SUPERSTITION VISTAS: DEMOGRAPHIC ISSUES

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This paper examines population and other demographic issues in the Phoenix metropolitan area and more specifically in the area near Superstition Vistas. Projections of population growth metrowide and in Superstition Vistas are provided.

THE PHOENIX METROPOLITAN AREA

"Metropolitan statistical areas" are defined by the federal government as consisting of one or more counties. Particularly in the western part of the country where counties tend to be geographically large, metropolitan area boundaries are substantially larger than the actual developed area. For example, most of the land area in the Phoenix metro area is sparsely settled. "Urbanized areas," also defined by the federal government, closely correspond to the actual developed area, but data for urbanized areas are available only from decennial censuses.

For most of its history, the Phoenix metropolitan area was defined as Maricopa County. After the 1990 census, Pinal County was added, but Apache Junction was the only community in Pinal County with significant economic and commuting links to Maricopa County. Beginning in the late 1990s, the ties between the two counties started to become more substantial as housing developments expanded east of Apache Junction, near Queen Creek, in Maricopa, and even farther south in Pinal County. Most of the residents of these new communities commute to work in Maricopa County.

Historical and Current Population Growth

Except for decennial census counts, all historical and current population figures are estimates that can have sizable errors due to a lack of reliable data that reflect the size of the population. Even the decennial census counts are inexact, typically undercounting the population, though the magnitude of the undercount has varied over time and across geographic areas. The following discussion focuses on *numeric* population growth since *percentage* growth rates decline with increases in the population base, making it difficult to interpret percentage growth figures over long time spans.

Population growth in the Phoenix area accelerated after World War II, mostly the result of rising net in-migration, which has accounted for more than two-thirds of the total population change. (The balance of the population growth results from the greater number of births than deaths — "net natural increase.") Historically, most of the migrants to the Phoenix area came from other U.S. states, but immigrants from other countries (especially Mexico) became a sizable share of the total during the 1990s.

Nationally and internationally, migration rates are highest among young adults (particularly those 18 to 24 years of age) and steadily decline with increasing age. In Sunbelt areas such as Phoenix, net migration rates rise at retirement age but most of the net migration consists of working-age adults, particularly those who are quite young.

Some young adults migrate for educational reasons, but the majority of the moves are related to employment. The primary factors that drive retiree migration — climate, cost of living, lifestyle, etc. — also influence the migration of working people. In a broad sense, the qualitative

factors driving working-age migration to the Phoenix area and other Sunbelt locations are hard to separate from the economic factors (primarily job availability). People are attracted to the area because of perceived qualitative advantages and a history of employment opportunities while employers are attracted to the area in part because of the ability to attract a workforce. In the short-term, however, employment opportunities take primacy since most young people must obtain a job in order to make a long-distance move.

Net migration to the Phoenix area varies substantially over a single economic cycle because employment opportunities rise and fall so considerably from year to year, but over three economic cycles between 1970 and 1991 annual average population growth was nearly stable. The total population change in Maricopa County was between 54,000 and 64,000 per year in each cycle. Net migration averaged 40,000 to 44,000 per year in each cycle. In Pinal County, population growth was 2,500 per year over the three cycles.

In the most recent economic cycle, from 1991 through 2001, population growth in the Phoenix area was much higher. Annual average growth was 97,000 in Maricopa County, with net migration averaging 70,000. Population growth in Pinal County was close to 7,000 per year.

Since the 2000 census, the historical relationship between employment growth and housing construction (a proxy for population growth) has broken down. The recession in 2001 and the slow employment recovery in 2002 into 2003 resulted in substantially reduced job opportunities in the Phoenix area. Even in 2004, employment gains were considerably less than during most years of the prior economic cycle. Thus, based on the difficulty in obtaining a job, net migration should have fallen sharply in 2001 and 2002, then recovered only partially. Home construction, however, barely slumped during the recession — it usually drops sharply — and since then has reached record levels. The number of housing units permitted in 2004 was 18,000 more than the peak year of the prior economic cycle.

With housing being a key input into most methods of estimating population, some estimates of population are showing very high population growth since 2000. The population estimates of the Arizona Department of Economic Security (DES) indicate that annual average population growth between 2000 and 2004 was greater than that from 1995 to 2000 — a period of strong employment growth — in both Maricopa and Pinal counties. The Census Bureau does not use housing data in making their estimates. Their 2004 estimates for both Maricopa and Pinal counties are somewhat lower than the DES estimates, with most of the differential resulting from lesser estimated growth between 2003 and 2004.

