MIGRATION TO AND FROM ARIZONA, UPDATED

A Report from the Office of the University Economist

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SUMMARY

On a decadal basis, net migration to Arizona during the 2010s was the least since the 1960s. Between 2010 and 2020, Arizona's net migration was 466,994 — 41 percent less than during the 2000s and 54 percent less than during the 1990s. Arizona's net migration during the 2010s was sixth highest among the states but far less than the 2.5 million in Florida and the 1.9 million in Texas. Washington, North Carolina, and Geogia also had greater net migration than Arizona.

For decades, Arizona's net migration has consisted disproportionately of young adults and those of retirement age. From the 1970s through the 1990s, the number of net migrants between the ages of 15 and 34 was 70 percent higher than the number between the ages of 55 and 74. In contrast, the number of net migrants to Arizona during the 2010s between the ages of 15 to 34 was 18 percent *less* than the number aged 55 to 74. While changes in the nation's age distribution contribute to this change over time in the age distribution of Arizona's net migrants, the net migration *rate* to Arizona of the older population has not fallen as much as that of young adults. The net migration rate of those of middle age has dropped the most.

On an annual basis, net migration to Arizona is highly volatile, varying with the economic cycle. Net migration was quite low during the early years of the last economic expansion (2011 through 2015), as Arizona's economy was slow to recover. In the late 2010s, net migration increased but never matched the peak of the prior expansion. Net migration to Arizona fell substantially in 2021 and 2022, as Arizona's economic growth rate was barely greater than the national average. The pandemic and the expansion of remote work may be partially responsible for changes in the geography of Arizona's net migration in recent years. The weakest net flows of the 2001-to-2022 period occurred in 2021 and 2022 with a number of states, including nearly all of the southeastern states and some of the New England and Great Lakes states. In contrast, Arizona experienced its greatest net inflows from Oregon and Washington during 2021 and 2022. It is unclear whether this represents a short-term aberration or a shift in migration patterns.

Arizona's net in-migration of 36,714 in 2022 ranked seventh among the states. Florida had the highest figure at 244,330, followed by Texas at 181,903 and North Carolina at 82,870. South Carolina, Tennessee, and Georgia also had figures greater than Arizona.

Comparing the age distribution of migrants to and from Arizona with the national average in the 2018-to-2022 period, the share of domestic in-migration to Arizona was substantially higher among those 55 and older, and lower among those younger than 40. Domestic out-migration from Arizona had a similar, but less pronounced, age distribution difference from the nation.

Migration had little effect on the educational attainment of Arizona's population in the 2018-to-2022 period. While migrants on average are better educated than nonmigrants, the educational attainment of in-migrants to Arizona and out-migrants from the state was similar.

In terms of income, Arizona benefited from migration in the 2018-to-2022 period. A closer look shows that in 2022, aggregate income in Arizona increased due to the net in-migration of adults at least 45 years of age, while the net in-migration of those younger than 35 had a small negative effect on income.

DATA SOURCES AND DEFINITIONS

This paper examines migration estimates from each of three sources of migration data for states. Additional sources, such as the Current Population Survey and the Survey of Income and Program Participation, provide reliable data for the nation but not for states.

Migration may be defined in several ways. Conceptually, migration typically is defined as a move of residence from one labor market to another. Migration is therefore distinguished from the movement of people from one dwelling unit to another nearby unit, perhaps without changing their place of employment. However, geographical limitations generally cause migration to be measured as those moving from one state to another, or from one county to another. In both cases, such a move could be within the same labor market. For example, a person could move from Kansas City, Kansas, to Kansas City, Missouri, without changing jobs.

The number of people moving into a state or county (in-migration) minus the number of people moving from a state or county (out-migration) results in net migration — the net change in the population of an area due to people moving into and out of the area. Gross migration — the sum of in-migration and out-migration — sometimes is used as a measure of the overall turnover of people in an area. Migration efficiency is the ratio of the number of in-migrants to the number of out-migrants.

Frequently, migration from one jurisdiction to another within the United States (domestic migration) is distinguished from the migration into the United States of people living outside the country. This international migration consists of immigration — citizens of another country moving to the United States — and the return of U.S. residents to the country after living in another country. Data are available only for the in-migration portion of the international component — no estimate is available of the number of people who move from the United States. Most data sources do not distinguish between documented and undocumented migration. Legal immigration is reported by the U.S. Department of Homeland Security, but only rough estimates of undocumented immigration are available. Total net migration generally is calculated as a residual: total population change minus births plus deaths equals net migration.

Arizona is compared to 11 other states that rank high on the number of net migrants and/or the net migration rate during the 21st century: Colorado, Florida, Georgia, Idaho, Nevada, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Washington.

Internal Revenue Service

The IRS derives migration data from its Individual Master File, which contains information from each individual tax return processed by the IRS. Until 2012, all returns filed with the IRS by late September of each year, accounting for approximately 96 percent of the individual income tax filing population, were used to produce the migration data. Since 2012, all tax returns filed during a calendar year have been used.

Annual data on migration are available from the IRS back to 1981, with the data since 1991 available from the IRS website: <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u>. In this paper, the IRS data are expressed on a tax year basis. For example, the latest data for 2022 represent tax returns filed during calendar year 2022 reporting income for calendar year 2021.

For each state-to-state or county-to-county migration flow, the IRS reports the number of tax returns filed, which approximates the number of households, and the number of personal exemptions claimed, which approximates the number of individuals. Since 1996, aggregate adjusted gross income also has been available.

The IRS determines migration by comparing each taxpayer's address in two consecutive years. If the two addresses are in different counties, the filer is assumed to have migrated. This assumption may not always be correct. For example, if a taxpayer owns more than one dwelling and files from different houses in consecutive years, the filer will erroneously be counted as a migrant. If a taxpayer moves to an adjacent county within the same labor market, such as from Maricopa County to Pinal County, the move is included in the IRS data as migration, when it really represents a local move.

The migration data from the IRS understate the total number of people migrating:

- Not everyone is required to file an income tax return. In particular, the migration of elderly and those with low incomes is understated.
- Not everyone required to file a return does so, at least within the calendar year.
- Prior to 2012, a change in filing status could result in an undercount of the number of migrants; the IRS matched addresses based only on the primary taxpayer's identification number.
- Those moving to the United States from another country generally are not included in the IRS data; the exception is when a U.S. resident living in another country files a return while living in the other country, then returns to the United States in the following year. Thus, the IRS migration figures are particularly low when compared to sources that include both domestic migrants and immigrants.

When the IRS detects a change in a taxpayer's address, it is unclear exactly when that move occurred. For example, a move across county lines that occurred between the filing of the tax return in 2021 and the filing in 2022 is expressed as occurring during tax year 2021, though the move may have occurred during either calendar year 2021 or 2022. Regardless of when the move occurred, the income data refer to the calendar year (2021 in this example) — but it is not known what proportion of the income was received at the previous address versus the new address. Thus, caution is recommended when analyzing the income data of migrants.

The IRS provides migration data as state-to-state flows and as county-to-county flows. In order to maintain confidentiality, only aggregate data are available from the IRS. If fewer than 20 households moved from one county (or state) to another in a year, then even the aggregate data for this county-to-county migration is not disclosed (though it is included in the totals for a county).¹ Because of the undisclosed data, it is not possible to aggregate county figures into a state total. For example, it is not possible to tally the total number of people who move from California to Maricopa County.

With the release of the 2012 data, the methodology used by the IRS was improved and additional data are being released. Improvements in the address-matching process (all taxpayer ID numbers

¹ Prior to 2014, the cutoff was 10 returns.

are now matched) and the inclusion of all returns filed in a calendar year have increased the number of matched records by about 5 percent. Thus, the data for 2011 and earlier years are not exactly comparable to the more recent data. Since many of the tax returns filed after the late September cutoff that was previously used are complex returns filed by very high-income households, the number of high-income returns has increased by 25 percent due to the methodological enhancements. Thus, the recent income data are particularly inconsistent with the earlier data.

At the state level, more-detailed data became available starting in tax year 2012, with migration flows tabulated by adjusted gross income — with gross income placed into one of seven categories, such as \$200,000 and more — and by the age of the primary taxpayer grouped into six categories, such as age 65 and older. The primary taxpayer's age is derived by matching the Social Security numbers on the individual income tax return to information from the Social Security Administration. This detailed IRS file (labeled as the "Gross Migration File" on the IRS website) excludes tax returns with a negative adjusted gross income.

In addition to the number of people migrating, the IRS also reports the number of people not moving across a county line. This number of nonmigrants can be added to the number of inmigrants to obtain an estimate of the number of people identified on tax returns filed with the IRS. This estimate of the population can be compared to population estimates made by the U.S. Census Bureau (through 2000) and for Arizona, the Arizona Office of Economic Opportunity (since 2001). In Arizona, the estimate of the population from the IRS was about 85 percent of the Census Bureau total in the early-to-mid-1980s, but the ratio slipped, dropping as low as 73 percent after 2000. With the improved methodology, the share has been above 75 percent since 2012. The number of personal exemptions counted in the tax returns filed in 2022 as a share of the July 1, 2021 population was 76.1 percent in Arizona.

In 2015 and 2017, inexplicable processing errors caused the reported migration figures to be far too low (2015) and considerably too high (2017). The in-migration and out-migration figures for those years should be considered to be inaccurate. While the net migration figures for those years appear to be more reasonable, caution is urged in using these figures as well.

American Community Survey

The American Community Survey (ACS) is an ongoing survey conducted by the Census Bureau; results are tallied by calendar year, with data currently available for 2005 through 2022.² Sampling error is considerable in less-populous areas and in populous areas when looking at a small subset of the total population, such as unmarried males 35-to-39 years old.

In addition to data for individual years, the Census Bureau releases data for five-year periods. Sampling error is not as large in the five-year periods, but aggregating data over five years makes the results difficult to interpret, particularly if the characteristic being examined is affected by the economic cycle and if a significant change in the economic cycle occurred over

² The 2005 ACS only included people living in housing units; those living in group quarters, such as prisons and college dormitories, were not surveyed. Some of the results prior to 2010 are not exactly comparable to subsequent results. No results are available for 2020 since the pandemic disrupted data collection.

the five-year period. Migration is closely related to economic conditions and five-year periods frequently include a sharp swing in the economic cycle. For example, the most recent five-year period began with the late stages of an economic expansion in 2018 and 2019, the pandemic-caused recession of 2020, and the recovery from the recession in 2021 and 2022.

Tables of mobility cross-tabulated by various characteristics — age, sex, race/ethnicity, citizenship, marital status, educational attainment, income, poverty status, and homeownership — are available from the ACS. Most of these tables are produced for the population age 1 and older, but the income and marital status tables are for the population 15 and older and the educational attainment table is for those 25 and older. The following mobility categories are available at the state level:

- The population living in the state.
- Those who did not move in the last year.
- Those who moved within the same county.
- Those who moved to a different county in the same state.
- Those who moved into the state from another state (domestic in-migration).
- Those who moved into the state from abroad (international in-migration).

A separate table provides data for those who moved out of one state to another state (domestic out-migration). Domestic net migration can be calculated from those moving into and out of a state but within the United States. Total in-migration can be calculated as the sum of those moving from another state and those moving from abroad. No information is available on those moving out of the United States.

The ACS is not well-suited for migration analysis, for two primary reasons. First, the survey asks respondents to report if they moved over the prior 12 months. Since the percentage of people moving from one state to another in any year is small, sampling error is quite large.³

Second, in order to compare migration flows from the ACS to those from the IRS or other sources, the percentage of people migrating that is reported by the ACS must be converted into the number of migrants. While the methodology that is used by the Census Bureau to do this is complex, it ultimately is tied to population estimates made annually by the Census Bureau.⁴ If those population estimates are not accurate, the numeric estimates of migration flows are not reliable. Based on both the 2010 and 2020 decennial censuses, the Census Bureau's estimates substantially overstated Arizona's decadal population change — by more than in any state.⁵ As a result, the 2010-to-2020 net migration figure calculated from the ACS is too high for Arizona. The ACS figure of 603,785 was 29 percent higher than the 466,994 figure from the University of Wisconsin (see below).

³ Nationally, 2.3-to-2.4 percent of the population made an interstate move annually since 2011. ⁴ For more detail on this process, see Chapter 11 of the American Community Survey *Design and Methodology Report*, <u>https://www.census.gov/programs-surveys/acs/methodology/design-and-methodology.html</u>.

⁵ For more information on the accuracy of the Census Bureau's population estimates, see 2010 Census Results for Arizona, November 2011, <u>https://ccpr.wpcarey.asu.edu/sites/default/files/census2010az11-11.pdf</u> and 2020 Census Results for Arizona: Part 1, October 2021, <u>https://ccpr.wpcarey.asu.edu/sites/default/files/ticket.pdf</u>.

The analysis in this paper includes mobility by age, educational attainment, and income during the 2018-to-2022 period based on percentages calculated from the ACS data. Still, results should be viewed cautiously due to substantial sampling error.

University of Wisconsin

The University of Wisconsin's Applied Population Laboratory provides net migration estimates by decade for U.S. states and counties, "Age-Specific Net Migration Estimates for US Counties, 1950-2020" at <u>http://www.netmigration.wisc.edu/</u>. Estimates are available for the last seven decades, which are dated from one decennial census to the next census. For each of the decennial censuses from 1950 through 2020, the census date was April 1. The estimates are available for each decade by age group, sex, and race. Net migration by Hispanic origin is available since the 1990-to-2000 period.

The analysis in this paper examines migration by age but not by sex or race/ethnicity. Age is expressed as five-year groupings through age 74 plus one age group for those 75 and older. The reported age is as of the end of a decade. For example, an individual who migrated at some point during a decade and whose age at the end of a decade is between 25 and 29 could have been between the ages of 15 and 29 when the migration actually occurred.⁶ On average, the age at which the migration occurred for those 25-to-29 years old at the end of a decade was between the ages of 20 and 24.

