

WHERE ARE ARIZONA DEMOGRAPHICS TAKING US? HOW GROWING SLOWER, OLDER AND MORE DIVERSE AFFECTS REAL ESTATE

March 2017

Tom Rex

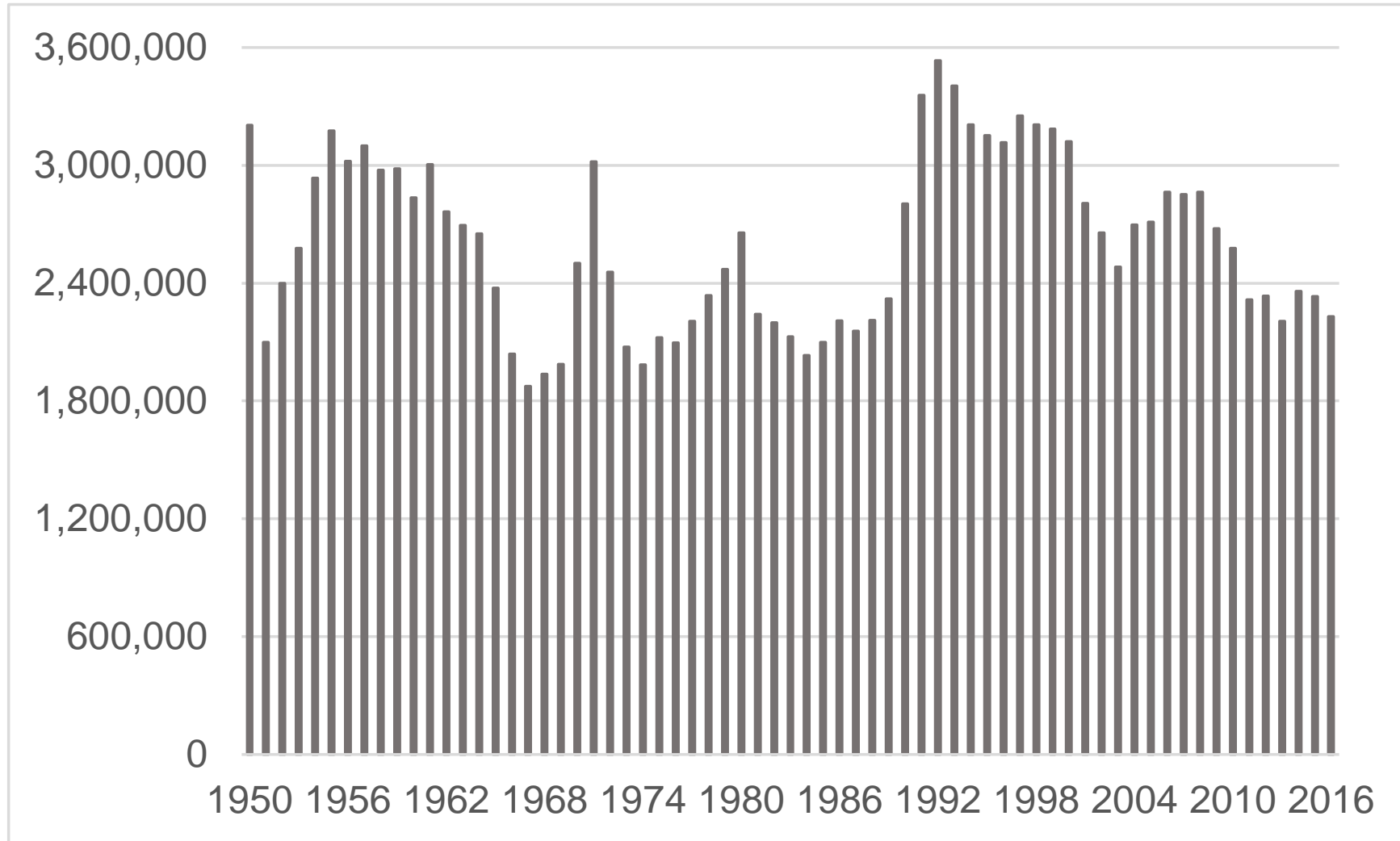
Office of the University Economist and
Center for Competitiveness and Prosperity Research,
L. William Seidman Research Institute



