Executive Summary

The purpose of this assessment is to profile the social and economic environment surrounding the Tonto National Forest. The collection and analysis of quantitative and qualitative socioeconomic data in this report will serve as a baseline by which the Tonto National Forest and the wider public can assess management alternatives developed through the process of forest plan revision. It will do so by 1) facilitating a better understanding of the relationship between public lands and surrounding communities, 2) aiding in the identification of specific forest plan elements capable of responding to socioeconomic trends, and 3) assembling a wide array of information needed to evaluate trade-offs between various forest management alternatives.

Multi-county areas of assessment provide the framework for compiling social and economic data for this report. The boundaries of the Tonto National Forest extend into four counties in northern and central Arizona. The methods of inquiry for this assessment were described in an initial work plan that was reviewed and approved by the Southwest Regional Office of the USDA Forest Service and by Forest Planners from each of the six National Forests in Arizona. The plan identifies socioeconomic indicators, the geographic and temporal scale of analysis, and potential sources of information for each assessment topic. This Executive Summary highlights collected information pertaining to each of these seven topics.

Demographic Patterns and Trends

Total population

Data from the 1980 and 2000 censuses show that total population growth was greatest in Maricopa County over the twenty-year period. The population of Yavapai County, however, grew at a faster rate over the same period. Total population growth within the entire four-county area of assessment was greater than that for the state of Arizona as a whole over the same period (104% versus 89% respectively). Population growth was considerably less in Gila County. Among individual cities, Chandler, Payson, Apache Junction, Prescott Valley, and Camp Verde experienced the greatest increases in total population between 1980 and 2000.

Population age

The four counties within the area of assessment demonstrated divergent trends with respect to the population of individuals age 65 and over and those under age 18. Amid strong overall population growth in Yavapai and Maricopa Counties, the population of individuals 18 and under grew much more than the 65-and-over population between 1990 and 2000. The opposite was true in Gila and Pinal Counties, with the latter reporting the greatest disparity between the growth of the 65-and-over and under-18 populations. The cities of Chandler, Prescott Valley, Apache Junction, Casa Grande, and Florence experienced increases in 65-and-over populations that were the largest among all of the selected cities within the area of assessment.

Racial / ethnic composition

The decade between 1990 and 2000 saw a significant increase in individuals of multiple-race and Hispanic origin in three of the four counties within the area of assessment, mirroring statewide trends for Arizona. The lone exception to this trend was Gila County, which reported increases in both categories that were lower than overall county population growth for the same period. Despite substantial increases in individuals of multiple-race and Hispanic ethnicity, whites remain the predominant racial group in each county within the area of assessment.

Housing

Increases in total housing and housing density were greatest in Pinal and Yavapai Counties between 1990 and 2000, mirroring growth in the county populations as a whole. Both of these counties also reported a significant increase in the number of houses for seasonal use. Overall, the area of assessment reported increases in housing density and median home value that exceeded statewide increases for Arizona over the same period.

Economic Characteristics and Vitality

Employment

Economic growth for the area of assessment was relatively strong between 1990 and 2000. Gains in total full- and part-time employment for the area of assessment as a whole exceeded that for the state of Arizona over the same period. Employment growth was particularly strong in the construction, services, and finance, insurance, and real estate (F.I.R.E.) industries. Within the assessment area, Pinal County reported the lowest increase in total employment between 1990 and 2000.

Occupational structure

Data show that each of the four counties within the area of assessment maintains occupational structures very similar to that of the state as a whole. Management, professional, and related occupations joined sales and office occupations as the two most common occupational areas within each county. At both the state and county level, construction, extraction and, maintenance and production, transportation, and material moving were also among the five most dominant occupations as of 2004.

Income

As of 2000, three of the four counties within the area of assessment maintained levels of per capita and median family income that were lower than state averages. The lone exception was Maricopa County which exceeded the state average in both categories. Pinal County saw the greatest increases in per capita and median family income between 1990 and 2000. Pinal County also experienced a significant decline in individual and family poverty over the same period. Nonetheless, as of 2000, both Pinal and Gila Counties maintained rates of poverty that were greater than average for the state of Arizona as a whole. Conversely, Yavapai and Maricopa Counties reported rates of poverty that were below the state average as of 2000.

Natural resource dependent economic activity

The area of assessment experienced a relatively strong increase in income from wood products and processing between 1990 and 2000, outstripping gains at the state level over the same period. Meanwhile, losses in income from special forest products and processing were also greater than those for the state of Arizona as a whole. Within the area of assessment, Yavapai and Maricopa Counties reported the greatest increases in tourism employment between 1990 and 2000.

Access and Travel Patterns

Existing federal and state highway conditions

County and state transportation plans reviewed for this assessment acknowledge that current circulation networks have been developed to fit arising needs but are inadequate for accommodating projected long-term growth. As such, these plans emphasize the need for improved planning through regional approaches linking transportation and land use. According to the Arizona Department of Transportation, projected demographic changes throughout the state will require "major expansions of roadway capacity and the development of transportation options and alternatives to provide acceptable levels of service on Arizona's roadways and maintain circulation" (ADOT 2004b).

Modes of travel and seasonal flows

Travel by motorized vehicle is by far the most dominant mode of travel throughout the state of Arizona, a trend that is likely to continue given patterns of development in rural areas as well as the expense of developing infrastructure for alternative modes of transportation. Increase in vehicle miles traveled (VMT) was greatest in Maricopa County between 1990 and 2000—an expected result of continued urban population growth. However, the *rate* of increase in VMT was greater for Yavapai and Pinal Counties over the same period. Peak traffic flow for most of the area of assessment occurs between the months of February and April, though areas around the Mogollon Rim also experience significant summer traffic. With respect to internal modes of travel, the greatest increases were reported for off-highway vehicles (OHVs).

Planned improvements

The Arizona Department of Transportation currently has plans for a number of road improvements in proximity to the Tonto National Forest over the next five years, many of which entail road widening and resurfacing and stabilization. Similarly, county governments throughout the area of assessment envision improvements to arterial road networks to accommodate expected population growth. There are currently no plans to expand the existing network of internal roads in the Tonto National Forest.

Barriers to access

On external road networks, the greatest barrier to access is likely congestion and poor road maintenance resulting from constrained county transportation budgets. Internally, there are few, if any, significant barriers to access in the Tonto National Forest. Information obtained from forest personnel suggests that wilderness areas and impassable terrain are the most common reasons for limited access to forest lands.

Land Use

Land ownership

As a whole, land ownership within the area of assessment differs from overall ownership patterns for the state of Arizona in that it involves relatively large amounts of private acreage and State Trust land, both of which are likely to have a considerable impact on future development patterns throughout the region. Maricopa, Pinal, and Yavapai Counties reported the greatest amounts of private land. Pinal County also reported the greatest percentage of State Trust land (35%) as of 2005. By contrast, Gila County reported the greatest percentages of land owned by Native American tribes and the Forest Service and had the least amount of private and State Trust land.

Land coverage and land use

Shrub, brush, and mixed range constituted the predominant land cover in three of the four counties in the area of assessment. The lone exception was Gila County, which reported a considerable portion of evergreen forest land. Within the area of assessment, Maricopa County reported the highest percentage of residential, commercial, services, and industrial land cover.

Long range land use plans and local policy environment

County land use within the area of assessment ranges from traditional uses such as farming and ranching in rural areas to denser concentrations of residential, industrial, and commercial uses in and around urban centers. Preservation of open space is a particularly important land use issue given both the public's desire to maintain the "rural character" of county lands and the need to accommodate rapidly growing populations and municipalities. The provision of adequate, affordable infrastructure and sufficient water supplies is also a growing concern for planners, residents, and land managers throughout the region.

Forest Users and Uses

Extractive uses

Historically, extractive uses have played a major role in public land management throughout the area of assessment. National studies show, however, that land uses such as livestock grazing, timber cutting, and mining are being slowly succeeded in policy and management by an emphasis on non-extractive uses. Although the number of grazing permits has remained constant on the TNF, recent studies have shown an overall decrease in permits for sawtimber, fuelwood and mining on the forest since 1990.

Non-extractive uses

Although recreational use has increased steadily since the establishment of the National Forest Service, the increase in recreation over the past few decades has been particularly dramatic. According to National Visitor Use Monitoring data, the Tonto National Forest received around 5.7 million visits during fiscal year 2002—a majority of which were male, white, and between the ages of 31 and 70. A significant increase in the use of off-highway vehicles (OHVs) has been identified by the Forest Service as a major component of unmanaged recreational use.

Special uses

A number of special user groups were identified for the Tonto National Forest including Native American tribes, OHV users, wildlife users, and wilderness users. The management and accommodation of these and other special user groups has had increasing administrative and political implications in recent years.

Designated Areas and Special Places

Natural, recreational and interpretive resources

The Tonto National Forest encompasses considerable natural, recreational, cultural, and interpretive resources including over 400 dispersed sites, campgrounds, picnic areas, information sites and wilderness areas.

Issues surrounding identification of cultural resources

Due to the cultural, emotional, and spiritual bonds formed between individuals and specific environments, the identification and management of special places can be rather contentious. Making these tasks more difficult is the fact that the relationships people form with special places often cut across traditional boundaries dividing liberal and conservative political ideologies, extractive and environmentalist interests, and urban and rural user groups. Ultimately, the incorporation of "special places" into revised Forest Plans is best supported by a commitment to primary research and participatory decision making.

Community Relationships

Community involvement with natural resources

The communities surrounding the Tonto National Forest have long been dependent upon natural resources for commodity production, tourism, and aesthetic enjoyment. A review of state and local newspapers reveals a continued local interest in the use and management of these resources and particularly intense concern surrounding water sources, recreational activities, and range management.

Communities of interest and historically underserved communities

The management activities of the Tonto National Forest must take into account the interests of a growing number of community groups and forest partners. Organizations and individuals influencing forest planning and management represent government agencies, Native American tribes, special advocacy groups, business interests, educational institutions, and the media. Meanwhile, the Forest Service is making a concerted effort to address the needs and desires of historically underserved communities, a fact that is increasingly important to the Tonto National Forest given the rates of demographic change in the region.