Conceptually, the methodology for estimating net migration over a decade begins with the census count by single year of age at the beginning of the decade. If no migration or deaths occurred, then the number who were, for example, 30 years old at the beginning of a decade would be equal to the number 40 years old at the end of the decade. The number at the end of the decade is reduced by the number of age-specific deaths that occurred during the decade. For those younger than 10 at the end of a decade, the number is set equal to the number of births by year throughout the decade, adjusted for any subsequent deaths. The result of aging the census count forward and adjusting for births and deaths is an "expected" population at the end of the decade, assuming that no migration occurred. The difference between the expected population and the census count at the end of the decade is assumed to result from net migration. Thus, net migration is calculated as a "residual."

Since this method uses census counts and counts of the numbers of births and deaths rather than estimates derived from samples, conceptually the estimates of net migration should be quite accurate. In reality, undercounts and overcounts of specific population groups are present in the decennial censuses, the magnitudes of which have varied by decade. For example, young people in some minority groups have a history of being undercounted in decennial censuses. An example of an overcount is when a household with more than one home is counted at each home.

The Census Bureau publishes estimates of the size of the undercounts and overcounts by population group. These estimates were used by the University of Wisconsin to adjust each census count. In addition, corrections to the published census counts sometimes are made by the

⁶ For example, someone 25 years old on April 1, 2020 who migrated in April 2010 was only 15 when the migration occurred. Someone 29 years old on April 1, 2020 who migrated in March 2020 was 29 when the migration occurred.

Census Bureau; the methodology incorporates these corrections.⁷ The birth and death data are considered to be quite accurate, but the detailed data — by age, sex, and race/ethnicity — are slow to be released. Thus, estimates of births and deaths for the last 15 months of the 2010-to-2020 decade were used when the estimates of net migration between 2010 and 2020 were made.

This methodology does not allow for net migration to be divided into domestic and international components, nor are estimates of in-migration and out-migration available. The University of Wisconsin calculates a net migration rate as the number of net migrants divided by the expected population. This rate differs from more commonly calculated rates, which typically are based on the population at the beginning of the period.

⁷ The delayed release of detailed results from the 2020 census caused the University of Wisconsin to use the Census Bureau's 2020 "blended base" from its population estimates program, vintage 2022, as the ending population in 2020 by age when it released its data in July 2024.

NET MIGRATION ESTIMATES FROM THE UNIVERSITY OF WISCONSIN

This analysis focuses on Arizona, with comparisons made to other states and to the nation. Net migration estimates for Arizona's counties also are presented. Migration estimates by age group are examined, but migration figures by sex, race, and Hispanic origin are not included in this paper. Because of significant changes in population size between 1950 and 2020, the focus in this section is on the net migration rate in each decade, as calculated by the University of Wisconsin: net migration divided by expected population, expressed per 100 residents of each geographic area, such as state.

Nationally, net migration consists only of net international migration. By state and county, net migration consists of net international migration plus net domestic migration.

United States

The overall net migration rate nationally for each of the last seven decades is shown in Chart 1, along with the number of net migrants. The net migration rate increased in the 1970s from 1.6 to 2.7 and again in the 1990s from 2.8 to a peak of 4.5; it was 3.6 in the 2000s and 3.5 in the 2010s. The number of net migrants rose in the 1970s and 1990s, peaking at 12.1 million in the 1990s; the figure was 10.8 million in the 2000s and again in the 2010s.

In most decades, the number of legal immigrants reported by the U.S. Department of Homeland Security's Office of Immigration Statistics ("Persons Obtaining Lawful Permanent Resident

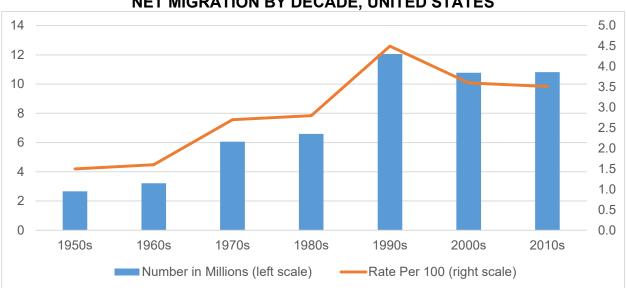


CHART 1 NET MIGRATION BY DECADE, UNITED STATES

Note: The rate is based on the expected U.S. population at the end of the decade.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, http://www.netmigration.wisc.edu/.

Status")⁸ was less than 5 percent fewer than the net number shown in Chart 1, but the differential was larger in the 1970s and 1990s, presumably because of greater undocumented immigration during those decades. However, other factors cause the residual net number from the University of Wisconsin to differ from the reported number of persons obtaining lawful permanent status, including emigration and differences in timing between entry into the United States and being recorded as legal immigrants.

Reasons for immigrating to the United States are varied. Young adults are disproportionately represented, as seen in Chart 2. Some of the young-adult immigrants move to the United States to attend college, as either an undergraduate or a graduate student. Others immigrate for employment opportunities.

In the 1950s and 1960s, the highest net migration rate nationally was in the 30-to-34 age group (immigration typically occurring between the ages of 25 and 29), followed by those 25 to 29, then by those 35 to 39. Immigrants were younger from the 1980s through 2000s, with the highest rate in the 25-to-29 age group, followed by those 20 to 24, then by those 30 to 34. In the 2010s, migration rates were similar in the 20-to-24, 25-to-29, and 30-to-34 age groups.

In most decades, the net migration rate nationally has declined steadily with increasing age beyond the young-adult age groups. However, in the 2000s and to a lesser extent in the 2010s,

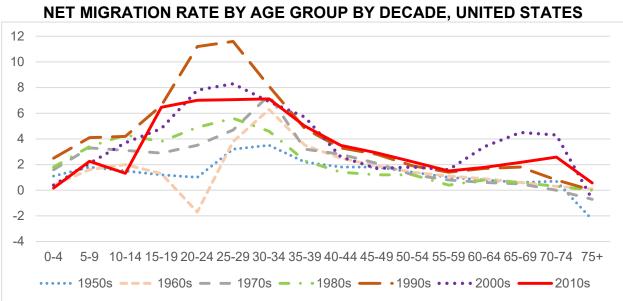


CHART 2

Notes: The rate is based on the expected U.S. population at the end of the decade. Age is expressed at the end of the decade; on average, the age at which migration occurred is five years younger.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, http://www.netmigration.wisc.edu/.

⁸ See the annual Yearbook of Immigration Statistics at http://www.dhs.gov/yearbook-immigrationstatistics.

the rates were higher in the 60-to-74 age groups than among those of middle age. As seen in Chart 2, the higher overall migration rates during the 1990s largely resulted from higher net migration among young adults.

Arizona

Net migration rates in Arizona have been substantially higher than for the nation, as the state receives not only a positive net flow of international migrants but also a net inflow of migrants from other U.S. states. As seen in Chart 3, net migration to Arizona has fluctuated over time, whether measured by the rate or the number. Numerically, net migration to Arizona peaked in the 1990s; the figure during the 2010s was the lowest since the 1960s. The rate has fallen significantly since the 1970s — Arizona's population has become much larger while there has not been an uptrend in the number of net migrants.

The inclusion of domestic migration in state migration figures introduces other reasons for migration. Moves to attend college, moves after the completion of college, and entry and exit from the military contribute to the high migration rates among young adults. In most states, net migration rates decline with age after the 25-to-29 or 30-to-34 age groups, but in some states, including Arizona, there is an increase in rates as individuals reach retirement age. Rates remain relatively high after retirement age as some of those who migrated at retirement move again when they are elderly in order to receive assistance from their children.

The age distribution of Arizona's net migrants is different from that of the nation. While net migration rates in Arizona are relatively high among young adults, in most decades these rates

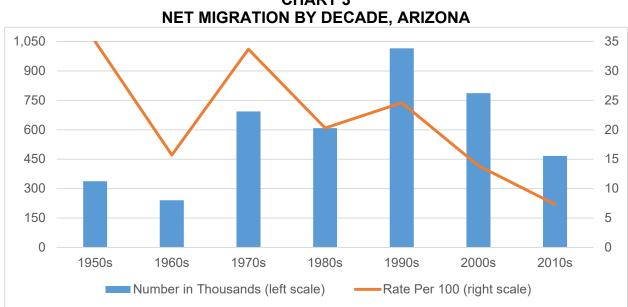


CHART 3

Note: The rate is based on the expected Arizona population at the end of the decade.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, http://www.netmigration.wisc.edu/.

have been lower than the rates at retirement age (see Chart 4). In recent decades, a sizable proportion of workers have retired at an age other than 65, so higher net migration rates are seen for the age groups from 60 through 74 — those retiring and moving at ages 55 through 69.

Arizona's net migration rates among those of middle age have been lower than the rates for young adults and for those reaching retirement age, but the lowest net migration rates in most decades have been among those younger than 10. This is associated with the relatively low rates of net migration among those of younger middle age. In recent decades, Arizona's net migration rates also have been relatively low among those 75 and older. The net migration rates in the 2010s were the lowest of the seven decades in each age group except among those younger than 5 and those 75 and older.

In the 2010s, Arizona's overall net migration rate was 7.3, well below the rates of 13.9 or higher in the preceding six decades. In contrast, the national net migration rate overall has been higher since the 1990s than in the earlier decades. The differential between the Arizona and U.S. net migration rates exceeded 30 in the 1950s and 1970s, but was only 3.8 in the 2010s. Arizona's rate in the 2010s was *less* than the national rate in the younger-than-20 and 35-to-44 age brackets.

The number of net migrants by age during the 2010s are displayed in Chart 5. The number between the ages of 15 to 34 was 18 percent less than the number aged 55 or older. This is a

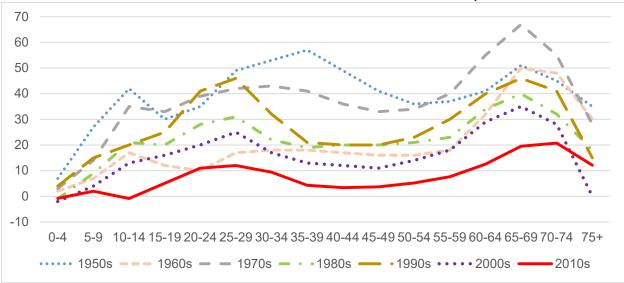


CHART 4 NET MIGRATION RATE BY AGE GROUP BY DECADE, ARIZONA

Notes: The rate is based on the expected Arizona population at the end of the decade. Age is expressed at the end of the decade; on average, the age at which migration occurred is five years younger.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, <u>http://www.netmigration.wisc.edu/</u>.

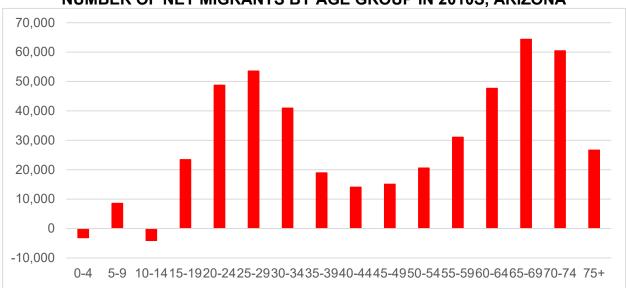


CHART 5 NUMBER OF NET MIGRANTS BY AGE GROUP IN 2010S, ARIZONA

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, <u>http://www.netmigration.wisc.edu/</u>.

significant change from the 1970s through 1990s, when the number 15 to 34 exceeded the number 55 or older by 70 percent.

From the 1970s through the 1990s, the number of net in-migrants between the ages of 15 and 34 was 70 percent higher than the number between the ages of 55 and 74. In contrast, the number of net migrants to Arizona during the 2010s between the ages of 15 to 34 was 18 percent *less* than the number aged 55 to 74. While changes in the nation's age distribution contribute to this change over time in the age distribution of Arizona's net migrants, the net migration rate to Arizona of the older population has not fallen as much as that of young adults. The net migration rate of those of middle age has dropped the most. Relative to the peak net inflows of the 1990s, net migration during the 2010s was 99 percent less among those younger than 15, 56 percent less among those 15 to 34, 72 percent less among those 35 to 54, but only 9 percent less among those 55 or older.

Arizona Compared to Other States

National migration patterns have shifted considerably since the middle of the 20th century. During the 1950s, southeastern states such as Georgia and North Carolina had among the largest numbers of net out-migrants in the nation, while northeastern and Great Lakes states, including New York and Ohio, were among the leaders in the number of net in-migrants. Migration patterns began to shift during the 1960s but it was not until the 1970s that the current patterns were firmly in place. Since the 1970s, the southeastern and Western states have been the leaders in the number of net in-migrants, while northeastern and Great Lakes states have experienced net out-migration, at times of a substantial magnitude. A lesser shift occurred during the 1990s, when net in-migration to California dropped sharply and net in-migration increased to Idaho, Montana, and Utah. During the 1950s and 1960s, more than half of the states experienced net out-migration. California and Florida dominated the net in-migration, with the two states combined accounting for more than the national total of net migration. In contrast, relatively few states have experienced net out-migration since the 1990s: only 11 states in the 1990s, nine in the 2000s, and 10 in the 2010s. Texas ranked second to Florida in the number of net migrants during these three decades, with the two states accounting for one-third of the national total during the 1990s and for more than 40 percent in the 2000s and 2010s. Though California received net in-migration during the 1990s and 2000s, it accounted for just 1 percent of the national total over the three decades.

The change from the historical pattern is due to both the higher national rate of net immigration and the increased dispersion of immigrants throughout the country over the last three decades. Louisiana is the only state with negative net migration in each of the last three decades, but nine states had a cumulative net outflow over the three decades, with New York, Illinois, and Michigan having a larger net outflow than Louisiana.

Only two states have been consistently among the leaders in numeric net in-migration over the seven decades. Florida ranked first or second, and Arizona ranked between fourth and sixth, in each decade. California ranked first or second from the 1950s through the 1980s, Texas has been second or third since the 1970s and Georgia has ranked between third and fifth since the 1980s. Other states ranking in the top 10 include Washington since the 1960s and North Carolina since the 1970s.

