Technical Report Documentation Page

1. Report No. SWUTC-91-7124-5-1	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle Baseline Projections on the Effects of Sociodemographic, Economic and Technological Trends on Transportation Needs (The Impact of Changing Trends and Urban Transportation Planning)		5. Report Date 1991 6. Performing Organization Code
7. Authors Naomi W. Lede'*		8. Performing Organization Report No.
9. Performing Organization Name and Address Texas Southern University (Member) Southwest Region Transportation Consortium 3100 Cleburne Houston, Texas 77004		10. Work Unit No. (TRAIS) 11. Contract or Grant No. DOTS88-G-0006
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration 400 7th Street, S. W. Washington, D. C. 20590		13. Type of Report and Period Covered Final Report 14. Sponsoring Agency Code
15. Supplementary Notes *With assistance from Robert W. Stokes, Earl Washington and Khosro Godazi.		

16. Abstract

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- Collect and analyze data on regional demographic characteristics and track shifting relationships between economic growth and transit use;
- Develop a comprehensive database and conceptual framework on regional demographic, economic and selected transit system indicators;
- Disseminate information to the transportation industry, governmental officials and other organizations.

Data will be collected on an on-going basis for use in determining changes in demographic and employment characteristics and for predicting future needs and demands. A framework and methodology will be developed for use in designing a comprehensive model comprising a regional database aimed at assessing regional transportation requirement to the year 2005 and beyond.

17. Key Words Regional demographic forecasts, economic and technological trends, transit use and planning.			18. Distribution Statement No restrictions
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 48	22. Price

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

Southwest Region University Transportation Center

The Impact of Changing Demographic Trends on Transportation Planning

by

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Abstract

This study was designed to provide a reliable database on the effects of regional demographic, economic, and technological trends on transportation needs and demands in Federal Region VI. Baseline projections on regional growth patterns and shifts, transit use, changing sociodemographic characteristics, transit costs and funding requirements were developed for use in planning and decision making. The objectives of the study were:

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Data were collected on an on-going basis for use in determining changes in demographic and employment characteristics and for predicting future transit needs and demands. A framework and methodology were developed for use in designing a comprehensive model comprising a regional database aimed at assessing regional transportation requirement to the year 2005 and beyond.

Selected findings on regional demographic trends and their impacts are discussed in detail. Travel implementations and challenges to public transportation planning are delineated from the perspective of occupational differentiation and requirements.

THE IMPACT OF CHANGING DEMOGRAPHIC TRENDS ON TRANSPORTATION PLANNING*

By

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The demographic, economic, and technological environment in which urban transportation operates is changing. Transportation is a major factor in the process of urban growth and development. The character of the urban environment influences the characteristics of the transportation systems. Changes in population, labor force participation, employment opportunities and their locations--all impact the level of public transit services and the frequency of use. This paper summarizes some general demographic trends and draws some inferences about their implications for public transportation systems planning and future workforce requirements.

Overview of Related Studies

Recent studies indicate that public transportation systems will face tremendous challenges in the decades ahead. Central among these challenges will be economic and sociodemographic changes in the urban and suburban environments Other changes will relate to increased competition in a global economy, federal budgetary constraints, a growing demand for mobility, an aging population, and continued shifts in urban and regional settlement patterns. Naisbitt and Aburdene (1990: 1-8) note that the economic forces of the world are

*Based on findings from a study of "Baseline Projections on the Effects of Sociodemographic, Economic, and Technological Trends on Transportation".

surging across national borders, resulting in more trends, more opportunity, and greater prosperity. The new and more complex patterns associated with the post industrial global economy, dispersed service-based economic activity, extended urbanization, and emerging centers of growth and redevelopment are trends that will significantly impact transportation, economic growth and vitality (TRB Report, 1988).

A comprehensive examination of economic and demographic trends and issues was the highlight of a recent conference on long-range trends and requirements for the nation's highway and public transit systems sponsored by the Transportation Research Board in 1988. Transit experts discussed the implications of the globalization of the economy of the United States for the nation's transportation network; described demographic changes occurring in cities, suburbs, and non-metropolitan areas; assessed the probability of current suburban growth patterns; and analyzed the impacts of each on transportation (TRB, 1988).

Other studies have also developed trends and projections that will have a profound impact on public transportation. In the study, **Aging America** (1985-1986), it was asserted that one of the most significant demographic facts affecting America's present and future course is the aging of its population. Accompanying this "graying of America" will be increased longevity, particularly on the part of women.

Johnson and others (1987: 108-117) outline major challenges that will require undivided attention of urban policymakers and transportation planning as well. These issues include: Stimulating balanced world growth, accelerating productivity increases in the service industries, maintaining the dynamism of an aging workforce, reconciling the conflicting need of women, work, and families, integrating Black and Hispanic workers fully into the economy, and improving the education and skills of all workers.

Problem Statement

In the midst of mounting worldwide competition, the nation's businesses face a unique confluence of important economic forces that could inhibit their ability to compete in the years ahead. The American labor market will face a dramatically different labor market than the one to which they have been accustomed for many decades (**Opportunity 2000**, September, 1988).

In an effort to provide the transportation industry, government officials, and other agencies with a comprehensive database for planning, selected baseline projections of demographic, economic, and transit trends were developed for cities, metropolitan areas, counties, and states. From this database certain inference were drawn relative to emerging issues and trends.

Purpose and Objectives

The purpose of this study is to provide a framework for planning through an analysis of demographic, socioeconomic, and technological trends and issues that will impact public transportation in the future. In keeping with the projective nature of the data, the database used will be subject to periodic review and refinement to reflect demographic changes and shifts in selected regional areas. This study, therefore, assumes the continued modification of urban and transportation trends.

The overall objective of the study is to analyze data on regional demographic, socioeconomic, and technological characteristics, selected transit use and systems indicators to determine their impact on future public transit planning. A companion objective is to make the data available to the public transit industry, other interested agencies and organizations for use in planning and improving public transit service delivery.

General Methodology

The demographic and socioeconomic data analyzed in this study were generated from a variety of sources and methodologies. Efforts were made to collect reliable information from U. S. Census reports, national surveys, and data compiled by planning agencies at the local, state, regional, and national levels. Employing these data sources, estimates were documented, analyzed, and presented on a variety of demographic and transit-related variables. Appropriate data were synthesized and combined into a regional framework for a large-scale database for public transit properties in Federal Region VI. Major findings relative to forces that will reshape the economy and the public transportation planning process are delineated.

Major Findings: Urban Demographic Trends

The findings of the study indicate that the major trends identified by this study and previous scholars are that America's economy, society, institutions, and even individual lifestyles are all in the midst of profound restructuring. A variety of forces will ensure that this restructuring will become even more accelerated during the 1990's. Many of these forces will be disruptive, but others will offer opportunities to strengthen the social and economic fabric of America (**World Future Society**, 1989). This study analyzes selected "changedrivers" for the 1990's and relates these forces to future transportation planning and service needs.

The dynamics of urban demographic changes are crucial to the understanding of the transportation planning process. Public transit serves not only social and community objectives typical of the public sector but also the more traditional and often competing cost and revenue related objectives of private industry. To be effective and responsive to the needs of the community, comprehensive public transportation planning, by necessity, must consider a host of interdependent forces, including social, economic, political, and technological forecasts that constitute the larger "changedrivers". Central to future short range and long-range planning efforts are the following: The maturation of America, the changing nature of the

population, changing individual and societal roles, the information-based society, personal and environment concerns, and economic restructuring. Each of these "changedrivers" will profoundly impact the management of transportation systems and public transit.

Demographic Trends: Population and Locational Changes

The number of people, their characteristics, and where they settle determine public transportation service needs. If there is no startling evidence revealed by the recently released 1990 data from the United States Census, there are, in many ways, the sobering realities of changing demographics relative to the urban landscape. For example, for the first time, most Americans live in metropolitan areas of more than a million residents. The share of Americans who live in metropolitan areas of at least a million residents increased from 45.9 percent in 1980 to 50.2 percent in 1990. In 1950, it was only 29.7 percent.

When this trend is compared with comparable data for the State of Texas, you get roughly the same proportions. In 1980, the percentage of Texans living in the three largest metropolitan areas compares favorably with that for the United States as a whole. In 1980, the percentage of Texans living in the Houston-Galveston, Dallas-Fort Worth or San Antonio areas was 49.9 percent; in 1990, it was 52.4 percent.

The nation now has 39 metropolitan areas with more than one million residents, four more than in 1980 and 25 more than in 1950. The latest newcomers are Charlotte, North Carolina; Salt Lake City, Utah; Orlando, Florida; and Rochester, New York.

For the first time, San Antonio's population exceeded one million people. This city added 229,974 residents during the increase of 21.5 percent. Dallas-Fort Worth added 954,847 people which increased its population to 3,885,415, representing a 32.6 percent growth rate. On the other hand, the Houston-Galveston area added 611,101 residents to total 3,711,043, an increase of 19.7 percent.

An estimated 78 percent of the population of the United States and 82 percent of the population of Texas live in urban centers, according to the latest figures by the U. S. Census

TABLE 1
The Rank, Population, Numerical and Percentage Changes in Population for 10 Urban Centers*

Rank	Metro Area	1990 Pop.	Change Since 1980	Pct. Change
1	New York	18,087,251	547,719	3.1
2	Los Angeles	14,531,529	3,033,980	26.4
3	Chicago	8,065,633	126,343	
4	San Francisco	6,253,311	885,411	16.5
5	Philadelphia	5,899,345	218,836	
6	Detroit	4,665,236	87,528	-1.8
7	Boston	4,171,643	199,851	5.0
8	Washington	3,923,574	672,653	20.7
9	Dallas-Ft. Worth	3,885,415	954,847	32.6
10	Houston-Galveston	3,711,043	611,101	19.7

Source: U. S. Bureau of Census

Table 2
Total Population by Race/Ethnicity and Housing Counts

Area Name	Total Pop.	Housing Units	Total Hispanic	White	Black	American Indian	Asian	Other
State of Texas	16,986,510	7,008,999	4,339,905	12,774,762	2,021,632	65,877	314,459	1,804,780
Ft. Bend County	225,421	77,075	43,892	141,125	46,593	525	14,238	22,850
Montgomery County	182,201	73,871	13,237	166,107	7,763	687	1,232	6,412
Harris County	2,818,199	1,173,808	644,935	1,824,137	541,180	8,044	110,848	333,990
Galveston County	217,399	99,451	30,962	164,210	38,154	752	3,569	10,714

Bureau. Despite this trend toward urban location of the population, some areas lost populations such as the Beaumont-Port Arthur area in Texas, New Orleans in Louisiana, Cleveland, Toledo, Pittsburgh, Canton in Ohio, and Buffalo, New York. Table 1 shows the ten largest metropolitan areas in population for 1990 with the change since 1980 in numbers and percentages.

As indicated in Table 1, population growth in metropolitan areas during the decade between 1980 and 1990 intensified the urban character of the nation. Unlike previous decades, growth within metropolitan areas was almost entirely suburban. The implications of this suburban growth are enormous.

Urban-Suburban Growth in Texas

In the 1980's, Texas' largest metropolitan areas generated nearly all the state's population increase. Data from the U. S. Bureau of Census indicate that growth was not only uneven across the state, but it varied within the metropolitan statistical Areas (MSA), the suburbs experienced greater growth than central cities. The suburban areas are populated by residents who work in the city and enjoy its attractions, while residing in suburban areas in close proximity to cities.

Of Texas' five largest metropolitan areas--Houston, Dallas, Fort Worth, San Antonio and Austin, only San Antonio experienced most of its 1980-1990 population growth within the boundaries of its major city. In the Fort Worth MSA, according to a report by the Office of the Comptroller of Public Account (1991), by contrast, nearly 69 percent of all growth during the 1980's occurred in areas of Tarrant County outside the city proper. In the six-county Dallas MSA, just over half the population increase took place outside Dallas County.

In four of Texas' top five metropolitan areas, the majority of population growth took place outside the central city. The share of Texas' population from just under 67 percent in 1950 to nearly 82 percent in 1990. By contrast, the 1990 Census of Population indicates that just 77.5 percent of all other Americans live in metropolitan areas.