Community-forest interaction

In recent years the Forest Service has placed increasing priority on the social relationships between national forests and surrounding communities. As awareness and commitment to these processes grows, so does the need for forest managers and planners to understand the dynamic linkages between the forest and surrounding communities. Although the concept of community relations is a relatively new component of forest planning, frameworks exist to help planners develop a comprehensive strategy for monitoring and enhancing these relationships.

Key Resource Management Topics

In addition to the initial seven topics of socioeconomic assessment, Forest Planners identified several issues of growing importance to the management of natural resources within Arizona's national forests. Although these issues are identified throughout previous chapters, this section provides greater detail on the status of policy debates as well as potential implications for forest planning and management.

Findings suggest that susceptibility to catastrophic wildfire and invasive species, the environmental and economic sustainability of livestock grazing on public lands, and the effects of human land use on existing open space will likely continue to have a strong impact on future management activities of the Tonto National Forest.

Given rates of population growth and urban expansion in central Arizona, the Tonto National Forest stands to be affected by ongoing debates regarding the management of public land and regional water

supplies. Reforms proposed by lawmakers and the Arizona State Land Department are likely to have a significant impact on the forest given the abundance of State Trust land within the area of assessment. Likewise, the role of managing regional watersheds places the Tonto National Forest at the center of contentious debates over water provision, particularly in light of the recent regional drought.

Finally, specific issues under the heading of forest access and travel will undoubtedly affect the future management activities of the Tonto National Forest. Recent reinterpretation of the "Roadless Rule" has been a particularly controversial issue involving extractive business interests, environmental advocacy groups, and the general public at the local and state level. Additionally, the effort on the part of the Forest Service to respond to a dramatic increase in OHV travel promises to raise concerns from various user groups and affect natural resource management in the Tonto National Forest over the coming years.

1. Introduction

1.1 Statement of purpose

The purpose of this assessment is to characterize the social and economic environment of the Tonto National Forest (TNF) by showing the relationship and linkages between National Forest System land and communities. The information contained in the assessment is intended to help the Forest Service and the public to do the following:

- Better understand the relationship between public lands and communities,
- Aid in identifying specific elements of the current forest plans that may need to be changed, and
- Assemble information needed to evaluate trade-offs between options for future forest management.

Finally, this assessment is intended to be broadly useful as a basis for informed consideration of future alternatives within and beyond the planning process. It does so by clarifying relationships between various socioeconomic characteristics of local communities and natural resource management activities of the Tonto National Forest.

1.2 Assessment methodology and topics

This assessment of the social and economic environment surrounding the TNF is based entirely on the analysis of secondary research. Secondary research is commonly understood as data which have already been collected and published for different purposes but which may prove useful to any number of other inquiries or applications. Examples of secondary data include demographic and economic information obtained from the United States Census Bureau or through a review of FS documents.

Specific lines of inquiry were identified in the initial Project Work Plan agreed to by the University of Arizona and Region 3 of the USDA Forest Service (USFS) in Albuquerque, New Mexico. This document prescribes the methods of assessment of socioeconomic trends for each of Arizona's six national forests. In addition to individual information elements for each assessment topic, this document identifies the preferred geographic and temporal scales of analysis as well as potential sources of information.

In accordance with the work plan, and following the example of similar socio-economic assessments, this study uses counties as the primary unit of analysis for social and economic data. For each of the national forests in Arizona, the area of assessment consists of all counties adjacent to particular forest boundaries. For the TNF, this includes Gila, Maricopa, Pinal, and Yavapai Counties in central Arizona. Where appropriate, social and economic trends for the area of assessment are compared to those for the state of Arizona as a whole. It should be noted, however, that statewide trends for Arizona are significantly influenced by Maricopa County, which was home to nearly sixty percent of the entire state population as of 2000.

In addition to analyzing information at the county and regional levels, this assessment includes data on individual communities of interest to Tonto NF. The work plan defines communities of interest as those that are proximate to forest boundaries, those which share a stake in the management of the forest, and those communities of access and egress. During the collection of demographic and economic data, the decision was made to collect information on selected Census Designated Places (CDPs) as well as the more commonly used Minor Civil Divisions (MCDs). Inclusion of CDPs provides data for settled population concentrations that are identifiable by name but are not legally incorporated under the laws of the state in which they are located (U.S. Census Bureau 2005).

This report provides a profile of socioeconomic conditions and trends deemed most relevant to natural resource policies in general and the management of Arizona's national forests in particular. Secondary demographic, economic, and social data have been drawn from readily available sources including the U.S. Census Bureau, the U.S. Forest Service Natural Resource Information System (NRIS), the Arizona Department of Transportation (ADOT), county comprehensive plans, and the Minnesota IMPLAN Group (MIG). The information contained in this report is well suited to serve as a comparative baseline for each of the counties, presenting descriptive data to assist the TNF and local communities in analyzing and monitoring trends most likely to influence the management of forest resources throughout the region.

Specific variables used to profile existing socioeconomic conditions and trends within the geographic area of assessment are based on both explicit and implicit assumptions about relationships between various forest management alternatives and affected communities. The individual topics of assessment and the specific variables have been identified in conjunction with regional and local FS administrators and are similar to measures used in other social assessment studies (Adams-Russell 2004; Leefers, Potter-Witter, and McDonough 2003). The profiles generated through the collection of secondary data will serve as valuable tools for estimating the potential impact of policy changes, resource management activities, and development trends for each of the assessment topics.

1.3 Report organization

The organization of this assessment is based on the collection and analysis of data pertinent to each of seven individual assessment topics. Following this introductory chapter, collected data on selected socioeconomic indicators are provided for each topic. Additionally, each topic is discussed in its historical context as well as its potential implications for forest planning and management. Chapters 2 and 3 provide information on demographic trends and economic characteristics of counties and selected cities within the area of assessment. Chapter 4 discusses the access and travel patterns within the area of assessment, and Chapter 5 examines land use patterns and policies. Chapter 6 uses available secondary data to discuss trends for current forest users and uses. Chapter 7 identifies designated areas and known special places within the Tonto NF and discusses their importance to forest management. Chapter 8 assesses relationships between the TNF and various communities at the local and regional levels. Chapter 9 offers a brief analysis of key management topics identified by forest planners at the inception of this assessment. The final chapter summarizes major trends within each topical area and discusses their combined relevance to Forest Plan revision. A list of works cited is included in this assessment and a separate, fully annotated bibliography will be presented to individual forests alongside the assessments.

2. Demographic Patterns and Trends

This section discusses historic and current conditions affecting local populations and illustrates demographic trends for each of the four counties within the area of assessment for Tonto National Forest (TNF). Data on selected cities within the area of assessment are also included in order to illustrate important factors contributing to demographic change for specific populations. Indicators used to assess demographic patterns and trends include total population, racial/ethnic origin, urban versus rural populations, age structure, educational attainment, and housing density.

A review of secondary social data for area of assessment shows that Maricopa County remains the primary population center for the region and the state despite the fact that both Pinal and Yavapai Counties have experienced higher rates of population increase in the last twenty years. Data show a clear disparity between cities within the Phoenix Metro Area and those outside of Maricopa County in the area of assessment for the TNF. As a case in point, Tempe, the smallest of the selected cities for Maricopa County, reported a population of 158,625 in 2000. Outside of Maricopa County, the largest of the selected cities was Prescott with a population of 33,938. With the exception of Maricopa County, the last twenty years have also seen significant shifts from largely rural county populations to current populations that that are predominantly urban. While much of Yavapai County's growth was supported by increases in the under-18 population, growth in Pinal County was driven in large part by similar increases in the number of individuals 65 and over. Despite significant gains in Phoenix-area cities such as Chandler and Scottsdale, increases in total housing units in both Pinal and Yavapai County exceeded that of Maricopa County between 1990 and 2000. With the exception of Gila County, each of the counties within the area of assessment became more racially and ethnically diverse between 1990 and 2000, largely as the result of substantial increases in multiple race and Hispanic populations.

2.1 Historical context and social characteristics

Human interaction with the lands including and surrounding the Mogollon Rim has been continuous for at least 5,000-6,000 years. The first communities in the region were highly mobile hunting and gathering camps that had only a light effect on the landscape. During the period of time between C.E. 100 and C.E. 900, the resident populace established a more sedentary lifestyle. This transition was typified along the Arizona highlands by cultures such as the Anasazi and the Hohokam. There was an increased use of ceramics, development of more complicated architecture, and the beginnings of horticulture and domesticated livestock. This more sedentary lifestyle led to an associated rise in human population. By the periods encompassing C.E. 900-1200, more long-term human effects were noticeable on the environment, including a depletion of wild game, the institution of standing agricultural fields, and the resultant diversion of water sources (USFS 1999a).

The entrada of Francisco Vasquez de Coronado in 1540 marked the first significant Spanish interest in the Arizona highlands. On a route that led from western Mexico to central Kansas, Coronado's explorations were primarily motivated by a search for silver and gold. He failed to find it in Arizona, and Spanish interest in the area was largely quelled until the discovery of mineral wealth at the turn of the 17th century (Sheridan 1995). Athapaskan (Apache and Navajo) groups played a major role during this time. In fact, the mountainous regions of Arizona were often referred to as the Apacheria. Apaches formed loosely confederated groups based on matrilineal kinship and thrived on a combination of agriculture, hunting, trade, and raiding. Both Navajos and Apaches absorbed skills and traits from neighboring groups, including the Pueblo peoples and the Spaniards. Through most of Spanish and Anglo colonization, Apache raiders were seen as a major threat to settlers. Nonetheless, by the 1700s, Spanish explorers and missionaries routinely made the trip between Tucson and Santa Fe. The area became, by the 1800s, a driving route for livestock, specifically sheep, primarily by Mormon settlers. Due to limited water sources, overgrazing occurred primarily near standing aquifers. However, with the spread of standing agriculture, the pressures of grazing began to spread across the range (USFS 1999a).