Thus, the estimates of rapid population growth in recent years made by DES may be overstated. Some of the new homes have been purchased by investors and remain unoccupied (data regarding single-family vacancy rates are scarce). Other homes have been purchased for seasonal use by people whose primary residence is elsewhere.

Projected Population Growth

The U.S. Census Bureau released state population projections in April 2005, but does not make projections by county or metropolitan area. Previous Census Bureau projections have substantially underprojected population growth in Arizona. Three other sources of population projections for Maricopa County have been examined. Each has limitations.

The Center for Business Research (CBR) at Arizona State University issued projections in late 2001 that took into account the 2000 census results, but did not include detailed census data typically used in making population projections which were not yet available. In the CBR projections, annual net migration starts at the 70,000 average of the last economic cycle and falls modestly to 64,000 by 2020 (the last year of the projection series). Total population change rises marginally from 105,000 to 107,000 per year by 2010, then holds constant.

The Maricopa Association of Governments (MAG) issued "interim" projections in 2003 that also reflect the 2000 census results. Annual population growth of 104,000 between 2000 and 2010 gradually drops to 95,000 between 2025 and 2030 (the last year of the projection series).

DES issues the "official" population projections used by state agencies. Their latest projections were issued in 1997 and are out of date since the 2000 census count was considerably higher than expected. New projections are being developed. The latest draft projections for Maricopa County start net migration at a little less than 70,000 per year, with the figure rising slowly to about 70,000 around 2035, then dropping back to less than 60,000 by 2055. Total population change rises from near 100,000 to 108,000 from 2017 to 2037 then drops back to just less than 100,000.

Thus, the CBR, MAG and draft DES projections are quite similar through 2020. The MAG and DES projections begin to diverge between 2020 and 2030 as DES holds numeric growth constant while MAG shows a modest slowing. The DES projections are considered to be less likely. As vacant land in the Maricopa County portion of the Southeast Valley is depleted, growth should slow in Maricopa County while accelerating in Pinal County.

Only DES provides projections for Pinal County. However, the DES population projections model was not designed for the situation in Pinal County, where a previously separate and sparsely settled county now is rapidly urbanizing as part of a metro area largely located in another county. The draft DES projections largely are based on historical migration rates by age to and from each county and projections of the national population by age. Since historical growth figures largely are irrelevant in Pinal County, DES has to rather arbitrarily assign faster population growth. The draft projection of the Pinal County population in 2050 is several times higher than the projection issued in 1997.

In its draft projections, DES assumes that net migration to Pinal County currently is 15,000 per year — a much higher figure than in the 1990s and several thousand higher than estimated by the Census Bureau. Net migration is projected to rise to 45,000 over the next 35 years before later stabilizing at a little less than 50,000. Net natural increase in Pinal County is projected to be near zero — slightly positive now but slightly negative starting around 2035 — so that total population change is projected to be not much different from net migration.

Ideally, Maricopa and Pinal counties would be considered jointly in population projection models so that the metro area population could be projected. But no such model exists. This makes any projections of the Maricopa and Pinal populations problematic. The sharp increase in population growth in the previous economic cycle and the uncertainty of the rate of growth in the current economic cycle create even more difficulty than usual in making population projections. A case can be made for each of three basic projection scenarios for the metro area (Maricopa and Pinal counties combined): (1) net migration will return to the levels of the 1970-to-1991 period, assuming that the more rapid growth during the last economic cycle was an aberration; (2) net

migration will remain near the level of the 1991-to-2001 cycle; and (3) net migration will continue to accelerate.

Some insight into the probabilities to attach to the three scenarios comes from the history of population growth in other metropolitan areas. First, the Phoenix area already is one of the most populous in the country, ranking 14th on metro area population and 13th on urbanized area population in 2000. Second, the 1 million increase in population between 1990 and 2000 was one of the larger decadal gains by a metro area in the nation's history. Other than the Los Angeles area in the last several decades, increases of this magnitude have been unusual. The Atlanta and Dallas-Fort Worth areas also had population gains of more than 1 million during the 1990s. The Houston area had a larger increase in the 1970s, but growth has been less than 1 million since then. Some of the larger, older metro areas had gains of this quantity in one or two earlier decades, such as Chicago during the 1950s. The majority of the nation's large metro areas experienced lesser growth during the 1990s than in the past.