The ranking of states is somewhat different on a rate basis. Arizona, Florida, and Nevada ranked among the top three states on the overall net migration rate in each of the first six decades, but Nevada dropped to fourth and Arizona to 11th during the 2010s. Chart 6 displays the overall rate by decade for the 12 comparison states. Until the 2000s, Nevada's rate had been quite steady over the decades, while the rates in Arizona and Florida have been more variable. Though Texas has ranked second or third in number of net migrants since the 1970s, its rate ranked in the top seven only during the 2000s. Washington's rate has been the most consistent among these leading states over the decades. Across the 12 states, the rate during the 2010s ranged only from 5 to 14.

Given the volume of data by state and by age over seven decades, the following analysis of net migration rates by age and by state focuses on the 2010-to-2020 period. The 12 comparison states generally fall into one of three categories regarding peak migration rates by age. Six states — Colorado, Georgia, Oregon, Tennessee, Texas, and Washington — had peaks only among young adults. The other six states had two peaks, one among young adults, the other at retirement age. In Arizona, Florida, Idaho, and South Carolina, the primary peak was among older adults. In Nevada and North Carolina, the stronger peak was among young adults. The exact age groups with the highest rates varied by state, but in each of the six states with strong retirement-age net in-migration, the highest rate was in either the 65-to-69 or the 70-to-74 age group. These age groups represent the age in 2020; on average, individuals were five years younger when they migrated. Among young adults, the highest rate varied across the states from

the 20-to-24 to 30-to-34 age groups. The net migration rate by age group is displayed in Chart 7 for each of the comparison states.

Colorado, Nevada, and Washington had the most variation in rate by age group, with each having very high rates among young adults but rather low rates in some age groups. Much less variation by age group was present in Georgia, North Carolina, and Tennessee.

Among all states, Arizona's net migration rate ranked second or third in each of the 65-and-older age groups. In contrast, Arizona ranked in the 30s in each of the younger-than-20 age groups. Among the 12 comparison states, Arizona's net migration rate ranked 11th or 12th in the younger-than-20 and 35-to-49 age brackets; it ranked higher than fifth only in the 65-and-older age bracket.

Florida had a higher migration rate than Arizona in every age group, ranking first or second in each age group older than 39. Nevada had a higher rate than Arizona in each age group except for the 15-to-24 and 65-and-older age brackets. Idaho had a higher rate than Arizona in each age group except the 20-to-29 and 65-and-older age brackets. Colorado and Washington had a higher rate than Arizona in each age group younger than 50; Oregon, Tennessee, and Texas had a higher rate than Arizona all but one age group younger than 50.

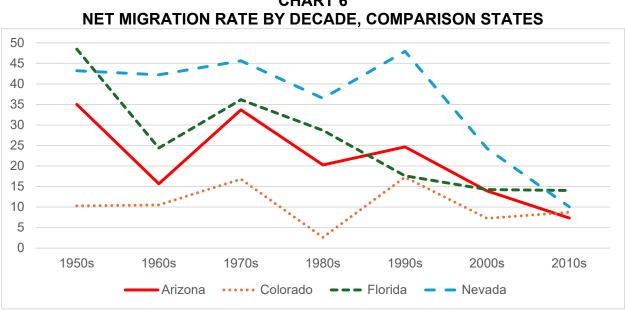
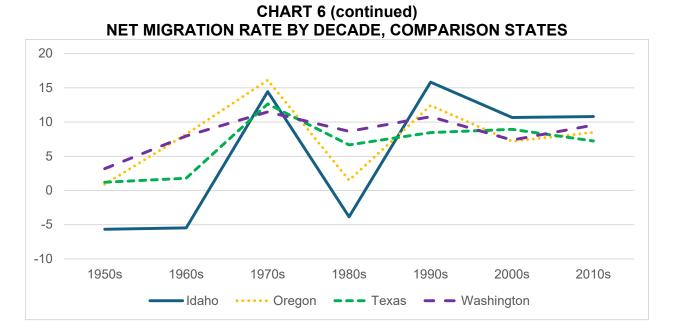
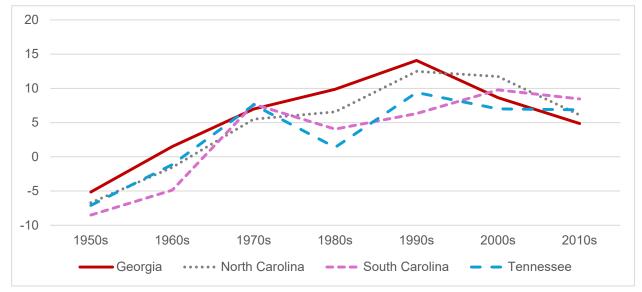


CHART 6

(continued)





Note: The rate is based on the expected state population at the end of the decade.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, <u>http://www.netmigration.wisc.edu/</u>.

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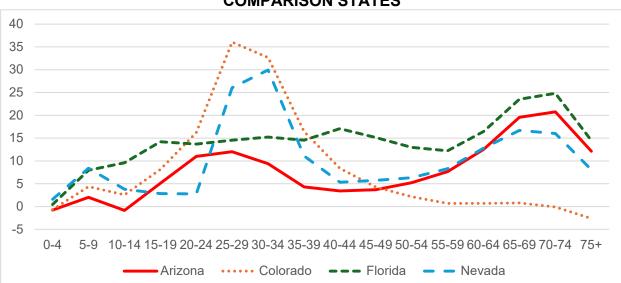
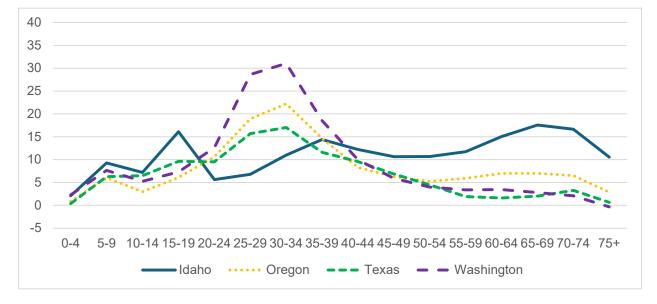


CHART 7 NET MIGRATION RATE BY AGE GROUP, 2010 TO 2020, COMPARISON STATES



(continued)

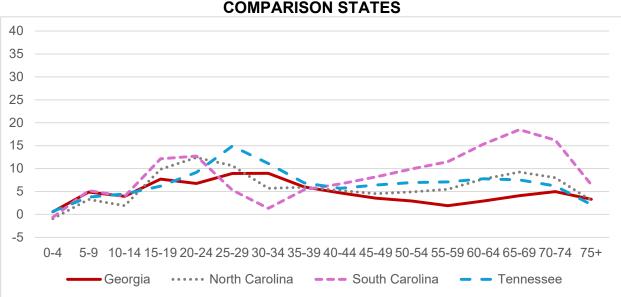


CHART 7 (continued) NET MIGRATION RATE BY AGE GROUP, 2010 TO 2020, COMPARISON STATES

Notes: The rate is based on the expected state population at the end of the decade. Age is expressed at the end of the decade; on average, the age at which migration occurred is five years younger.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, <u>http://www.netmigration.wisc.edu/</u>.

Arizona Counties

Metropolitan Phoenix (Maricopa and Pinal counties) has dominated the state's net migration, accounting for more than 70 percent except during the 1970s. Maricopa and Pima counties combined accounted for nearly all of the state's net in-migration during the 1950s and 1960s. Maricopa, Pinal, and Pima counties combined accounted for more than 80 percent of the state total from the 1970s through the 2010s, including 92 percent during the 2010s. Pima County's share of the state total has fallen considerably, from 24.4 percent during the 1950s to 9.3 percent during the 2010s.

Through the 1980s, more than 95 percent of the net migration to the Phoenix area was to Maricopa County; during the 1990s and 2010s, Maricopa County's share exceeded 90 percent. A population surge in Pinal County during the 2000s dropped Maricopa County's share to 69 percent.

Other than Maricopa and Pima counties, only Yavapai County received net in-migration in each of the seven decades, but Mohave County had net in-migration in each decade except the 1950s, and Coconino and Pinal counties received net in-migration except in the 1960s. Apache County had net in-migration only during the 1970s and Greenlee County had a net inflow only during the 2010s. During the 2010s, seven of the 15 counties experienced a net outflow.

The net migration rate in Maricopa County exceeded the state's figure except during the 2000s, when net in-migration to Pinal County was so strong. Pinal County's rate exceeded the state's figure from the 1990s through the 2010s. Pima County exceeded the state's figure only during the 1950s and 1970s. Mohave and Yavapai counties had a rate higher than the state in each decade other than the 1950s, but hardly any of the other counties have exceeded the state's rate even in one decade. The county rates during the 2010s are shown in Chart 8.

Significant differences in the age composition of net migration also are present by county. In most counties, migration rates vary widely by age group. Moderate-to-strong positive rates in some age groups but negative rates in other age groups are common. None of the counties received net in-migration in every age group.

A minority of counties received net in-migration of young adults between 2010 and 2020. Based on rates, Maricopa and Pima counties had strong net inflows among those in the 25-to-34 age bracket. Pima and Coconino counties had very strong net in-migration among those 18 to 24, mostly related to the in-migration of college students, but Pima County experienced significant net out-migration in the 30-to-34 age group (and to a lesser extent in the 35-to-49 age bracket). Coconino County had substantial net out-migration in the 25-to-34 age bracket (and net out-migration in all older age groups).

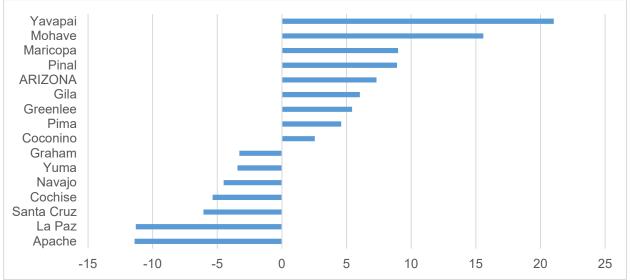


CHART 8 NET MIGRATION RATE BY ARIZONA COUNTY, 2010 TO 2020

Notes: The rate is based on the expected county population at the end of the decade. Age is expressed at the end of the decade; on average, the age at which migration occurred is five years younger.

Source: Calculated from data produced by the University of Wisconsin, Applied Population Laboratory, http://www.netmigration.wisc.edu/.

Otherwise, the net migration rate in the 20-to-29 age bracket, primarily those moving between the ages of 18 and 24, was negative in most counties. This is part of a national phenomenon in less-populous areas, where young people leave to attend college, join the military, or to find jobs in more-populous areas.

Arizona's high net migration rates among those retiring also was not a statewide phenomenon, as Apache, Coconino, Santa Cruz, Graham, and Greenlee counties experienced either net outmigration or modest net in-migration in the older age groups. Rates of 20 or more were present in the following counties and age groups:

- Gila: 60 to 74, with a peak of 34 in the 65-to-69 age group.
- Mohave: 55 and older, peaking at 45 or higher among those 60 to 74.
- Pinal: 55 to 74, peaking at 45 or more among those 60 to 69.
- Yavapai: 50 to 74, peaking at 45 or more among those 60 to 74.
- Yuma: 70 and older, with a peak of 27 in the 70-to-74 age group.

The highest in-migration rates among the older population were between 10 and 19 in Cochise, La Paz, Maricopa, Navajo, and Pima counties.

The state's counties can be placed into the following categories based on net migration rates during the 2010s:

- High migration rates except among young adults and children: Gila, Mohave, and Yavapai (which also had moderately high rates among children).
- Peaks among young adults and retirees: Maricopa, Pima, and Pinal.
- Peaks among retirees: Cochise, La Paz, Navajo, and Yuma.
- Peak rates among middle-age adults and children: Greenlee and Santa Cruz.
- High rates only at college age: Coconino.
- No strong rate in any age group: Apache and Graham.

MIGRATION AND INCOME DATA FROM THE INTERNAL REVENUE SERVICE

As with the University of Wisconsin data, this analysis of IRS migration data focuses on Arizona, with comparisons made to other states and to the nation. Migration figures for Arizona's counties also are presented. Unlike the University of Wisconsin data, annual data are available from the IRS. Figures are available for in-migration and out-migration between all states; net migration, gross migration, and migration efficiency can be calculated from the inflows and outflows. While county totals are available, county data are incomplete since the IRS withholds information when there are fewer than 20 tax returns for movements between any two counties. Migration data by age from the IRS became available starting in 2012.

Most of this section is confined to domestic migration — those moving from one state to another. However, the detailed data for states by age and income include all tax filers.

Migration Flows: Arizona Total

Total annual domestic in-migration and out-migration for Arizona is displayed in Chart 9. Due to the change in IRS methodology adopted with the release of the 2012 data, the figures since 2012 are about 5 percent higher than in prior years. Processing errors for 2015 and 2017 explain the aberrant figures in those years; the in-migration and out-migration figures for those years should be considered to be inaccurate.

In-migration to Arizona is cyclical, typically dropping during economic recessions — in the early 1980s, late 1980s-to-early 1990s, and late 2000s. However, in-migration did not decrease during the recession of the early 2000s and no reduction in flows occurred during the short COVID-induced recession of 2020. Out-migration from Arizona is not as cyclical as

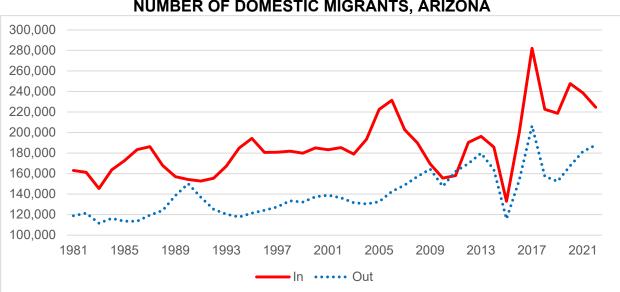


CHART 9 NUMBER OF DOMESTIC MIGRANTS, ARIZONA

Note: The accuracy of the figures for 2015 and 2017 is questionable.