Figures 1-3 illustrate population changes in Texas cities and regions during the past decade. The growth in suburban areas combined with the changing demographics will pose challenges to traditional planning requirements, particularly as related to public transit service delivery. The out-migration of residents from cities and peripheral areas will, by necessity, mandate the examination of non-traditional service delivery models if public transit agencies are to provide access to public transportation.

Suburbanization and Its Implications

Trends in population further underscore suburban growth patterns. The out-migration of the population to the suburbs has impacted transportation planning in metropolitan areas. Essentially, suburban growth has been made possible by successful expansion of a variety of commercial and industrial enterprises and the consequent creation of the rising middle class, improvements in communication and transportation, and the perceptive investment of real estate subdividers and builders (Boskoff, 1970: 108).

Growth within metropolitan areas during the last decade was almost entirely suburban. Although the rate of growth for suburban areas has been greater than that for central cities since 1920, the suburban population has been almost homogeneous until the decade between 1980 and 1990. During the period there were significant changes in the characteristics make-up of the population leaving the central city. The Black population in Harris County's population, for example, generally followed a classical pattern of outward movement during the 1980's, a trend that was accelerated by economic forces that attracted minority populations into affordable housing in the suburbs. The last decade also saw a reshaping of the Houston area. Attracted to the suburbs by the presence of land expansion and its relatively lower costs, the Black population experienced dramatic shifts from central city to suburbia in the Houston metropolitan area. Montgomery County's Black population grew by 25 percent, while in Brazoria County it grew by 21.5 percent. In Fort Bend County the numbers are more dramatic. The increase in minorities helped push the county's population

Figure 1

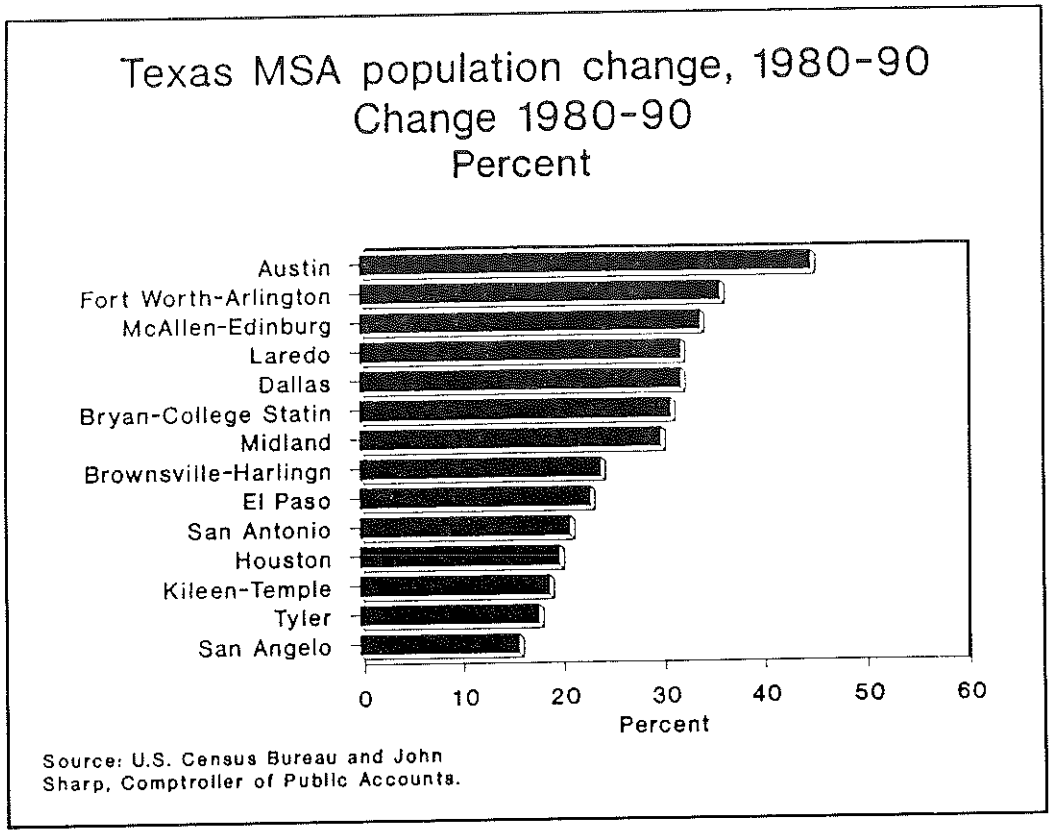


Figure 2

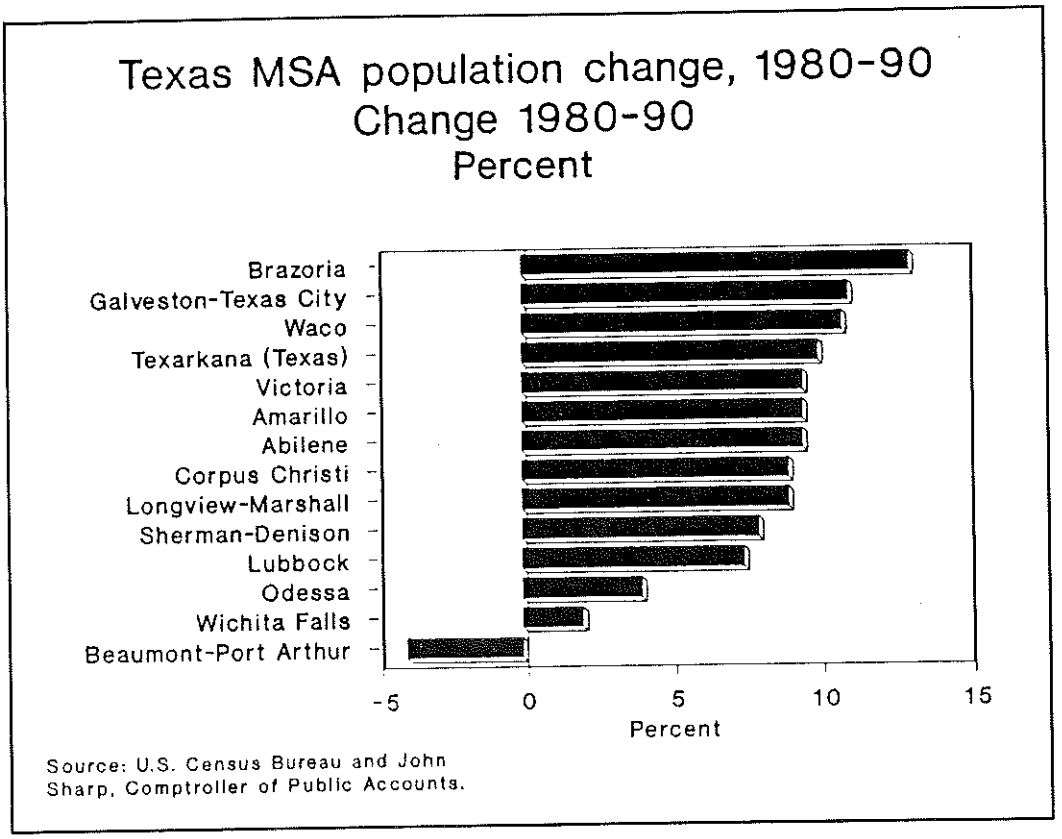


Figure 3-A

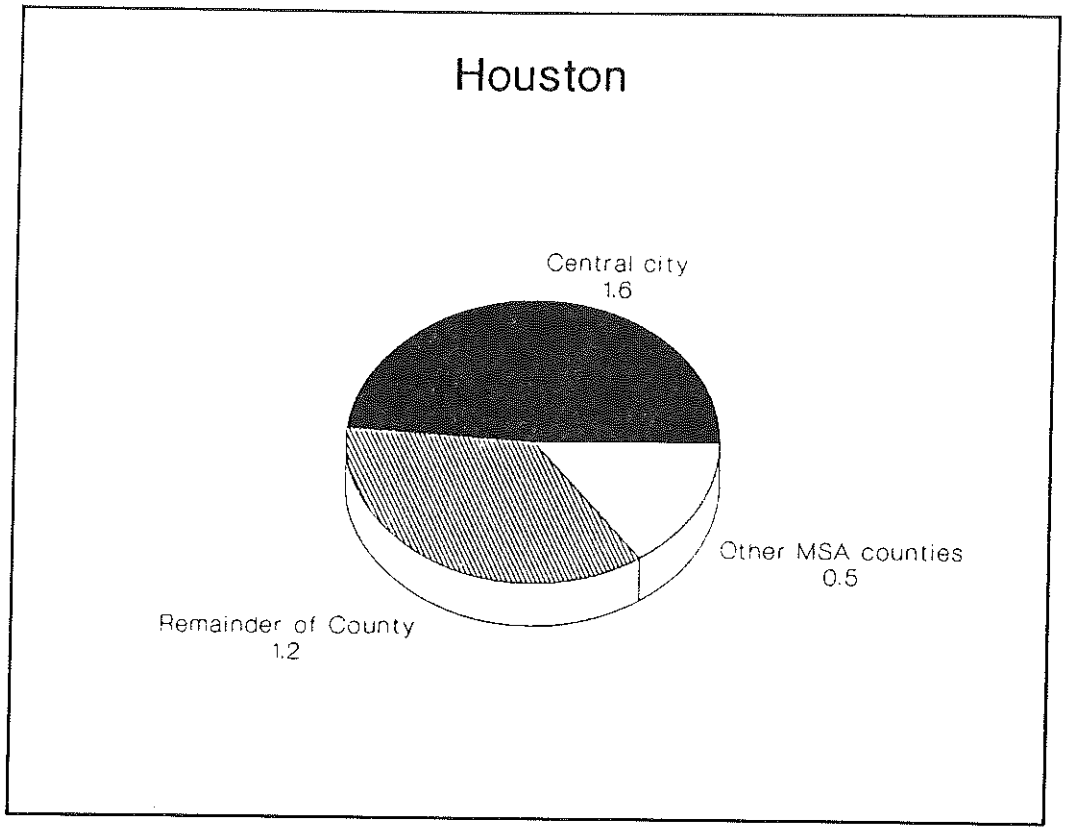
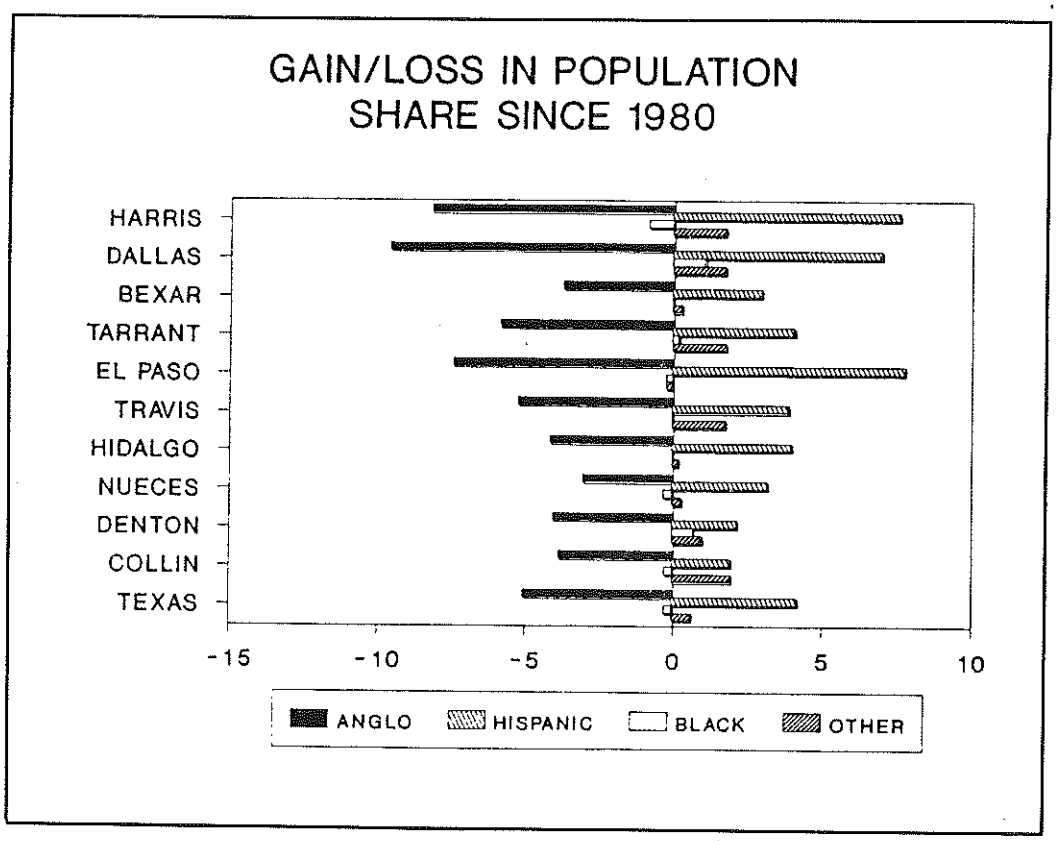


Figure 3-B



up 72 percent from 130,846 in 1980 to 225,421 in 1990, according to figures released by the Bureau of the Census. The largest growth among minority groups occurred among Blacks in the county. Blacks increased by 128 percent; while Hispanics grew by 64 percent, the White population increased by 50.5 percent. Table 2 reveals the total population by race/ethnicity and housing units for selected Texas counties for 1990.