Most large metro areas experience a slowing in growth because of increasing disamenities that are tied to urban size. These urban problems include long commutes (in both time and distance), pollution, crime, and high cost of living (mostly high housing prices). In addition to these urban issues, several other factors could slow the growth of the Phoenix area:

- Limited availability and/or rising cost of water. Unlike most of the nation's large metro areas, the Phoenix area's water supply is heavily dependent on engineered systems that bring water from distant locations.
- Unbuildable land that causes distances across the metro area to be exaggerated. Indian reservations, federal government land (such as national forests), and unbuildable topography (mountains and canyons) are much more common in the Phoenix area than in most metro areas.
- Rising costs of transportation. If technological advances do not keep fuel costs (with fuel being defined to include alternative sources such as hydrogen) comparable to existing gasoline prices (adjusted for overall inflation), workers might become reluctant to commute the long distances necessary in a large metro area.
- Loss of favored status as a retirement destination. Retirement migration has been a significant piece of the Phoenix area's growth. Most retirement-age migrants prefer to live in a less populous area than what the Phoenix area is becoming.
- A reduction in immigration. Starting in 1995, much greater numbers of immigrants have moved to the Phoenix area than previously. Many of the recent immigrants have been undocumented, mostly from Mexico. Should the United States change its policies to make it more difficult for undocumented immigrants to cross the border and/or to find work, overall population growth in the Phoenix area likely will slow. In the longer term, immigration to the United States from Mexico likely will fall due to the demographics within Mexico. The number of young adults entering the workforce in Mexico has been considerably greater than the number of older adults. Under such conditions, it is difficult for any economy to create enough jobs. (The United States experienced this during the 1970s when the large number of baby boomers reached working age.) Birth rates in

Mexico, however, are falling. The Mexican job seeker/job availability balance will begin to move towards equilibrium within 20 years.

Thus, a number of factors suggest that increasing numeric growth in the Phoenix area (the third scenario) will not persist, at least after the next decade or so. Even steady growth (the second scenario) becomes unlikely over time. However, the draft DES projection series fits the third projection scenario of continuing acceleration of net migration. DES is projecting further gains in net migration for the next 35 years, going from less than 80,000 to more than 110,000 per year with a modest decline projected after 2045. Total population change also rises from 115,000 to 150,000 annually before slipping a bit after 2040.

Thus, in contrast to the historical pattern of metro area growth peaking and then slowing, with few decades showing gains of more than a million, the draft DES projections for Maricopa and Pinal counties combined indicate that the Phoenix area's 1 million population gain of the 1990s will be followed by an increase of 1.25 million between 2005 and 2015 then by decadal gains of 1.4 million, 1.45 million, 1.5 million, and 1.5 million. This is in contrast to the historical pattern of metro area growth peaking and then slowing, with few decades showing gains of more than a million. Only the Los Angeles consolidated metro area (Los Angeles, Orange County, Riverside-San Bernardino, and Ventura County) has experienced such sustained strong growth. In 2055, DES is projecting a population of nearly 9 million in Maricopa County and 2 million in Pinal County.

Three alternative population forecasts are presented in Table 1. The "high" series is based on the draft DES projections. Its likelihood, at least in later decades, is considered to be low. The "middle" series initially is close to the high series since it is based on the MAG projections for Maricopa County and the DES projections for Pinal County through 2030, but then assumes slowing growth. It is assessed to have a moderate likelihood. The "low" series assumes an earlier and more abrupt slowdown in growth similar to that experienced in the past in many metro areas. It too is assessed to have a moderate chance of occurring.

Development Patterns

The Phoenix area is unlike many urbanized areas in that it has relatively consistent and moderate population densities throughout and is experiencing increases in overall density. Most urbanized areas have high densities in the core but low densities in outlying areas, with sprawl lowering overall densities. In general, outward expansion of the Phoenix metro area has been orderly, with the urban fringe gradually moving out. In the Southeast Valley during the 1990s, the fringe moved outward at an average pace of one-half mile per year. While some developments have "leapfrogged" over vacant land, this has not been the norm and has been true particularly of developments with a retirement component or close proximity to mountains (or where state land has temporarily blocked orderly development).