Source: Internal Revenue Service, https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data.

in-migration, but tends to rise during recessions. In-migration and out-migration figures in recent years have been high relative to the historical norm.

Migration efficiency — the ratio of in-migration to out-migration — also cycles with the economy (see Chart 10). For domestic migration, the ratio reached 1.6 or a little higher in the economic expansions of the 1980s, 1990s, and 2000s, but remained below 1.5 during the expansion of the 2010s. During recessions, the ratio has ranged from about 1 to 1.3. A slight downward trend in migration efficiency is present, from an average of 1.4 in the early 1980s to less than 1.3 in the early 2020s.

Arizona's domestic net migration by year is highly cyclical, as seen in Chart 11, due to the cyclical nature of Arizona's economic growth relative to the national average. Using the difference between the nation and Arizona in the calendar-year percent change in the BEA's total employment figures as the economic measure and the IRS's net migration figures, which generally represent a move between early in the same year as the employment change and early in the following year, the correlation from 1980 through 2021 was a strong 0.74.

The peak net migration numbers during the economic expansions of the 1980s and 1990s were similar, but higher values were recorded during the mid-2000s real estate boom. Following the 2008-to-2010 Great Recession, during which Arizona's net migration plummeted, Arizona's economic recovery was quite slow relative to the nation. Thus, net migration to Arizona remained unusually low through 2015. Arizona's economic growth exceeded the national

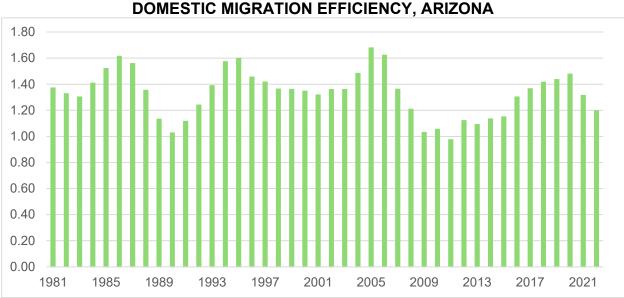


CHART 10 DMESTIC MIGRATION EFFICIENCY, ARIZONA

Note: The accuracy of the figures for 2015 and 2017 is questionable.

Source: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u>.

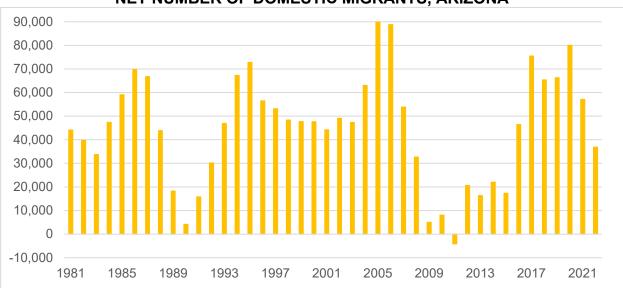


CHART 11 NET NUMBER OF DOMESTIC MIGRANTS, ARIZONA

Note: The accuracy of the figures for 2015 and 2017 is questionable.

Source: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u>.

average from 2016 through 2019, but not by as much as in prior expansions, keeping Arizona's net in-migration less than in the mid-2000s.

During the recessions of the late 1980s-to-early 1990s and late 2000s, Arizona's economic growth rate slipped to below the national average and net migration dropped to near zero. During the recessions of the early 1980s and early 2000s, the Arizona economy fared better relative to the nation, with net migration dropping from the prior peak but remaining moderate.

Net migration to Arizona declined according to the IRS data for 2021 and 2022. The decrease between early 2020 and early 2021 was affected by the pandemic; Arizona's employment did not drop nearly as much as the U.S. average in 2020. The further slowing of net migration between early 2021 and early 2022 corresponds to an employment growth rate in Arizona in 2021 and 2022 barely higher than the national average.

Expressed as a rate relative to the size of Arizona's population, the number of domestic migrants — in, out, and net — has dropped considerably. Over the 42 years of IRS data, the population of Arizona increased 166 percent, while the number of in-migrants rose 38 percent and the number of out-migrants advanced 58 percent. Expressed as a rate relative to the population of the United States, domestic in-migration to Arizona has been cyclical, as seen in Chart 12, but also has trended slowly down. At the same time, out-migration has been flat. As a result, the net migration rate has also trended slowly down.

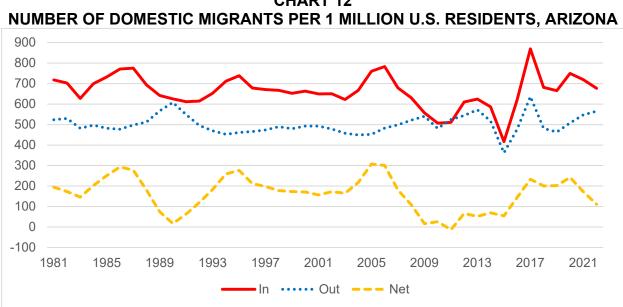


CHART 12

Note: The accuracy of the figures for 2015 and 2017 is guestionable.

Source: Calculated from data produced by the Internal Revenue Service, https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data (migration) and U.S. Department of Commerce, Census Bureau (population).

In 2022, total net migration to Arizona was 36,924, ranking only 29th among the 42 years of IRS data. Excluding the questionable figures for 2015 and 2017, in-migration of 226,615 ranked sixth, but out-migration of 189,291 was the highest on record. Migration efficiency of 1.19 ranked 32nd.

Migration Flows Between Arizona and the Other States, 2001 to 2022

On average, the number of people moving between Arizona and each of the other states is highly dependent on two factors: the population of each state and the distance of each state from Arizona. The distance between the population center of Arizona and the population center of each of the other states and the District of Columbia, except Alaska and Hawaii, was determined. Cumulative in-migration and out-migration rates were calculated from the population of each state in each year from 2001 through 2022. The correlation between distance from Arizona and the migration rates was a strong -0.74 for both in-migration and out-migration. However, the correlation between distance and net migration was lower at -0.39.

Cumulative migration flows to and from Arizona by state from 2001 through 2022 are displayed in Table 1 in two ways: as the numeric total and as a rate calculated using the population of each of the states. Figures are shown for leading states in each of four categories.

The first category consists of states with high numbers of migrants and high migration rates to and from Arizona. Due to the relationship between distance and migration flows, each of the leading states in this category are located in the West. Given its large population and proximity to Arizona, California dominates in the number of migrants to and from Arizona. However,

TABLE 1 MIGRATION BETWEEN ARIZONA AND SELECTED STATES, CUMULATIVE TOTAL FROM 2001 THROUGH 2022

			Migration Rates				
	Nu	Number of Migrants			100,000 Resid		
	In	Out	Net	In	Out	Net	
TOTAL	4,410,389	3,428,357	982,032	65	50	14	
States With High Numbers and Rates							
New Mexico	179,421	159,559	19,862	407	362	45	
California	1,040,848	601,378	439,470	127	73	53	
Washington	226,116	170,297	55,819	150	113	36	
Nevada	151,996	136,271	15,725	262	236	26	
Colorado	201,946	186,284	15,662	180	167	13	
Utah	129,264	122,359	6,905	214	200	14	
Oregon	113,519	102,856	10,663	133	121	12	
Other States Wi	th High Rates						
Alaska	33,426	23,255	10,171	216	151	65	
Wyoming	25,006	19,919	5,087	207	165	42	
South Dakota	24,890	18,801	6,089	137	104	33	
North Dakota	20,999	15,898	5,101	133	101	32	
Montana	32,358	29,427	2,931	147	134	13	
Hawaii	36,337	28,907	7,430	121	96	24	
Nebraska	37,927	27,421	10,506	94	68	26	
Other States Wi	th High Net In	-Migration					
Illinois	209,447	102,235	107,212	75	36	38	
New York	116,013	68,776	47,237	27	16	11	
Michigan	117,659	73,459	44,200	54	33	20	
Minnesota	94,248	60,598	33,650	80	51	29	
Ohio	99,441	68,471	30,970	39	27	12	
Wisconsin	82,886	52,554	30,332	66	42	24	
New Jersey	53,837	27,624	26,213	28	14	13	
Pennsylvania	76,460	53,387	23,073	27	19	8	
States With Net	Out-Migration	1					
Georgia	65,077	65,502	-495	31	31	-0	
Alabama	21,755	23,541	-1,786	21	22	-2	
South Carolina	26,316	29,831	-3,515	26	29	-3	
Arkansas	22,760	26,777	-4,017	36	42	-6	
Oklahoma	43,655	47,778	-4,123	53	58	-48	
Idaho	51,835	56,029	-4,194	149	161	-12	
Tennessee	43,113	50,000	-6,887	31	35	-5	
North Carolina	68,755	75,703	-6,948	33	36	-3	
Texas	295,291	337,868	-42,577	53	60	-7	

Note: Bold figures indicate a top 10 rank.

Sources: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u> (migration) and the U.S. Department of Commerce, Census Bureau (population).

California's in-migration and out-migration rates with Arizona are less than those of other western states. California also provides by far the greatest net number of migrants to Arizona; its net migration rate ranks second. Four of the comparison states are in this category.

States in the second category have high migration rates to and from Arizona, but are lesspopulous states and therefore do not provide large numbers of migrants. Leading states in this category are located in the region from the Great Plains to the Pacific.

California and Washington, listed in the first category, rank in the top 10 on the number of net migrants to Arizona. The other top 10 states on net migration to Arizona are included in the third category. Each of these states is quite populous, but do not have high in-migration and out-migration rates with Arizona. Each is located along a Great Lake or in the Mid-Atlantic region.

Arizona has experienced cumulative net out-migration from 2001 through 2022 to nine states, which make up the fourth category shown in Table 1. Other than Idaho, each of these states are located in the southern portion of the country, from Oklahoma and Texas to the Atlantic Coast. With the exception of Idaho, in-migration and out-migration rates with Arizona are not particularly high. Texas is the only one with large numbers of in-migrants and out-migrants. Six of the comparison states are in this category.

The only comparison state not listed in Table 1 is Florida. Its best fit is in the fourth category, but Arizona received slight net in-migration from Florida between 2001 and 2022. However, a large net outflow from Arizona to Florida occurred in 2021 and 2022. From 2001 through 2022, Florida ranked in the top 10 in migration flows to and from Arizona.

The number of migrants to and from Arizona with each state fluctuates from year to year. Usually, the fluctuations are tied to variations in the relative economic performance of Arizona and each state. In general, the greater the positive difference in the economic growth rate between Arizona and each state, the greater the in-migration to Arizona and the lesser the outmigration from Arizona. However, economic conditions do not have as much of an impact on retiree migration. Over time, changes in the age distribution of the populace of each state also has an effect on migration flows, since young adults migrate at much higher rates than older adults.

Focusing on net migration over the 2001-through-2022 period, Arizona's domestic total has varied from 90,017 in 2005 and 88,832 in 2006 to -4,126 in 2011 and fewer than 8,000 in 2009 and 2010. Arizona received a net inflow in each year from 13 states: Alaska, Hawaii, Minnesota, Wisconsin, Illinois, Indiana, Michigan, Massachusetts, Rhode Island, Connecticut, Pennsylvania, New York, and New Jersey. Even in these states, the net figure varied considerably by year.

Arizona experienced its strongest net inflows overall from 2004 through 2007. It was during this period that Arizona received the highest net migration from most of the East Coast and southeastern states as well as the nearby states of California, Nevada, Utah, and Texas. Another period of strong net inflows occurred from 2017 through 2020. It was during this period that Arizona experienced the largest net inflows from most of the Great Plains and Great Lakes states, as well as most of the northern Rocky Mountain states.

Between these two periods, Arizona experienced particularly weak net in-migration from 2009 through 2011 — the years of the Great Recession — and below-average net migration during the next four years. Its weakest net flows — often net outflows — with many states occurred during this period.

Net migration to Arizona fell substantially in 2021 and 2022, as Arizona's economic growth rate was barely greater than the national average. The weakest net flows of the 2001-to-2022 period occurred in 2021 and 2022 with a number of states, including nearly all of southeastern states — including those along the Atlantic Coast, Gulf Coast, and inland. Arizona also received its weakest net flows in 2021 and 2022 from some of the New England and Great Lakes states. In contrast, Arizona experienced its greatest net inflows from Oregon and Washington during 2021 and 2022. The pandemic and the expansion of remote work may be partially responsible for these changes in the geography of Arizona's net migration in recent years It is unclear whether this represents a short-term aberration or a shift in migration patterns.

There are notable variations during the 2001-to-2022 period in Arizona's net migration figures with most states. For example, net migration from California reached as high as 49,026 in the mid-2000s, dropped to -1,191 in 2011, then rose to more than 32,000 per year from 2020 through 2022. Arizona experienced a net outflow to Oregon (as much as -919) and Washington (as much as -225) in the mid-2010s, followed by the highest net inflows of the period since 2018, reaching to 7,807 with Washington and 2,515 with Oregon.

Other states with which Arizona experienced a significant net inflow in some years but a net outflow in other years include Colorado (3,795 in 2020 and -2,063 in 2009), New Mexico (3,066 in 2016 and -2,405 in 2011), Texas (2,016 in 2005 and -6,647 in 2014), and Florida (2,263 in 2006 and -2,946 in 2022).

Total Migration Flows by State, 2022

In this section and the succeeding sections on counties and metropolitan areas, the latest year's migration flows are analyzed. As noted above, the migration flows with some states in 2022 are historically unusual and may represent a temporary pandemic-influenced aberration.

Arizona's total in-migration of 223,000 in 2022 ranked eighth among the states and was 3.2 percent of the sum of the states, more than its population share of 2.2 percent. In-migration to Florida (701,126) and Texas (615,997) was far higher. California, North Carolina, Georgia, New York, and Virginia also had a greater number of in-migrants, with Tennessee and Washington just behind Arizona. None of these states ranked in the top 10 on the in-migration rate, though most ranked in the top 20. Less-populous states had the highest in-migration rates. Arizona ranked 15th with a figure of 30.7 per 1,000 residents, behind the western states of Idaho, Nevada, and Colorado.