The TNF was established in 1905 as part of the General Land Law Revision Act which put aside the land for forest reserves and national forests. Some of its present land was, at the time, also dispersed among the Pinal Mountains, Verde, and Crook Forest Reserves. The primary reason for its inception as preserved land was to protect its valuable watersheds. By 1930, Tonto was one of fourteen forests in the region. After a period of slowing land transfers surrounding World War II, the Tonto National Monument was established from lands previously in TNF, and, in 1953, the Crook National Forest was dissolved, lending a portion of its land to Tonto. By the mid-1980s, Tonto was one of twelve forests in the region (Baker et al. 1988).

Today, the Tonto NF, at 2,969,602 acres, is by far the largest forest in Arizona and is the fifth largest in the country. It ranges in altitude from 1,000-8,000 feet and contains eight separate wilderness areas, which, due to the harsh weather conditions and steep, rugged terrain, allow for limited access during most of the year. It is bordered by the Coconino and Apache-Sitgreaves forests to its north and the Fort Apache and White Mountain Indian Reservations on its east. Due to its size and variety, it serves numerous vital purposes to the state. It provides a good deal of grazing land and remains a primary source of water, being second in the region in water production, due in part to the Roosevelt Dam on the Salt River, which for many years was the largest dam in the world. Its mountains are also the home of numerous communications links. Encompassing both rough, saguaro-studded desert and juniper and pine-topped mountains in the shadow of the Mogollon rim, TNF provides a variety of landscapes that, in turn, allow for a myriad of outdoor opportunities. This is part of what makes it one of the most widely visited of Arizona's national forests.

The demographic history of the area surrounding the TNF, and the region as a whole, represents one of sustained and rapid growth. In the period since 1930, the Mountain West has doubled its share of the U.S. population, from 3% to 6.5%. This growth increased dramatically in the 1950s and then reduced again in the 1960s. The pattern was repeated for the next forty years, with alternating decades of intense growth followed by decades of slower growth (Otterstrom and Shumway 2003). Yavapai County has, in general, grown steadily over the past ninety years with the exception of fluctuations during the 1940s and 1950s. Over the past century, the counties surrounding the TNF have grown from a total of 47,000 residents to over 3.4 million (U.S. Census Bureau 2005, Forstall 1995). Arizona has grown from 120,000 residents to well over 5 million—along with Washington, one of only two states to show such a startling demographic expansion (U.S. Census Bureau 2005). The average age in the state of Arizona has been steadily increasing: 31% of the population was under 15 in 1950, but only 22.4% is in the under-15 bracket today. Some of these shifts can be attributed to the region's amenable climate, relatively affordable property values, and the continued importance of area military bases. Long-term population increases are also supported by seasonal visitors wishing to permanently relocate to environs with increased outdoor opportunities (McHugh and Mings 1996).

The past fifty or sixty years have seen only moderate racial diversification the state. While the Hispanic population of Arizona has increased from 20.4% to 25.2% of the total population since 1940, African Americans, despite an especially rapid influx in the two decades following WWII and an average population growth rate of 49% per decade, remained static at 3.1% of the population in 2000, only 0.1% above their relative numbers in 1940. The Native American population as a percentage of the total in Arizona, by contrast, has declined significantly over the past five or six decades, falling from 11% in 1940 to 5% in 2000. (U.S. Census Bureau 2005). [1]

[1] The specific numbers for these historical comparisons are found at http://www.census.gov/population/documentation/twps0056/ in the U.S. Census Bureau website (Table 17) and are juxtaposed against the Census 2000 findings.

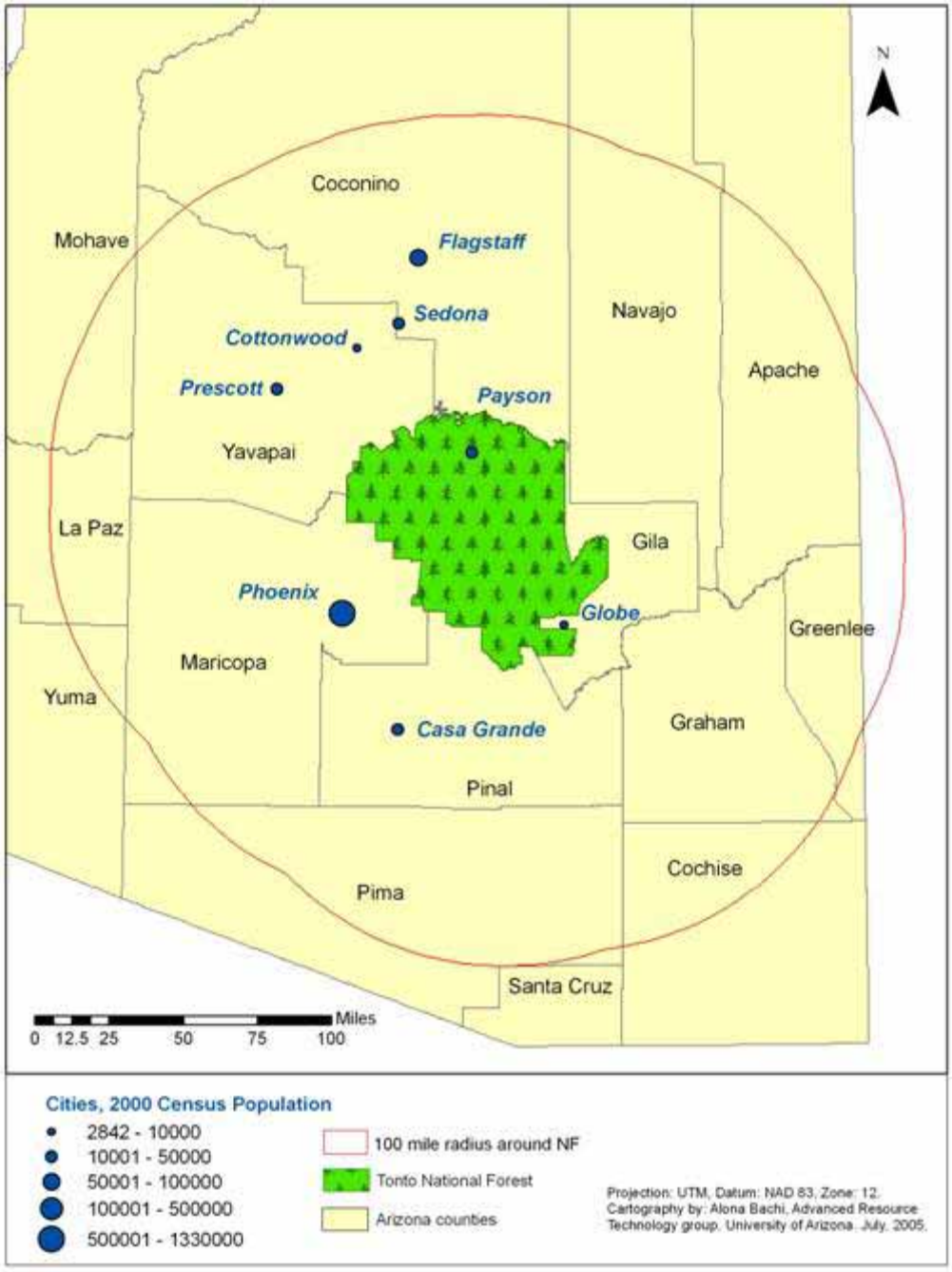


Figure 1. Map of Forest Boundaries and Counties in Area of Assessment

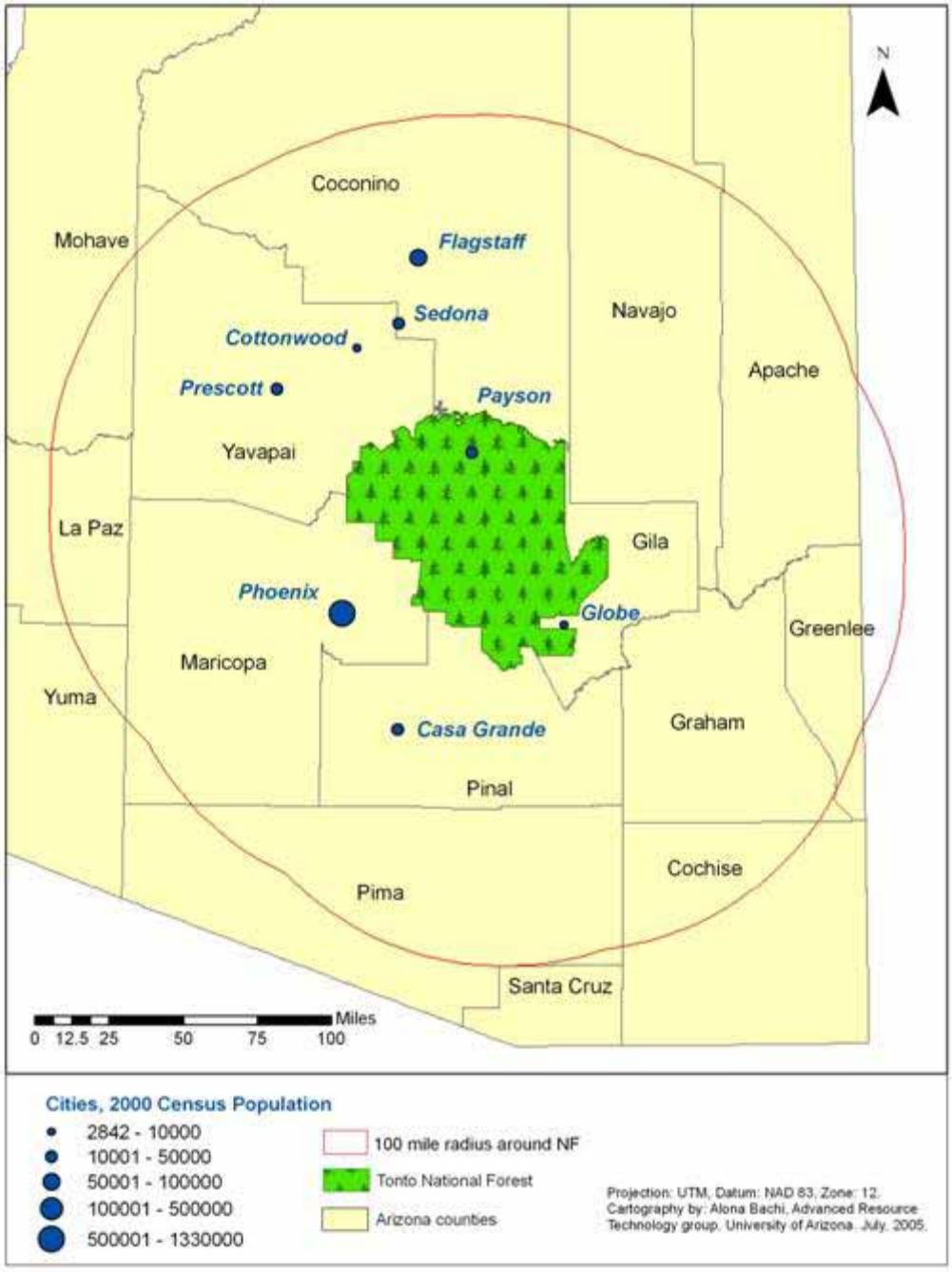


Figure 2. Proximity of Population – Municipalities within 100-Mile Radius

2.2 Population, age structure, net migration, and tourism

Total land area, U.S. Forest Service acreage, total population and population density for each of the four counties is presented in Table 1. Data clearly demonstrate that Maricopa County is the dominant population center not only for the region, but for the state as a whole. With over 3 million residents, Maricopa County is home to nearly 60% of the total population of Arizona.

