ARIZONA**HEALTH**FUTURES

The Coming of Age

A Technical Paper on Aging, Health and Arizona's Capacity to Care

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Geo-demographics of Aging in Arizona: State of Knowledge

Patricia Gober, Ph.D.

St. Luke's Health Initiatives

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Patricia Gober, Ph.D.
Professor
Department of Geography
Arizona State University

The Coming of Age Project
School of Public Affairs
St. Luke's Health Initiatives
May 2002

ASU Arizona State University

Preface

Aging affects all dimensions of our society, but none so much as health. Because of this, St. Luke's Health Initiatives asked Arizona State University's School of Public Affairs and Morrison Institute for Public Policy to explore Arizona's capacity to meet the demands likely from an aging population.

This complex topic called for analysis from a variety of disciplines. Hence, as a key part of The Coming of Age research effort, we invited experts from different fields to explore and write about the topics essential to understanding public policy choices for an aging future. *The Coming of Age Technical Series* is the result. These papers provide in-depth, objective analyses of important trends and facts at the heart of the coming of age.

These technical papers provided the foundation for *The Coming of Age: Aging, Health and Arizona's Capacity to Care*, as well as *Four Scenarios of Arizona's Future.* All of the products from The Coming of Age project are available at www.slhi.org.

Roger Hughes, Ph.D.
Executive Director
St. Luke's Health Initiatives

John Stuart Hall, Ph.D.
Project Director and Professor
School of Public Affairs
Arizona State University

Executive Summary

This paper outlines the demographic and geographic factors that influence health, social support systems, and capacity. The most important findings are summarized as follows:

1. **Arizona's elderly population will triple in size and represent 26 percent of the population in 2050.** The number of elderly (persons over the age of sixty years) in Arizona will grow from a current level of around 900,000 in 2000, representing some 18 percent of the population to 1.8 million and 24 percent in 2020 and almost three million and 26 percent of the population in 2050.

2. **Arizona's elderly are growing increasingly old.** Between 1990 and 2000, the number of elderly persons grew from 631,648 to 871,536 with different cohorts growing at dramatically different rates: 33.2 percent for persons sixty to sixty-four years of age, 25.4 percent for persons sixty-five to seventy-four, 55.9 percent for persons seventy-five to eighty-four, and 81.8 percent for persons older than eighty-five years, indicating an aging of the aged population. Persons over seventy-five years of age, with significant health care needs, are projected to grow from 7 percent of the total population in 2000 to 12 percent in 2050.

3. **Many Arizona elderly are migrants from outside the state.** Almost one-half (47.6 percent) of the State's retirement-age residents moved here after turning fifty-five years of age.[1] These newcomers to the State are on average younger, wealthier, more highly educated, and most independent of all retirees.

4. **Return migration of the old-old between 1985 and 1990 was demographically insignificant.** Despite widespread claims that return migration will relieve the state of caring for fragile and disabled elderly, there were few return migrants among the very old from Arizona to California and Illinois between 1985 and 1990.

5. **Women will represent an increasing share of the state's elderly population.** The sex ratio (or the number of males per hundred females) falls steadily with age from eighty-four for persons seventy to seventy-four years of age to thirty-six after age ninety-five years. As the population grows older, women will come to represent a larger share of the total.

6. **The state's elderly population is disproportionately non-Hispanic white.** In 1999 non-Hispanic whites comprised 68 percent of the state's total population but 85 percent of the population sixty and older because elderly migrants tend to be non-Hispanic whites and because non-Hispanic whites have longer life expectancies.

Geo-demographics of Aging in Arizona: State of Knowledge

This contribution outlines what is known, what is not known, and what we are unsure about the future demographics of Arizona's elderly population. By demographics, we mean changes in the size, character, and geography of the population. Recognizing that the term, elderly, is in itself ambiguous, we will focus on the population sixty years of age and older because this is when many people leave the work force and when migration rates, which are low during midlife begin to rise again. The elderly will, in turn, be divided into two groups: (1) the so-called "young-old" from ages sixty to seventy-four when good health and the companionship of a mate contributes to an active, fulfilling lifestyle for most people; and (2) the "old-old" after age seventy-five when physical infirmities limit activities of daily life and when widowhood leaves many living alone, sometimes for the first time in life.

This status report is organized into five sections. The first outlines the size and character of the elderly population of Arizona, how it has changed in the recent past, and how it is projected to change over time. The number of elderly in the State will almost triple in size by 2050, the State will experience "an aging of the aged" as the old-old represent an increasing share of the elderly, and women—many of them widows—will represent a larger share of the old. The first section also discusses assumptions underlying projections of the elderly and how viable these assumptions are as the baby boom generation approaches retirement age. The second section breaks down demographic patterns by county and community and demonstrates how unevenly elderly are distributed across the State. The relative roles of elderly migration and aging in place are discussed as processes that influence the size and proportion who are elderly at the community scale. The relationship between migration and health also is discussed. The third and fourth sections grapple with geo-demographic issues of special concern to Arizona: the size, distribution, and health care needs of the State's winter visitors, so-called "snowbirds," and the relationship between elderly parents and their adult children–an especially important subject in a state in which almost one-half of the elderly population are migrants from other states. The fifth and final section articulates avenues for future research using the 2000 Census and sample survey questions and issues to be raised in focus groups with urban and rural elderly.

This report is part of the first phase of a larger body of research dealing with the health impacts associated with a major increase in the number of elderly Arizonians. This initial phase sets forth the current state of knowledge about the geo-demographics of aging in Arizona. In addition, it develops questions and a design for more detailed research in the second phase. After reviewing the scientific literature and government reports, we ask what still needs to be known about the geo-demographics of aging to make better societal decisions about future health care needs of the elderly. In addition, we ask whether these questions are answerable with our current knowledge about gerontology, geography, and demography or whether they must be incorporated into alternative scenarios of the future status of elderly in the State.