Total out-migration from Arizona totaled 186,286 in 2022, the 13th-highest figure in the country, and 2.7 percent of the sum of the states. Out-migration exceeded 430,000 from California, New York, Florida, and Texas. Other states with a greater number than Arizona included Illinois, Virginia, North Carolina, Georgia, Pennsylvania, Washington, New Jersey, and Colorado. The

out-migration rate ranged widely among these states, with Washington and Virginia among the 11 highest and California, Pennsylvania, and Texas among the 10 lowest. Arizona ranked 21st with a figure of 25.6 per 1,000 residents. Most of the states with the highest out-migration rates were not particularly populous and included the western states of Colorado, Nevada, Idaho, and Washington.

The ratio of in-migration to out-migration was 1.20 in Arizona in 2022 and ranked 15th in the nation. South Carolina had the highest efficiency at 1.59, followed by Florida at 1.53. Other states in the top 10 were Texas, Tennessee, Idaho, North Carolina, Maine, Montana, Delaware, and South Dakota. The lowest efficiencies were 0.53 in New York, 0.57 in California, and 0.67 in Illinois. Others among the bottom 10 were Massachusetts, Louisiana, the District of Columbia, New Jersey, Maryland, Alaska, and Hawaii.

Arizona's net in-migration of 36,714 in 2022 ranked seventh. Florida had the highest figure at 244,330, followed by Texas at 181,903 and North Carolina at 82,870. South Carolina, Tennessee, and Georgia also had figures greater than Arizona. Oklahoma and Idaho ranked just behind Arizona. The states with the greatest net domestic out-migration were Illinois (-86,693), New York (-221,094), and California (-302,543). Ranks on the net migration rate were similar to those of migration efficiency. Arizona's figure of 5.0 per 1,000 residents ranked 12th.

Migration Flows: Arizona Counties

Migration figures for 2022 are shown by county in Table 2. Significant differences are seen by county. Seven counties, led by Pinal, received net in-migration from both other Arizona counties and other states. In contrast, Apache and Coconino counties experienced net out-migration to other Arizona counties and to other states. The other six counties — including Maricopa and Pima — experienced net out-migration to other Arizona counties, but net in-migration from other states.

Pinal County had the greatest overall net in-migration in 2022, ranking first on same-state net flows and second on other state net flows. Maricopa County was second overall, ranking first on net migration from other states but last with other Arizona counties. Yavapai and Mohave counties ranked higher than Pima County overall.

Four counties ranked high on overall migration efficiency and on the net migration rate in 2022: Pinal, Mohave, Yavapai, and Navajo. On each measure, Maricopa and Pima counties ranked below the middle of the 15 Arizona counties.

Though 2022 was not a recessionary year, net migration of 7,119 to Maricopa County was less than in all but five years of the 42-year IRS time series, with each of those five years being part of a significant economic downturn. In-migration of 162,790 was seventh highest of the 42 years, but out-migration of 155,671 was the highest on record except for the questionable figure for 2017. Migration efficiency of 1.05 ranked 38th.

In Pima County, net migration in 2022 of 3,527 ranked 28th among the 42 years. In-migration of 39,878 ranked sixth but out migration of 36,351 ranked third. The efficiency figure of 1.10 ranked 29th.

TABLE 2DOMESTIC MIGRATION BY ARIZONA COUNTY, 2022

		Net Migratio	n	Mig	Net		
		Same	Other	-	Same	Other	Migration
	Total	State	State	Total	State	State	Rate*
Apache	-716	-502	-214	0.81	0.76	0.79	-10.8
Cochise	198	128	70	1.03	1.05	1.01	1.6
Coconino	-758	-401	-357	0.91	0.90	0.92	-5.1
Gila	596	500	96	1.26	1.33	1.12	11.1
Graham	118	84	34	1.08	1.09	1.07	3.0
Greenlee	-25	-91	66	0.96	0.78	1.47	-2.6
La Paz	187	-40	227	1.18	0.91	1.41	11.1
Maricopa	7,162	-11,708	18,870	1.05	0.71	1.17	1.6
Mohave	4,225	-174	4,399	1.43	0.91	1.56	19.5
Navajo	2,039	1,968	71	1.42	1.67	1.04	18.9
Pima	3,441	-308	3,749	1.10	0.97	1.15	3.3
Pinal	13,722	8,771	4,951	1.50	1.56	1.41	31.2
Santa Cruz	527	271	256	1.30	1.21	1.58	10.8
Yavapai	4,879	1,949	2,930	1.42	1.43	1.41	20.2
Yuma	1,206	-419	1,675	1.14	0.82	1.26	5.8

* Total domestic net migration per 1,000 county residents.

Sources: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u> (migration) and Arizona Department of Administration, Office of Employment and Population Statistics, <u>https://population.az.gov/population-estimates</u> (population).

Population growth in Pinal County rapidly increased in the early 2000s, as homebuilders from Maricopa County began to open new subdivisions in earnest. Thus, the 2022 ranks are quite high over the 42-year period. Net migration of 13,773 ranked seventh, in migration of 41,346 ranked fourth, and out migration of 27,573 also ranked fourth. The efficiency figure of 1.50 ranked 11th.

A summary of 2022 migration flows by county follows:

- Apache. Approximately half of the in-migration and out-migration was with other Arizona counties, in particular Maricopa (26 percent of in-migration) and neighboring Navajo (25 percent of out-migration). The next-highest flows were with the adjacent New Mexico counties of McKinley and San Juan. Net migration to Navajo County was -641, accounting for 90 percent of Apache County's overall net migration figure of -716. In contrast, Apache County received a net inflow from Maricopa County.
- Cochise. Only one-third of the in-migration and out-migration was with other Arizona counties. Pima County accounted for 16 percent of the in-migrants and 18 percent of the out-migrants; Maricopa County's shares were low at 10 percent of in-migration and 8 percent of out-migration. The next-highest figures were with Army Post Office addresses, reflective of the movement of Fort Huachuca personnel. Net migration with Yavapai County was 161, accounting for 81 percent of the overall net migration figure of 198. A small net outflow existed with Pima County.
- Coconino. Approximately half of the in-migration and out-migration was with other Arizona counties, in particular Maricopa (28 percent of in-migration and 26 percent of out-migration) and bordering Yavapai. The next-highest figures were with adjoining

Navajo County, as well as Pima and Apache counties. Net migration with Yavapai County was -264, accounting for 35 percent of the overall net migration figure of -758. A small net outflow existed with Maricopa County.

- Gila. Seven-in-10 of the county's in-migrants came from other Arizona counties, the second-highest percentage of any county. Two-thirds of out-migrants moved to another Arizona county. Maricopa County accounted for 46 percent of in-migrants and 34 percent of out-migrants, each the second-highest share of any county. More than 93 percent of Gila County's net in-migration of 596 came from adjacent Maricopa County.
- Graham. Nearly two-thirds of the county's in-migration and out-migration was with other Arizona counties. Maricopa County accounted for 19 percent of in-migrants and 20 percent of out-migrants. Neighboring Greenlee County accounted for 18 percent of the net in-migration of 118; Graham County experienced slight net out-migration to Maricopa County.
- Greenlee. More than 60 percent of the county's in-migration and 75 percent of its outmigration was with other Arizona counties, with the latter share the highest of any county. Bordering Graham County accounted for 29 percent of in-migrants and 31 percent of out-migrants; Maricopa County's shares were only 8 percent and 14 percent. Greenlee County had slight net out-migration to Graham County and to Maricopa County, which combined was -56; total net migration in Greenlee County was -25.
- La Paz. Nearly 35 percent of the county's in-migration and 45 percent of its outmigration was with other Arizona counties. Maricopa County accounted for 19 percent of each. Of the net in-migration of 187, Maricopa County accounted for 18 percent. La Paz County had a net outflow to neighboring Mohave County.
- Maricopa. Only 18 percent of the in-migrants to Maricopa County came from another Arizona county and only 26 percent of the out-migrants moved to another Arizona county, each the second-lowest figure among the 15 counties. Adjoining Pinal County accounted for more than 7 percent of the in-migrants and 13 percent of the out-migrants. Maricopa County experienced a net outflow to eight Arizona counties, particularly Pinal at -9,088. Total net out-migration to other Arizona counties was -11,708, but net migration from out of state was 18,870. More detail on Maricopa County's migration flows is in the next subsection on metro areas.
- Mohave. Less than 13 percent of the county's in-migrants came from other Arizona counties and intrastate out-migration accounted for 20 percent of the total, each the lowest share in any county. Neighboring Clark County, Nevada, accounted for the highest shares of in-migrants and out-migrants, but the shares were just 9-to-10 percent of the total. The next-largest inflows came from Maricopa County and several counties in Southern California. More than 75 percent of Mohave County's net in-migration of 4,225 came from the five counties making up the Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino, and San Diego metro areas. Clark County contributed 13 percent. There was a small net outflow to Maricopa County.
- Navajo. More than 70 percent of the county's in-migrants came from other Arizona counties, the highest percentage of any county. Six-in-10 out-migrants moved to another Arizona county. Maricopa County accounted for 34 percent of in-migrants and 30 percent of out-migrants. Other counties with significant flows included adjoining Apache and Coconino counties, as well as Pinal and Pima. More than 96 percent of Navajo County's

net in-migration of 2,039 came from other Arizona counties, with Maricopa accounting for 45 percent and Apache for 31 percent.

- Pima. Less than 27 percent of the in-migrants to Pima County came from another Arizona county and 30 percent of the out-migrants moved to another Arizona county. Maricopa County accounted for 12 percent of the in-migrants and 14.5 percent of the out-migrants. Pima County experienced a net outflow to six Arizona counties, including Maricopa and Pinal. Its intrastate net migration was -308, while interstate net migration was 3,749. More detail on Pima County's migration flows is in the next subsection on metro areas.
- Pinal. Migration flows with the rest of Arizona accounted for more than 55 percent of Pinal County's in-migration, out-migration, and net migration. Maricopa County alone accounted for 52 percent of Pinal County's in-migration, 45 percent of its out-migration, and two-thirds of its net migration. Migration efficiency was strong at 4.03 with the five counties making up the Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino, and San Diego metro areas, which accounted for 14 percent of Pinal County's total net migration of 13,722. Efficiency was even stronger (4.50) with the Seattle metro area, which accounted for nearly 6 percent of total net migration.
- Santa Cruz. A high 69 percent of the in-migration and 74 percent of the out-migration was with other Arizona counties. Adjacent Pima County alone accounted for 46 percent of the in-migrants and 52 percent of the out-migrants; Maricopa's shares of each were 16 percent. Net migration was positive with each of these counties that combined accounted for 43 percent of Santa Cruz County's total net migration of 527.
- Yavapai. Less than 40 percent of the county's in-migration and out-migration was with other Arizona counties. Maricopa County accounted for 27 percent of the in-migrants and 23 percent of the out-migrants. Other counties providing significant inflows included neighboring Coconino, as well as several counties in Southern California. More than 34 percent of Yavapai County's net in-migration of 4,879 came from Maricopa County. The five counties making up the Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino, and San Diego metro areas accounted for 52 percent.
- Yuma. A low 20 percent of the in-migration and 27 percent of the out-migration was with other Arizona counties. Maricopa County accounted for 12 percent of the in-migrants and 18 percent of the out-migrants. Net migration was negative with Maricopa County. The five counties making up the Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino, and San Diego metro areas accounted for 81 percent of Yuma County's total net migration of 1,206.

Migration Flows: Metropolitan Areas

Since the IRS does not publish the data for all county-to-county migration flows, only incomplete results are obtained from aggregating counties into metropolitan areas. Metro Phoenix consists of Maricopa and Pinal counties, but limited disclosed data for Pinal County forced the metro analysis to be based solely on Maricopa County. Metro Tucson consists only of Pima County. Table 3 compares Maricopa and Pima counties on net migration and migration efficiency with selected metropolitan areas in 2022. Only those counties for which both inflows and outflows are published are included in the figures for the selected areas. In some metro areas, the list of counties for which data are available differs from Maricopa County to Pima County.