Maricopa County is also the largest in total land area within the area of assessment with 9,224 square miles. In contrast, Gila County is the smallest both in terms of land area (4,796 sq. mi.) as well as total population (51,335). Population density in Maricopa County is several times greater than any other county in the state (333 per sq. mi.) primarily due to the Phoenix metropolitan area. Each of the selected cities within Maricopa County supported a population several times greater than those within other counties in the area of assessment. In Maricopa County, city populations range from a high of 1,321,045 in Phoenix to 158,625 in Tempe as of 2000. The smallest town in the area of assessment is Hayden with a 2000 population of 892. In terms of Forest Service acreage, Yavapai County holds the largest area with nearly 2 million acres while Pinal County holds the smallest with just over 220,000 acres.

County and state population changes between 1980 and 2000 are presented in Table 2. Data show that with the exception of Gila County, population growth within the region has exceeded that for the state as a whole. In spite of Maricopa County's status as the primary population center for the region, Pinal and Yavapai Counties both experienced higher rates of population growth between 1990 and 2000 (54.43% and 55.52% respectively). Chandler, Mesa, Prescott Valley, and Camp Verde were among a number of cities in the region that experienced dramatic population growth between 1980 and 1990. Population increase slowed considerably for most cities between 1990 and 2000 although Prescott Valley and Chandler have sustained particularly high rates of growth over the ten-year period (165.69% and 95.07% respectively). Despite the considerable growth of Payson and an increase in county-wide population growth rates between 1990 and 2000, Gila County continued to grow at a slower pace than the state of Arizona.

Table 1. Total Area, Total Population, Population Density, and Forest Service Acreage by County and Place

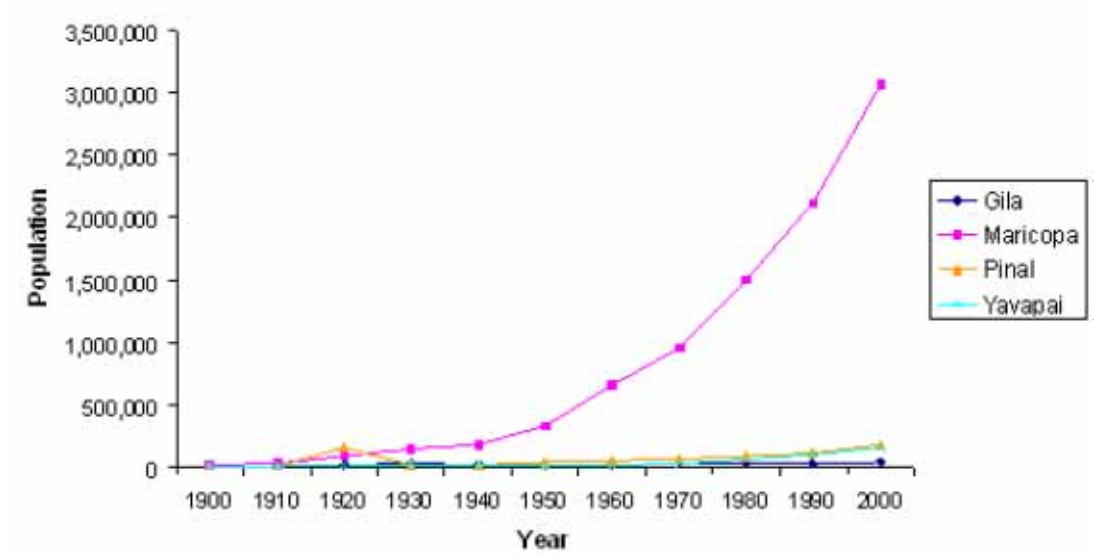
County/Place	Total Area Sq. Miles	2000 population	Pop. Density per sq. mile	USFS Acres
Gila County	4,796	51,335	10.80	1,704,652
Payson	19.5	13,620	698.46	n/a
Globe	18.0	7,486	415.89	n/a
San Carlos	8.8	3,716	422.27	n/a
Miami	1.0	1,936	1,936.00	n/a
Hayden	1.3	892	686.15	n/a
Maricopa County	9,224	3,072,149	333.05	657,695
Phoenix	474.9	1,321,045	2,781.73	n/a
Mesa	125	396,375	3,171.00	n/a
Glendale	55.7	218,812	3,928.40	n/a
Scottsdale	184.2	202,705	1,100.46	n/a
Chandler	57.9	176,581	3,049.76	n/a
Tempe	40.1	158,625	3,955.74	n/a
Pinal County	5,374	179,727	33.44	223,155
Apache Junction	34.2	31,814	930.23	n/a
Casa Grande	48.2	25,224	523.32	n/a
Florence	8.3	17,054	2,054.70	n/a
Eloy	71.7	10,375	144.70	n/a
Coolidge	5	7,786	1,557.20	n/a
Queen Creek	25.8	4,316	167.29	n/a
Yavapai County	8,128	167,517	20.60	1,968,976
Prescott	37.1	33,938	914.77	n/a
Prescott Valley	31.7	23,535	742.43	n/a
Cottonwood - Verde Village*	8.8	10,610	1,205.68	n/a
Sedona	18.6	10,192	547.96	n/a
Camp Verde	42.6	9,451	221.85	n/a
Cottonwood	10.7	9,179	857.90	n/a
Chino Valley	18.6	7,835	421.24	n/a

*Cottonwood - Verde Village is an unincorporated Census Designated Place (CDP)
Source: NRIS - Human Dimensions
http://www.city-data.com/city/Arizona.html

Table 2. Decennial County, Place and State Populations, 1980-2000 and % Change

County/Place/State	Total Population			1980-1990 % Change	1990-2000 % Change
	1980	1990	2000		
Gila County	37,080	40,216	51,335	8.46%	27.65%
Payson	5,068	8,377	13,620	65.29%	62.59%
Globe	6,708	6,152	7,486	-8.29%	21.68%
San Carlos	2,668	2,954	3,716	10.72%	25.80%
Miami	2,716	2,035	1,936	-25.07%	-4.86%
Hayden	1,205	878	892	-27.14%	1.59%
Maricopa County	1,509,052	2,122,101	3,072,149	40.62%	44.77%
Phoenix	789,704	983,403	1,321,045	24.53%	34.33%
Mesa	152,453	288,091	396,375	88.97%	37.59%
Glendale	97,172	148,134	218,812	52.45%	47.71%
Scottsdale	88,412	130,069	202,705	47.12%	55.84%
Chandler	29,673	90,524	176,581	205.07%	95.07%
Tempe	106,743	141,865	158,625	32.90%	11.81%
Pinal County	90,918	116,379	179,727	28.00%	54.43%
Apache Junction	9,935	18,196	31,814	83.15%	74.84%
Casa Grande	14,971	19,082	25,224	27.46%	32.19%
Florence	6,851	7,510	17,054	9.62%	127.08%
Eloy	6,240	7,201	10,375	15.40%	44.08%
Coolidge	3,391	6,927	7,786	104.28%	12.40%
Queen Creek	n/a	2,478	4,316	n/a	74.17%
Yavapai County	68,145	107,714	167,517	58.07%	55.52%
Prescott	20,055	26,427	33,938	31.77%	28.42%
Prescott Valley	2,284	8,858	23,535	287.83%	165.69%
Cottonwood - Verde Village	n/a	7,037	10,610	n/a	50.77%
Sedona	4,907	7,645	10,192	55.80%	33.32%
Camp Verde	1,125	6,243	9,451	454.93%	51.39%
Cottonwood	4,550	5,918	9,179	30.07%	55.10%
Chino Valley	2,858	4,837	7,835	69.24%	61.98%
Arizona	2,718,215	3,665,228	5,130,632	34.84%	39.98%

Source: NRIS - Human Dimensions



Source: U.S. Bureau of the Census, Census of Population

Figure 3. Four-County Assessment Area Population Change, 1900-2000

Table 3 presents urban and rural population data from the three most recent censuses and percent change by county. Data confirm an overall trend towards urbanization in Arizona over the last two decades. Throughout this time Maricopa County has maintained its status as the most urban county in the entire state with a 97% urban population as of 2000. Significant shifts in rural and urban populations are seen, however, for both Yavapai and Pinal Counties, particularly between 1980 and 1990. As of 1980, both counties were predominantly rural whereas by 1990, a majority of the populations of both had become urban.

Although Pinal County undoubtedly underwent a process of urbanization during this decade, the dramatic increase in urban population depicted in Table 3 (593%) is likely due to a change in reporting criteria adopted by the U.S. Census Bureau. In 1980, urban populations were defined strictly as those living in urban areas—areas determined according to minimum total population and population density criteria not met by the city of Casa Grande and expanding areas such as Apache Junction, Queen Creek, and others outside of the Phoenix and Tucson metropolitan areas. In 1990, however, reporting criteria for urban populations was changed to include those living in urban areas as well as those living outside urban areas in the suburbs. This shift likely captures much of the total population growth for Pinal County between 1980 and 1990, contributing to a somewhat skewed increase in urban versus rural populations. Nonetheless, both Pinal and Yavapai Counties became more urban beginning in the 1980s, a trend that held through 2000.