Demographics of Aging

Between 1990 and 2000, growth in the number of Arizona elderly was rapid, albeit slightly less rapid than growth in the state's total population—38.0 percent versus 40.0 percent (Table 1). Although the total retirement-age population grew at the state's average, different age cohorts of elderly grew at dramatically different rates: 33.2 percent for persons sixty to sixty-four years of age, 25.4 percent for persons sixty-five to seventy-four, 55.9 percent for persons seventy-five to eighty-four, and 81.8 percent for persons older than eighty-five years. The tendency for the very old to grow fastest resulted in an aging of the aged.

Table 1. Growth in the Number of Arizona Elderly between 1990 and 2000

Age	1990 Population	2000 Population	Percent Growth 1990–2000
60–64	152,874	203,699	33.2
65–74	290,004	363,841	25.4
75–84	151,013	235,473	55.9
85 and over	37,717	68,525	81.8
60 and over	631,648	871,536	38.0
Total population	3,665,228	5,130,632	40.0

Source:

The Arizona Department of Economic Security[2] projects that the number of elderly (persons over the age of sixty years) in the state will grow from around 900,000 in 2000, representing some 18 percent of the population to 1.8 million and 24 percent in 2020 and almost three million and 26 percent of the population in 2050 (Figures 1 and 2). Increases in the size and proportion of elderly have important health care ramifications as doctor visits and hospitalization increase with age. Persons age seventy-five and older average three times more office visits than persons age fifteen to twenty-four. The three major reasons are for general medical examination, postoperative care, and blood pressure screening. The likelihood of hospitalization similarly increases with age with persons eighty-five and older 2.1 times more likely than those sixty-five to seventy-four to be admitted to Arizona hospitals.[3]

There are three reasons for the projected growth in the size and share of the State's elderly population: (1) the aging of the baby boom generation, (2) continued retirement migration, and (3) longer life expectancies. Aging of the baby boom generation and retirement migration are more important than increasing longevity as explanations for the future growth in elderly. Although life expectancies have grown precipitously since 1900, further extensions of longevity will come at significant public costs and with improved management of chronic conditions like heart disease, cancer, and diabetes. Barring unforeseen breakthroughs in medical science, significant increases in life expectancy are unlikely, certainty not within the time horizons of this study.

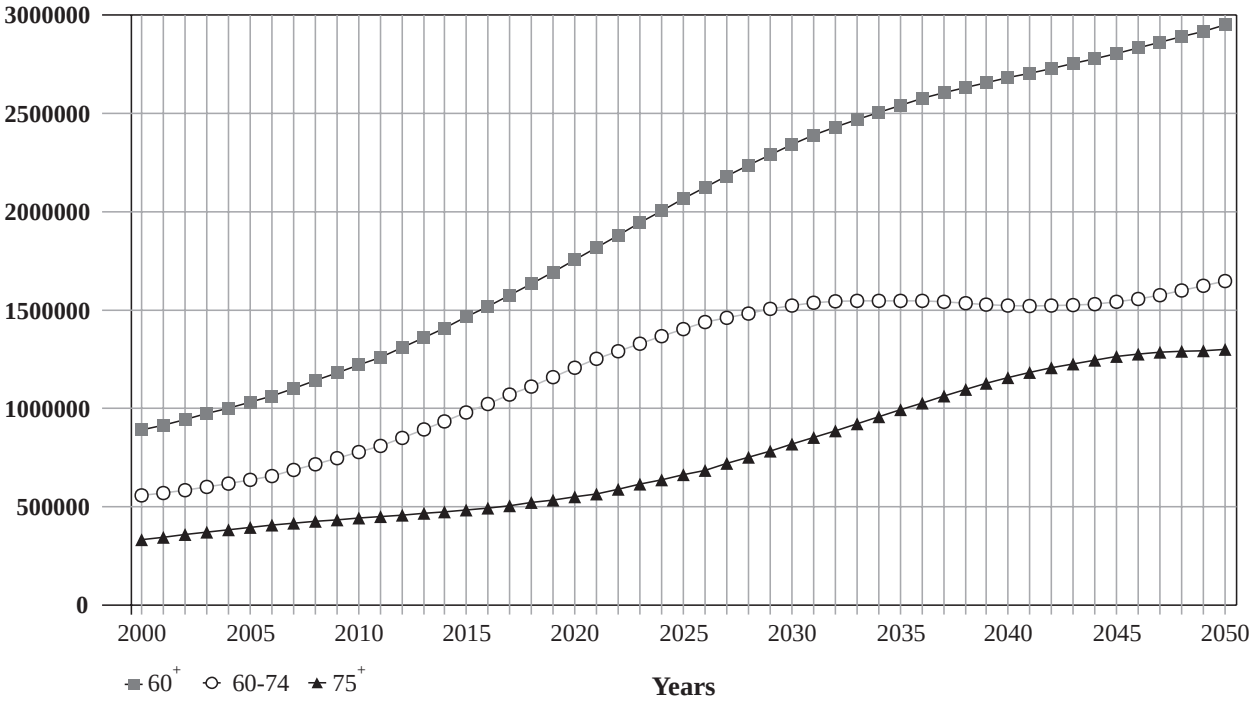

Figure 1. Projected Elderly Population 2000 through 2050.