Regional Economic Growth

An examination of demographic data on economic regions in the State suggests that regions increased in population, but growth was unevenly distributed. Six regions have been used to categorize areas in Texas. These include: Plains, Metroplex, East Texas, Gulf Coast, Central Corridor, and Border. The Metroplex region led growth with more than a million additional residents, an increase of 31 percent over the previous decade. The Central Corridor experienced the second highest growth rate of about 25 percent, gaining early 634,000 residents. The Border, riding a wave of maquilador-related prosperity, grew by 23 percent, increasing by 322,000 residents.

The most populous region in the state, the Gulf Coast, was hard hit by the two economic downturn during the past decade. Growth in this section of Texas was moderate. Regional growth is shown in Figure 4-A and Figure 4-B.

Ethnic Diversity in Texas

The Texas population is becoming increasingly multi-ethnic. Dramatic increases were seen in the non-Anglo population, with the greatest increases in the Hispanic and Asian groups. The state's ten largest counties have become increasingly more diverse. In short, trends indicate that the population has undergone a transformation from a "melting pot" posture to a more pluralistic or mosaic culture.

Figure 4-A

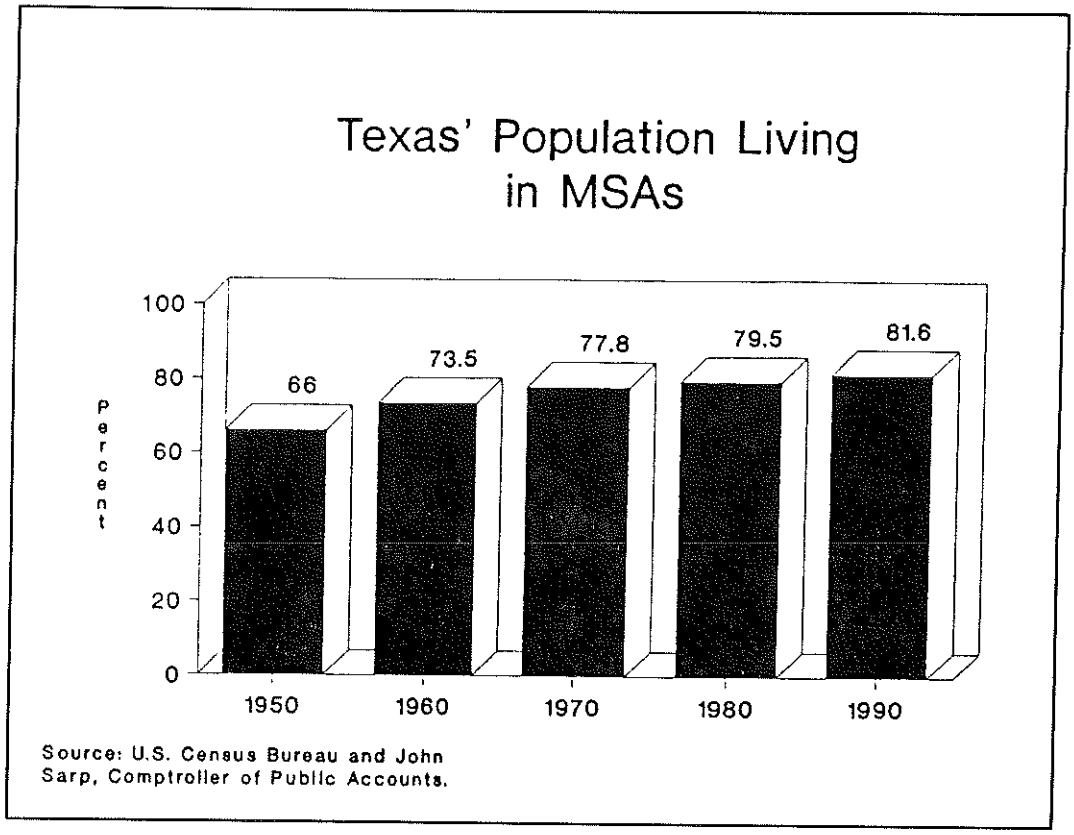
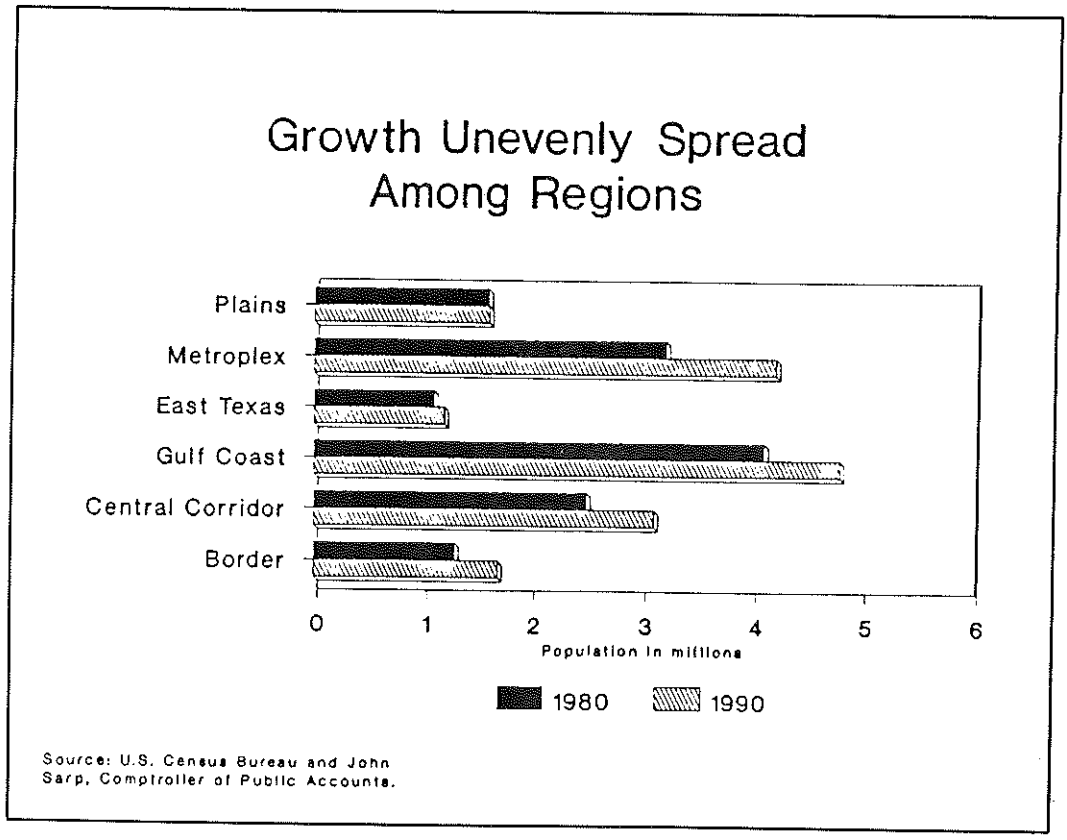


Figure 4-B



Travel Implications

Accompanying the suburbanization trend for the population have been significant economic impacts relative to the population left in central city areas. New service as well as manufacturing jobs are located in the suburbs. There have been significant increases in the employment growth rate in retail trade, in the manufacturing sector, and for all service activities. What are the implications of this growth?

The dramatic changes in the distribution of the population and land-use have profoundly altered patterns of access to public transportation. Transportation planners have become keenly aware that the alteration in urban structure poses problems for traditional service delivery patterns. The simpler spatial layout of earlier cities led to emphasis being placed on the work trip from residential suburbs to a centrally located central business-commerce district, using these loadings to size radial line haul transportation facilities for peak-hour flows (Kasarda, 1985 and Pasarski, 1987:40). With the changing spatial patterns and the emergence of a new structure of the urban region, transportation planners must now deal with the effects of suburban employment centers, circumferential traffic patterns, and "off-peak" congestion.

Blake (1990: 2-5) advises that the century-long process of outward growth from a strong city center has been transformed into a process of metropolitan decentralization which has drained both population and economic activity out of central cites. He further acknowledges that increased auto-dependence and declining public transportation patronage are the by-products of disperse metropolitan development which, in turn, is partly a consequence of federal transportation policies. As Mouat (**Houston Post**, February 10, 1990) advises, inner city dwellers find lack of public transit an obstacle. The economic impacts of decentralization and the suburban mobility needs are being examined by a number of scholars. Research has shown that two major mobility issues facing suburban residents are: (a) transportation to, from, and between areas, and (b) transportation within the areas. More

research is needed on ways to improve suburban mobility and to understand suburban travel behavior. The Center for Transportation Training and Research at Texas Southern University is conducting a study on this issue at the present time.

Several other "changedrivers" must be considered by future transportation planners. Consider, for example, the changing demographics and the likely consequences and implications of the various trends.

The Maturation of America

America is growing older. One of the most significant demographic facts affecting the nation's present and future course is the aging of its population. The proportion and number of persons 65 years and older have grown and will continue to grow more rapidly than other age groups. It should also be noted that over half of the elderly live in just eight states: California, New York, Florida, Pennsylvania, Texas, Illinois, Ohio, and Michigan. Figure 5 shows the number of older Americans by age. The trend indicates that the growth of the U. S. population will continue to slow down while the elderly population will continue to grow.

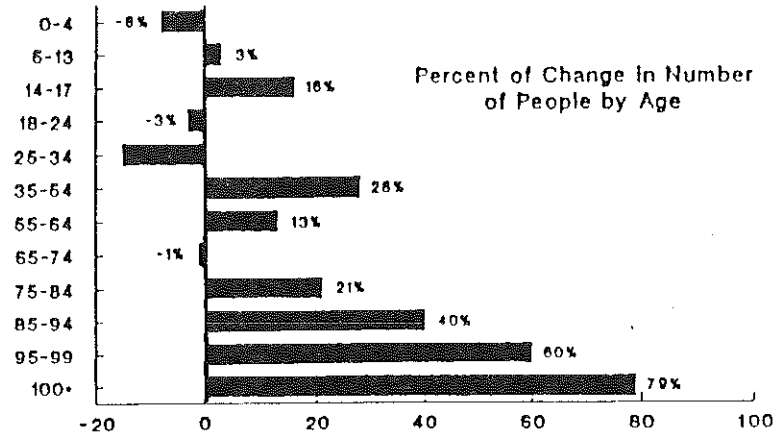
The broader implications of the "graying of America" suggest that increased longevity and changing social and work patterns will contribute to dramatic changes during this century in the distribution of time devoted to major life activities such as education, work, retirement, and leisure. These activities will introduce the need for public transportation for the elderly to participate in part-time employment service, professional/technical, and clerical fields.

