville	31,405
35	Quitaque	17,200	41	Houston	87,700	13	Hedwig Village	49,170
36	Yoakum	57,900	42	Silsbee	80,400	14	Seabrook	10,400
	Total	\$3,924,299		Total	\$2,839,885	15	Missouri City	12,950
						16	Weatherford	120,500
						17	Nixon	52,350
						18	Longview	207,780
						19	Dallas	103,100
						20	Huntsville	47,500
						21	Bullard	8,500
						22	Shamrock	81,409
						23	Bedford	226,255
						24	Bay City	248,560
						25	Big Spring	79,900
						26	Schertz	125,400
						27	San Benito	151,950
						28	Teague	29,675
						29	Seadrift	6,650
						30	Muenster	12,900
						31	Converse	78,400
						32	Amarillo	162,500
						33	Navasota	22,690
						34	Bryan	10,300
						35	Breham	136,750
						36	Clute	146,500
						37	New Braunfels	40,400
						38	Memphis	21,900
						39	Forrest Hill	105,741
						40	Borger	80,500
						41	Friendswood	18,650
						42	Pearland	81,400
						43	Jacksonville	112,040
						44	Farwell	33,450
						45	Orange	11,300
							Total	\$3,855,508

1973 - STATE FISCAL YEAR			1974 - STATE FISCAL YEAR		
NUMBER	CITY LOCATION	FEDERAL MATCHING MONEY	NUMBER	CITY LOCATION	FEDERAL MATCHING MONEY
LCWF PROJECTS			LCWF PROJECTS		
1	Abilene	\$ 138,250	1	Booker	\$ 8,600
2	Nassau Bay	109,400	2	Spearman	67,900
3	Falls City	12,600	3	Alvin	64,000
4	Clifton	23,500	4	Meridian	11,600
5	Glen Rose	15,750	5	Silverton	1,730
6	Kerrville	71,000	6	Plano	21,800
7	Houston	174,400	7	Beaumont	123,073
8	College Station	133,150	8	Bedford	150,200
9	La Porte	14,400	9	Garland	20,200
10	La Porte	2,000	10	Arlington	34,500
11	Turkey	33,000	11	Amarillo	100,400
12	Livingston	41,000	12	Mesquite	75,400
13	La Porte	3,950	13	Cisco	57,800
14	Del Rio	116,260	14	Hemphill	45,800
15	Bryan	16,210	15	Goliad	61,250
16	Carrollton	44,250	16	Naples	1,900
17	Bryan	6,650	17	Cleburne	100,400
18	Austin	50,300	18	Lufkin	49,945
19	Stephenville	122,400	19	Lamesa	21,426
20	Cibolo	7,800	20	Childress	13,500
21	Fort Worth	7,800	21	El Campo	44,400
22	Lake Jackson	146,000	22	San Antonio	283,735
23	Dallas	393,250	23	Pasadena	80,400
24	Yorktown	14,200	24	Idalou	7,960
25	Rusk	76,800	25	Austin	20,700
26	Austin	56,800	26	Round Rock	50,450
27	Clifton	43,150	27	Austin	100,200
28	Houston	116,700		Total	\$1,619,269

^aIncludes only projects for Urban municipal or urban county parks, totalled by city location and the State Fiscal Year in which project was approved.

^bPartial listing for Fiscal Year 1975 which ends on August 31, 1975. Data collected covers the period through May 31, 1975.

TABLE F.3
ANNUAL DISTRIBUTION OF LAND AND WATER CONSERVATION FUND MONIES TO URBAN AREAS
BY OUTDOOR RECREATION ANALYTICAL PLANNING REGIONS, 1967-1975^a

REGION	1967	1968	1969	1970	1971	1972	1973	1974	1975 ^b	TOTAL
1	\$ 0	\$ 70,235	\$ 0	\$ 0	\$ 244,515	\$ 78,400	\$ 0	\$ 100,400	\$ 162,500	\$ 656,050
2	0	0	0	0	0	89,400	58,400	78,230	183,809	409,839
3	0	0	0	0	36,775	0	0	0	33,450	70,225
4	79,825	0	0	0	0	38,550	0	7,960	0	126,335
5	0	38,059	0	0	62,379	11,200	0	13,500	0	125,138
6	0	0	0	9,000	0	0	0	21,426	79,900	110,326
7	0	0	0	0	0	44,600	138,250	0	0	182,850
8	22,999	0	0	0	0	0	0	57,800	0	80,799
9	0	0	0	0	0	0	138,150	100,400	120,500	359,050
10	14,086	0	0	0	50,320	371,150	53,200	184,700	415,627	1,089,083
11	40,472	42,900	176,300	0	449,583	614,300	534,885	95,600	103,100	2,057,140
12	0	82,018	0	11,200	351,800	0	226,100	21,800	24,200	717,118
13	0	0	0	0	58,700	0	0	1,900	0	60,600
14	0	0	0	32,639	0	0	76,800	0	471,720	581,159
15	0	174,500	79,625	0	0	105,912	43,180	95,745	127,860	626,822
16	0	0	0	0	283,409	692,825	0	283,735	78,400	1,338,369
17	134,074	0	0	0	0	0	0	0	0	134,074
18	0	0	0	0	0	113,900	18,900	0	133,572	266,372
19	43,326	0	97,597	213,900	0	0	0	0	0	354,823
20	0	226,352	0	0	61,050	0	66,650	11,600	29,675	395,327
21	0	0	141,100	0	0	55,150	156,010	0	169,740	522,000
22	0	0	0	0	20,300	21,900	121,400	0	0	163,600
23	0	116,925	0	0	0	455,200	107,100	171,350	0	850,575
24	144,604	0	37,200	0	78,500	57,900	191,150	105,650	19,600	634,604
25	0	100,400	0	126,800	311,423	404,400	523,400	80,400	327,240	1,874,063
26	0	0	0	0	0	59,965	0	0	47,500	107,465
27	0	0	0	0	0	73,300	32,650	123,073	211,700	440,723
28	0	0	40,122	0	566,950	0	146,000	64,000	598,910	1,415,982
29	0	0	0	0	0	0	0	0	0	0
30	58,299	0	0	0	0	0	0	0	0	58,299
31	0	0	0	18,800	9,300	0	20,400	0	209,155	257,655
32	0	0	0	0	0	0	0	0	0	0
33	0	363,000	0	53,825	16,250	20,622	0	0	0	453,697
34	0	0	0	10,127	0	508,450	0	0	266,950	785,527
35	0	0	0	0	0	0	0	0	0	0
36	31,239	0	0	22,500	72,750	31,100	116,260	0	0	273,849
37	268,045	0	45,550	148,543	0	76,075	71,000	0	40,400	649,613
Total	\$836,899	\$1,214,389	\$617,494	\$647,334	\$2,674,004	\$3,924,299	\$2,839,885	\$1,619,269	\$3,855,508	\$18,229,081

^aIncludes only projects for urban municipal or urban county parks, totalled by Region for State Fiscal Years in which project was approved.

^bPartial listing for fiscal year 1975 which ends on August 31, 1975. This data was collected on May 31, 1975.



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