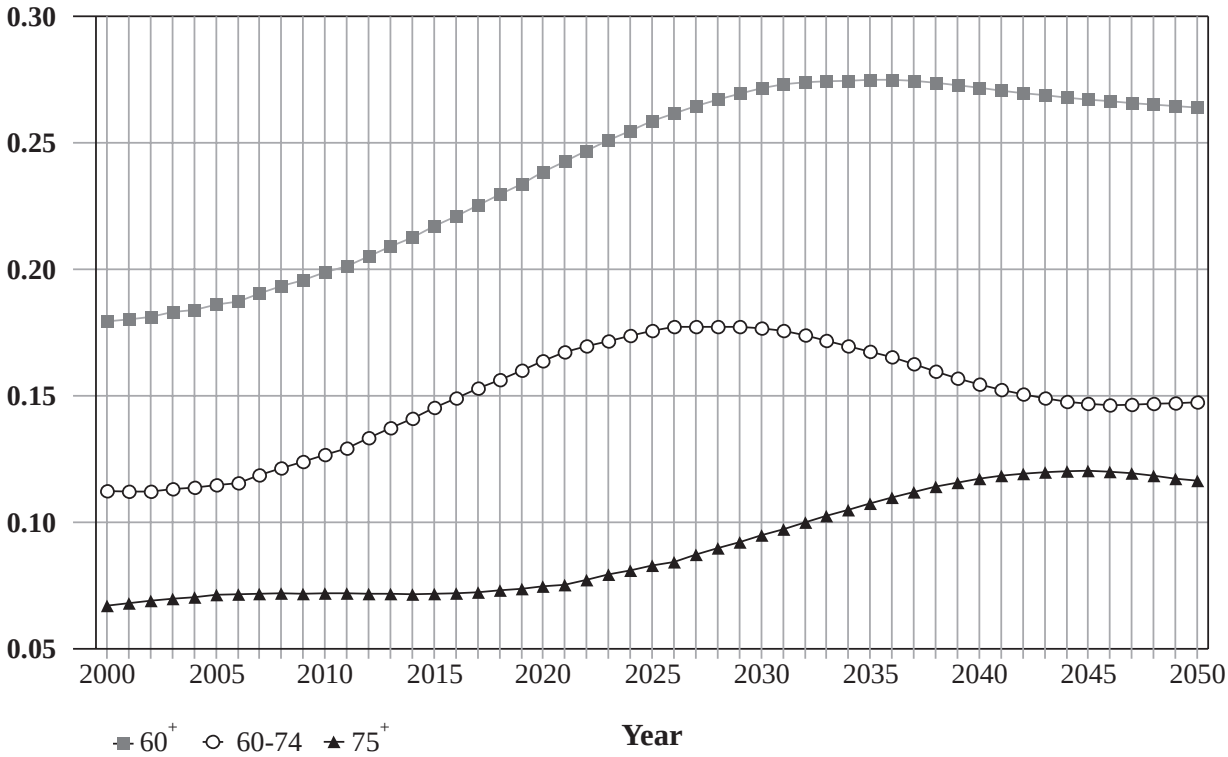

Figure 2. Percent Elderly 2000 through 2050.

The oldest of the baby boom generation, generally regarded as those born between 1946 and 1964, reach age sixty in 2006. Much larger than previous or subsequent generations, baby boomers produce a bulge in the nation's age structure whenever they hit key life stages. Aging of baby boomers has been likened to pushing a "pig through a python." By virtue of their size, they stressed society's institutions when they first went to school, entered college, joined the labor force, entered the housing market, and had children of their own. This saga continues as baby boomers now approach retirement age and demand more and different health care services, anticipate drawing from the social security system, decide where to live in retirement, and enter the retirement housing market.

Added to the aging of the baby boom generation in generating large numbers of future elderly are the effects of retirement migration. Although a majority of elderly Americans choose to remain in place as they age, a meaningful minority of them opt to change their lifestyles and move to a new location. Since the 1960s, migration of the elderly has been highly focused on high-amenity locations, dominated by Florida, with California second, and Arizona third.[4] Arizona Department of Commerce's Office of Senior Living estimates that almost one-half (47.6 percent) of the State's retirement-age residents moved here after turning fifty-five years of age.[5] These newcomers to the State are on average younger, wealthier, more highly educated, and most independent of all retirees. As a result, their presence is felt economically and socially through increased demand for consumer goods, for recreational, health, and protective services, and for housing appropriate for retired couples.[6]

Although elderly are, by no means, the most numerous of the State's migrants, they are more likely than other age groups to put down roots. The tendency to make a long-distance move peaks during the twenties and declines with age thereafter until individuals reach retirement age when again the likelihood of moving rises.[7] For Arizona, this means that the vast majority of our new residents are working-age adults with their school-age children (Figure 3). Although these age groups are likely to move to the State, they are also prone to move out when economic and personal circumstances dictate. We characterize this process as a rapid "through-put" of working age migrants. Elderly, on the other hand, comprise a relatively small proportion of all in-migrants, but they tend to stay put once they arrive. Net migration, or the difference between in-migration and out-migration is higher among persons in their sixties than any other age group except young adults between twenty and twenty-four years of age.

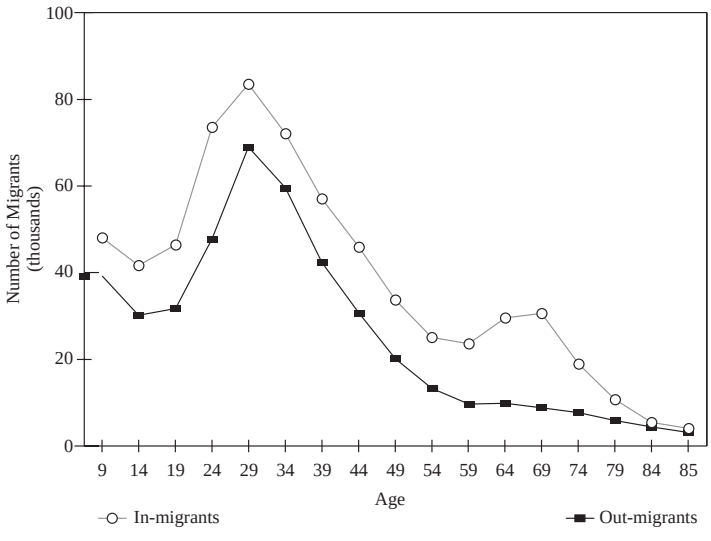

Figure 3. Age-specific in- and out-migration rates

Reasons for elderly migration are many and varied, but center on quality-of-life considerations such as a favorable climate and natural setting, low cost of living, low overall taxes, affordable

housing, a low crime rate, and the availability of medical care.[8] Some geographers argue that older migrants often see quality of life as higher outside of large cities, but they want to live near enough to cities to take advantage of the amenities they offer, such as hospitals and other medical services; sporting events, museums, and the performing arts; and airports.[9] Arizona has been well served in recent years by its ability to offer urban-fringe locations in Maricopa and Pima Counties although the pace of future growth in both counties raises questions of how long, at what level and, indeed, whether elderly migration can be sustained. Increasing congestion, declining housing affordability, and loss in open space have reduced elderly migration elsewhere. California, once a mecca for elderly migrants, is now better known as an origin than as a destination for elderly migration. The same applies to Dade County (Miami), Florida where crowding and crime have led to an exodus of retirees over the past several decades.[10]