The urban and rural structure of Gila County's population fluctuated less during the same period, remaining the least urbanized county in the area of assessment with 44% of its total population living in rural areas as of 2000.

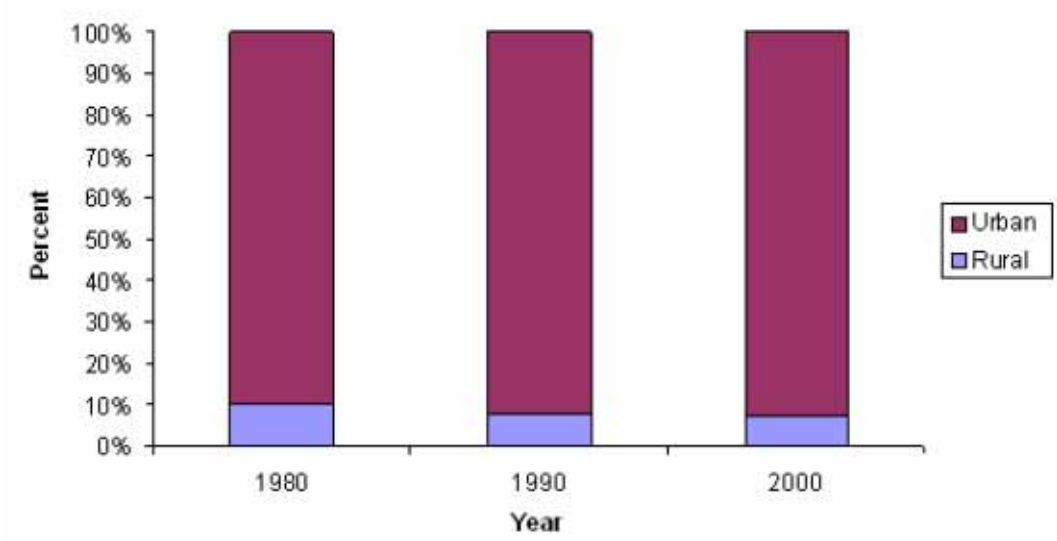
Table 3. Urban and Rural County Populations 1980-2000 and % Change

County		1980*			1990			2000		
		Population	% of Total	% Change	Population	% of Total	% Change	Population	% of Total	% Change
Gila	Urban	19,951	53.81%	n/a	20,362	50.63%	2.06%	28,741	55.99%	41.15%
	Rural	17,129	46.19%	n/a	19,854	49.37%	15.91%	22,594	44.01%	13.80%
Maricopa	Urban	1,399,344	92.73%	n/a	2,045,280	96.38%	46.16%	2,981,673	97.05%	45.78%
	Rural	71,660	4.75%	n/a	76,821	3.62%	7.20%	90,476	2.95%	17.78%
Pinal	Urban	9,935	10.93%	n/a	68,908	59.21%	593.59%	116,082	64.59%	68.46%
	Rural	36,841	40.52%	n/a	47,471	40.79%	28.85%	63,645	35.41%	34.07%
Yavapai	Urban	31,053	45.57%	n/a	70,641	65.58%	127.49%	104,862	62.60%	48.44%
	Rural	37,092	54.43%	n/a	37,073	34.42%	-0.05%	62,655	37.40%	69.00%

Note: % Total is the percentage of total population. % Change is the percentage of change from prior census year

*Does not account for farming populations

Source: NRIS - Human Dimensions



Source: NRIS - Human Dimensions

Figure 4. Four-County Assessment Area Urban/Rural Composition, 1980-2000

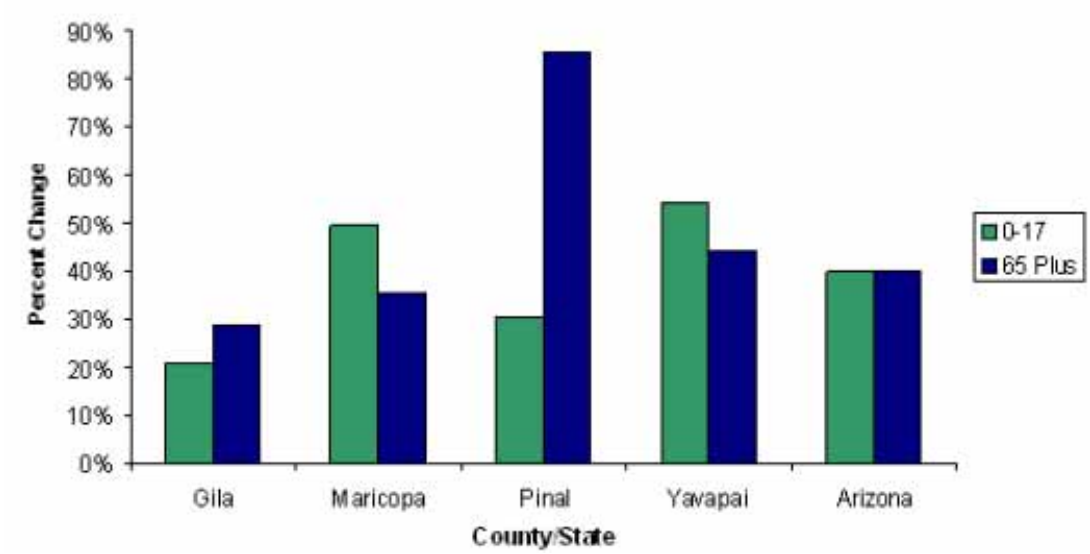
The age structure of populations for each of the four counties and selected cities is presented in Table 4. A comparison of growth rates for both the under-18 and the 65-and-over cohorts reveals interesting trends when compared to overall population growth rates for each county. While the under-18 population of Gila County grew by over 20% between 1990 and 2000, the rate of growth was less than that for the 65-and-over population as well as the growth of the county population as a whole (Table 2). The exception to this pattern was Payson, which experienced significant increases in both cohorts over the ten-year period. Similarly, the growth rate of the under-18 population in Pinal County was well short of the 65-and-over population. This is in spite of considerable increases in the under-18 population seen in Chandler, Scottsdale and Glendale between 1990 and 2000. Chandler experienced the largest increase in the 65-and-over population of any city in the area of assessment at 127.27% over ten years. The under-18 populations of both Maricopa and Yavapai Counties grew the most between 1990 and 2000, approximating the

growth rates of their overall populations. Particularly high rates of increase for both cohorts between 1990 and 2000 attest to the dramatic population growth of Prescott Valley over the ten-year period.

Table 4. Age Structure of County, Place, and State Populations (under 18 and 65+), 1990-2000 and % Change

	Under 18			65 And Over		
County/Place/State	**1990**	**2000**	**% Change**	**1990**	**2000**	**% Change**
Gila County	10,684	12,890	20.65%	7,902	10,159	28.56%
Payson	1,673	2,739	63.72%	2,625	3,974	51.39%
Globe	1,640	1,931	17.74%	1,188	1,169	-1.60%
San Carlos	1,200	1,566	30.50%	122	199	63.11%
Miami	611	575	-5.89%	296	331	11.82%
Hayden	281	296	5.34%	136	126	-7.35%
Maricopa County	554,688	828,003	49.27%	264,650	358,979	35.64%
Phoenix	266,520	382,435	43.49%	94,997	106,795	12.42%
Mesa	82,324	108,377	31.65%	35,503	52,876	48.93%
Glendale	43,036	65,862	53.04%	11,685	16,179	38.46%
Scottsdale	23,165	39,165	69.07%	21,044	33,884	61.02%
Chandler	28,764	52,625	82.95%	4,525	10,284	127.27%
Tempe	30,393	31,481	3.58%	9,266	11,406	23.10%
Pinal County	34,537	45,081	30.53%	15,731	29,171	85.44%
Apache Junction	4,051	6,515	60.82%	4,611	8,050	74.58%
Casa Grande	6,247	7,797	24.81%	1,994	3,469	73.97%
Florence	865	1,294	49.60%	760	1,626	113.95%
Eloy	2,872	3,501	21.90%	557	661	18.67%
Coolidge	2,431	2,558	5.22%	929	1,040	11.95%
Queen Creek	986	1,528	54.97%	155	209	34.84%
Yavapai County	22,959	35,403	54.20%	25,517	36,816	44.28%
Prescott	4,645	5,387	15.97%	6,894	9,085	31.78%
Prescott Valley	2,224	6,299	183.23%	1,821	4,045	122.13%
Cottonwood - Verde Village	1,782	2,610	46.46%	1,711	2,324	35.83%
Sedona	1,098	1,401	27.60%	2,456	2,605	6.07%
Camp Verde	1,527	2,265	48.33%	1,365	1,936	41.83%
Cottonwood	1,450	2,149	48.21%	1,478	2,184	47.77%
Chino Valley	1,295	2,079	60.54%	887	1,273	43.52%
Arizona	978,783	1,366,947	39.66%	477,200	667,839	39.95%

Source: NRIS - Human Dimensions



Source: NRIS - Human Dimensions

Figure 5. Percent Change under-18 and 65+ Populations by County, 1990-2000

Table 5 presents data on net migration for each county for the years 1990 and 2000 as well as the percent change. The data represent numbers of individuals who reported living in a different location five years previously. As such, the 1990 data provide information on location of residence in 1985 and the 2000 data indicate location of residence in 1995. Once again, net migration data show that population growth in Pinal and Yavapai Counties has been especially strong, fueled by in-migration of individuals previously living outside the county. The greatest numbers of individuals moving from out-of-state came from the West and the Midwest; however, both Pinal and Yavapai Counties reported a significant increase in the number of migrants from the Northwest between 1990 and 2000. Finally, Maricopa, Pinal, and Yavapai Counties each reported significant increases in the number of individuals migrating from "elsewhere" (different countries) over the period.