TABLE 3MIGRATION IN MARICOPA AND PIMA COUNTIESWITH SELECTED METROPOLITAN AREAS, 2022

	Net Mi	Net Migration		ration Efficie	ciency	
	Mari-	-	Mari-		Differ-	
	сора	Pima	сора	Pima	ence	
Las Vegas-Henderson-North Las Vegas, NV	489	140	1.22	1.30	-0.08	
San Diego-Chula Vista-Carlsbad, CA	1,667	375	1.64	1.57	0.07	
Riverside-San Bernardino-Ontario, CA	3,045	331	2.32	1.86	0.46	
Las Cruces, NM	-35	24	0.89	1.28	-0.39	
Albuquerque, NM	195	3	1.19	1.01	0.18	
El Paso, TX	0	35	1.00	1.15	-0.15	
Los Angeles-Long Beach-Anaheim, CA	6,126	788	2.31	2.00	0.31	
Oxnard-Thousand Oaks-Ventura, CA	557	35	2.47	1.55	0.92	
Bakersfield-Delano, CA	261	58	1.94	1.98	-0.04	
Provo-Orem-Lehi, UT	-79	18	0.92	1.16	-0.24	
Salt Lake City-Murray, UT	98	88	1.10	1.74	-0.64	
Ogden, UT	-82	-9	0.86	0.95	-0.09	
Colorado Springs, CO	-92	-21	0.92	0.94	-0.02	
Denver-Aurora-Centennial, CO	196	81	1.07	1.13	-0.06	
Salinas, CA	135	73	2.06	3.35	-1.29	
Reno, NV	129	56	1.31	1.95	-0.64	
San Jose-Sunnyvale-Santa Clara, CA	533	2	1.63	1.01	0.62	
Sacramento-Roseville-Arden-Arcade, CA	688	79	1.86	1.81	0.05	
San Francisco-Oakland-Hayward, CA	1,440	192	2.10	1.72	0.38	
Vallejo, CA	141	74	1.89	2.45	-0.56	
Santa Rosa-Petaluma, CA	128	65	1.82	2.86	1.04	
Boise City, ID	-65	26	0.92	1.16	-0.24	
San Antonio-New Braunfels, TX	-603	-81	0.54	0.76	-0.22	
Austin-Round Rock-San Marcos, TX	-698	-39	0.56	0.85	-0.29	
Dallas-Fort Worth-Arlington, TX	-1,975	-208	0.57	0.68	-0.11	
Bend, OR	141	67	1.71	2.16	-0.45	
Portland-Vancouver-Hillsboro, OR-WA	1,399 -725	181 -59	1.72 0.68	1.45 0.84	0.27 -0.16	
Houston-Pasadena-The Woodlands, TX	-725 287	-59 57	0.00 1.74	0.64 1.54	-0.16	
Spokane-Spokane Valley, WA	270	51	1.74	1.98	-0.48	
Omaha, NE-IA	-98	7	0.92	1.96	-0.46 -0.14	
Kansas City, MO-KS Seattle-Tacoma-Bellevue, WA	3,223	722	2.06	3.22	-0.14	
Minneapolis-St. Paul-Bloomington, MN-WI	727	84	1.53	3.22 1.45	0.08	
Chicago-Naperville-Elgin, IL-IN	3,614	192	2.21	1.54	0.08	
Milwaukee-Waukesha, WI	556	65	1.90	2.16	-0.26	
Crestview-Fort Walton Beach-Destin, FL	-75	-23	0.71	0.78	-0.20	
Atlanta-Sandy Springs-Roswell, GA	-220	-18	0.85	0.88	-0.03	
Detroit-Warren-Dearborn, MI	270	67	1.24	1.58	-0.34	
Tampa-St. Petersburg-Clearwater, FL	-470	-7	0.57	0.95	-0.38	
Palm Bay-Melbourne-Titusville, FL	-98	-36	0.56	0.66	-0.10	
Washington-Arlington-Alexandria, DC-VA-MD	210	-8	1.17	0.98	0.10	
Miami-Fort Lauderdale-West Palm Beach, FL	-39	-2	0.96	0.99	-0.03	
New York-Newark-Jersey City, NY-NJ	1,392	49	1.80	1.30	0.50	
Boston-Cambridge-Newton, MA-NH	173	18	1.24	1.13	0.00	
Anchorage, AK	343	48	2.16	1.55	0.61	
Urban Honolulu, HI	271	23	1.57	1.16	0.41	
					÷	

Notes: Metro areas are listed by distance from Phoenix. Data are limited to those counties within metro areas for which the IRS disclosed both in-migration and out-migration flows and for which either the inflow or outflow exceeds 250 with Maricopa County and 100 with Pima County. The county composition of a metro area may differ between Maricopa and Pima counties.

Source: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u>.

Seven metro areas provided the most net in-migration to both Maricopa County and Pima County, though the rank order varies somewhat between the two counties: Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino, San Diego, San Francisco-Oakland-Hayward, Portland-Vancouver-Hillsborough, Seattle-Tacoma-Bellevue, and Chicago-Naperville-Elgin. Four metro areas, all in Texas, received the most net out-migration from both Maricopa County and Pima County, though the rank order varies somewhat between the two counties: Dallas-Fort Worth-Arlington, Houston-Pasadena-The Woodlands, Austin-Round Rock-San Marcos, and San Antonio-New Braunfels.

The list of metro areas with which Maricopa and Pima counties had the highest migration efficiency varies. Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino, Seattle-Tacoma-Bellevue, and Salinas were in the top 10 for each county. The list is similar for those metro areas with which Maricopa and Pima counties had the lowest migration efficiencies of less than 1, with each of these metro areas in Texas or Florida. Of the 46 metro areas listed in Table 3, net out-migration occurred between Maricopa County and 15 areas; net out-migration was present between Pima County and 12 metro areas. For each county, four of these metro areas are in Texas and four are in Florida.

Of the 46 metro areas listed in Table 3, migration efficiency was higher in Maricopa County than in Pima County in 18. Efficiencies were consistently higher in Maricopa County with Southern California metro areas. Efficiencies were consistently higher in Pima County with metro areas in Nevada, Utah, Idaho, Colorado, Texas, and Florida.

Migration Flows by Age

Beginning with tax returns filed in 2012, the IRS has provided data by the age of the primary taxpayer, divided into six age groups: 25 and younger, 26 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older. The data file that contains the age data is not limited to domestic migrants.

Based on all nonmigrant tax returns filed during 2022, the age distribution of tax filers was compared to 2020 census data for those 18 and older. One should not expect the age distribution of primary taxpayers to be the same as the age distribution of all individuals 18 and older. Indeed, the proportion of taxpayers younger than 26 was considerably less than the proportion of the population aged 18 to 25 nationally, since some individuals in this age range are students included as dependents in their parents' tax return. The proportion of taxpayers 55 and older was somewhat less than the proportion of the population 55 and older. In contrast, the proportion of taxpayers between the ages of 26 and 54 was considerably higher than the proportion of the population in this age range.

Arizona's net migration flows by year by age of the primary taxpayer are displayed in Chart 13. Through 2015, net flows were relatively weak in each age group, then increased, generally peaking in 2020. Large reductions in net flows occurred in 2021 and 2022 except among the younger than 26 group. Note that in 2017, when in-migration and out-migration figures reported by the IRS were inexplicably high, the net migration figures for age groups younger than 45 do not exhibit unusually high figures, while the figures for older age groups do display a peak.

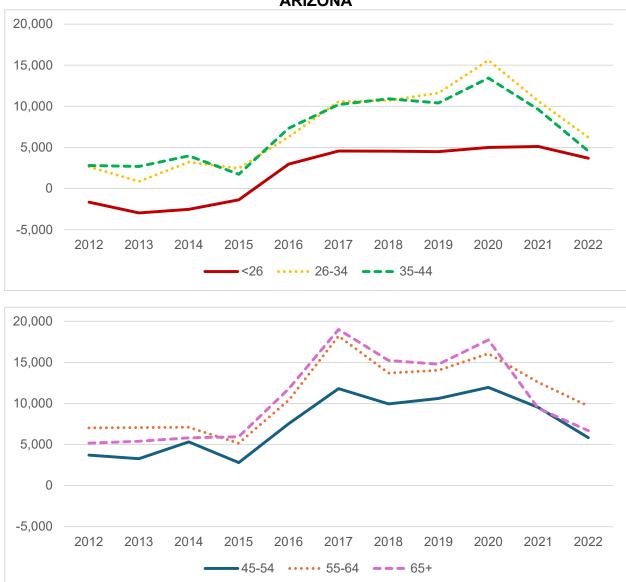


CHART 13 NET NUMBER OF DOMESTIC MIGRANTS BY AGE OF PRIMARY TAXPAYER, ARIZONA

Note: The accuracy of the figures for 2015 and 2017 is questionable.

Source: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-</u><u>Tax-Stats-Migration-Data</u>.

In each year, migration efficiency was highest in the 55-to-64 age group. The second-highest efficiencies were in the 65 and older age group through 2020 and in the 45-to-54 age group in 2021 and 2022. Through 2016, the lowest efficiencies were in the younger-than-26 age group; since then, the lowest figures have varied across the three youngest age groups.

The age distribution of Arizona nonmigrant tax filers differed from the national average in 2022, with a higher proportion 25 and younger, a somewhat higher proportion 65 and older, and a lesser proportion from 35 to 64 years of age, as seen in Table 4.

Nationally, the age distribution of migrants differed from that of nonmigrants. Migrants disproportionately consisted of adults younger than 35 years of age. Shares of those 45 and older were considerably lower for migrants than for nonmigrants. The age distribution of in-migrants to Arizona reflected the national distribution, but to a much lesser degree. Compared to migrants

	Share of Total					
	25 and Younger	26 to 34	35 to 44	45 to 54	55 to 64	65 and Older
Nonmigrants						
United States	9.5%	18.5%	18.2%	16.3%	16.7%	20.9%
Arizona	11.6	18.8	17.1	15.2	15.5	21.8
Difference*	2.0	0.3	-1.1	-1.1	-1.1	1.0
Arizona Rank:						
51 States	3	12	42	37	45	28
12 States	1	5	12	12	8	5
In-Migrants						
United States	19.5	32.6	17.0	10.0	9.4	11.5
Arizona	18.2	26.7	14.6	10.7	12.7	17.2
Difference*	-1.3	-5.9	-2.4	0.7	3.2	5.7
Arizona Rank:						
51 States	37	46	48	20	5 3	3 2
12 States	9	9	12	7	3	2
Out-Migrants						
United States	19.5	32.6	16.9	10.0	9.4	11.5
Arizona	18.8	28.0	15.5	10.3	10.3	17.1
Difference*	-0.7	-4.6	-1.4	0.2	0.9	5.6
Arizona Rank:						
51 States	39	48	38	14	6	3 2
12 States	8	11	10	8	2	2
Net-Migrants						
Arizona	15.1	20.1	10.0	13.1	24.1	17.6
Arizona Rank:						
51 States	24	33	34	26	18	15
12 States	7	9	9	5	3	3

TABLE 4 AGE DISTRIBUTION OF PRIMARY TAXPAYER, 2022

Notes: The rank is among the 50 states and the District of Columbia, where a rank of 1 represents the highest share and a rank of 51 the lowest share. The differences were calculated using nonrounded data.

Sources: Calculated from data produced by the Internal Revenue Service, https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data.

nationally, Arizona's in-migrants disproportionately consisted of those 55 and older. The inmigrant share was significantly below the national average among those 26-to-34 years of age. Compared to the national age distribution of migrants, Arizona's out-migrants disproportionately consisted of those 65 and older, with below-average shares particularly in the 26-to-44 age group. The age distribution of in-migrants to Arizona was somewhat different from that of outmigrants from Arizona, with lesser shares of in-migrants younger than 45 and greater shares of in-migrants in the 55-to-64 age group.

Adjusted Gross Income

It is difficult to interpret the income figures of migrants, since for most migrants a portion of the income was earned before they moved and a portion was earned after moving. A number of other factors complicate the analysis. Since income is closely related to age, differences in the age distribution of migrants over time and across states may account for apparent differences in average income. For some migrants, a change in work status may accompany the migration. For example, an unemployed person may be motivated to migrate by a job offer in another state; a person may migrate upon retirement.

Typically, income figures should be adjusted for geographic differences in living costs. However, since the income reported for migrants could have been earned at either or both of their old and new locations, adjusting the median income of migrants by the cost of living is problematic. In this subsection, only the incomes of nonmigrants are adjusted for the cost of living.

The IRS reports total "adjusted gross income" (AGI) — gross income minus certain payments such as student loan interest. Total adjusted gross income divided by the number of tax returns results in an average income figure. Due to s small percentage of taxpayers with extremely high incomes, the median income would be considerably lower, but it is not possible to calculate median income from the IRS data.

For those identified by the IRS as nonmigrants in 2022, adjusted gross income per tax return for calendar year 2021 averaged \$104,792 nationally. Average income was slightly lower for migrants at less than \$101,400.

Among nonmigrants, average adjusted gross income per tax return in 2021 varied widely by state, from 45 percent higher than the U.S. average in the District of Columbia to 36 percent below average in Mississippi. Adjusting for the cost of living using the regional price parity (RPP) figures produced by the U.S. Department of Commerce's Bureau of Economic Analysis, narrows the range. However, the variation in average income across the states still was considerable after adjusting for living costs, ranging from 30 percent above average in Connecticut to 28 percent below average in West Virginia.

The average income of Arizona's nonmigrants in 2021 was 9.7 percent less than the national average. Arizona ranked 28th among the 51 states and ninth among the 12 comparison states. After adjusting for the cost of living — Arizona's cost of living in 2021 was 3.4 percent below average — Arizona's shortfall from the national average was smaller at 6.5 percent. However, the adjustment for living costs worsened Arizona's ranks to 31st nationally and 10th among the

comparison states. Among the 12 comparison states, the average income of nonmigrants after adjustment for living costs varied considerably in 2021, from 14 percent above the national average in Washington to 12.5 percent below average in South Carolina (see Table 5). Oregon also had a lower figure than Arizona.

The main focus in this analysis is to examine the average income of in-migrants and of outmigrants relative to each other and to nonmigrants. Such an analysis provides insight into which states are benefiting most, in terms of income, from migration.

The average income of in-migrants to Arizona (\$100,191) was only slightly less than the national average, ranking 18th nationally and fifth among the comparison states. The average income of out-migrants from Arizona of \$94,638 was 10 percent below the national average, ranking 28th nationally and ninth among the comparison states.

The average income of in-migrants to Arizona was 6 percent more than that of nonmigrants, compared to 3 percent less nationally. Arizona's ratio of in-migrant average income to nonmigrant average income was 11th highest nationally and ranked fourth among the comparison states.

The average income of out-migrants from Arizona was 10 percent less than that of nonmigrants, compared to a differential of 3 percent nationally. Arizona ranked fifth among the comparison states on the income ratio of out-migrants to nonmigrants; its national rank was 26th.

In Arizona, the average income of in-migrants was 17 percent higher than the average of outmigrants. Arizona ranked 13th nationally but only sixth among the comparison states. Thus, Arizona benefited from migration in terms of income in 2021, though not to the extent of Florida, Idaho, Nevada, South Carolina, and Tennessee. However, as discussed in the next subsection, Arizona's positive income impact from migrants results from the migration of older adults, many of whom are not active in the workforce.

Adjusted Gross Income by Age

Average income varies considerably by age, with the average in the older working-age categories four times higher than the average for the youngest adults. The average income of nonmigrants in Arizona was below the U.S. average in 2021. The differential from the U.S. average varied by age, as seen in Table 6, with the youngest age group a little above average after adjusting for the cost of living but the 35-to-54 age bracket below average by at least 7 percent.

The average income of in-migrants to Arizona was 12-to-15 percent below the national average in the three youngest age groups, but was only 3-to-6 percent below average in the three oldest age groups. However, the average income of all in-migrants to Arizona was only marginally less than the U.S. average of all in-migrants since Arizona's in-migrants disproportionately consisted of older adults, who had substantially higher incomes than younger in-migrants.