It is fairly straightforward to assume, given the extremely low migration rates of middle-aged people, that the vast majority of fifty-year-old Arizonans in 2000 will age in place and constitute a new crop of sixty-year-olds in 2010. Far less clear, however, are how many elderly migrants will move to the State in the years to come. Elderly migration thus is the major uncertainty in DES's projections displayed in Figures 1 and 2. Projections assume that elderly migration in the future will continue at the same pace as between 1985 and 1990, the last period for which age-specific migration rates are available. They assume that the baby boom generation will move at the same rate and in the same direction as its parent's generation; that elderly will continue to see Arizona as an attractive destination, despite the rampant urban growth in what heretofore have been the State's major retirement destinations; and that conditions in the major origin states for elderly migrants (California, Illinois, Michigan, Colorado, and New York) will continue to generate new residents for Arizona at the same rate as in the past. These are, to say the least, heroic assumptions. There is, in fact, a much wider margin of error around DES's projections than generally acknowledged.

An often overlooked, but important, aspect of elderly migration is the so-called "second move" following the amenity-oriented move at the time of retirement. Coming later in life (often after age seventy-five), the second move is often health related. Litwak and Longino[11] theorize that the motivation for this type of move arises when the older person develops chronic disabilities that make household tasks and other activities of daily living difficult to perform. With the inevitable lose of spouse, these tasks often become unmanageable. If there is not someone nearby to help, the older person must move to get the help they need. A national-level empirical study verified an association between the likelihood of moving and higher levels of disability among the elderly.[12] There is intense speculation, but little empirical evidence, that this process has a demographic impact on Arizona's elderly population, thus relieving the State of the burden of providing health and social services.[13]

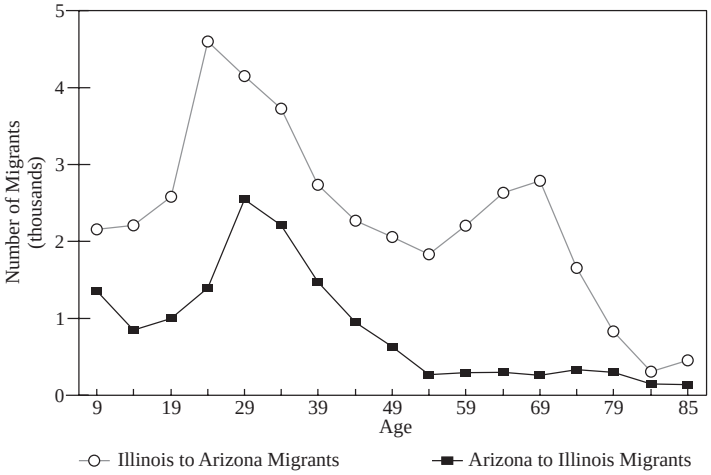

Figure 4.Arizona/Illinois Migration Flows

While 1985 to 1990 migration patterns between Florida and New York show a return flow of elderly widows from Florida to New York, no such relationship appears in flows between Arizona and California and between Arizona and Illinois, our two closest equivalents to the Florida/New York relationship (Figure 4). The second-move phenomenon would be consistent with an uptick in migrants from Arizona to California and from Arizona to Illinois in the seventy-five and older age categories. In the 1985 to 1990 data from Arizona, we see very few old-old persons leaving the state. Of course, results of the 2000 Census may shed new light on this issue when the Public Use Micro-Data Sample (PUMS) files are released in 2002.

DES projections indicate continuation of the trend toward the "aging of the aged" over the course of the next fifty years, as baby boomers transition from the young-old to the old-old. Note the dramatic growth in young-old from 2000 through 2025 and in old-old thereafter, reflecting the pig-through-the-python syndrome (Figures 1 and 2). Persons over seventy-five years of age, with significant health care needs, are projected to grow from 7 percent of the total population in 2000 to 12 percent in 2050.

The growing number and share of old-old residents also implies a growing feminization of the State's elderly population, with attendant health care implications. Life expectancy at birth for the typical U.S. female is eighty years, compared to seventy-four years for males.[14] The sex ratio (or the number of males per hundred females) falls steadily with age, markedly after age seventy-five (Figure 5). The sex ratio falls from eighty-four (eighty-four males for every hundred females) for persons seventy to seventy-four years of age to seventy-four for ages eighty to eighty-four, fifty-two for ages nineteen to ninety-four, and thirty-six after age nineteen-five. As the baby boom generation transitions from young-old to old-old, women will come to represent an increasing share of the total elderly population.