The density of the Phoenix urbanized area in 2000 was 3,638 persons per square mile. In 1990, the density was 2,707 and in 1980 it was 2,199 (these figures are not exactly comparable to the 2000 figure due to a change in how the Census Bureau defines urbanized areas). Most fully developed areas of the Valley have population densities in excess of 4,000 persons per square

mile. The main exception is the lower densities in much of Scottsdale and Paradise Valley. Outlying areas initially have lower densities due to some of their land not yet being developed.

TABLE 1
HISTORICAL POPULATION COUNTS AND ILLUSTRATIVE POPULATION PROJECTIONS, PHOENIX METROPOLITAN AREA

	Population in Millions			Population Change in Millions		
	High	Middle	Low	High	Middle	Low
1970		1.04			0.34	
1980		1.60			0.56	
1990		2.24			0.64	
2000		3.25			1.01	
2010	4.5	4.45	4.3	1.25	1.2	1.05
2020	5.8	5.75	5.1	1.3	1.3	0.8
2030	7.2	7.05	5.7	1.4	1.3	0.6
2040	8.7	8.1	6.3	1.5	1.05	0.6
2050	10.2	9.0	6.9	1.5	0.9	0.6
2060	11.6	9.8	7.4	1.4	0.8	0.5

Source: U.S. Department of Commerce, Census Bureau (1970 to 2000).

Current development in the Southeast Valley is more distant from the urban core of downtown Phoenix than in most of the Phoenix area. The edge of the urbanized area in the Southeast Valley is about 28 to 36 miles from the core. (The distance is measured rectangularly as one would travel, not diagonally.)

The edge of the urbanized area is qualitatively defined as the point at which most of the land closer to the core is developed, with no extensive open areas. Scattered developments exist past the edge, occasionally for more than 10 miles. For example, the southeast Gilbert/Queen Creek area is past the edge but has many housing developments underway.

In the northeast part of the Valley (Fountain Hills, Scottsdale and Carefree) and in part of the northwest (Sun City West and Surprise), the edge of the urbanized area is a similar distance from the core as in the Southeast Valley. In contrast, the edge is 16 to 25 miles in north Phoenix and the West Valley and still closer in the southwest.

The greater distance of the urbanized edge in the northeast and southeast likely has to do with the employment centers located in the East Valley (primarily from central Tempe to central Scottsdale). These major employment centers are approximately 10 miles closer than downtown Phoenix to the northeast and southeast edges of the urbanized area.

For many years, most employment centers in the Phoenix area were clustered from just west of downtown/midtown Phoenix to central Scottsdale and central Tempe. Development of outlying centers was slow, but began to accelerate in the late 1990s. In the Southeast Valley beyond Tempe, employment centers have grown in the Fiesta Mall and downtown/south of downtown Mesa areas, but the amount of employment in these centers is smaller than in most of the Phoenix area's 18 employment centers. An employment center also is developing in the Superstition Mall area.

For people who commute to work, commuting times are more important than distances, given the inexpensive financial cost of commuting relative to housing costs. However, according to Quality of Life Surveys conducted by Morrison Institute in 1999 and 2004, nearly 40 percent of respondents indicated "commute time is not a factor." Among the remainder, the majority would accept an increase in commuting time of about a half hour for a total one-way commute of approximately one hour. Thus, for a sizable portion of the workforce, commuting time/distance to work does not appear to be particularly important.

While working-age people have stimulated much of the development of the Phoenix area, retirement communities also have been an important feature. The Phoenix area has a history of attracting retirees going back to the 1950s. Nevertheless, the popularity of the Phoenix area among retirees has slipped a bit over time, probably due to its increasing urban size. Most retirees prefer to live close to a metropolitan area or in a smaller metro area, but they have not chosen to live in the midst of a large metro area. This preference has been seen historically in the Phoenix area, where most retirement communities were built beyond the fringe of the developed area though most of the earlier communities now have been surrounded by urban growth. More recent retirement communities have continued to be built beyond the fringe or along a barrier to urban development such as Sun Lakes and other retirement communities located along the Gila River Indian Community boundary.