The Mosaic Society

Rising levels of education, increased ethnic diversity, a growing population of elderly individuals, and other diversity-related trends are moving the society away from a "mass society" toward a "mosaic society". This "demassification" is reflected in the fact that Blacks, Latinos and Asians now make up an estimated 20 percent of the U. S. population. In Texas, for example, Hispanics will show the largest population gain during the next decade and into the 21st century. Currently about 24 percent of the population in Texas, this group will grow by

Figure 5

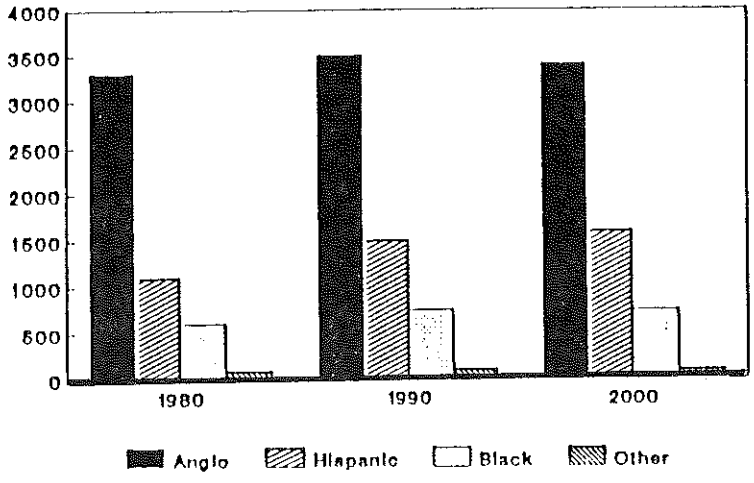
Number of Older Americans Will Experience Fastest Growth from 1990 to 2000



Source: World Future Society, 1990.

Figure 6

TEXAS POPULATION BY RACE/ETHNICITY AGES 15-34 (In Numbers)



Source: U.S. Census Bureau

more than 1.5 million over the next 10 years and by the year 2000 will constitute over 27 percent of the Texas population (Figure 6).

The population for Texas by the year 2000 varies from 20 million to 22 million compared with a 1990 population of roughly 18 million. Over the next ten years Texas is projected to grow at a rate at least double that of the United States as a whole. Table 3 provides data on state population projections in Federal Region VI from 1987 through 2010. Texas is the largest state in Federal Region VI. Also, most of the growth will occur in Texas and New Mexico. Table 4 indicates total population projections for 2010 in absolute numbers and percent population changes.

Although the final count of the 1990 census is being examined, there is one indisputable conclusion: Latinos (including Hispanics) and Asians exploded as a population in America during the past decade. Latinos increased by 53 percent, to 22.4 million, and now comprise about 9 percent of the U. S. population, with the majority of this group consisting overwhelmingly of Hispanics. The Asian population more than doubled to 7.3 million and now is three percent of the total.

These kaleidoscopic changes have created three minority groups in American society. American demographers predict that there will continue to be greater proportional growth among minorities well into the next century. Figure 7 reveals that nearly one in three Americans will be a minority by the year 2000.

Implications: Managing Diversity in the Workplace

What will be the impact of the trend toward a "mosaic" or pluralistic society? As changes in the American economy and workforce unfold over the next several decades, this diverse population will face several challenges. The new economy will be broad-based with more emphasis on manufacturing, services, and trade industries and less on the oil and gas industries. With the location of most of these positions in suburban areas of the nation, minorities in Texas and elsewhere will face the dilemma of gaining access to these job

Figure 7

Nearly One in Three American Will Be a Minority by Year 2000

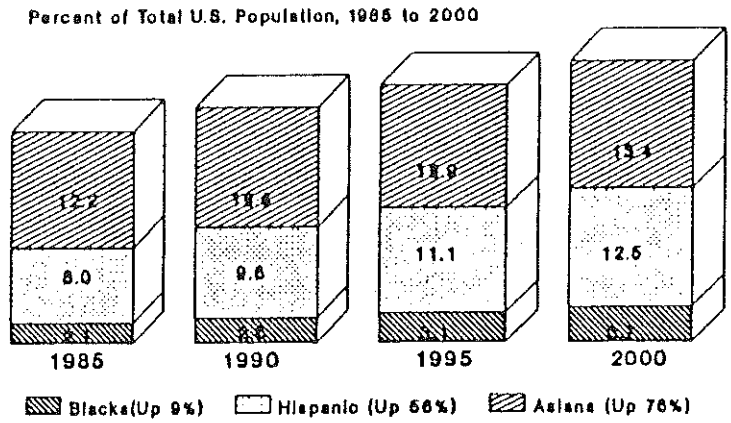
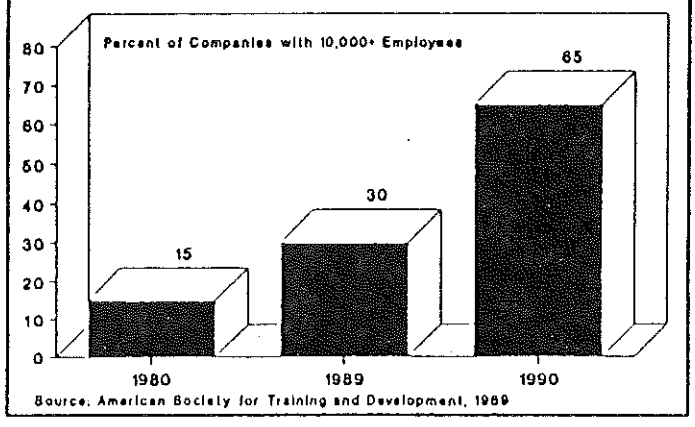


Figure 8

Over Half of All Large Companies Will Offer Remedial Education for Employees by Year 2000



opportunities by way of public transportation or work to preserve, stabilize and revitalize neighborhoods to eliminate the need for expanded services into suburbia.

Another challenge relates to a global economy. Today's transitional and social environment, unlike that of the past, is no longer based on mass production and economies of scale but upon international competitiveness and technological change. Consequently, those who use the technology will have to have the necessary analytical and problem-solving skills which will enable them to cope with change. This transformation in the workplace will symbolize the change from a more labor-intensive system to one that is more knowledge-based.

Changes in the economy will be accompanied by changes in the 21st century workforce. The workforce will consist of older workers and more women and minorities. It will require basic skill levels and oriented more toward service jobs. During the next decade, there will be fewer young people in the workforce, three-fifths of women over age 16 will be at work. The job requirements for reading and problem solving skills will exceed the skill levels of most young adults. Figure 8 indicates that over half of all large companies will offer remedial education for employees by the year 2000.

The shrinking numbers of young people, the rapid pace of industrial change, and the rising skill requirements of the emerging economy make the task of fully utilizing minority workers particularly urgent, according to a report by the Hudson Institute, **Workforce 2000**, published in June, 1987.

Information-Based Economy

The trend toward an information-based economy will have a profound impact on transportation planning and service delivery. Information technologies are changing the manner in which people communicate, work, and plan. These changes in daily movement, driven by advances in computers and micro-electronics, will induce changes in the prevailing pattern of economic and societal organizations.

TABLE 3
State Population Projections: 1987 to 2010

STATE	1987	1988	1989	1990	1995	2000	2010
Arkansas	2,386	2,400	2,414	2,427	2,482	2,529	2,624
Louisiana	4,504	4,507	4,510	4,513	4,513	4,516	4,545
Oklahoma	3,285	3,288	3,285	3,285	3,318	3,376	3,511
Texas	16,937	17,192	17,451	17,712	19,012	20,211	22,281
New Mexico	1,518	1,557	1,595	1,632	1,809	1,968	2,248
TOTAL	28,640	28,944	29,255	29,569	31,138	32,600	35,208

SOURCE: Stastical Abstract of the U.S. 1988, 108th Edition

State population projections from 1987 to 2010 indicate approximately 23 percent growth for the region

TABLE 4

Rankings of the Largest Metropolitan Areas in Terms of Projected Percent Change In Population, 1985 to 2010 for Regions VI

Rank	Metropolitan Area	Total Population (1000s) 1985	2010	Population Change Absolute	Percent
7	Austin	694.4	975.3	280.0	40.5
11	Albuquerque	463.6	632.6	169.0	36.5
14	McAllen	351.7	477.3	125.6	35.7
16	Houston CMSA	3,617.6	4,831.3	1,213.7	33.5
17	Dallas-Ft. Worth	3,505.9	4,663.7	1,157.8	33.0
24	Baton Rouge	543.2	695.3	152.1	28.0
27	San Antonio	1,233.7	1,531.1	297.4	24.1
29	El Paso	544.1	670.5	126.4	23.2
33	Tulsa	732.0	896.4	164.4	22.5
41	Little Rock	497.7	591.6	93.9	18.9
51	Oklahoma City	974.3	1,128.4	154.1	15.8
63	Corpus Christi	358.2	408.8	50.6	14.1
72	New Orleans	1,322.3	1,473.8	151.5	11.5
92	Shreveport	361.8	385.0	23.2	6.4
98	Beaumont	3980.8	392.6	11.8	3.1

Source: Regional Economic Projection Series 86-R-1.
National Planning Association, 1987.

The advent of a full-scaled information-based economy will not reach maturity for several decades. By the year 2010 or 2020, however, the magnitude of its impact will be tremendous in its broader implications, the greatest of which will be the creation of a new context for transportation planning and management. From a social perspective, for example, there will be concerns about individual privacy, the level of scientific literacy among the population, and the division that may result if there is an educational lag relative to adapting to an information-based economy.

Implications

Other implications of a projected information-based economy include economic and technological impacts. Businesses will increasingly operate through networks--rather than be consolidated in one place--to produce a growing range of products and services. The possibility of a new corporate elite looms large on the "economic horizon". It has been predicted that a highly educated "gold collar" knowledge worker will emerge (**World Future Society**, 1989).

From a technological standpoint, use of information technology as a basis for teaching and learning will increase. A "mobile communications environment" will likely result from information explosion. The mobile communications environment is currently in process. It is evidenced by portable telephones, facsimile machines, optical scanners, "keyboardless" data entry devices, and beepers.

Education, Employment, and Public Transportation

To compete in the international marketplace, the workforce of tomorrow will need to use analytical and problem-solving skills to perform tasks under a diverse set of conditions. In order to respond to job requirements, business and industry will have to work cooperatively with educational institutions and other social agencies and organizations to help expand access to education; to help improve the quality of training.

The pool from which the "high tech" workforce will be drawn will be substantially different from the transitional one. It will consist of older workers and more women and minorities. The economy will be broad based with more emphasis on manufacturing, services, and trade industries and less on oil and gas industries. Coupled with these changes, there will be fewer young people in the workforce and three-fifths of women over the age of 16 will be at work.

Implications

A better-educated labor force will be necessary to increase the level of productivity in America. Advances in technology have introduced the need for training and retraining of workers. It has been predicted that over half of all large companies will have to offer some form of remedial education by the year 2000 (See Figure 8). To meet this need, there will be need for flexible, short-term continuing education programs and the training and retraining of adult workers for industry. If public transportation systems are to meet the mobility needs of workers, alternative public transit delivery systems will have to be used to provide cost-effective, efficient service to the elderly, working with the latter group posing some difficulties because of flexible work schedules and multiple trip purposes.

The Challenge: Managing Diversity

The selected trends and forecasts outlined in this report indicate that the work environment awaiting tomorrow's managers of public transit systems will differ vastly from that of all previous periods in history. Differences among workforce participants will be much more celebrated and pronounced. Women and people of color will make up larger proportions of the workforce and account for the bulk of growth in the number of employees generally. This trend is expected to be prevalent in the public transit industry as well.

Understanding how transit demand responds to shifts in demographic and economic patterns is critical to the success of strategic planning initiatives. Public transit systems will

have to review existing planning strategies to address not only the more immediate transit issues but long-term forecasts as well. This study does not purport to be comprehensive in scope. It does provide selected data on trends and projections that have the potential for setting the framework for future transportation planning initiatives.

To manage the work environment during the next several decades will require special skills to deal with diversity. Several issues will have to be addressed. What is managing diversity? Is managing diversity the same as Affirmative Action, but with a different name? Will managing diversity replace Affirmative Action?