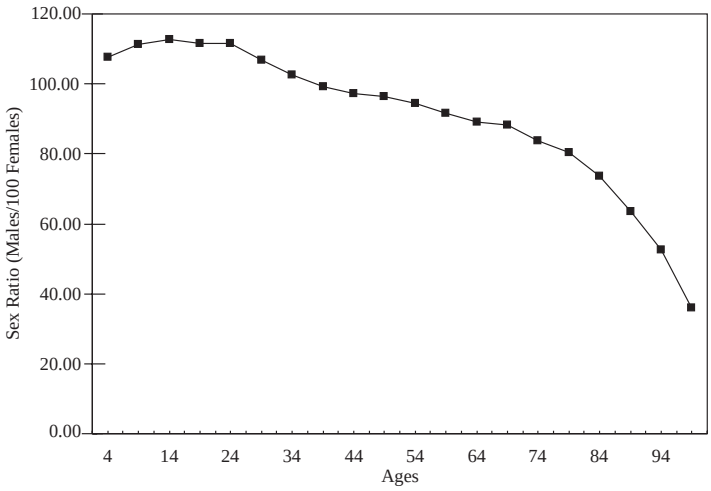

Figure 5. Sex Ratios by Age (Males/100 Females)

The State's elderly population is disproportionately non-Hispanic white and likely will remain so into the near future, because white Anglos represent a disproportionate share of elderly migrants to the State, because white

Anglos have longer life expectancies than minority group members, and because minority birth rates are higher the for white Anglos and thus they generate more young people. In 1999, non-Hispanic whites comprised 68 percent of the population of Arizona as a whole but 85 percent of the population sixty and older. Among African Americans, persons sixty years of age and older represent only 10 percent of the total population and, among Hispanics, this figure is only 8 percent compared to 22 percent for white Anglos (Table 2). Barring unforeseen changes in migration patterns, life expectancies, and birth rates, white Anglos will continue to dominate the sixty and older population although the number of minority elderly will continue to grow in size.

Table 2. Retirement Age Population by Race and Ethnicity, 1999

Race	Total Population	60^+ Population	60^+ as % of Total
White Anglos	3,229,355	694,031	.22
Males	1,591,514	313,046	.20
Females	1,637,841	380,985	.23
Blacks	145,997	143,374	.10
Males	74,814	6,478	.09
Females	71,183	7,896	.11
Hispanic Whites	1,009,764	76,197	.08
Males	507,275	33,648	.07
Females	502,489	42,549	.08
State Totals	4,771,106	814,118	.17

Source:

Geography of Aging

Arizona's elderly population, its share of the total population, and growth potential between 2000 and 2050 are unevenly spread across the State's counties (Table 3). The vast majority of persons over sixty years of age, like the population in general, is concentrated in Maricopa and Pima Counties. But, the number of elderly as a share of the total population is higher in Gila (27 percent), Mohave (30 percent), and Yavapai (32 percent) Counties. By 2050, these proportion's are projected to rise to 36 percent in Gila County, 40 percent in Mohave, and 41 percent in Yavapai Counties.

Sizable growth in the sixty-and-older population in several of the State's nonmetropolitan counties should not obscure the fact that a lion share of the growth in elderly will occur in metropolitan Phoenix and Tucson. Of the projected growth of some two million elderly between 2000 and 2050, two-thirds is expected to occur in Maricopa County alone and another 14 percent in Pima County. These projections, of course, carry the same caveats discussed earlier. They assume that age-specific migration rates will continue in the future as they have in the past; that congestion and rapid urbanization will not erode the quality of life along the urban fringes of Phoenix and Tucson; that baby boomers will be drawn by the same locational attributes as their parents; and that conditions in origin states remain pretty much as they are today.

Table 3. Projected Growth in Arizona's Elderly Population by County

County	60^{+} 2000	% of 2000 Pop.	60^{+} 2050	% of 2050 Pop.	Growth 2000–2050	% AZ Growth
Apache	6,884	.10	15,146	.13	8,262	.4
Cochise	22,801	.19	47,422	.27	24,621	1.2
Coconino	11,892	.10	39,443	.17	27,551	1.3
Gila	13,333	.27	26,692	.36	13,359	.6
Graham	5,358	.15	14,825	.21	9,467	.5
Greenlee	1,244	.14	2,266	.18	1,022	.0
La Paz	5,537	.27	13,856	,39	8,319	.4
Maricopa	485,885	.16	1,849,362	.25	1,363,477	66.2
Mohave	44,463	.30	125,516	.40	81,053	3.9
Navajo	12,726	.14	31,633	.21	18,907	.0
Pima	165,874	.19	461,343	.28	295,469	14.3
Pinal	32,839	.20	86,157	.30	53,318	2.6
Santa Cruz	5,907	.15	17,265	.20	11,358	.6
Yavapai	49,362	.32	13,5195	.41	85,833	4.2
Yuma	25,756	.19	83,023	.24	57,267	2.8
Arizona	889,860	.18	2,949,144	.26	2,059,284	100.0

Source: Census 2000.

The effects of elderly migration on local demography depend a great deal on where you live in Arizona. Age-specific migration rates for Maricopa, Navajo, and Yavapai Counties demonstrate markedly different experiences with respect to elderly migration (Figures 6, 7, and 8). Maricopa County mirrors the State with high levels of in- and out-migration of young adults. Elderly migrants are less numerous but highly efficient in the sense that those who do migrate here tend to stay. Maricopa County experiences a net in-migration of elderly, but within a context of high migration rates for the working age population. Navajo County, on the other hand, has little in- or out-migration of elderly. The County loses young adults and their children to long-distance migration, but for other groups, including the elderly, in- and out-migration balance each other out and affect the base population very little. In Yavapai County, in-migration among the elderly is higher than for any other age group and elderly in-migration far exceeds out-migration. Elderly migration accounts for a sizable proportion of all growth, hence the earlier finding that elderly comprise 32 percent of the County's population today, a figure that is projected to grow to 41 percent in 2050.

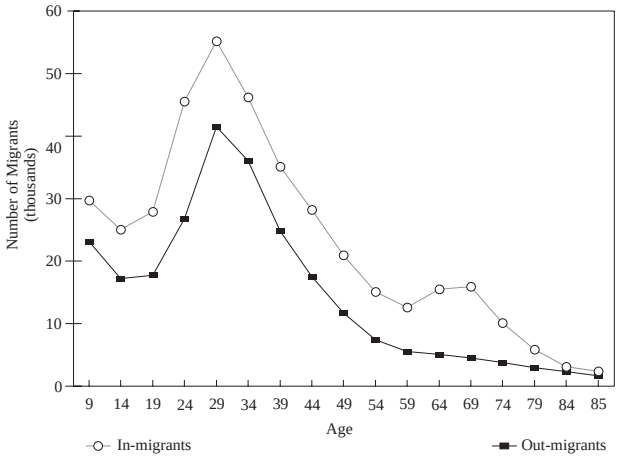

Figure 6. Maricopa in- and out- migration.