COMMUNITIES NEAR SUPERSTITION VISTAS

Several population centers are close to or within Superstition Vistas:

- Apache Junction, with a 2000 census population of nearly 32,000 and a 2004 estimate of more than 33,000 (according to the Arizona Department of Economic Security) is immediately to the north of the western part of Superstition Vistas and already has annexed some of the area, including the Lost Dutchman Heights area between Baseline and Elliot Roads.
- The unincorporated area of Gold Canyon (identified as Gold Camp in the 2000 census), southeast of Apache Junction, is bordered by Superstition Vistas on three sides. Its 2000 census population of 6,000 is likely to be considerably higher today.
- The unincorporated community of Queen Valley, southeast of Gold Canyon, is within the northeastern portion of Superstition Vistas. It 2000 population of a little more than 800 probably has changed little.
- Superior, a former mining community, is several miles east of eastern border of Superstition Vistas. Its 2000 and 2004 population were each approximately 3,200.
- Florence is a few miles south of Superstition Vistas. The city's population in 2000 and 2004 was about 17,100, but the nonprison population in 2000 was only around 5,200.
- Coolidge, several miles southwest of Florence, is more than 10 miles southwest of Superstition Vistas. Its population was about 7,800 in 2000 and 8,000 in 2004.
- Census tract 2.02 is located west of the southern portion of Superstition Vistas and east and south of Queen Creek. Hereafter referred to as Santan, it is an

unincorporated area that includes Johnson Ranch. It had nearly 6,000 residents in 2000. Since then, considerable home building has occurred in this area.

- Queen Creek partially borders the west side of Superstition Vistas in Maricopa County (a small portion of the town extends into Pinal County). Its population of 4,300 in 2000 grew rapidly to more than 11,000 in 2004 according to DES.
- Mesa (including area strip annexed by the city) forms the remainder of the western boundary of Superstition Vistas. The city's 396,000 residents in 2000 had increased to an estimated 447,000 in 2004.

The following analysis focuses on the communities in or near the western portion of Superstition Vistas that may be models of potential development within Superstition Vistas: Apache Junction, Gold Canyon, Queen Creek, and Santan. Substantial growth since 2000 in each of these areas except Apache Junction may have changed the demographic and economic data from that of the 2000 census, but more recent data are not available.

Senior citizens made up more than one-fourth of the population of Apache Junction and Gold Canyon in 2000, with the median age especially high in Gold Canyon (see Table 2). In contrast, the median age and retiree proportion was below the total of the Phoenix metro area in Queen Creek and Santan. Around 90 percent of the residents of Apache Junction and Gold Canyon were non-Hispanic whites, while the racial/ethnic composition of the Queen Creek and Santan areas mirrored the metro total.

Related to age, the proportion of the residents in the workforce was below the metro figure in Apache Junction and Gold Canyon. Most of the working residents of each of the communities were employed in Maricopa County. The average commute to work was longer than the metro average, especially in Santan, where the average was 38 minutes. A higher than average proportion of the workers were self employed in Gold Canyon and Santan.

In Apache Junction and Santan, a higher than average proportion of the workers were in construction occupations, with fewer in management and professional occupations, contributing to the below average household incomes in these communities. In contrast, incomes were above average in Gold Canyon and Queen Creek. Educational attainment also reflected these variations in occupation and income, with attainment in Gold Canyon above the metro average. The percentage of residents with college degrees was quite low in Apache Junction and Santan.

Variations in housing values by community reflected the differences in incomes. Half of the housing units in Apache Junction and Santan were mobile homes, compared to less than 10 percent metrowide, but this percentage is falling in Santan with the construction of so many new single-family homes. Housing in each of the communities, but especially in Gold Canyon, was more modern than the metro average, with more than a third of the homes five years old or less in 2000. More than 20 percent of the units in Apache Junction and Gold Canyon were used seasonally. Owner-occupancy rates were above average in each community.