What is managing diversity? It is a comprehensive managerial concept designed to enable managers to tap the greatest potential of all employees, regardless of how diverse they might be. It will require some restructuring of agencies and organizations and changes in attitudes and perceptions about different groups and individuals. The transitional ways of doing business will be replaced by the effective implementation of a work environment where managers concentrate on securing productivity from the diverse workforce. The traditional American image of diversity grew out of the notion that society was a melting pot for all racial and ethnic groups--where these groups were standardized into a kind of American puree. In reality, ethnic and racial groups have managed to retain their individuality and culture, resulting into a more diverse, pluralistic society. The result is a kind of vegetable soup minus the puree. The melting pot idea was also transformed into corporate and business environments.

Is managing diversity the same as Affirmative Action? There is a world of difference between the two concepts. Affirmative Action policies focus on simply the creation of a diverse workforce. Managing diversity, as a concept, concentrates on an environment that will work naturally for a diverse workforce. Special emphasis is placed on increasing the level of productivity among all employees. Affirmative Action focused primarily on people of color, women, and ethnic groups, while managing diversity includes educational background, tenure with the organization, functional background, and diversity related to acquisitions and

mergers. The former concept (AA) focuses on discrimination, while managing diversity concerns itself with a management structure desiring to tap the full potential of all employees.

Will managing diversity replace Affirmative Action? From a futuristic vantage point, effect implementation of a comprehensive program of Affirmative Action is crucial to minority interest primarily because it provides access. For a period of time, however, both Affirmative Action programs and "managing diversity" initiatives will exist.

Given the need for skills by managers to deal with the projected diverse workforce for the next several decades, efforts must be directed toward increasing productivity in the United States rather than "workforce mixing". All trends suggest that the demographic changes will result in these differences without much attention being devoted to them. What will be required will be extraordinary managerial skills to effectively supervise and direct "unassimilated diverse groups" in the workforce.

Summary

Data contained in the report are based on selected projections on the basis of past trends and assumption about the interrelationships among demographic, economic, and technological characteristics. Combining these projections with data on transit use, energy consumption, and costs of operations provides a glimpse into the interactive influences on one with another. The manner on which each of these variables reacted to shifts in demographic and socioeconomic indicators in the past provide reasonable reliable estimates about current and future transit service delivery.

Previous data on regional trends and economic forecasts have shed considerable light on how the transit system itself influences the economy. The efficient operation of a public transit system is critical to the productivity of business inside and outside a city's central core. To promote an effective transportation workforce is a central goal of the U. S. Department of Transportation. To achieve this goal, public transit planners and managers will have to cooperate and coordinate efforts among key players within education, business, and

government. This action will ensure that societal institutions meet the challenges of rapid economic, technological, and social change.

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APPENDIX

Table 5
Trend of Energy Consumption by Transit Passenger Vehicles*

CALENDAR YEAR	ELECTRONIC POWER CONSUMED (Kilowatt Hours In Millions)	FOSSIL POWER COMPANY (Gallons in Thousands)	
		DIESEL	GASOLINE (a)
1960	2,908	208,100	191,900
1965	2,584	248,400	124,200
1970	2,561	270,600	68,200
1975	2,646	365,060	7,576
1976	2,576	389,187	6,163
1977	2,303	402,842	9,273
1978	2,223	422,017	9,331
1979	2,473	423,212	8,973
1980	2,446	431,400	11,400
1981	2,655	445,950	13,950
1982	2,722	455,590	11,670
1983	2,930	450,260	9,460

	COMMUTER RAIL	HEAVY RAIL	ALL OTHER	TOTAL	COMMUTER RAIL	FERRY BOAT (a)	MOTOR BUS	ALL OTHER	TOTAL	TOTAL
R 1984	901	3,092	245	4,238	58,320	21,624	505,049	15,371	600,364	49,907
R 1985	1,043	2,928	245	4,216	55,372	20,747	518,137	14,482	608,738	45,704
1986	1,170	3,066	253	4,489	54,608	23,007	533,532	17,929	629,076	42,677
P 1987	1,142	3,214	269	4,625	55,586	24,308	539,684	18,628	638,506	46,527
P 1988	1,163	3,256	328	4,747	59,160	23,286	524,194	21,708	628,348	44,024

P = PRELIMINARY R = REVISED

* Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Includes propane, Lpg and others.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

Table 6
States With Over 5% of Workers Using Public Transportation

STATE	PERCENT OF WORKERS USING PUBLIC TRANSPORTATIONM, 1980
District of Columbia	38.0%
New York	26.5
Illinois	12.0
Massachusetts	9.3
New Jersey	9.2
Maryland	8.8
Hawaii	8.3
Pennsylvania	8.2
National Average	6.4
California	5.8
Minnesota	5.5
Washington	5.3
Connecticut	5.1
Virginia	5.1
Oregon	5.0

Source: U. S. Bureau of Census, State and Metropolitan Area Data Book, 1986

Table 7
Number of Transit Service Providers By State

STATE	URBANIZED AREA TRANSIT SYSTEMS	SMALL URBAN AND RURAL TRANSIT SYSTEMS	NON-PROFIT ELDERLY AND DISABLED SERVICE PROVIDERS	TOTAL SERVICE PROVIDERS
Alabama	7	32	12	51
Alaska	1	8	31	40
Arizona	5	10	64	79
Arkansas	4	8	89	101
California	106	75	206	387
Colorado	10	19	24	53
Connecticut	21	6	40	67
Delaware	2	2	20	24
District of Columbia	2	0	13	15
Florida	23	20	129	172
Georgia	11	34	51	96
Guam	0	1	0	1
Hawaii	1	3	24	28
Idaho	3	6	47	56
Illinois	28	11	46	85
Indiana	20	19	89	128
Iowa	18	20	24	62
Kansas	4	41	76	121
Kentucky	6	17	47	70
Louisiana	15	37	66	118
Maine	5	15	1	21
Maryland	20	6	66	92
Massachusetts	28	6	68	102
Michigan	17	48	45	110
Minnesota	8	37	71	116
Missippi	3	14	67	84
Missouri	6	32	94	132
Montana	3	9	52	64
Nebraska	2	50	32	84
Nevada	3	6	42	51
New Hampshire	3	3	33	39
New Jersey	42	11	112	165
Nex Mexico	4	26	43	73
New York	82	41	56	179
North Carolina	15	20	94	129
North Dakota	2	17	46	65
Ohio	45	29	265	339
Oklahoma	3	12	148	163
Oregon	5	16	44	65
Pennsylvania	46	16	64	126
Puerto Rico	19	–	–	19
Rhode Island	2	0	20	22
South Carolina	6	6	79	91
South Dakota	2	14	50	66
Tennessee	13	13	126	152
Texas	31	30	188	249
Utah	31	4	44	51
Vermont	3	2	25	28
Virginia	1	11	30	72
Washington	26	28	19	73
West Virginia	4	12	68	84
Wisconsin	18	32	93	143
Wyoming	1	5	27	33
United States Total	786	940	3,310	5,036

Source: American Public Transit Association.

Table 8

Metropolitan Areas With Over 10% of Workers Using Public Transportation

METROPOLITAN/PRIMARY METROPOLITAN STATISTICAL AREA	PERCENT OF WORKERS USING PUBLIC TRANSPORTATION, 1980
New York, NY	49.3%
Jersey City, NJ	25.8
San Francisco, CA	22.1
Chicago, IL	20.4
Washington, DC-MD-VA	14.8
Philedelphia, PA-NJ	12.6
Houston-Lawrence-Salem-Lowell-Brockton, MA	12.5
Nassau-Suffolk, NY	11.7
Pittsburgh, PA	11.1
Oakland, CA	10.9
Newark, NJ	10.7
Iowa City, IA	10.6
Cleveland, OH	10.4
New Orleans, LA	10.2
Baltimore, MD	10.0
Honolulu, HI	

Source: U.S. Bureau of Census, State and Metropolitan Area Data, Book, 1986

Table 9
Major United States Transitways

LOCATION	TRANSITWAY	LENGTH (miles)
Honolulu, HI	I-H-1	10.0 east, 9.0 west
Houston, TX	I-10 (Katy)	11.5 reversible
Houston, TX	I-45 (North)	9.8 reversible
Houston, TX	I-75 (Gulf)	6.3 reversible
Los Angeles, CA	I-10 (El Monte)	10.8 2-way
Los Angeles, CA	CA Route 91	8.0 1-way
Miami, FL	I-95	7.6 1-way
New York, NY	I-495 (Lincoln Tunnel)	2.9 1-way
Orange County, CA	CA Route 55	11.0 2-way
Orlando, FL	I-4	25.0 1-way
Pittsburgh, PA	East (MLK, Jr.) Busway	8.1 2-way
Pittsburgh, PA	South Busway	4.3 2-way
San Francisco, CA	Bay Bridge	2.7 1-way
San Francisco, CA	U. S. 101 (Marin County)	6.9 north, 8.1 south
San Francisco, CA	U. S. 101 (South Bay)	3.2 north, 2.0 south
San Jose, CA	CA Route 237	4.9 1-way
San Jose, CA	San Tomas Expressway	8.3 1-way
San Jose, CA	Montague Expressway	5.9 1-way
San Jose, CA	U.S. 101	3.7 1-way
Seattle, WA	I-5	5.8 south, 4.3 north
Seattle, WA	I-5	3.5 1-way
Seattle, WA	I-5	4.0 reversible
Seattle, WA	I-405	6.2 1-way
Seattle, WA	WA Route 520	2.8 1-way
Washington, DC	I-395 (Shirley)	10.1 reversible
Washington, DC	I-395 (Shirley)	5.5 1-way
Washington, DC	I-66/Dules Access Rd.	19.1 1-way

Source: American Public Transit Association, 1987; selected Urban Mas Transportation Administration Fiscal Year 1988, Section 15 reports.

Table 10
Transportation Energy Use by Mode, 1985

	FUEL CONSUMPTION (TRILLION BTUs)	PERCENT OF TOTAL
Automobiles	9,074.2	43.5
Transit Buses	72.4	0.3
Other Buses	89.4	0.4
Trucks	6,108.6	29.0
Motorcycles	62.0	0.3
Total Highway	15,406	73.1
Off-Highway	712.8	3.4
Air	1,677.6	8.0
Water	1,311.4	6.2
Pipeline	758.4	3.6
Passenger Rail	74.6	0.3
Freight Rail	426.9	2.0
Military	706.4	3.4
Total	**21,074.7**	**100.0**

Source: U.S. Department of Energy, *Transportation Energy Data Book, Edition 10,*

TABLE 11

State Population Projections: 1987 to 2010

State	(000)						
	1987	1988	1989	1990	1995	2000	2010
Arkansas	2,386	2,400	2,414	2,427	2,482	2,529	2,624
Louisiana	4,504	4,507	4,510	4,513	4,513	4,516	4,545
Oklahoma	3,295	3,288	3,285	3,285	3,318	3,376	3,511
Texas	16,937	17,192	17,451	17,712	19,012	20,211	22,281
New Mexico	1,518	1,557	1,595	1,632	1,809	1,968	2,248
Total	28,640	28,944	29,255	29,569	31,138	32,600	35,209

SOURCE: Statistical Abstract of the U.S. 1988, 108th Edition

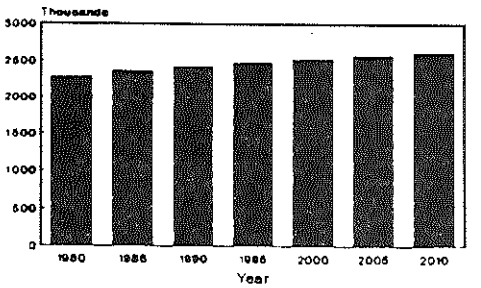
State population projections from 1987 to 2010 indicate approximately 23 percent growth for the region during this period. A majority of this growth is expected to occur in two states, Texas and New Mexico. Arkansas, Oklahoma and Louisiana's projected population growth is not expected to change significantly.