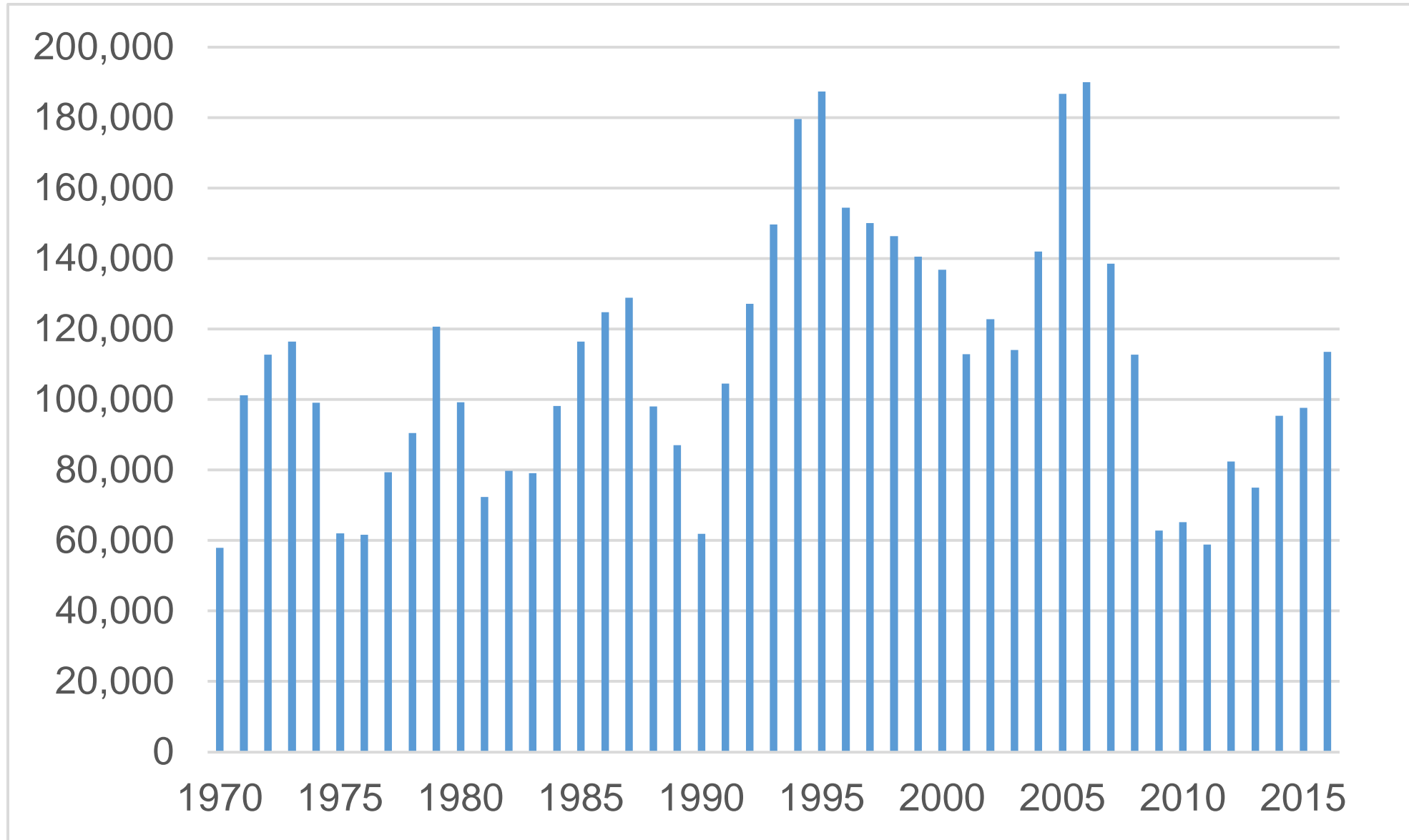
OVERALL POPULATION

- Annual population estimates are expressed as of July 1.
- Estimates for Arizona and its counties are available back to 1929 from the U.S. Department of Commerce, Census Bureau.
- In addition, the Arizona Office of Employment and Population Statistics (OEPS) has produced annual estimates since 2000.
- The 2016 population of Arizona was 6.836 million according to the OEPS and 6.931 million according to the Census Bureau.
- Using OEPS estimates, two-thirds of the population lived in the metro Phoenix area (Maricopa and Pinal counties), less than 15% in the Tucson area (Pima County), and less than 19% in the balance of the state (the other 12 counties).