TABLE 2
2000 CENSUS RESULTS

	Phoenix Metro	Apache Junction	Gold Canyon	Queen Creek	Santan*
Population	3,251,876	31,814	6,029	4,316	5,962
Age:					
Median	33.2	44.1	56.3	30.9	31.4
Younger than 18 Years Old	26.8%	20.5	12.4	35.4	31.7
18-to-64 Years Old	61.3%	54.2	57.8	59.8	60.7
Older than 64 Years Old	11.9%	25.3	29.8	4.8	7.6
Employment, 16 and Older	60.3%	49.4	44.0	66.0	61.1
Place of Work:					
Same County	96.7%	27.6	34.9	94.7	27.6
Same Place	45.4%	19.6	13.5	14.3	0.8
Travel Time, Mean Minutes	25	31	32	33	38
Household Income, Median	$44,752	33,170	57,705	63,702	42,930
Value of Owned Housing, Median	$127,900	98,400	163,900	202,900	120,700
Housing:					
Single-family Detached	58.4%	26.5	69.5	78.9	48.4
Mobile Home	9.1%	50.0	12.3	20.3	50.4
Built between 1995 and 2000	20.3%	36.2	61.7	37.0	49.0
Residence 5 Years Earlier:					
Same House	41.9%	39.8	27.4	48.0	33.4
Different House, Same County	33.3%	12.0	10.0	33.8	12.2
Different County, Same State	3.1%	24.4	23.5	4.8	39.2
Outside of Arizona	21.8%	23.8	39.1	13.4	15.3

* Census tract 2.02 in Pinal County
Source: U.S. Department of Commerce, Census Bureau.

Less than half of the residents of each community had lived in the same house in 1995. In the three Pinal County communities, more than twice as many people had been living in Maricopa County than in another house in Pinal County in 1995. The proportion that had moved from another state was particularly high in Gold Canyon.

SUPERSTITION VISTAS

The population projections for Superstition Vistas discussed in the next section depend on various assumptions:

- Adequate water at a reasonable price will be available throughout Superstition Vistas. If water use is restricted and/or the price of water is higher than that of other places in the metropolitan area, the development potential of Superstition Vistas will be reduced.
- Fuel prices will not be substantially higher (after adjusting for overall inflation) than at the current time. If the cost of transportation becomes too high, many people likely will

balk at living such a great distance from work. Overall growth rates in large urbanized areas likely will slow if transportation costs rise. In addition, some people likely will choose to live closer to employment centers, raising densities in more centralized parts of the metro area.

- An adequate transportation network will be built on a timely basis. As with high fuel prices, if commute times become too long, a portion of the workforce likely will choose not to live so far from work.
- Price of housing in Superstition Vistas will be less than in more centralized locations of the metro area, continuing the existing relationship of decreasing land costs with distance from the urban core. Low housing prices are the main reason that people tolerate long commutes.
- Employment opportunities will increase to the east of Tempe. A portion of the employment will be "basic" — producing goods or services that are sold to outsiders rather than simply serving the existing population.
- Working-age people will continue to migrate to Sunbelt locations.
- Retirees will continue to move to Sunbelt locations, particularly locations near the fringe of large metro areas.
- Population growth will continue to move gradually outward from the urban core in all directions.
- The existing moderate density of the developed Southeast Valley will continue in Superstition Vistas.

An important consideration for Superstition Vistas is that most of the area is at a relatively great distance from the urban core (midtown Phoenix) and from existing employment centers. The relatively small Mesa employment centers are about 15 miles from the northwestern corner of Superstition Vistas and nearly 50 miles from the southeastern corner. The developing employment center in the Superstition Mall area is only 6 miles from the northwest corner of Superstition Vistas.

Development of Superstition Vistas will be in competition with developments in other outlying locations of the Phoenix area. A considerable amount of undeveloped land closer to the core and at least as close to employment centers remains in north Phoenix and in the West Valley, especially to the southwest.

However, the location of Superstition Vistas compares favorably with other outlying developments. The northwest corner of Superstition Vistas is about 33 miles from the core, similar to the 28-to-35 mile distances of Sun Lakes, Maricopa, Estrella Mountain Ranch, Verrado, Sun City Grand/Surprise, Vistancia, Anthem, and Fountain Hills. The only sizable developments that are more distant are in the Queen Creek and Santan areas and in Casa Grande, all at a distance of 40 to 50 miles from the core. Much of Superstition Vistas is at a comparable distance, though the southeast portion extends to more than 65 miles away from the core.

Currently, the urban fringe has reached the northwestern portion of Superstition Vistas. Though considerable undeveloped land remains in the southeast Gilbert and southeast Mesa areas, and it is a little closer to the core and other employment centers, the proximity of the

Superstition Freeway makes the northwest portion of Superstition Vistas prime for development. As state lands in this portion of Superstition Vistas are released for development, housing construction in some other portions of Pinal County may slow. For example, the roughly 35-mile distance from the northwestern portion of Superstition Vistas to central Phoenix will compare favorably to the 50-mile distance from Johnson Ranch and the 40-plus miles from Casa Grande.