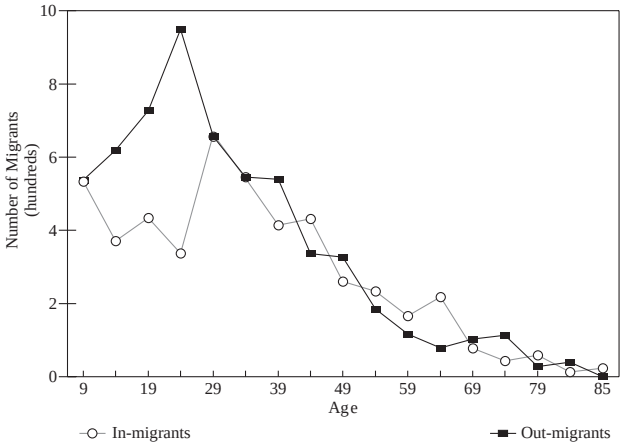

Figure 7. Navajo in and out migration.

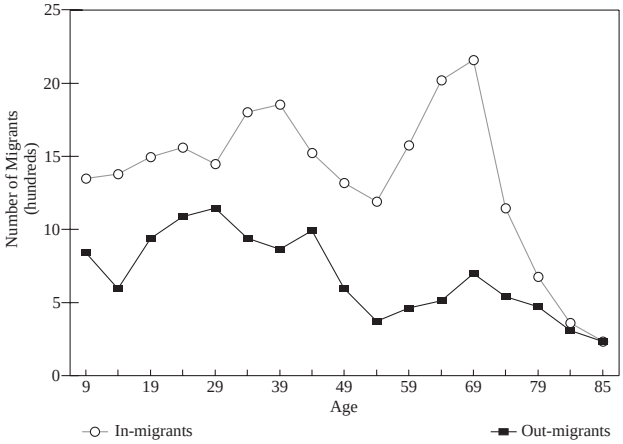

Figure 8. Yavapai in and out migration.

Early returns from the 2000 Census reveal an extremely uneven distribution of elderly at the community level (Table 4). Median age ranges from 69.3, 72.3, 73.2, and 75.0—respectively in Sun Lakes, Green Valley, Sun City West, and Sun City—to the mid- to high twenties in agricultural and Hispanic communities such as Guadalupe (25.2), El Mirage (24.6), Avondale (29.0), and Buckeye (30.0); and in the college towns of Flagstaff (26.8) and Tempe (28.8). Very few places have retirement-age populations close to the state average of 18 percent. More than 90 percent of the population in retirement communities is older than sixty, but in the newly settled suburbs of Chandler (8.3 percent) and Gilbert (5.7 percent) fewer than 10 percent are of retirement age.

Aging in place is one process through which older persons become concentrated in communities and neighborhoods over time. Both short-distance and long-distance mobility is much higher among the young than among the old. As young segments of the resident population move away from established neighborhoods and communities, older residents gradually become a larger proportion of all inhabitants, thereby reshaping the population's overall age structure. This occurs in many urban neighborhoods and is the main process by which the U.S. elderly population suburbanized over the past twenty to thirty years. Both the young-old and the old-old suburbanized faster than the population as a whole. Many simply aged in place in the settings to which they moved with their young families twenty or thirty years ago. Moreover, when older people do move, the majority relocate to destinations that reinforce aging-in-place patterns.[15]

Table 4. Projected Growth in Arizona's Elderly Population by Community

Community	Median Age	60^{+}	Total Pop.	60^{+} as % of Pop.
Avondale	29.0	2,789	35,883	7.7
Buckeye	30.0	746	6,537	11.4
Carefree	55.2	1,139	2,927	38.9
Cave Creek	44.7	734	3,728	19.7
Chandler	31.2	14,705	176,581	8.3
Chino Valley	39.8	1,672	7,835	21.3
El Mirage	24.6	699	7,609	9.2
Flagstaff	26.8	4,153	52,894	7.9
Florence	35.4	2,156	17,054	12.6
Fountain Hills	46.4	5,329	20,235	26.3
Gila Bend	29.3	206	1,980	13.1
Gilbert	30.1	6,287	109,697	5.7
Glendale	30.8	22,508	218,812	10.3
Globe	38.4	1,520	7,486	20.3
Goodyear	36.5	2,931	18,911	15.5
Green Valley	72.2	14,486	17,283	83.8
Guadalupe	25.2	575	5,228	9.9
Kingman	39.6	4,615	20,069	23.0
Litchfield Park	44.7	1,061	3,810	27.8
Marana	34.5	1,875	13,556	13.8
Mesa	32.0	66,025	396,375	16.7
Oro Valley	45.3	8,608	29,700	29.0
Paradise Valley	46.3	3,173	13,664	23.2
Payson	48.9	4,934	13,620	36.2
Peoria	35.6	19,549	108,364	18.0
Phoenix	30.7	145,232	1,321,045	11.0
Pinetop-Lakeside	41.1	745	3,582	20.8
Prescott	47.8	1,344	33,938	33.4
Prescott Valley	37.3	5,186	23,535	22.0
Queen Creek	30.9	336	4,316	7.8
Sahuarita	37.9	609	3,242	21.3
Scottsdale	41.0	44,710	202,705	22.1
Sedona	50.5	3,380	10,192	33.2
Show Low	36.6	3,380	7,695	20.2
Sun City	75.0	34,086	38,309	89.0
Sun City West	73.2	24,318	26,344	92.3
Sun Lakes	69.3	9,592	11,936	80.4
Surprise	46.1	10,712	30,848	34.7
Tempe	28.8	15,730	158,625	9.9
Tombstone	48.7	456	1,504	30.4
Tucson	32.1	73,884	486,699	15.2
Wickenburg	48.4	1,792	5,082	35.3
Willcox	36.9	774	3,733	20.7
Youngtown	65.3	1,746	3,010	65.3