TABLE 12
Total Population of Arkansas by Age: 1980, 1986, and 1990–2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
ARKANSAS							
Total							
All ages	2286	2372	2427	2482	2529	2576	2624
Under 5 years	176	173	174	164	154	150	150
5-9 years	180	179	179	178	168	158	155
10-14 years	185	178	183	187	185	176	166
15-19 years	214	188	180	181	187	186	177
20-24 years	194	198	165	156	157	164	163
25-29 years	174	191	190	155	146	147	155
30-34 years	161	178	191	191	257	149	150
35-39 years	134	168	177	193	192	160	152
40-44 years	114	136	164	181	198	195	164
45-49 years	107	117	135	164	183	200	197
50-54 years	110	107	114	135	166	185	203
55-59 years	114	107	107	115	137	168	188
60-64 years	110	110	108	107	115	137	169
65-69 years	106	109	109	106	105	113	135
70-74 years	86	91	93	96	94	93	100
75-79 years	60	70	73	75	79	77	77
80-84 years	33	42	47	51	53	56	56
85 years and over	26	31	39	47	55	61	67
5-13 years	327	320	326	326	316	297	286
14-17 years	168	152	142	151	150	150	140
18--24 years	278	271	238	224	230	236	234
16 years and over	1702	1803	1855	1915	1984	2054	2118
21 years and over	1490	1617	1676	1740	1800	1871	1942
Median age	30.6	32.2	33.7	35.8	37.9	39.9	41.3

Total Population of State:
1980, 1986, and 1990-2010
--------ARKANSAS--------



Median Age of State:
1980, 1986, and 1990-2010
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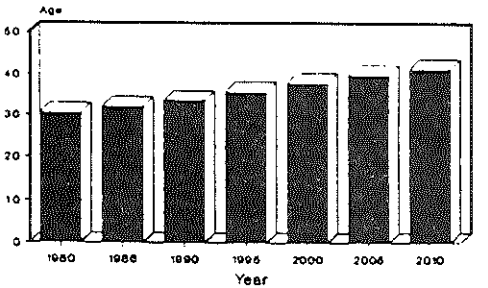

TABLE 13

Total Male Population of Arkansas by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate 1986	Projections 1990	1995	2000	2005	2010
ARKANSAS							
Males							
All ages	1105	1146	1173	1202	1227	1252	1278
Under 5 years	90	89	89	84	79	77	77
5-9 years	92	92	91	91	86	81	79
10-14 years	95	91	94	96	95	90	85
15-19 years	109	96	92	93	96	96	91
20-24 years	95	97	81	78	78	82	82
25-29 years	85	94	93	77	73	74	78
30-34 years	79	88	94	93	78	74	75
35-39 years	65	82	87	94	93	79	75
40-44 years	56	66	80	90	97	96	81
45-49 years	51	56	66	81	91	99	97
50-54 years	52	51	54	65	81	91	99
55-59 years	52	50	50	54	65	81	92
60-64 years	51	51	50	50	54	65	82
65-69 years	49	50	50	49	49	53	64
70-74 years	38	40	41	42	42	42	46
75-79 years	25	28	30	31	33	33	33
80-84 years	13	16	17	19	20	22	22
85 years and over	9	10	12	14	16	18	20
5-13 years	167	164	167	167	162	152	147
14-17 years	86	78	74	78	78	78	73
18-24 years	137	134	118	112	116	119	118
16 years and over	806	854	880	911	947	985	1018
21 years and over	699	760	789	822	853	891	928
Median age	29.2	30.8	32.4	34.5	36.6	38.4	39.8

Total Population of State by Sex: 1980, 1986, and 1990-2010
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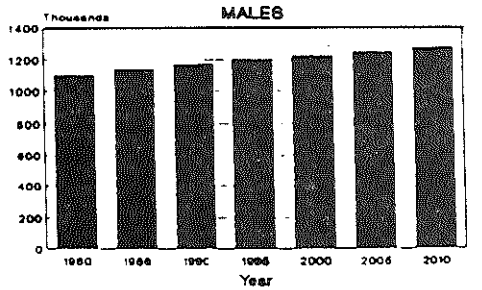

Median Age of State by Sex: 1980, 1986, and 1990-2000
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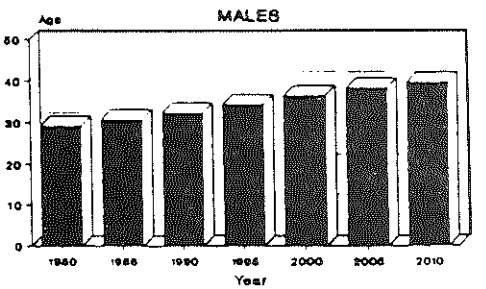


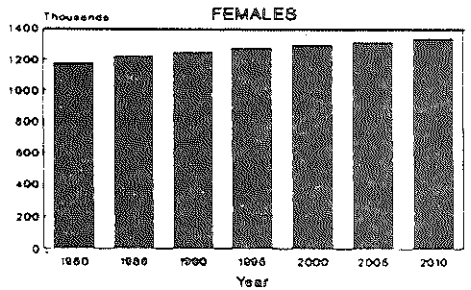
TABLE 14

Total Female Population of Arkansas by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
ARKANSAS							
Females							
All ages	1182	1227	1253	1280	1302	1324	1346
Under 5 years	85	84	85	80	75	73	73
5-9 years	88	87	87	87	82	77	75
10-14 years	91	86	89	91	90	86	81
15-19 years	106	93	88	88	91	90	86
20-24 years	99	101	83	78	79	82	82
25-29 years	89	97	97	78	73	74	77
30-34 years	82	90	97	98	80	75	76
35-39 years	69	86	90	99	98	81	76
40-44 years	58	69	83	92	100	99	83
45-49 years	56	61	69	84	92	101	100
50-54 years	58	56	60	70	85	94	104
55-59 years	61	57	57	61	71	87	96
60-64 years	60	59	58	57	61	71	87
65-69 years	58	59	59	57	56	60	70
70-74 years	49	51	52	53	52	51	54
75-79 years	36	41	43	44	46	45	44
80-84 years	21	27	29	32	33	35	34
85 years and over	17	21	27	33	38	43	47
5-13 years	160	156	159	159	154	145	140
14-17 years	82	74	69	73	73	72	68
16 years and over	141	137	119	112	115	117	116
21 years and over	897	949	975	1004	1036	1070	1100
Median age	31.9	33.6	35.0	37.1	39.2	41.3	42.9

Total Population of State by Sex: 1980, 1986, and 1990-2000
--------ARKANSAS--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------ARKANSAS--------

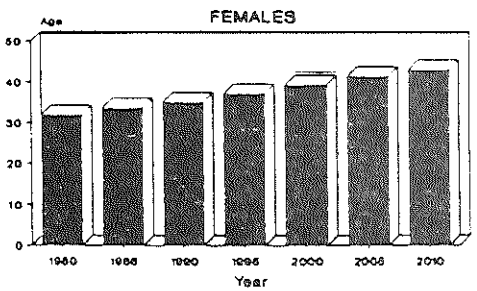
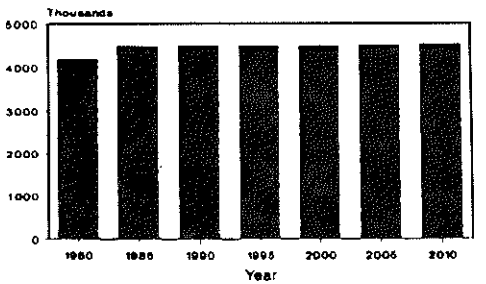


TABLE 15
Total Population of Louisiana by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
LOUISIANA							
Total	4206	4501	4513	4517	4516	4526	4545
Under 5 years	362	400	377	344	320	311	309
5-9 years	346	379	386	362	334	313	305
10-14 years	372	345	360	376	356	330	311
15-19 years	426	369	344	350	366	349	326
20-24 years	420	405	342	316	322	338	327
25-29 years	369	430	388	317	296	301	318
30-34 years	312	392	406	371	308	289	294
35-39 years	244	331	356	377	347	291	274
40-44 years	206	245	299	339	361	336	283
45-59 years	193	207	232	287	327	350	327
59-54 years	201	185	195	224	278	318	341
55-59 years	189	187	176	185	213	265	304
60-64 years	162	172	173	163	172	199	248
65-69 years	144	157	159	158	149	159	185
70-74 years	111	119	126	133	133	127	135
75-79 years	77	87	93	99	105	106	102
80-84 years	42	50	55	62	67	72	74
85 years and over	31	41	47	55	64	73	81
5-13 years	640	653	679	662	619	575	553
14-17 years	328	294	268	291	290	277	256
18-24 years	595	552	485	450	468	478	460
16 years and over	3043	3302	3323	3359	3434	3502	3557
21 years and over	2612	2931	2975	3020	3069	3151	3226
Median age	27.3	29.1	30.7	32.7	34.3	35.5	36.5

Total Population of State:
1980, 1986, and 1990-2010
--------LOUISIANA--------



Median Age of State:
1980, 1986, and 1990-2010
--------LOUISIANA--------

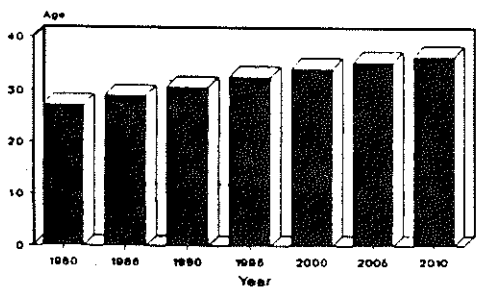


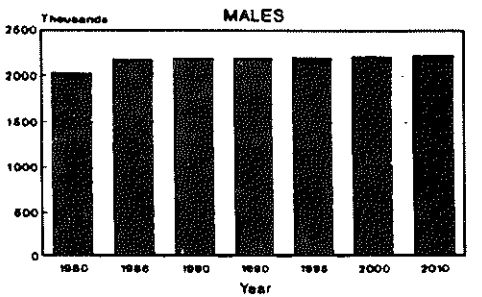
TABLE 16

Total Male Population of Louisiana by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
LOUISIANA							
Males							
All ages	2040	2187	2197	2204	2208	2217	2230
Under 5 years	184	203	192	175	163	159	158
5-9 years	176	193	197	185	171	160	156
10-14 years	189	176	183	191	181	169	159
15-19 years	214	186	175	177	186	178	166
20-24 years	210	203	170	159	162	170	165
25-29 years	183	214	195	159	150	152	161
30-34 years	154	194	204	187	155	147	149
35-39 years	119	162	175	188	174	146	139
40-44 years	100	119	146	167	180	168	142
45-59 years	92	99	112	139	160	173	163
59-54 years	95	88	92	107	134	155	168
55-59 years	88	88	83	87	101	127	148
60-64 years	74	79	80	76	80	94	118
65-69 years	63	70	71	71	68	72	85
70-74 years	46	50	54	57	58	55	59
75-79 years	29	33	36	39	42	44	42
80-84 years	15	17	19	22	24	27	28
85 years and over	9	12	13	16	18	21	24
5-13 years	325	332	346	338	316	294	282
14-17 years	167	150	136	148	148	142	131
18-24 years	297	275	242	227	236	241	233
16 years and over	1449	1576	1591	1614	1655	1694	1726
21 years and over	1234	1391	1414	1442	1471	1516	1558
Median age	26.2	28.1	29.7	31.5	32.9	34.2	35.1

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------LOUISIANA--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------LOUISIANA--------