Figure 6 displays the seven distinct tourism regions designated by the Arizona Office of Tourism (AZOT). AZOT has traditionally gathered and reported visitation statistics within these regions rather than by counties. The area of assessment of the TNF is located primarily within the region referred to as the "Valley of the Sun" Region. The 2003 Profile for the Valley of the Sun Region reported 13.1 million domestic overnight leisure visitors representing a 95.8% increase over the 6.69 million domestic overnight leisure visitors a decade earlier. This established it as the most visited region in the state in terms of the number of domestic overnight visitors. By comparison, the second most visited region was the Old West Territory with 4.77 million domestic overnight leisure visitors in 2003. 77% of Valley of the Sun visitors came to the area for leisure while the remaining 23% were visiting on business (AZOT 2004b).

In 2002, 31.1% of tourist visitors to the Valley of the Sun came from California while 13.6% were visitors from within Arizona. Illinois, Colorado, Washington, New Mexico, Texas, and Ohio also contributed significant numbers of tourists from outside the state. AZOT data suggest that general spending (dining, shopping, entertainment) and sightseeing were both popular among visitors to the Valley of the Sun with 52% and 39% engaging in these activities respectively. By comparison, 21% of visitors reported participating in nature activities (camping, eco-travel, visiting national and state parks). The flow of visitors is greatest during winter with 51% of the FY2002 visits taking place between the months of November and March (AZOT 2004a).

Statistics for overseas visitors are not made available for individual tourism regions. However, AZOT reports that the state of Arizona experienced a 15.3% decline in overseas visitors in 2003 (dropping to 544,000 from 636,000 in 2002) while the U.S. saw a decline of 4%. The primary countries of origin for overseas visitors to Arizona were the U.K.(18.4%), Germany (16.4%), Mexico (11.0%), Japan (9.1%) and France (8.5%) (AZOT 2004a).

Table 5. Net Migration by County, 1990-2000 and % Change

	Gila County			Maricopa County			Pinal County		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Total*	37,492	48,370	29.01%	1,952,796	2,832,694	45.06%	106,788	167,639	56.98%
Same House	20,628	26,365	27.81%	807,736	1,177,221	45.74%	50,936	79,159	55.41%
Different House	16,864	22,005	30.49%	1,145,060	1,655,473	44.58%	55,852	88,480	58.42%
In United States	16,651	21,670	30.14%	1,101,199	1,524,382	38.43%	54,574	84,554	54.93%
Same County	7,652	9,089	18.78%	654,805	965,603	47.46%	26,325	32,275	22.60%
Different County	8,999	12,581	39.80%	446,943	558,779	25.02%	28,249	52,279	85.06%
Same State	5,058	7,875	55.69%	51,854	66,720	28.67%	12,632	26,642	110.91%
Different State	3,941	4,706	19.41%	394,540	492,059	24.72%	15,617	25,637	64.16%
Northwest	266	263	-1.13%	42,707	56,345	31.93%	1,196	2,261	89.05%
Midwest	813	789	-2.95%	124,337	131,690	5.91%	4,450	7,655	72.02%
South	524	761	45.23%	69,794	85,372	22.32%	2,925	3,796	29.78%
West	2,338	2,893	23.74%	157,702	218,652	38.65%	7,046	11,925	69.24%
In Puerto Rico	0	0	n/a	434	948	118.43%	0	50	n/a
Elsewhere	206	335	62.62%	42,929	130,143	203.16%	1,278	3,876	203.29%

	Yavapai County			Arizona		
	1990	2000	% Change	1990	2000	% Change
Total*	101,667	158,931	56.33%	3,374,806	4,752,724	40.83%
Same House	42,240	70,108	65.98%	1,454,319	2,103,907	44.67%
Different House	59,427	88,823	49.47%	1,920,487	2,648,817	37.92%
In United States	58,759	86,079	46.50%	1,840,216	2,465,345	33.97%
Same County	21,154	34,448	62.84%	1,026,332	1,456,345	41.90%
Different County	37,605	51,631	37.30%	813,884	1,009,490	24.03%
Same State	14,513	20,461	40.98%	164,063	213,070	29.87%
Different State	23,092	31,170	34.98%	649,821	796,420	22.56%
Northwest	1,522	2,997	96.91%	63,950	84,288	31.80%
Midwest	4,374	6,359	45.38%	179,202	190,720	6.43%
South	3,422	4,419	29.14%	118,041	140,608	19.12%
West	13,774	17,395	26.29%	288,628	380,804	31.94%
In Puerto Rico	21	12	-42.86%	665	1,745	162.41%
Elsewhere	637	2,732	328.89%	78,618	181,237	130.53%

* Totals do not include persons under the age of 5

Source:1990- US Census of Population- Social and Economic Characteristics
2000- US Census American Factfinder- http://factfinder.census.gov

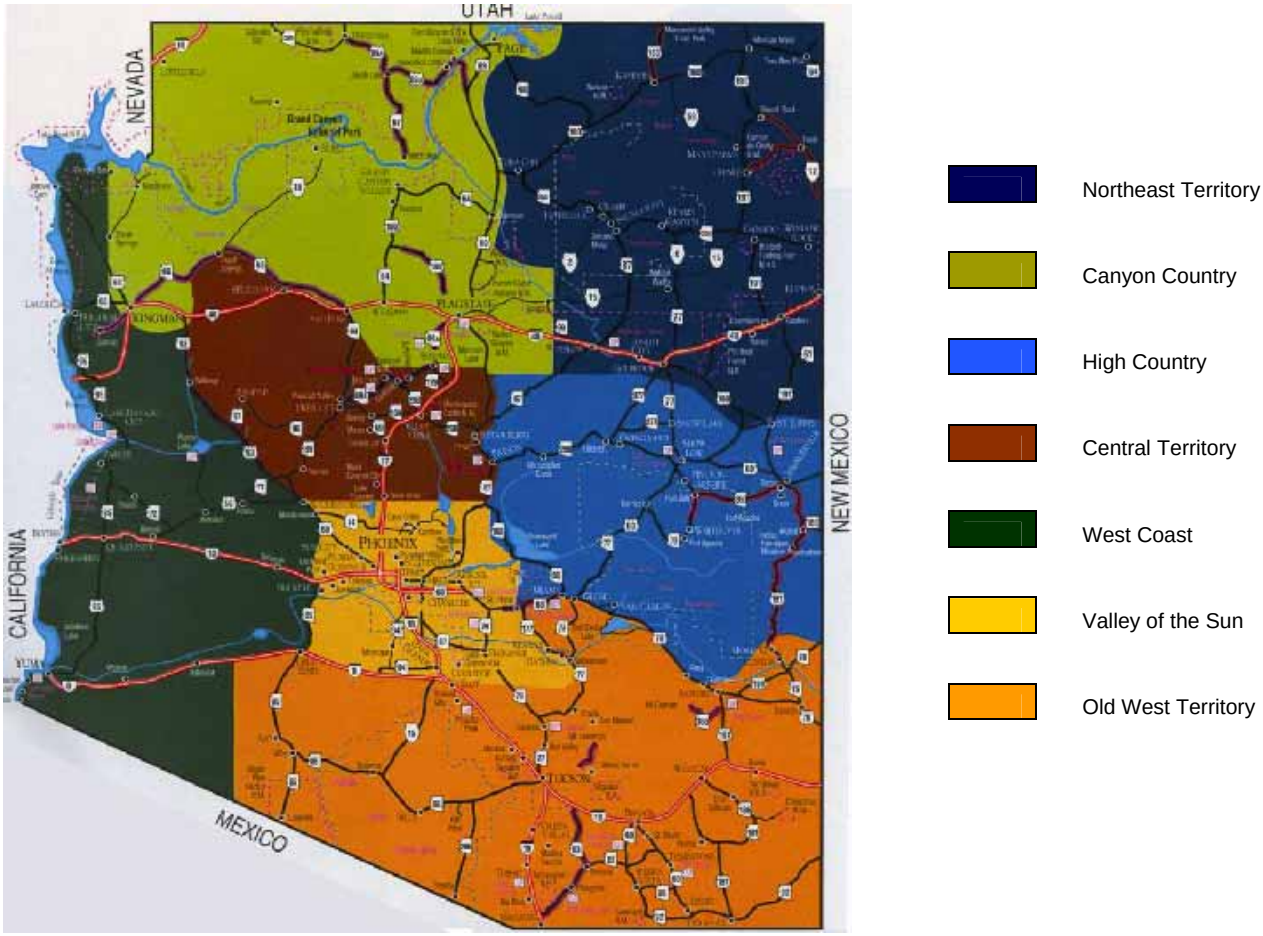


Figure 6. Map of Arizona Tourism Regions

2.3 Racial/ethnic composition and educational attainment

Tables 6 and 7 present collected data on the racial and ethnic composition of the population in the four counties as well as the state of Arizona. Table 6 presents reported numbers and percentage change in individuals of specific racial and ethnic categories between 1990 and 2000. Table 7 represents these racial and ethnic categories according to their proportional representation in the overall county and state populations. As a point of clarification, race and ethnicity are defined as separate concepts by the federal government. People of a specific race may be of any ethnic origin, and people of a specific ethnic origin may be of any race. Race in this section covers the following five groups: White, Black or African American, American Indian and Alaska Native, Asian and Pacific Islander, and Multiple Races. The population of Hispanic origin is defined for federal statistical purposes as another group and may be of any race (Hobbs and Stoops 2002; Leefers, Potter-Witter, and McDonough 2004).

Reported census data demonstrate a strong correlation between individuals who identify themselves as being of multiple racial background as well as Hispanic origin. Notably, the decade between 1990 and 2000 saw significant increases in individuals of multiple races for three of the four counties, mirroring the overall trend for the state of Arizona (Table 6). The exception to this trend was Gila County, which experienced relatively slight increases in both multiple race and Hispanic populations between 1990 and 2000. Table 7 demonstrates that dramatic increases in the multiple race populations of both Maricopa and Pinal Counties resulted in significant changes in terms of proportional representation within overall

county populations. Conversely, despite a 350% increase in the number of multiple race individuals in Yavapai County, as a group, the multiple race population remains minimally represented in the overall population of the county (5.52%).

Educational attainment for the population 25-years of age and older is shown for each of the four counties in Table 8. Data show that Maricopa and Yavapai Counties are near or above state averages for percentage of high school and college graduates. Gila County and Pinal County, on the other hand, are well below statewide graduate rates. Pinal County is particularly restricted in terms of educational achievement with the percentage of college graduates nearly ten percent lower than that for the state of Arizona. Over 10% of Pinal County's population has less than a 9th-grade education.