TABLE 5AVERAGE ADJUSTED GROSS INCOME, COMPARISON STATES, 2022

		Percentage of	f U.S. Average	•		Rank Amor	ig 51 States	
	Non- migrants*	Non- migrants	In- Migrants	Out- Migrants	Non- migrants*	Non- migrants	In- Migrants	Out- Migrants
Arizona	93.5%	90.3%	98.9%	84.3%	31	28	18	27
Colorado	111.4	114.6	98.9	92.8	7	8	17	18
Florida	98.9	100.3	157.7	97.7	22	18	1	13
Georgia	95.8	91.7	75.3	83.8	27	26	37	28
Idaho	102.3	93.7	98.2	69.2	18	21	19	43
Nevada	105.4	100.6	118.7	89.9	13	17	7	21
North Carolina	93.8	87.9	87.2	84.2	30	32	29	30
Oregon	90.8	93.6	85.6	93.4	34	22	32	16
South Carolina	87.5	82.0	96.6	73.7	41	40	21	40
Tennessee	96.0	87.0	94.4	74.6	26	34	24	37
Texas	97.0	95.5	96.9	90.1	24	20	20	20
Washington	114.2	124.3	103.0	120.4	5	4	12	8

* Adjusted for the cost of living.

Notes: Income is for calendar year 2021. The rank is among the 50 states and the District of Columbia, where a rank of 1 represents the highest income and a rank of 51 the lowest income.

Sources: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u> (income) and the U.S. Department of Commerce, Bureau of Economic Analysis (regional price parities).

TABLE 6AVERAGE ADJUSTED GROSS INCOME BY AGE OF PRIMARY TAXPAYER, 2022

		25 and					
	Total	Younger	26 to 34	35 to 44	45 to 54	55 to 64	65 and Older
Nonmigrants*		-					
United States	\$104,792	\$31,129	\$63,926	\$107,622	\$140,431	\$139,503	\$116,706
Arizona	\$97,953	\$31,805	\$61,790	\$98,930	\$130,784	\$133,858	\$114,844
Arizona Ratio to U.S.	93.5%	102.2%	96.7%	91.9%	93.1%	96.0%	98.4%
Arizona Rank:							
51 States	31	25	27	32	29	27	20
12 States	10	4	6	9	8	8	7
Nonmigrants							
United States	\$104,792	\$31,129	\$63,926	\$107,622	\$140,431	\$139,503	\$116,706
Arizona	\$94,638	\$30,728	\$59,699	\$95,582	\$126,356	\$129,327	\$110,956
Arizona Ratio to U.S.	90.3%	98.7%	93.4%	88.8%	90.0%	92.7%	95.1%
Arizona Rank:							
51 States	28	28	25	29	25	26	22
12 States	9	4	5	7	8	7	6
In-Migrants							
United States	\$101,339	\$36,598	\$73,705	\$118,805	\$154,205	\$191,382	\$144,194
Arizona	\$100,191	\$32,255	\$63,503	\$101,116	\$149,673	\$183,907	\$135,685
Arizona Ratio to U.S.	98.9%	88.1%	86.2%	85.1%	97.1%	96.1%	94.1%
Arizona Rank:							
51 States	18	28	30	29	21	20	14
12 States	5	7	10	10	9	6	4
Out-Migrants							
United States	\$101,387	\$36,587	\$73,790	\$118,944	\$154,292	\$191,370	\$144,144
Arizona	\$85,509	\$33,662	\$63,937	\$100,800	\$121,893	\$140,795	\$108,888
Arizona Ratio to U.S.	84.3%	92.0%	86.6%	84.7%	79.0%	73.6%	75.5%
Arizona Rank:							
51 States	27	26	23	21	26	34	40
12 States	7	5	6	6	6	9	10

* Adjusted for the cost of living.

Notes: Income is for calendar year 2021. The rank is among the 50 states and the District of Columbia, where a rank of 1 represents the highest income and a rank of 51 the lowest income.

Sources: Calculated from data produced by the Internal Revenue Service, <u>https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data</u> (income) and the U.S. Department of Commerce, Bureau of Economic Analysis (regional price parities).

The average income of out-migrants from Arizona relative to the national average varied considerably by age. The shortfall was only 8 percent in the youngest age group but exceeded 20 percent in the three oldest age groups.

Nationally, migrants had a higher average income than nonmigrants in each age group, especially in the two oldest age groups, but overall, the migrant figure was a little less than the nonmigrant figure. This results from the age distribution of migrants being tilted so much to young adults, who have substantially lower incomes. In Arizona, the average income of inmigrants was higher than that of nonmigrants overall since younger adults do not make up as large a share of Arizona's in-migrants.

Overall, the average income of out-migrants from Arizona was 15 percent less than the average of in-migrants. The average income of in-migrants and out-migrants was similar in the three youngest age groups, but in the three oldest age groups, the average income of out-migrants was 19-to-23 percent less than that of in-migrants. A similar pattern was present in Florida, in which the ratio of in-migrant income to out-migrant income was much higher in the three oldest age groups than in the three youngest age groups.

In an investigation of a one-time dataset focused on the migration of young adults,⁹ an alternative measure was created to examine income data. An "efficiency score" was calculated as the sum of (the difference in the efficiency between the highest income quintile and the lowest income quintile) plus (the difference in the efficiency between the second-highest income quintile and the second-lowest income quintile). The higher the value of the efficiency score, the stronger the efficiencies in the higher income categories relative to the lower income categories. For this analysis of the IRS data, the two lowest income categories were combined, as were the two highest, due to relatively few tax returns in these categories in some age groups. The result was five income categories: less than \$25,000; \$25,000 to 49,999; \$50,000 to 74,000; \$75,000 to 99,999; and \$100,00 or more.

This alternative measure is useful with the IRS data since the IRS average income figures are affected by the relatively small number of taxpayers with very high incomes. The results, however, are consistent with those of comparing the average AGI of in-migrants and out-migrants. The migration of adults younger than 35 has a slight negative effect on Arizona incomes. The migration of those 35-to-44 years old has a neutral effect, and the migration of older adults has a positive effect.

A direct comparison cannot be made between the results from the IRS data and those from the one-time dataset of young adults, due to differences in timing, age group, income categories, and geography. However, the efficiency score (-0.35) for the Phoenix area from the young-adult dataset was nearly the same as the score for Arizona from the IRS dataset of -0.39.

⁹ See *The Migration of Young Adults to and From Arizona*, November 2022, <u>https://ccpr.wpcarey.asu.edu/sites/default/files/2022-12/youngadultmigr11-22_0.pdf</u>.

MIGRATION ESTIMATES FROM THE AMERICAN COMMUNITY SURVEY

In the ACS mobility tables provided by the Census Bureau, the comparison is between the place of residence at the time of the survey and the place of residence one year earlier. Thus, the total population in the mobility tables is limited to those at least one year old. The nonmover category dominates, accounting for 88.5 percent of the national population and 86.3 percent of the Arizona population in the 2018-to-2022 period. Those who moved from one county to another within the same state accounted for 9.0 percent nationally and 9.7 percent in Arizona. Arizona also had a higher share who had moved from another state (3.6-versus-2.1 percent), with the share moving from outside the country at 0.5 percent nationally and in Arizona.

This analysis of migration data from the ACS is intended to provide insight into migration patterns related to age, educational attainment, and income. Though the analysis is limited to percentages from five-year aggregations of data, primarily for 2018 through 2022, even these data are subject to significant sampling error.

Mobility By Age

The Census Bureau produces geographical mobility data by age group for the population aged 1 and older. There are 15 age groups. Between the ages of 20 and 74, the population is divided into five-year age groups (for example, 20 to 24). The population 75 and older forms another group. Those younger than 20 are divided into three age groups: 1 to 4, 5 to 17, and 18 to 19. In order to reduce sampling error, some of the following analysis collapses the age groups into five categories: 1 to 17, 18 to 34, 35 to 49, 50 to 64, and 65 and older.

Arizona Versus the Nation

The overall age distribution in Arizona in the 2018-to-2022 period was not substantially different from that of the United States. Arizona had a slightly higher share of residents between the ages of 5 and 29, a somewhat lesser proportion between the ages of 30 and 64, especially 50 to 59, and a somewhat higher proportion of residents aged 65 and older, especially 70 and older, as seen in Chart 14.

Nationally, the age distribution of people who change residence is much different from the age distribution of those who do not move in a given year. Those from 18-to-34 years old are much more likely to move, including migration to another state. In contrast, those 45 and older are less likely to move. In Chart 15, the age distribution of the national population is compared to that of domestic interstate migrants and to those moving to the United States from abroad in the 2018-to-2022 period. A disproportionately high proportion of migrants of each type were between the ages of 18 and 34.

Comparing the age distribution of migrants to and from Arizona with the national average in the 2018-to-2022 period, the share of domestic in-migration to Arizona was substantially higher among those 55 and older, and lower among those younger than 40. Domestic out-migration from Arizona had a similar, but less pronounced, age distribution difference from the nation to domestic in-migration. The comparison of Arizona to the nation is somewhat different for international in-migrants. As with domestic in-migration, Arizona's international in-migrants were disproportionally 60 and older, with relatively few younger than 20. Unlike domestic

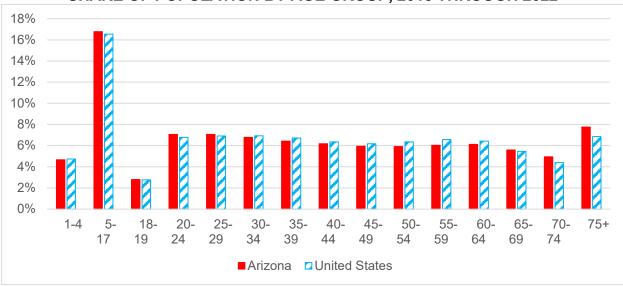
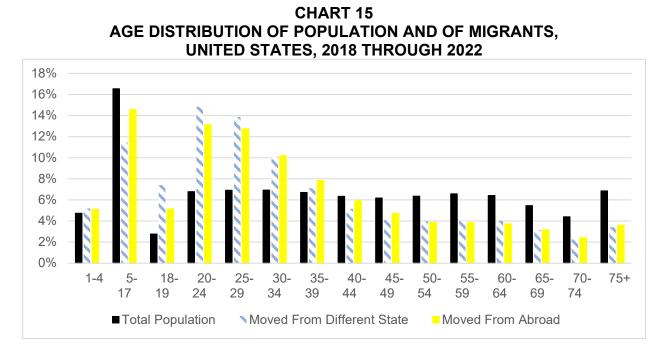


CHART 14 SHARE OF POPULATION BY AGE GROUP, 2018 THROUGH 2022

Source: Calculated from data produced by the U.S. Department of Commerce, Census Bureau, American Community Survey, <u>https://www.census.gov/programs-surveys/acs/data.html</u>.



in-migration, Arizona's shares of total international in-migration were higher among those aged 20 to 29 and lower among those 30-to-44 years old.

Arizona's age distribution in the 2018-to-2022 period relative to the national average is shown in Chart 16 for the total population and for migrants. Relative to the national average, in-migration to Arizona during this period was proportionally higher among those 60 and older and lower among those 18 to 34.

This difference between Arizona and the nation in the age distribution of migrants needs to be considered in the subsequent analyses of the educational attainment and income of migrants. Older in-migrants to Arizona on average are well educated with reasonably high incomes. However, few of these older in-migrants participate in Arizona's workforce, so their effect on Arizona's economy is muted.

The shares of the total population in each age group in Arizona and the nation in the 2018-to-2022 period were compared to the shares in the 2006-to-2010 period. Overall, the shares shifted noticeably over these 12 years, nationally and in Arizona. Nationally, lower birth rates contributed to a declining share of children while the aging of the baby-boom generation caused increases in the shares of those 60 and older with decreases in the shares of those from 40-to-54 years old.

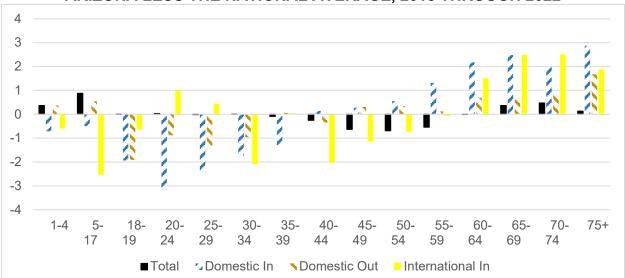


CHART 16 AGE DISTRIBUTION OF POPULATION AND MIGRANTS, ARIZONA LESS THE NATIONAL AVERAGE, 2018 THROUGH 2022

Note: In the migration categories, Arizona's figures are compared to both the national average for that category and the total for Arizona.

These factors affected Arizona's overall age distribution as well, but differences exist in the rate of change in share between Arizona and the nation over the 12 years. In particular, Arizona experienced a greater decrease in the share of children, a somewhat lesser decrease in the share of those from 40-to-54 years old, and a larger increase among those 70 and older.

The change in the age distribution of domestic migrants over the 12 years was similar to the change in the overall population. Nationally, there was a relative increase in domestic migrants from 45-to-54 years old and a relative decrease among those younger than 25. Relative to the U.S. change in age distribution of domestic migrants, Arizona experienced a greater increase in in-migrants 65 and older and a greater gain in out-migration of those from 18-to-24 years old.

The 12-year change in the age distribution of international in-migrants was considerably different from that of domestic migrants and the overall population. Nationally, the change in share of international in-migrants relative to the overall population was higher among those 35-to-54 years old and those younger than 18, and much less among those 20-to-29 years old. Relative to the nation, Arizona had a greater inflow in the 20-to-29 age bracket and in the 60-to-74 age bracket, but less in the 40-to-54 age bracket.