The 2003 interim MAG population projections indicate that in the Maricopa County portion of the Southeast Valley, only Queen Creek will not be built out by 2020 — and it will be before 2030. Thus, the southeastern fringe of development will be entirely in Pinal County by 2030, mostly within Superstition Vistas.

Commuting times from communities west of Superstition Vistas already are longer than the metro average. As more people move to these areas and to Superstition Vistas, commuting times will lengthen if there are no enhancements to the transportation network and/or development of more jobs closer to northwestern Pinal County. On the other hand, the Santan area is as far from employment centers as much of Superstition Vistas yet is experiencing strong home sales, mostly to working-age households whose jobs are in Maricopa County.

The projections produced by MAG in 2003 indicate that an employment center will develop around Williams Gateway Airport, extending to the county line and the edge of Superstition Vistas. However, the amount of employment in this area is not projected to be substantial by 2030 and MAG projects strong employment growth in north Phoenix along I-17 and in the West Valley, along I-10. Thus, while employment growth around Williams Gateway Airport will make living in Superstition Vistas more feasible for some working-age people, development of this area will see considerable competition from closer-in areas to the north and west of central Phoenix.

Other than Sky Harbor, Williams Gateway Airport is the largest airport in the Phoenix area, with the longest runways. Thus, it has the potential to develop into a secondary airport similar to the John Wayne Airport in Orange County. With more numerous take offs and landings of passenger and cargo planes, the area around the airport could develop into a substantial employment center. Depending on the timing of the airport's development, the MAG employment projections through 2030 could prove to be too low, or employment growth could continue after 2030.

The development of the southeastern portion of Superstition Vistas probably is dependent on the development of much more substantial employment centers in or near Superstition Vistas. Construction of an efficient transportation network is especially important to the development of this area.

The retirement of the baby-boom generation (those born from 1946 through 1964) presents a significant opportunity for development in the Phoenix area, with Superstition Vistas having considerable potential. Most people who make a long-distance move related to retirement do so between the ages of the mid-50s and mid-60s. Using national population projections from the U.S. Census Bureau for the 55-to-69 age group, the number of people in this age cohort began to increase substantially in 2002, rising nearly 1.5 million per year. Gains of this magnitude will continue through 2016, followed by lesser increases for several more years. The number of people aged 55 to 69 will nearly double between 1995 and 2025.

The portion of Superstition Vistas north of Highway 60 likely will be a preferred location of retirees. Besides the visual attraction of being close to mountains, the presence of the Tonto National Forest to the north and east of this area will keep it at the edge of the developed area. The presence of retirees in Apache Junction, Gold Canyon and Queen Valley affirms the attractiveness of this area to retirees.

The other location in the Southeast Valley that likely will be attractive to retirees is the area bordering the Gila River Indian Reservation, particularly near Santan Mountain Regional Park. Plans to construct a regional hospital near this area recently were announced. Some parcels of state land exist in this area.

Given that the boom in the retirement-age population already has begun, planning in the northern portion of Superstition Vistas needs to begin soon and move quickly. Early extension of the Superstition Freeway would enhance the desirability of this area.

Population Projections

The northwest portion of Superstition Vistas already is within the development fringe. In the middle scenario, the fringe will move outward to the south and east at about the same pace as in the 1990s (about one-half mile per year). By 2030, it should be considerably into the portion of Superstition Vistas west of highway 79 and south of highway 60. The portion of Superstition Vistas north of highway 60, because of its attractiveness to retirees in the next 15 years, should develop well before the urban development ring otherwise reaches it. Thus, more than one-third of Superstition Vistas could be developed within 25 years (see Table 3 for population projections). Beyond that time, slowing growth of the metro area likely will slow the outward movement of the development ring across Superstition Vistas. The considerable distance of the southeastern portion of Superstition Vistas from employment centers likely will further slow its development, especially compared to the north and west portions of the metro area. Still, by 2060, all but the southeastern portion of Superstition Vistas would be developed.

Projected growth in Superstition Vistas in the high scenario is identical to the middle scenario through 2030. After that, growth accelerates further in Superstition Vistas as well as metrowide rather than slowing as in the middle scenario, until Superstition Vistas is all but built out by 2060. This faster growth in Superstition Vistas in the high scenario could be achieved if the Williams Gateway Airport continues to develop as a major employment center after 2030 or if an additional large employment center develops elsewhere in the Superstition Vistas area.