Source: Census 2000

Some planners have argued that the lack of mobility among the elderly, reinforced by local land use patterns, contributes to urban sprawl and leads to an inefficient use of urban housing.[16] Construction of large tracts of single-purpose housing, the dominant pattern of suburban home development, means that there is little variety of housing types within a given neighborhood. Lack of housing choice means that older couples who want to downsize their homes find it almost impossible to alter housing consumption but remain in the same neighborhood. This results in a tendency to age in place which, in turn, means that young families seeking family housing must look farther and farther out at the urban fringe and leads to the spatial concentration of elderly in older established neighborhoods. These neighborhoods, combined with newly built retirement communities at the urban fringe, leads to a high level of residential segregation among the elderly in American cities and cuts down on intergenerational contact.

The second process in driving local age patterns is, of course, migration—both migration of the young and the old. Migration of the young keeps the population young, as in new suburbs like Gilbert and Chandler and the college towns of Tempe and Flagstaff. Migration of the elderly directly increases the number and proportion of elderly in places like Payson and Prescott. In Scottsdale, both processes are at work: settling both young families and new retirees at the urban fringe.

Growing evidence indicates that health-selective migration affects place-to-place variation in health outcomes.[17] People who are unusually healthy for their age, sex, race, and level of education are disproportionately likely to move from locales with poor health outcomes (high death rates, high incidence of heart disease, high levels of functional disability, etc.) to those with good health outcomes, and conversely unhealthy people move from healthy to unhealthy places. As a result, we expect places in Arizona with large numbers of elderly migrants to have better health outcomes, all other things being equal, than those from which elderly are leaving or those in which elderly are aging in place. The relative importance of migration versus aging in place in the growth process of Arizona communities and their health consequences can be examined in greater detail with results of the 2000 Census.

Snowbirds

Above and beyond its permanent resident population of elderly, Arizona experiences an annual influx of temporary visitors, popularly known as “snowbirds.” ASU’s Center for Business Research estimates that around 160,000 winter visitors were living in mobile home and RV/trailer parks during the height of the 1999–2000 winter season and from that estimates that there were between 270,000 and 290,000 winter visitors living in all types of housing units at the peak of the season during the first week of February, 2000.[18] Although snowbirds spend almost $1 billion annually during their stay in the State, they strain local infrastructure, including roads, utilities, water and sewage disposal, and hospitals.

The largest concentration of snowbirds is in the Phoenix/Apache Junction Area where there were an estimated 84,000 winter visitors living in mobile home/trailer/RV parks during the first week of February, 2000. Another 73,000 were found elsewhere in the State, including Yuma with approximately 30,000 winter residents, the Tucson area with 13,000, and thousands more in La Paz, Mohave, and Central Pinal Counties. There is no systematic count of temporary residents living in apartments, condominiums, single-family homes, hotels and motels, and with family or

friends although the Center for Business Research conducts periodic surveys of winter visitors at Reunion USA, held annually at Tri-City Mall in Mesa to learn more about their living arrangements, income, and spending patterns.[19]

The Center for Business Research's 1999–2000 estimates of mobile home/trailer/RV park residents were substantially below earlier estimates. There is concern about whether this decline reflects changes in the survey and sampling design or real reductions in the number of snowbirds in the State. After standardizing the data collection process to earlier efforts, the number of park residents still was down around six percent from the 1989–1999 season signaling a genuine decline in the number of winter visitors in park settings. It is too early, however, to conclude that Arizona is losing its edge as an less attractive destination for winter visitors because mobile home and RV/trailer park residents may have found alternative housing in apartments and condominiums, or taken the opportunity of low interest rates to purchase their own dwelling units. There is simply no way, given current data collection methods, to know the answer to this question.

We do know, however, that snowbirds inflate the elderly population of the State by almost one-third during the winter months. They are geographically concentrated along the urban fringes of the Phoenix/Apache Junction, Yuma, and Tucson Areas. Center for Business Research surveys indicate that more than two-thirds come from Midwestern states and another one-sixth from Canada.[20] They are predominantly young-old married couples in good health. Few indicate a desire to translate their cyclical lifestyles into a more permanent move to Arizona, although there is a high degree of permanence in their transient visits. Recent declines in visitation at mobile home and trailer/RV parks suggest that large increases in the number of winter visitors are unlikely and declines are a distinct possibility.

McHugh and Mings[21] studied the health status and health care needs of snowbirds. They found that seasonal migrants to Phoenix are in good health according to self-reported measures of health status. As in any older population, many report having one or more medical conditions with arthritis, high blood pressure, and joint or limb problems heading the list. There is a strong tendency for snowbirds to use health care services in their home communities, although health care is a year-round concern, and care sometimes must be sought during the winter months. Nearly one-third of snowbirds have a family doctor in Phoenix and one-fifth see a specialist on a regular basis. Canadians, because levels of reimbursement under the Canadian Medicare system are lower than costs in the United States, are less likely than Americans to use local services, more likely to purchase supplementary coverage, and more likely to make plans to return home in case of a medical emergency. Irrespective of national origin, seasonal migrants who visit frequently and who stay for most or all of the winter are more likely to use local services than newcomers and short-term visitors. Although their sheer numbers will continue to stress the emergency medical system, it is unlikely that snowbirds will significantly affect the demand for long-term chronic care because declining health tends to bring an end to seasonal migration.[22] With the onset of chronic health problems and functional disability, snowbirds report that they feel more comfortable nearer to children and friends back home and cease wintering in the state.[23]