Arizona's overall dependency ratio — defined here as the ratio of the number of residents younger than 18 plus the number 65 and older divided by the number from 18-to-64 years old — was higher than the national average in the 2018-to-2022 period, almost entirely due to the higher-than-average population share in Arizona of those 65 and older. There were 65.9 dependents per 100 people of working age in Arizona compared to 61.3 nationally. The dependency ratio nationally increased between the 2006-to-2010 and 2018-to-2022 periods as the rising share of those of retirement age more than offset the decline in the share of children. The dependency ratio increased slightly less in Arizona.

States

Looking at all states in the 2018-to-2022 period, Arizona's age distribution was more similar to the national average than most states. Among the 12 comparison states, Nevada, North Carolina, and Tennessee had age distributions closer to the nation. The age distributions in Florida and Texas differed substantially from the nation. The share in Texas was greater than the U.S. average in each age group through age 49 and considerably lower in each group 55 and older. Florida had a high percentage of its residents aged 65 and older and a low percentage younger than 35.

Based on the five aggregated age categories, young adults (aged 18 to 34) accounted for a much larger share of domestic in-migrants and domestic out-migrants than of the entire population in all of the comparison states. The in-migrant share was less than the population share in each of the other age groups. The 18-to-34 share of in-migrants was particularly high in Colorado, Oregon, and Washington, but not so high in Florida, Nevada, and Arizona.

Arizona had one of the larger differences from the national average in the age distribution of migrants. Arizona's migration flows, as well as those of Florida and Nevada, disproportionately consisted of those 50 and older. While Arizona and Florida had strong net in-migration of those 65 and older, Nevada did not.

Mobility By Educational Attainment

The Census Bureau's table of educational attainment by geographical mobility is limited to the population age 25 and older. Maximum educational attainment is divided into five categories: not a high school graduate, high school diploma or equivalent, some college (including an associate degree), bachelor's degree, and graduate/professional degree.

Focusing on the 2018-to-2022 period, the educational attainment of Arizona's 25-and-older population was on net worse than the national average. While Arizona had a much higher share with some college and a lesser share with a high school diploma, Arizona also had lesser shares with a bachelor's degree and with a graduate degree, and a slightly higher share of those who had not graduated from high school. Relative to the nation, Arizona's educational attainment was not much changed from the 2010-to-2014 period.

Educational attainment by mobility category is summarized for Arizona and the nation in Table 7 based on the 2018-to-2022 data. Arizona's share with some college/associate degree was well above the national average in each mobility category, but Arizona's shares with a bachelor's degree and a graduate degree were below average in each category, with large differences in the migrant categories. Chart 17 displays the differences from the national average in the migrant categories and for the total population 25 and older.

In order to simplify the analysis of educational attainment by state, a single measure — a "score" — was created by multiplying the share of the total in each of the educational attainment categories by a weight, which is based on the median earnings figure in each attainment category as a ratio to the overall figure, using national data for the 2018-to-2022 period for those 25 and over with earnings: 0.61 for those without a high school diploma or equivalent, 0.76 for high school graduates, 0.90 for those with some college (including an associate degree), 1.33 for those with a bachelor's degree, and 1.76 for those with a graduate degree.

Based on the 2018-to-2022 ACS and for the population 25 and older, Arizona's educational attainment score was 1.3 percent less than the U.S. average, ranking 27th nationally and sixth among the 12 comparison states. Colorado and Washington ranked in the top 10 nationally on the score, while Nevada and Tennessee ranked in the bottom 10.

Arizona's educational attainment score for domestic in-migrants 25 and older was 4.5 percent less than the national average, ranking 34th nationally and ninth among the 12 comparison states. Arizona compared similarly for domestic out-migrants — 4.0 percent less than the U.S. average, ranking 37th nationally and ninth among the comparison states — and for international in-migrants: 4.2 percent less than the U.S. average, 35th nationally, and eighth among the comparison states.

In some states, the educational attainment of domestic in-migrants was appreciably better than that of domestic out-migrants. No regional geographic pattern was present for the states gaining the most in educational attainment from domestic migration; California, New York, the District of Columbia, Maine, and Hawaii had the greatest gains. Great Plains states in particular experienced losses in educational attainment due to domestic migration.

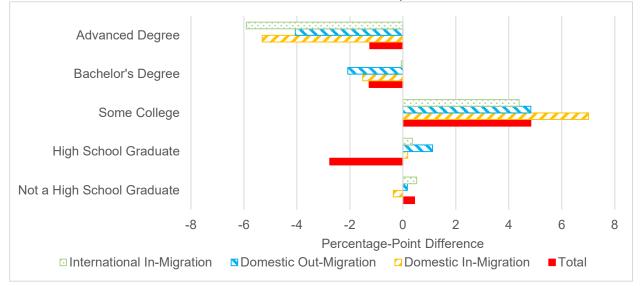
TABLE 7

EDUCATIONAL ATTAINMENT AS A SHARE OF THE POPULATION 25 AND OLDER BY MOBILITY CATEGORY, ARIZONA AND THE NATIONAL AVERAGE, 2018 THROUGH 2022

	Less Than High School	High School	Some College*	Bach- elor's Degree	Graduate Degree	Bach- elor's Degree or More
Total			C	U	Ū	
Arizona	11.30%	23.60%	33.30%	19.64%	12.15%	31.79%
United States	10.86	26.36	28.47	20.91	13.40	34.31
Difference	0.44	-2.76	4.83	-1.27	-1.25	-2.52
Same House						
Arizona	11.51	23.79	33.26	19.28	12.17	31.45
United States	10.94	26.67	28.55	20.59	13.25	33.84
Difference	0.57	-2.88	3.71	-1.31	-1.08	-2.39
Same County						
Arizona	11.10	23.42	33.95	20.62	10.91	31.53
United States	10.84	25.57	28.98	21.93	12.68	34.61
Difference	0.26	-2.15	4.97	-1.31	-1.77	-3.08
Same State						
Arizona	12.66	25.69	35.94	16.44	9.27	25.71
United States	10.88	25.28	28.25	22.65	12.94	35.59
Difference	1.78	0.41	6.81	-6.21	-3.67	-9.88
Domestic In-Migrant						
Arizona	5.62	19.30	33.50	26.34	15.25	41.59
United States	5.98	19.12	26.49	27.86	20.56	48.42
Difference	-0.36	0.18	7.01	-1.52	-5.31	-6.83
International In-Migrant						
Arizona	16.33	19.11	21.44	27.26	15.17	42.43
United States	15.81	18.75	17.05	27.32	21.08	48.40
Difference	0.52	0.36	4.39	-0.06	-5.91	-5.97
Domestic Out-Migrant						
Arizona	6.15	20.24	31.32	25.78	16.50	42.28
United States	5.98	19.12	26.49	27.86	20.56	48.42
Difference	0.17	1.12	4.83	-2.08	-4.06	-6.14

* Includes those earning an associate degree.

CHART 17 EDUCATIONAL ATTAINMENT OF THE POPULATION 25 AND OLDER, ARIZONA LESS THE NATIONAL AVERAGE, 2018 THROUGH 2022



Source: Calculated from data produced by the U.S. Department of Commerce, Census Bureau, American Community Survey, <u>https://www.census.gov/programs-surveys/acs/data.html</u>.

Among the 12 comparison states, domestic migration substantially improved the educational attainment of the population in Colorado, Oregon, and Washington. In contrast, domestic migration appreciably lowered educational attainment in Idaho, Georgia, and Tennessee. Arizona ranked 31st nationally and ninth among the comparison states on the difference in the educational attainment of in-migrants versus out-migrants.

There has been little change over time in Arizona's scores relative to the U.S. average for domestic in-migrants or domestic out-migrants. A relative improvement has occurred in the educational attainment of international in-migrants to Arizona.

Mobility By Income

The Census Bureau measures median individual income of those earning income of the population age 15 and older by mobility category. Income is expressed as the inflation-adjusted income over the 12 months up to the time at which the respondent answered the ACS. As discussed earlier, it is difficult to interpret income figures for migrants.

Using the 2018-to-2022 ACS data, the median income was highest nationally and in Arizona among those who did not move (see Chart 18). The lowest medians were for those moving from abroad; the median also was relatively low for those moving from one county to another in the same state. Without adjusting for the cost of living, the median income of individuals living in Arizona was 1 percent less than the national average, but the median was 5 percent above the national average for domestic in-migrants and for international in-migrants. For out-migrants from Arizona, the median was 5 percent less than the national average.

Thus, aggregate income in Arizona benefited from domestic migration. The comparison of the median income of domestic in-migrants to domestic out-migrants varied across the states without a strong geographical pattern. Arizona had one of the stronger differentials in the nation from 2018 through 2022. The size of this differential has increased over time in Arizona. The median income relative to the U.S. average of those moving to Arizona from another state has not changed, but the relative median income of those leaving Arizona for another state has declined.

The median income figures for migrants to and from Arizona and the comparison states for 2018 through 2022 are presented in Table 8. The figures by mobility category are shown as the percent difference from the national average and as the rank among the 50 states and the District of Columbia, without adjusting for the cost of living. For domestic in-migrants, Arizona ranked 14th among all states and fourth among the 12 comparison states. On international in-migration, Arizona ranked 17th among all states and fifth among the comparison states. Arizona ranked lower for domestic out-migrants at 30th nationally and eighth among the comparison states. Arizona ranked eighth nationally and third among the comparison states on the median income ratio of domestic in-migrants to domestic out-migrants. The median income of international in-migrants was considerably lower than that of domestic in-migrants in each of the comparison states and in most states nationally. One reason for this is that a disproportionate share of international in-migrants are college students.



CHART 18 MEDIAN INDIVIDUAL INCOME OF THOSE EARNING INCOME BY MOBILITY CATEGORY, 2018 THROUGH 2022

TABLE 8MEDIAN INDIVIDUAL INCOME, COMPARISON STATES, 2018 THROUGH 2022

	AZ	со	FL	GA	ID	NV	NC	OR	SC	TN	ТΧ	WA
	Percent Difference From Nation And Rank Among States*											
Moved From Different State	5%	14%	5%	-0%	-27%	3%	0%	-7%	-5%	-5%	9%	18%
(Domestic In-Migration)	14	10	15	21	46	17	20	28	26	25	12	6
Moved From Abroad	5%	18%	-14%	7%	-11%	6%	4%	-5%	-11%	-11%	-4%	37%
(International In-Migration)	17	7	41	14	38	16	19	28	37	36	26	5
Moved to Another State	-6%	1%	-5%	-5%	-23%	-6%	2%	2%	-8%	-8%	-1%	4%
(Domestic Out-Migration)	30	15	26	29	51	31	14	21	36	35	17	9
				Perc	cent Diffe	rence and	d Rank A	mong Sta	ates*			
Domestic In-Migrants to	11%	13%	10%	6%	-5%	9%	-2%	-5%	4%	4%	10%	14%
Domestic Out-Migrants	8	6	9	14	28	12	24	29	16	18	10	5
International In-Migrants to	-29%	-26%	-41%	-23%	-13%	26%	-26%	-28%	-33%	-33%	-37%	-17%
Domestic In-Migrants	30	26	46	20	12	27	25	28	39	38	42	14

* The rank is among the 50 states and the District of Columbia, where a rank of 1 represents the highest income and a rank of 51 the lowest income.

Source: Calculated from data produced by the U.S. Department of Commerce, Census Bureau, American Community Survey, https://www.census.gov/programs-surveys/acs/data.html.

COMPARISON OF MIGRATION ESTIMATES

Using the annual population estimates of the Arizona Office of Economic Opportunity (OEO) and birth and death data of the Arizona Department of Health Services (DHS), annual estimates of implied net migration to Arizona have been calculated for the 2005-to-2022 period. The OEO's population estimates are as of July 1 of each year; monthly birth and death data were used to produce annual figures for the July-through-June period.

Since the IRS data only include those who filed a tax return in two successive years, and exclude immigrants, the number of migrants counted by the IRS is less than the total number of people migrating and less than implied net migration estimated from the OEO's annual population estimates and births and deaths. From 2005 through 2022, excluding 2015 and 2017, the years of questionable IRS data, total IRS net migration was 72 percent of the figure estimated from the OEO's annual population change, births, and deaths. However, over the 2011-through-2020 period, in which the OEO's estimates were controlled to the decennial census counts, the IRS total (including the two offsetting years of questionable data) was 84 percent of the implied net migration figure. The estimates of annual total net migration are shown in Chart 19.

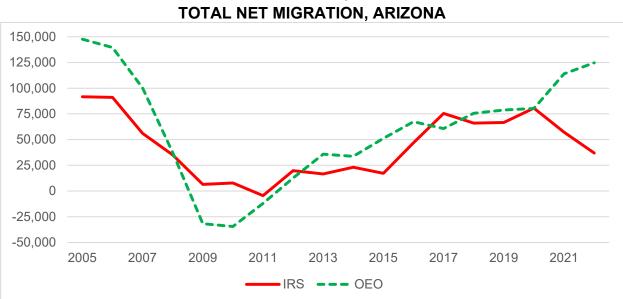


CHART 19

Notes: The IRS data largely are limited to domestic net migration while the OEO series includes immigrants. The OEO data are for a fiscal year ending on June 30; and the IRS data are based on the dates on which tax returns were filed. IRS data for 2015 and 2017 are questionable.

Sources: Calculated from data produced by the Internal Revenue Service (IRS). https://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data, the Arizona Office of Economic Opportunity (OEO), https://oeo.az.gov/, and the Arizona Department of Health Services (monthly births and deaths), https://pub.azdhs.gov/health-stats/index.php.

For the 1980s through the 2010s, the estimates of net migration from the University of Wisconsin can be compared to the estimates from the IRS. Differences in timing are slight, but the IRS data do not include most international migrants. Thus, net migration reported by the IRS was considerably less than the total reported by the University of Wisconsin for the 1980s through 2000s, when immigration to Arizona was plentiful. Net migration from the IRS as a percentage of the University of Washington figure was 71 percent in the 1980s, 51 percent in the 1990s, and 63 percent in the 2000s. However, in the 2010s, the IRS figure (including the two offsetting years of questionable data) was 89 percent of the University of Washington figure.