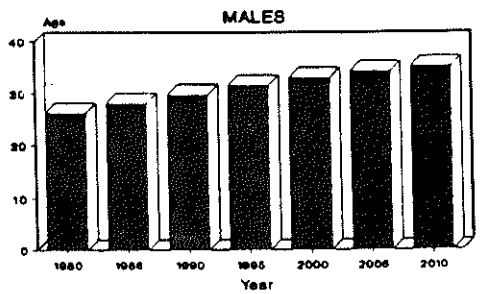


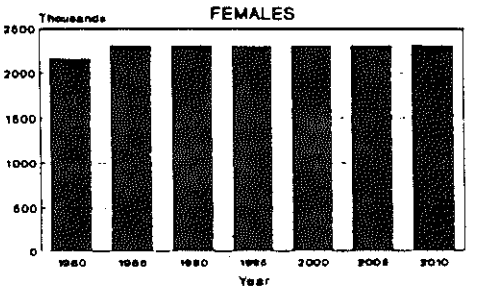
TABLE 17

Total Female Population of Louisiana by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
LOUISIANA							
Females							
All ages	2166	2315	2316	2313	2309	2309	2315
Under 5 years	178	197	185	169	157	152	151
5-9 years	170	186	189	177	164	153	149
10-14 years	183	169	177	184	174	162	152
15-19 years	212	184	169	173	180	171	160
20-24 years	210	203	172	157	160	168	162
25-29 years	186	215	194	158	146	149	157
30-34 years	158	197	202	184	152	141	145
35-39 years	125	169	181	189	173	145	135
40-44 years	106	126	153	173	181	168	141
45-59 years	101	108	120	147	167	176	164
59-54 years	105	97	103	117	144	163	173
55-59 years	101	99	93	98	112	138	157
60-64 years	88	93	93	87	92	105	130
65-69 years	80	87	88	87	81	86	99
70-74 years	65	69	73	76	75	71	76
75-79 years	48	54	56	59	63	63	60
80-84 years	27	33	36	40	42	45	46
85 years and over	21	29	33	39	46	52	57
5-13 years	315	320	333	325	303	282	270
14-17 years	162	144	131	143	142	136	125
18-24 years	299	277	242	223	233	237	228
16 years and over	1594	1726	1732	1745	1778	1808	1831
21 years and over	1378	1540	1560	1578	1598	1636	1669
Median age	28.4	30.1	31.8	33.8	35.7	37.0	38.1

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------LOUISIANA--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------LOUISIANA--------

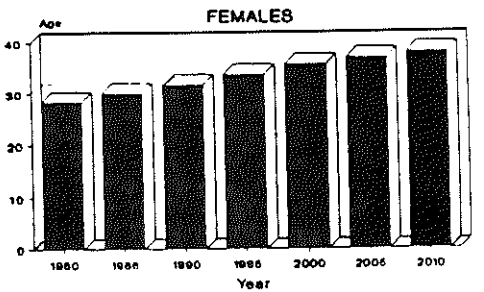


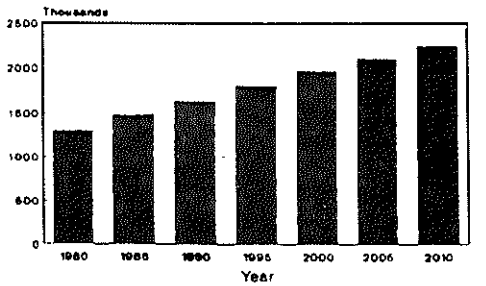
TABLE 18

Total Population of New Mexico by Age: 1980, 1986, and 1990–2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
NEW MEXICO							
Total							
All ages	1303	1479	1632	1809	1968	2112	2248
Under 5 years	115	135	146	150	151	157	167
5-9 years	110	124	145	157	159	159	164
10-14 years	114	112	128	154	164	166	165
15-19 years	132	120	116	129	154	162	163
20-24 years	125	129	121	118	129	150	156
25-29 years	115	130	142	132	128	137	157
30-34 years	101	128	145	155	143	139	147
35-39 years	78	117	133	152	159	147	142
40-44 years	67	84	114	138	157	162	149
45-49 years	62	70	85	117	142	161	164
50-54 years	60	64	70	88	120	144	162
55-59 years	58	62	64	70	88	120	143
60-64 years	49	59	61	62	69	86	117
65-69 years	43	50	57	59	60	67	83
70-74 years	32	39	43	50	52	53	59
75-79 years	21	28	32	36	42	44	45
80-84 years	11	16	19	22	26	30	32
85 years and over	9	12	15	19	23	28	34
5-13 years	200	213	250	282	291	291	296
14-17 years	103	96	92	111	127	133	132
18-24 years	178	176	168	166	188	213	220
16 years and over	939	1084	1190	1319	1460	1596	1719
21 years and over	806	965	1073	1195	1311	1436	1557
Median age	27.3	29.7	30.7	32.1	33.4	34.5	35.2

Total Population of State:
1980, 1986, and 1990-2010
--------NEW MEXICO--------



Median Age of State:
1980, 1986, and 1990-2010
--------NEW MEXICO--------

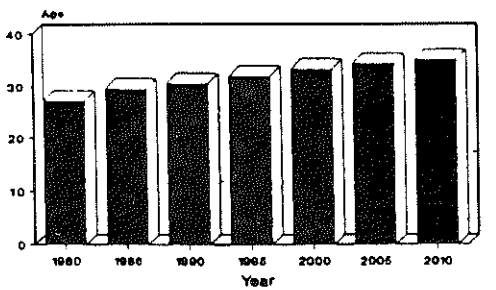


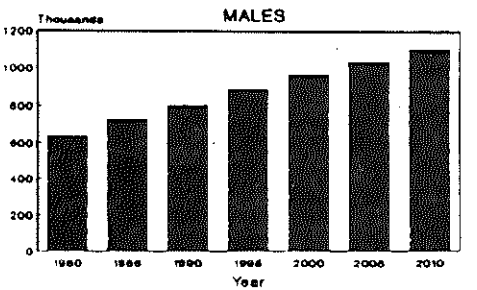
TABLE 19

Total Male Population of New Mexico by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
NEW MEXICO							
Males							
All ages	642	730	804	891	968	1038	1104
Under 5 years	59	69	74	76	77	80	85
5-9 years	56	63	74	80	81	80	83
10-14 years	58	57	65	78	83	84	83
15-19 years	67	61	58	65	77	81	81
20-24 years	63	64	60	58	63	73	76
25-29 years	58	65	71	65	63	68	77
30-34 years	51	65	73	78	71	69	73
35-39 years	38	58	67	77	80	74	71
40-44 years	33	41	56	69	80	82	75
45-49 years	30	35	42	58	71	81	83
50-54 years	29	31	34	42	58	71	81
55-59 years	28	30	30	33	42	57	69
60-64 years	23	29	29	30	33	41	56
65-69 years	20	23	27	28	28	31	39
70-74 years	14	18	20	23	24	25	28
75-79 years	9	12	13	15	18	19	20
80-84 years	4	6	7	9	10	12	13
85 years and over	3	4	5	6	8	9	11
5-13 years	102	109	127	143	147	147	150
14-17 years	52	49	47	56	64	67	66
18-24 years	89	88	83	82	92	104	108
16 years and over	457	529	580	643	711	777	837
21 years and over	390	468	521	581	637	698	757
Median age	26.6	29.0	30.0	31.6	32.8	33.9	34.5

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------NEW MEXICO--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------NEW MEXICO--------

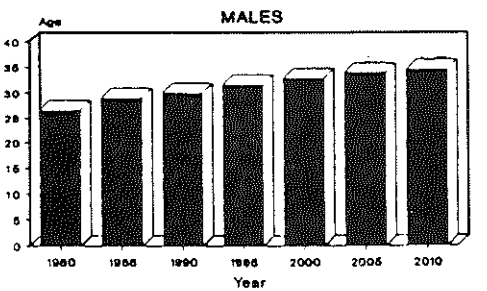


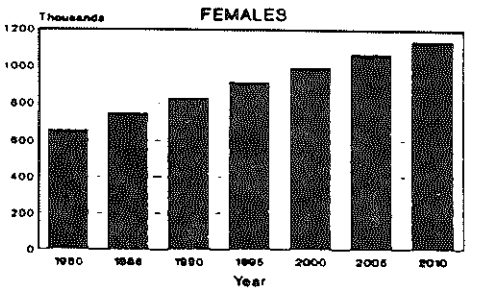
TABLE 20

Total Female Population of New Mexico by Age: 1980, 1986, and 1990–2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
NEW MEXICO							
Females							
All ages	661	749	828	918	1000	1074	1144
Under 5 years	56	66	72	74	75	78	82
5-9 years	54	61	72	78	79	79	81
10-14 years	56	55	63	76	81	82	82
15-19 years	65	59	57	64	77	81	81
20-24 years	63	64	61	60	66	76	80
25-29 years	58	64	71	66	65	70	79
30-34 years	51	64	71	77	72	70	74
35-39 years	40	59	66	75	79	73	71
40-44 years	34	43	58	69	77	80	74
45-49 years	32	36	44	60	71	79	81
50-54 years	31	33	36	45	62	73	81
55-59 years	31	32	33	37	46	63	74
60-64 years	25	31	31	33	36	45	61
65-69 years	23	26	30	31	32	35	44
70-74 years	17	21	23	27	28	29	32
75-79 years	12	16	18	20	24	24	25
80-84 years	7	10	11	14	15	18	19
85 years and over	6	8	10	13	16	19	23
5-13 years	98	104	123	139	144	144	147
14-17 years	51	47	45	55	63	66	65
18-24 years	89	88	85	84	95	108	112
16 years and over	482	555	610	676	749	819	882
21 years and over	416	496	552	615	674	739	801
Median age	28.0	30.4	31.3	32.7	34.1	35.1	35.9

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------NEW MEXICO--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------NEW MEXICO--------

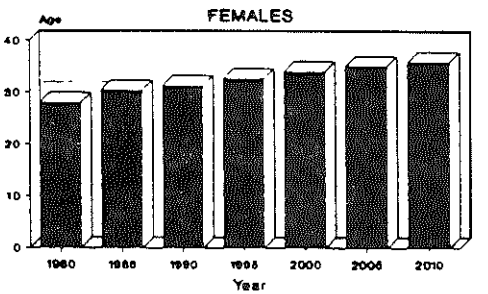


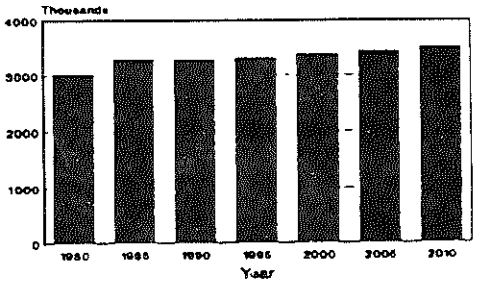
TABLE 21

Total Population of Oklahoma by Age: 1980, 1986, and 1990–2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
OKLAHOMA							
Total							
All ages	3025	3305	3285	3318	3376	3440	3511
Under 5 years	233	267	241	223	212	212	215
5-9 years	230	248	257	239	225	216	216
10-14 years	231	233	238	257	245	233	224
15-19 years	279	249	236	240	262	252	241
20-24 years	284	279	231	224	230	251	245
25-29 years	253	303	262	214	209	214	233
30-34 years	223	277	285	257	215	210	214
35-39 years	182	249	262	279	258	218	212
40-44 years	155	193	230	258	278	259	221
45-49 years	149	161	184	224	254	274	257
50-54 years	150	148	153	181	223	253	274
55-59 years	150	145	141	147	175	217	247
60-64 years	131	141	137	133	140	167	208
65-69 years	123	126	130	127	124	131	157
70-74 years	102	107	105	112	110	109	115
75-79 years	74	83	86	85	92	91	90
80-84 years	44	53	57	60	60	66	66
85 years and over	34	42	48	56	63	69	76
5-13 years	413	433	450	445	420	400	393
14-17 years	208	199	182	197	206	197	187
18-24 years	402	378	330	318	336	353	344
16 years and over	2280	2506	2501	2548	2643	2731	2810
21 years and over	1993	2257	2262	2312	2381	2476	2564
Median age	30.1	31.3	33.1	35.1	36.9	38.1	39.1