Elderly and Their Adult Children

The life satisfaction of most people depends upon the quality of their personal relationships. To elderly households, consisting mostly of married couples and persons living alone, extra-household relationships are of particular importance.[24] Relationships between elderly persons and their adult children and other relatives are critical, both for social purposes and to provide support for acute and chronic medical conditions. The weight of scientific evidence indicates that geographic proximity is the strongest predictor of assistance exchanges among family members.[25]

There is considerable debate in the popular press and in the scientific literature regarding the effects of large-scale demographic and social processes on the availability of family members to support the nation's growing elderly population. Children provide a means of support for their older parents, through coresidence and when they live close enough to provide help with medical needs and activities of daily living. Some argue that societal forces doom the family as a means of support in the future. Declining fertility means that future cohorts will have fewer children on whom to depend for support. This is particularly true for baby boomers who had fewer children than their parents (Figure 9). Increasing labor force participation of women further reduces the ability of women—the traditional family care givers—to provide support for older family members and sustained levels of internal migration separate parents and children, further undermining the support network of older persons.[26]

An alternative view is that demographic, technological, and economic trends offset these forces are helping to keep the extended family intact. Enhanced survival of spouses, children, and siblings reduces the need for external support. Technological advances in communications allow distant family members to maintain a high degree of contact, despite long distances, and growing incomes of all facets of society facilitate getting help in times of illness. How all this

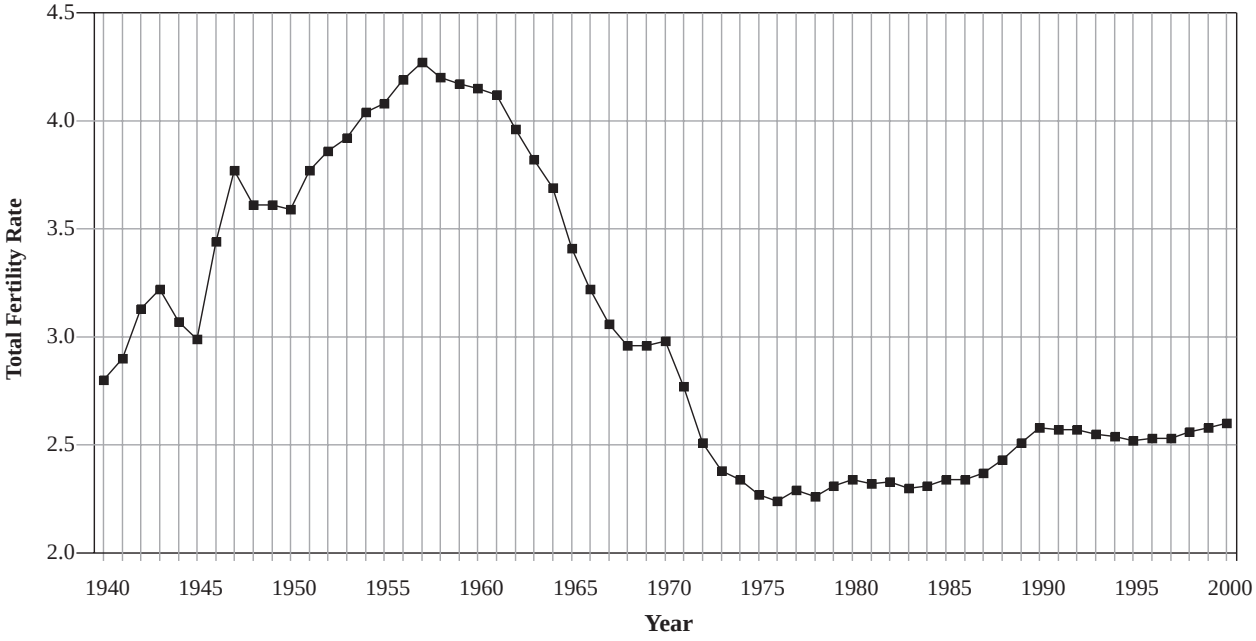

Figure 9. Total Fertility of the United States.

breaks down for Arizona elderly, many of whom are long-distance migrants, is a matter of pressing concern in accessing health care needs.

Nationally, a majority of elderly—75 percent according to Lin and Rogerson[27]—have an adult child living within thirty-five miles and, thus, have the potential to receive support in time of widowhood and infirmity. The national surveys upon which these generalizations are based do not allow us to know the whereabouts of the children of Arizona elderly, but it seems reasonable to conclude, because almost one-half are late-in-life migrants to the State, that the availability of adult children is much lower than in the states from which our elderly migrated.

National studies reveal that distance between parents and adult children is related to age of parent (persons over eighty are more likely to live closer to children), low levels of education (poorly educated seniors and their adult children are less likely to have moved during their lives and thus live closer together), long length of residence (elderly who have never moved are more likely to be close to children), and the existence of many children (more children increases the likelihood of living near one of them).[28] Arizona's elderly migrants are, by virtue of their status as movers and higher than average socioeconomic status, less likely to have children living nearby and, therefore, probably will require more formal systems of support that nearby adult children might otherwise provide.

Issues for Future Research

1. We need to think more systematically about how the growth in elderly will be distributed across the State's communities. Change in the proportion elderly results from four processes: natural increase of the elderly, natural increase of the nonelderly, net migration of the elderly, and net migration of the nonelderly. We need to assess the relative importance of these processes at the community level to obtain more informed projections of the distribution of elderly at the community level.

2. We need to know more about how baby boomers will make locational decisions upon retirement. Will the high rates of retirement migration to the state continue?

3. We need to assess the decline in the number of snowbirds. Is the decline in urban-fringe locations and increasing competition for sites from the working age population reducing the quality of life for temporary winter visitors?

4. We need to know what kind of support adult children provide for their elderly parents, how elderly who do not live nearby their children obtain alternative sources of help, and how likely they are to move to be near children with the onset of major disabilities.

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