Table 6. Racial/Ethnic Composition of County and State Populations, 1990-2000 and % Change

	Gila County			Maricopa County			Pinal County		
Race/Ethnicity	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
American Indian or Alaska Native	5,269	6,630	25.83%	38,309	56,706	48.02%	11,150	14,034	25.87%
Asian or Pacific Islander	102	248	143.14%	35,208	67,136	90.68%	677	1,121	65.58%
African American or Black	96	197	105.21%	74,295	114,551	54.18%	3,639	4,958	36.25%
Multiple Races	3,932	4,309	9.59%	172,719	453,682	162.67%	13,721	32,944	140.10%
White	30,817	39,951	29.64%	1,801,570	2,376,359	31.90%	87,192	126,559	45.15%
Hispanic	7,417	8,546	15.22%	340,117	763,341	124.43%	34,158	53,671	57.13%
	Yavapai County			Arizona					
	1990	2000	% Change	1990	2000	% Change			
American Indian or Alaska Native	1,764	2,686	52.27%	204,589	255,879	25.07%			
Asian or Pacific Islander	492	861	75.00%	54,127	98,969	82.85%			
African American or Black	244	655	168.44%	110,062	158,873	44.35%			
Multiple Races	2,053	9,254	350.75%	328,768	743,300	126.09%			
White	103,161	153,933	49.22%	2,967,682	3,873,611	30.53%			
Hispanic	6,854	16,376	138.93%	680,628	1,295,617	90.36%			

Source: NRIS - Human Dimensions

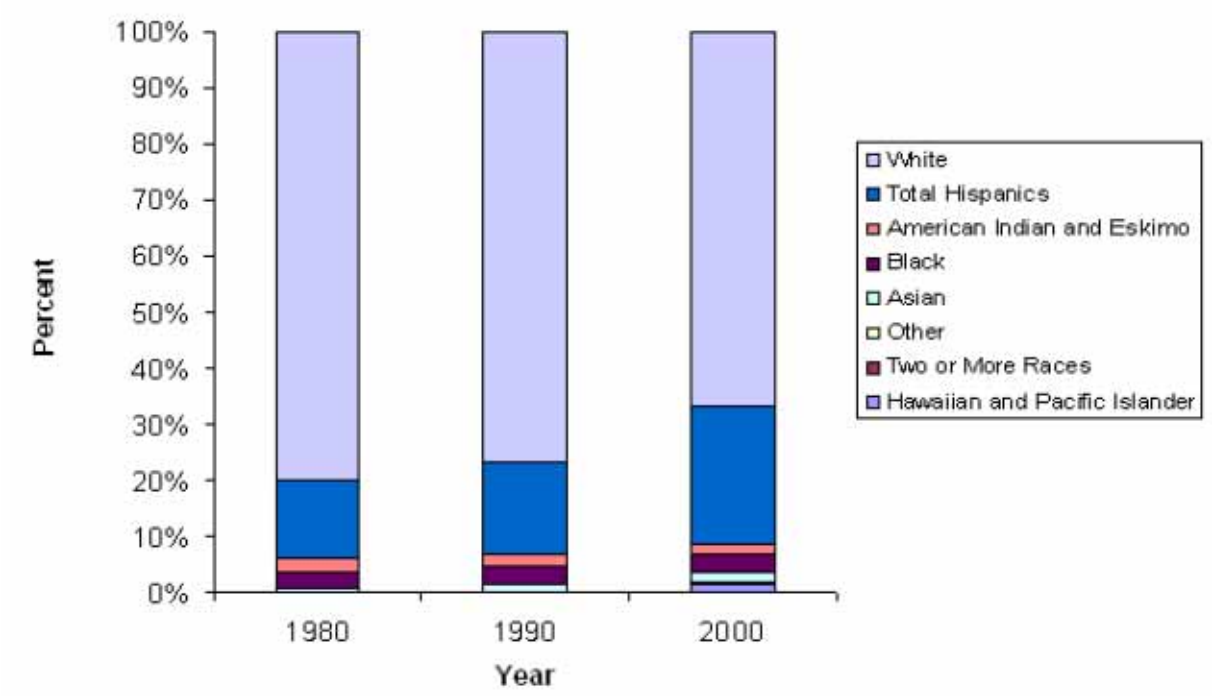
Table 7. Racial/Ethnic Composition of County and State Populations by Percentage, 1990-2000 and Change

	Gila County			Maricopa County			Pinal County		
Race/Ethnicity	**1990**	**2000**	**Change**	**1990**	**2000**	**Change**	**1990**	**2000**	**Change**
American Indian or Alaska Native	13.10%	12.92%	-0.19%	1.81%	1.85%	0.04%	9.58%	7.81%	-1.77%
Asian or Pacific Islander	0.25%	0.48%	0.23%	1.66%	2.19%	0.53%	0.58%	0.62%	0.04%
African American or Black	0.24%	0.38%	0.15%	3.50%	3.73%	0.23%	3.13%	2.76%	-0.37%
Multiple Races	9.78%	8.39%	-1.38%	8.14%	14.77%	6.63%	11.79%	18.33%	6.54%
White	76.63%	77.82%	1.20%	84.90%	77.35%	-7.54%	74.92%	70.42%	-4.50%
Percent Non-white	23.37%	22.18%	-1.20%	15.10%	22.53%	7.42%	25.08%	29.52%	4.44%
Hispanic	18.44%	16.65%	-1.80%	16.03%	24.85%	8.82%	29.35%	29.86%	0.51%

	Yavapai County			Arizona		
	1990	**2000**	**Change**	**1990**	**2000**	**Change**
American Indian or Alaska Native	1.64%	1.60%	-0.03%	5.58%	4.99%	-0.59%
Asian or Pacific Islander	0.46%	0.51%	0.06%	1.48%	1.93%	0.45%
African American or Black	0.23%	0.39%	0.17%	3.00%	3.10%	0.10%
Multiple Races	1.91%	5.52%	3.62%	8.97%	14.49%	5.52%
White	95.77%	91.89%	-3.88%	80.97%	75.50%	-5.47%
Percent Non-white	4.23%	8.10%	3.88%	19.03%	24.50%	5.47%
Hispanic	6.36%	9.78%	3.41%	18.57%	25.25%	6.68%

Source: NRIS - Human Dimensions

Note: 1990 and 2000 data expressed as a % of total population. Change simply illustrates the trends in proportional representation of various racial/ethnic groups in the overall population



Source: NRIS - Human Dimensions

Figure 7. Four-County Assessment Area Racial/Ethnic Composition, 1980-2000

Table 8. Educational Attainment for County and State Populations 25-Yrs. Old and Over

	Gila County		Maricopa County		Pinal County	
	Number	Percent	Number	Percent	Number	Percent
Population 25-years and over	35,150	100.00%	1,934,957	100.00%	119,102	100.00%
Less than 9th grade	2,257	6.42%	144,042	7.44%	12,681	10.65%
9th to 12th grade, no diploma	5,397	15.35%	194,549	10.05%	19,832	16.65%
High school graduate (includes equivalency)	10,087	28.70%	446,445	23.07%	36,255	30.44%
Some college, no degree	10,340	29.42%	513,823	26.55%	29,418	24.70%
Associate degree	2,199	6.26%	135,217	6.99%	6,739	5.66%
Bachelor's degree	2,971	8.45%	332,315	17.17%	8,964	7.53%
Graduate or professional degree	1,899	5.40%	168,566	8.71%	5,213	4.38%
Percent high school graduate or higher	n/a	78.20%	n/a	82.50%	n/a	72.70%
Percent bachelor's degree or higher	n/a	13.90%	n/a	25.90%	n/a	11.90%

	Yavapai County		Arizona	
	Number	Percent	Number	Percent
Population 25-years and over	120,223	100.00%	3,256,184	100.00%
Less than 9th grade	5,547	4.61%	254,696	7.82%
9th to 12th grade, no diploma	12,829	10.67%	364,851	11.20%
High school graduate (includes equivalency)	33,877	28.18%	791,904	24.32%
Some college, no degree	34,625	28.80%	859,165	26.39%
Associate degree	7,940	6.60%	219,356	6.74%
Bachelor's degree	15,685	13.05%	493,419	15.15%
Graduate or professional degree	9,720	8.08%	272,793	8.38%
Percent high school graduate or higher	n/a	84.70%	n/a	81.00%
Percent bachelor's degree or higher	n/a	21.10%	n/a	23.50%

Source: U.S. Census Bureau, Census 2000 Summary File
http://www.census.gov/census2000/states/az.html