Total Population of State:
1980, 1986, and 1990-2010
--------OKLAHOMA--------



Median Age of State:
1980, 1986, and 1990-2010
--------OKLAHOMA--------

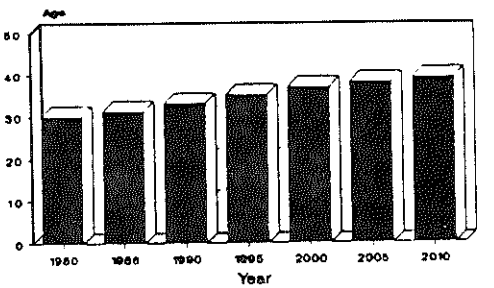


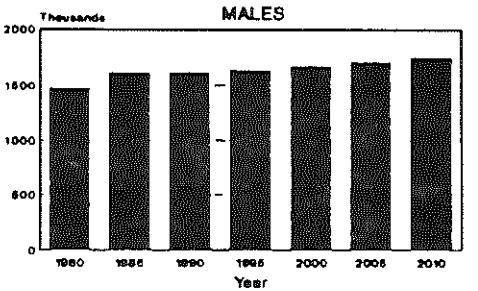
TABLE 22

Total Male Population of Oklahoma by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
OKLAHOMA							
Males							
All ages	1477	1617	1615	1640	1675	1713	1754
Under 5 years	120	137	124	114	109	109	111
5-9 years	118	128	133	123	116	111	111
10-14 years	119	120	124	134	127	121	117
15-19 years	144	129	123	126	137	132	127
20-24 years	145	143	120	117	120	131	128
25-29 years	127	153	134	111	109	112	122
30-34 years	111	139	143	131	111	108	111
35-39 years	90	123	132	142	132	113	110
40-44 years	76	95	113	129	141	132	114
45-49 years	72	78	90	110	126	138	131
50-54 years	72	72	75	88	109	126	138
55-59 years	71	70	68	71	85	106	123
60-64 years	61	66	65	63	67	81	101
65-69 years	54	57	59	59	58	62	75
70-74 years	43	45	46	49	49	49	53
75-79 years	29	33	34	34	38	38	38
80-84 years	16	19	20	21	22	24	25
85 years and over	10	12	14	16	18	20	22
5-13 years	212	223	233	231	218	207	204
14-17 years	108	103	95	103	107	103	98
18-24 years	206	193	172	166	176	185	181
16 years and over	1094	1206	1211	1241	1296	1346	1391
21 years and over	946	1077	1086	1117	1158	1212	1261
Median age	28.6	30.0	31.7	33.7	35.3	36.4	37.4

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------OKLAHOMA--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------OKLAHOMA--------

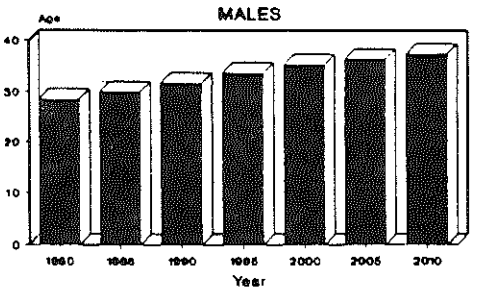
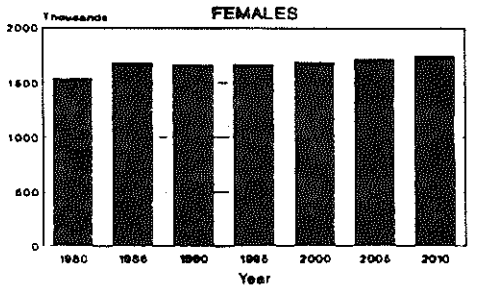


TABLE 23
Total Female Population of Oklahoma by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
OKLAHOMA							
Females							
All ages	1549	1688	1670	1678	1701	1727	1757
Under 5 years	114	130	117	108	103	103	105
5-9 years	112	121	124	116	109	104	104
10-14 years	112	113	115	123	117	111	107
15-19 years	135	120	113	115	124	120	114
20-24 years	139	137	111	107	110	119	116
25-29 years	126	149	128	103	100	103	112
30-34 years	112	138	141	126	104	101	104
35-39 years	93	126	130	138	126	106	102
40-44 years	79	98	117	129	137	127	107
45-49 years	76	82	94	115	127	136	127
50-54 years	78	76	79	93	114	127	136
55-59 years	79	76	73	76	90	111	124
60-64 years	70	75	72	70	73	86	107
65-69 years	69	69	71	68	66	69	83
70-74 years	59	62	60	63	61	60	63
75-79 years	45	51	52	50	54	53	52
80-84 years	28	34	37	39	38	42	41
85 years and over	24	30	34	40	46	49	54
5-13 years	201	210	217	214	202	193	189
14-17 years	100	96	88	94	98	94	89
18-24 years	196	184	158	152	160	168	163
16 years and over	1186	1300	1291	1307	1347	1385	1419
21 years and over	1047	1180	1176	1194	1223	1264	1303
Median age	31.6	32.6	34.5	36.5	38.4	39.8	40.7

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------OKLAHOMA--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------OKLAHOMA--------

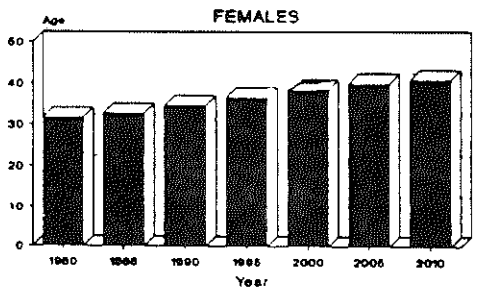


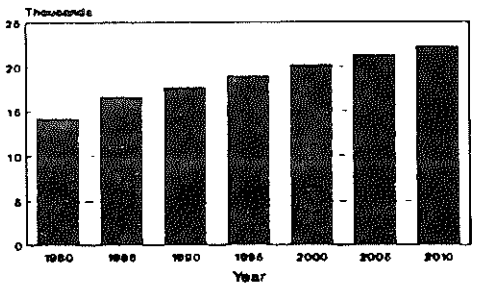
TABLE 24

Total Population of Texas by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
TEXAS							
Total							
All ages	14229	16685	17712	19012	20211	21295	22281
Under 5 years	1169	1495	1488	1485	1471	1497	1546
5-9 years	1170	1350	1483	1497	1489	1463	1480
10-14 years	1180	1271	1328	1512	1532	1515	1481
15-19 years	1352	1323	1331	1368	1547	1566	1543
20-24 years	1420	1428	1371	1401	1436	1600	1618
25-29 years	1302	1613	1547	1442	1448	1477	1627
30-34 years	1124	1533	1645	1605	1484	1473	1498
35-39 years	880	1304	1476	1653	1618	1482	1457
40-44 years	723	973	1235	1489	1668	1630	1485
45-49 years	681	785	951	1245	1497	1674	1635
50-54 years	680	707	761	952	1246	1493	1668
55-59 years	643	687	686	746	935	1222	1460
60-64 years	532	634	651	657	716	896	1171
65-69 years	476	523	590	618	625	683	854
70-74 years	371	415	440	517	544	551	604
75-79 years	261	311	338	363	430	454	461
80-84 years	151	190	213	242	263	315	334
85 years and over	112	145	177	219	263	304	360
5-13 years	2113	2357	2559	2711	2716	2670	2663
14-17 years	1024	1078	1018	1131	1228	1244	1209
18-24 years	1986	1937	1936	1936	2060	2231	2250
16 years and over	10454	12287	13156	14228	15408	16507	17473
21 years and over	9069	10982	11792	12877	13865	14927	15905
Median age	28.0	29.6	30.9	32.6	34.0	35.2	36.2

Total Population of State:
1980, 1986, and 1990-2010
--------TEXAS--------



Median Age of State:
1980, 1986, and 1990-2010
--------TEXAS--------

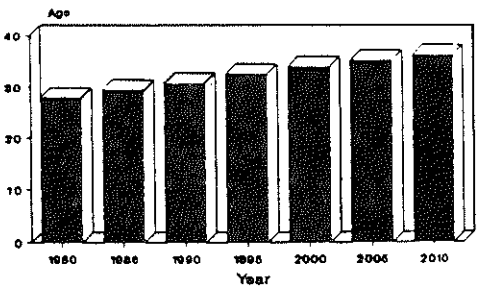
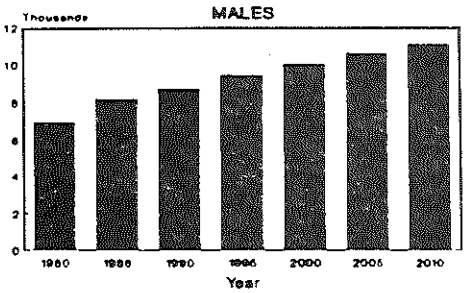


TABLE 25
Total Male Population of Texas by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
TEXAS							
Males							
All ages	6999	8230	8779	9465	10092	10657	11170
Under 5 years	597	764	762	762	755	768	793
5-9 years	597	689	760	769	765	752	761
10-14 years	602	651	678	774	786	778	760
15-19 years	691	677	681	697	789	801	789
20-24 years	721	724	699	712	726	810	821
25-29 years	657	819	795	745	747	759	836
30-34 years	562	771	840	831	772	766	777
35-39 years	438	651	745	847	838	772	759
40-44 years	356	479	616	752	854	843	771
45-49 years	334	386	469	621	755	855	843
50-54 years	328	343	372	467	620	751	849
55-59 years	306	330	329	361	454	602	728
60-64 years	249	298	309	312	343	432	573
65-69 years	213	240	271	287	291	321	405
70-74 years	158	178	193	229	243	348	275
75-79 years	102	122	135	149	178	191	195
80-84 years	52	66	76	88	99	119	129
85 years and over	34	42	50	63	75	89	107
5-13 years	1078	1205	1309	1390	1395	1372	1368
14-17 years	523	552	521	577	629	638	620
18-24 years	1010	984	987	984	1043	1131	1143
16 years and over	5072	5981	6448	7012	7627	8199	8701
21 years and over	4364	5314	5751	6325	6842	7392	7900
Median age	27.1	28.8	30.1	31.7	33.1	34.4	35.3

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------TEXAS--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------TEXAS--------

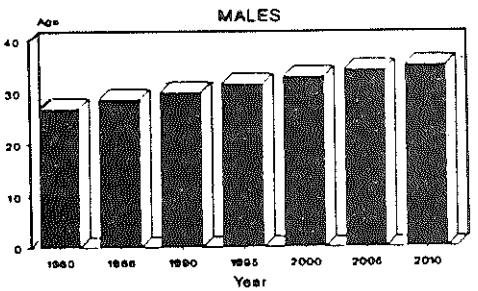
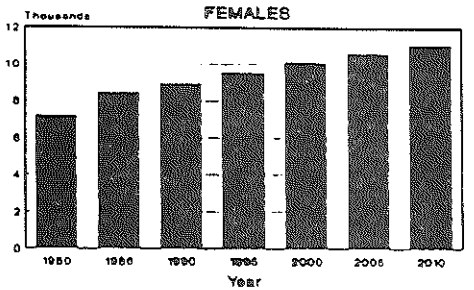


TABLE 26
Total Female Population of Texas by Age: 1980, 1986, and 1990--2010

[Numbers in thousands. As of July 1, except as noted]

Age and sex	Census April 1, 1980	Estimate, 1986	Projections 1990	1995	2000	2005	2010
TEXAS							
Females							
All ages	7230	8455	8933	9547	10119	10638	11111
Under 5 years	572	731	726	723	716	729	752
5-9 years	573	661	723	728	723	711	719
10-14 years	578	620	650	738	746	737	721
15-19 years	661	647	650	671	758	766	754
20-24 years	699	703	672	689	710	789	797
25-29 years	645	794	752	697	701	718	790
30-34 years	562	761	805	774	712	707	722
35-39 years	442	653	731	806	779	711	699
40-44 years	367	494	619	737	814	787	713
45-49 years	348	399	483	624	742	819	791
50-54 years	352	364	389	485	627	742	819
55-59 years	337	357	357	386	480	620	732
60-64 years	282	335	342	345	373	464	599
65-69 years	263	283	318	332	334	362	450
70-74 years	213	237	247	288	301	303	329
75-79 years	160	189	203	214	251	263	266
80-84 years	98	124	137	154	165	195	205
85 years and over	78	104	127	157	187	215	253
5-13 years	1035	1152	1250	1320	1321	1298	1295
14-17 years	501	526	497	554	599	606	589
18-24 years	975	953	949	952	1017	1099	1107
16 years and over	5382	6305	6708	7215	7781	8309	8772
21 years and over	4706	5668	6041	6552	7023	7534	8004
Median age	29.1	30.4	31.8	33.5	34.9	36.1	37.2

Total Population of State by Sex: 1980, 1986, and 1990-2010
--------TEXAS--------



Median Age of State by Sex: 1980, 1986, and 1990-2010
--------TEXAS--------