The low scenario assumes a considerable slowdown in metro growth after the next few years. Developments distant from the urban core and from employment centers — such as Superstition Vistas — are assumed to be disproportionately affected by the slowing growth, especially in the early decades. Later, as the urban fringe reaches Pinal County, its growth accelerates even as metro growth slows a little further. By 2060, only a portion of Superstition Vistas is developed.

Eventually, the 275.4 square miles of Superstition Vistas could be the home of close to 1 million people. Assuming about 30 square miles adjacent to the Tonto National Forest will be placed in a preserve and a density equal to the urbanized area average in 2000 (3,638 persons per square mile) in the remaining 245 square miles, the Superstition Vistas population would be

about 900,000. If the density were just more than 4,000, as in much of the fully developed portions of the Valley, 1 million people would live in Superstition Vistas.

In the middle and high scenarios, the population of Superstition Vistas will be so substantial by 2060 that the demographic profile of its residents likely will be similar to that of the rest of the Phoenix area. This assumes that housing in Superstition Vistas will be offered at a variety of price ranges and that some will be targeted at retirees — similar to the current situation in the Southeast Valley.

However, in the early decades of development of Superstition Vistas, the demographic profile likely will be somewhat different from that of the entire metro area. Like most fringe areas currently being developed, Superstition Vistas in its early years likely will not have much very low-priced housing. Thus, households with very low incomes (who disproportionately are minorities) will not be able to afford to live there. Over time, more very low-income households likely will be able to live in Superstition Vistas as more multifamily housing is built and as the original most affordable housing ages.

The demographic profile of the nation's population is projected to change in coming decades. Such changes should be reflected in the demographics of the Phoenix area and Superstition Vistas. In particular, the median age of the population is projected to advance through about 2030 due to the aging of the large baby-boom generation. After that, the age distribution likely will hold steady and thus remain different from the current age distribution. Minority populations likely will grow as a share of the total, though the rate of growth in nonwhite populations should slow over time as fewer immigrants enter the United States. In addition, birth rates of the descendants of immigrants likely will be lower than those of the immigrants.

TABLE 3
ILLUSTRATIVE POPULATION PROJECTIONS, SUPERSTITION VISTAS

	Population in Thousands			Population Change in Thousands		
	High	Middle	Low	High	Middle	Low
2010	35	35	20	35	35	20
2020	175	175	40	140	140	20
2030	340	340	60	165	165	20
2040	530	485	110	190	145	50
2050	720	610	190	190	125	80
2060	900	710	270	180	100	80

Endnote, 16 September 2005

Over the five months since the first draft of this paper was prepared, several comments have been received and additional studies by other parties have been conducted regarding potential growth of Pinal County and the entire Phoenix metropolitan area. The various projections of growth available at this time range from higher to lower than those presented in this paper. Similarly, some reviewers of this paper feel the projected population to be too high but others believe the figures to be too low.

The reality is that all of the projections, including those in this paper, have a high speculative component, as is typical of projections. However, as noted in the fifth paragraph on page 3, making projections of the metropolitan Phoenix population, particularly the population in Pinal County, currently is more problematic than typical.

Since the population projections prepared by Elliott D. Pollack & Company in September 2005 for the Pinal Partnership may be widely cited, a brief response to those projections follows. Pollack projects only slightly faster growth over the next 10 years for the Phoenix area (Maricopa and Pinal counties) than assumed in this paper, but the difference becomes much greater after that. Pollack assumes metro growth of 1.6 million in the 2010-2020 decade and 2.2 million in the 2020-2030 decade. The latter figure is double that of the 1990s, which was more than 50 percent higher than the previous decade. No single metro area in the country has ever experienced such large growth. Only the consolidated Los Angeles area (the four metro areas of Los Angeles, Orange County, Riverside, and Ventura) has reached such decadal growth figures.

Moreover, Pollack assumes that 35-to-40 percent of the region's growth (as measured by building permits) will occur in Pinal County. This seems to be a high figure given the amount of land that is available for development in Maricopa County just north and west of the currently developed area and that is more proximate to employment centers and urban amenities than the developable land in Pinal County. Pollack's projection seems to be based on six months of data (Pinal County accounted for 30 percent of the *single-family* permits in the metro area in the first half of 2005) and ignores the multifamily market that will be much more active in Maricopa County than in Pinal County for many years to come.