2.4 Housing characteristics and population projections

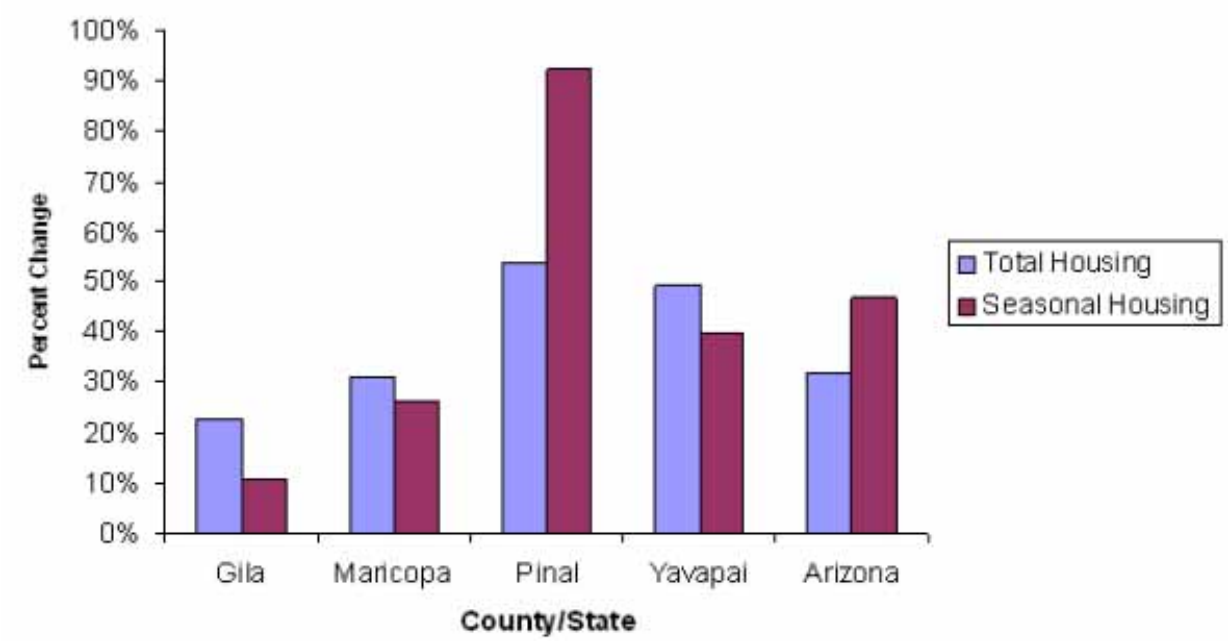
Housing characteristics for the area of assessment are presented in Table 9. Once again, the data confirm the dominance of Maricopa County as the primary population center in the state with over 1 million homes and a housing density of 135 homes per square mile in 2000. The largest growth in housing units between 1990 and 2000, however, was seen in Pinal and Yavapai Counties. Of the selected cities within the area of assessment, Prescott Valley, Cottonwood, Chandler, Apache Junction, and Queen Creek experienced the greatest increases in total housing units over the ten-year period. Pinal County also experienced a dramatic increase in seasonal housing units (92.22%) between 1990 and 2000. Significant increases in seasonal housing units over the same period were seen in Casa Grande, Coolidge, Chandler and Scottsdale. Between 1990 and 2000, Scottsdale, Queen Creek, Florence, and Chino Valley had the greatest increases in median home value. Housing characteristics for Gila County remained well below state averages throughout the same time period.

Table 10 suggests that population growth rates at the county and state level are expected to continue to increase, peaking between 2010 and 2020 before declining by 2030. Of all the counties in region, Maricopa County is projected to continue its accelerated growth, outpacing both surrounding counties and the state as a whole. While Yavapai County is projected to experience relatively strong population growth compared to surrounding counties, Gila County is expected to see relatively limited population growth over the next three decades.

Table 9. County, Place, and State Housing Characteristics, 1990-2000 and % Change

County/ Place/ State	Total Housing Units			Seasonal Housing Units			Housing Density per Sq. Mile			Median Home Value		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Gila County	22,961	28,189	22.77%	5,168	5,725	10.78%	5.00	6.00	20.00%	$58,600	$100,100	70.82%
Payson	4,792	7,279	51.90%	728	779	7.01%	368	374	1.63%	$78,300	$134,900	72.29%
Globe	2,615	3,181	21.64%	35	32	-8.57%	313	177	-43.45%	$49,500	$79,700	61.01%
San Carlos	875	1,015	16.00%	5	13	160.00%	98	115	17.35%	$17,200	$23,000	33.72%
Miami	923	944	2.28%	10	7	-30.00%	956	983	2.82%	$30,500	$44,800	46.89%
Hayden	370	325	-12.16%	0	2	0.00%	293	258	-11.95%	$18,400	$23,100	25.54%
Maricopa County	952,041	1,250,231	31.32%	39,277	49,584	26.24%	103.44	135.85	31.34%	$84,700	$129,200	52.54%
Phoenix	422,036	495,793	17.48%	2,986	4,545	52.21%	1,005	1,044	3.88%	$76,600	$112,600	47.00%
Mesa	140,468	175,717	25.09%	17,617	18,103	2.76%	1,294	1,406	8.66%	$86,200	$122,100	41.65%
Glendale	61,218	79,645	30.10%	403	326	-19.11%	1,172	1,430	22.01%	$84,800	$118,600	39.86%
Scottsdale	69,028	104,949	52.04%	4,260	7,938	86.34%	374	570	52.41%	$114,300	$220,800	93.18%
Chandler	34,967	66,634	90.56%	466	1,045	124.25%	735	1,151	56.60%	$89,800	$137,600	53.23%
Tempe	61,452	67,008	9.04%	515	560	8.74%	1,555	1,673	7.59%	$91,300	$132,100	44.69%
Pinal County	52,732	81,154	53.90%	6,120	11,764	92.22%	9.82	15.11	53.91%	$53,400	$93,900	75.84%
Apache Junction	12,760	22,781	78.53%	3,393	6,797	100.32%	776	666	-14.18%	$58,800	$98,400	67.35%
Casa Grande	7,404	10,936	47.70%	163	861	428.22%	340	227	-33.24%	$64,300	$86,600	34.68%
Florence	2,143	3,255	51.89%	492	628	27.64%	370	393	6.22%	$46,500	$88,000	89.25%
Eloy	2,333	2,737	17.32%	10	22	120.00%	34	38	11.76%	$36,400	$51,500	41.48%
Coolidge	2,806	3,179	13.29%	119	370	210.92%	588	632	7.48%	$40,500	$59,800	47.65%
Queen Creek	769	1,306	69.83%	0	15	n/a	70	51	-27.14%	$106,300	$202,900	90.87%
Yavapai County	54,805	81,730	49.13%	4,325	6,048	39.84%	7.00	10.00	42.86%	$85,300	$138,000	61.78%
Prescott	13,393	17,431	30.15%	787	1,026	30.37%	414	470	13.53%	$93,400	$162,700	74.20%
Prescott Valley	3,913	9,481	142.29%	134	162	20.90%	237	299	26.16%	$64,500	$108,100	67.60%
Verde Village*	3,200	4,327	35.22%	84	43	-48.81%	376	493	31.12%	$78,000	$114,900	47.31%
Sedona	4,658	5,709	22.56%	430	446	3.72%	237	307	29.54%	$159,600	$253,700	58.96%
Camp Verde	2,839	3,988	40.47%	179	136	-24.02%	67	94	40.30%	$75,900	$129,600	70.75%
Cottonwood	2,768	4,386	58.45%	31	55	77.42%	525	411	-21.71%	$61,600	$106,800	73.38%
Chino Valley	2,156	3,251	50.79%	24	56	133.33%	116	175	50.86%	$76,400	$135,500	77.36%
Arizona	1,659,430	2,189,189	31.92%	96,687	141,965	46.83%	15.00	19.00	26.67%	$79,700	$121,300	52.20%

* Cottonwood - Verde Village is an unincorporated Census Designated Place (CDP)
Source: NRIS - Human Dimensions



Source: NRIS - Human Dimensions

Figure 8. Percent Change in Total and Seasonal Housing Units by County, 1990-2000

Table 10. County and State Population Projections, 2010-2030 and % Change

County/State	Total Pop. 2000	Projected 2010	% Change	Projected 2020	% Change	Projected 2030	% Change
Gila County	51,335	54,603	6.37%	60,757	11.27%	66,378	9.25%
Maricopa County	3,072,149	3,709,566	20.75%	4,516,090	21.74%	5,390,785	19.37%
Pinal County	179,727	199,715	11.12%	231,229	15.78%	255,695	10.58%
Yavapai County	167,517	198,052	18.23%	240,849	21.61%	278,426	15.60%
Arizona	5,130,632	6,145,108	19.77%	7,363,604	19.83%	8,621,114	17.08%

Source: Arizona Department of Commerce - Arizona County Population Projections: 1997-2050

http://www.azcommerce.com/prop/eir/population.asp

2.5 Key issues for forest planning and management

Over the past two decades, continued population growth in predominantly rural areas has brought about significant changes in the dynamic relationships between human communities and publicly administered lands throughout Arizona. These changes have occurred amid ongoing resource policy debates concerning fire suppression, forest restoration, water allocation, road construction, and other economically and environmentally pressing issues.

Population growth in the communities surrounding Tonto National Forest has been stronger than in any other region of the state. This growth, combined with other significant changes in the human populations surrounding the forest are likely to affect not only the quantity of goods and services demanded from public lands but also significantly influence the character, or quality, of those goods and services.

Research shows that areas with an abundance of natural-resource based amenities (mild climate, forested mountains, rivers, lakes, access to hiking and camping, presence of clean air and water) are increasingly attractive to retirement-age populations as well as others seeking to take advantage of the quality of life offered by rural western communities. In particular, migrants are increasingly attracted to communities with relatively affordable housing, employment opportunities, low crime rates, and cultural traditions associated with small, rural towns throughout the mountain west (Booth 2002, McCool and Kruger 2003, Bodio 1997). These demographic shifts are borne out by collected data for Tonto National Forest which show substantial increases in population and housing in both Pinal and Yavapai Counties as well as increases in both the retirement-age population and the number of seasonal housing units throughout the areas characterized by small, rural towns.

Although the potential for population growth can enhance the economic vitality of these areas through greater employment opportunities and an expanding tax base, it can also challenge the capacity of communities and public land managers to provide for the wide array of services. This is particularly true in areas where potential conflicts in value systems between established community interests and recently arrived immigrants can create friction over natural resource management. For example, the growth in populations seeking natural amenities from forest lands may pit them against traditional commodity interests. Likewise, the dramatic growth in multiple race and Hispanic populations (sometimes referred to as “hidden populations”) may force different demands for public services and may interact with natural resources in fundamentally different ways than have been the historic norm for the resident population (McCool and Kruger 2003).

Together, these shifts in the demographic makeup of communities surrounding the Tonto National Forest carry important implications for the development of good relations between management agencies and their local publics. For example, how might agencies contribute to the maintenance of viable resource economies given increasing demands for amenities? Similarly, how does expansion of the wildland-urban interface influence issues such as forest access, water quality, habitat fragmentation, or fire management? Finally, demographic change within forest communities may influence not only the management of natural resources, but also the social and political acceptability of processes used to develop management plans. Land management objectives of new property owners may lead to demands for change in how adjacent federally administered land is managed. In addition, newly arrived populations may lack a thorough understanding of underlying community values while at the same time acting on a thorough understanding of planning regulations and methods of influencing political processes (McCool and Kruger 2003, Booth 2002, Wilkinson 1992).