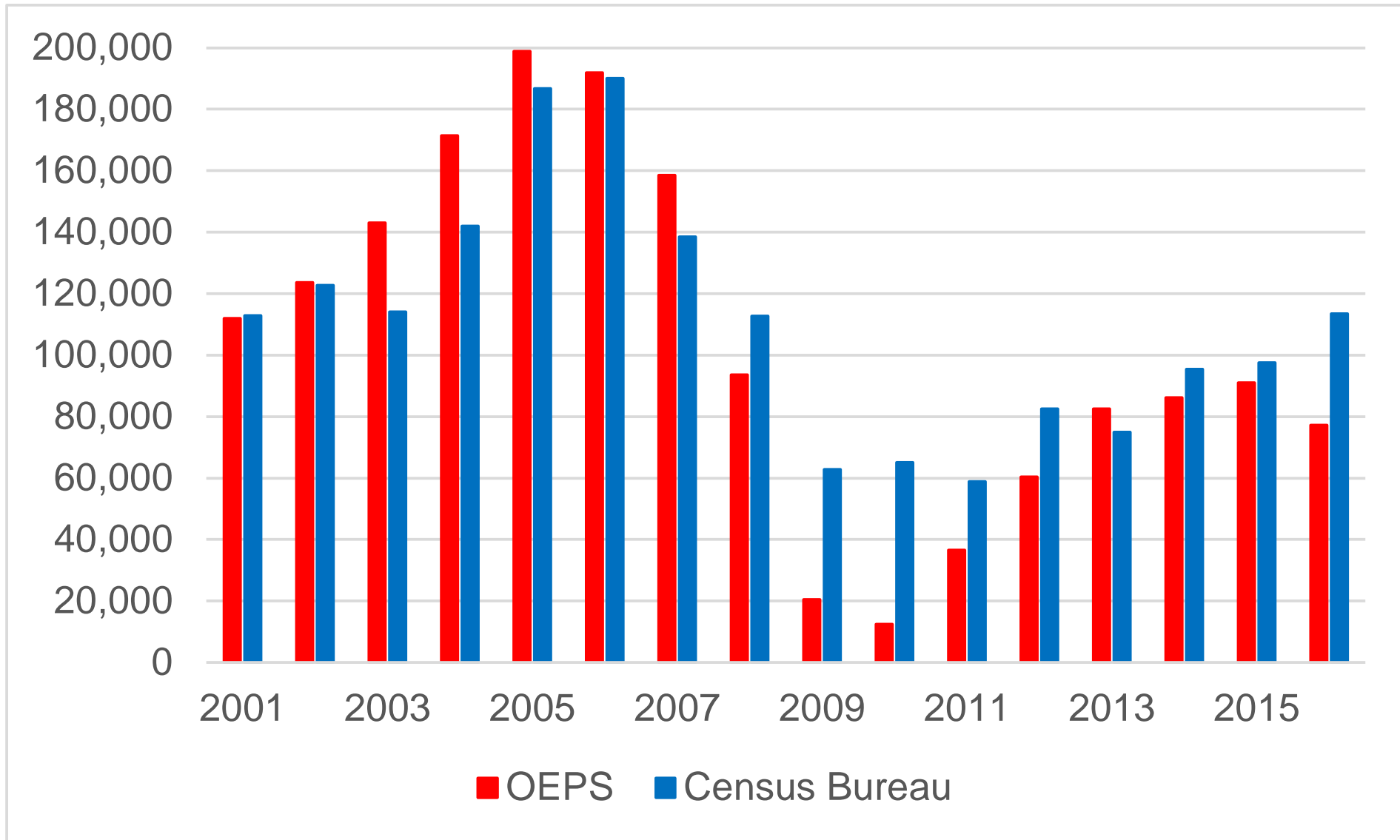
Annual Population Change, United States (Census Bureau)



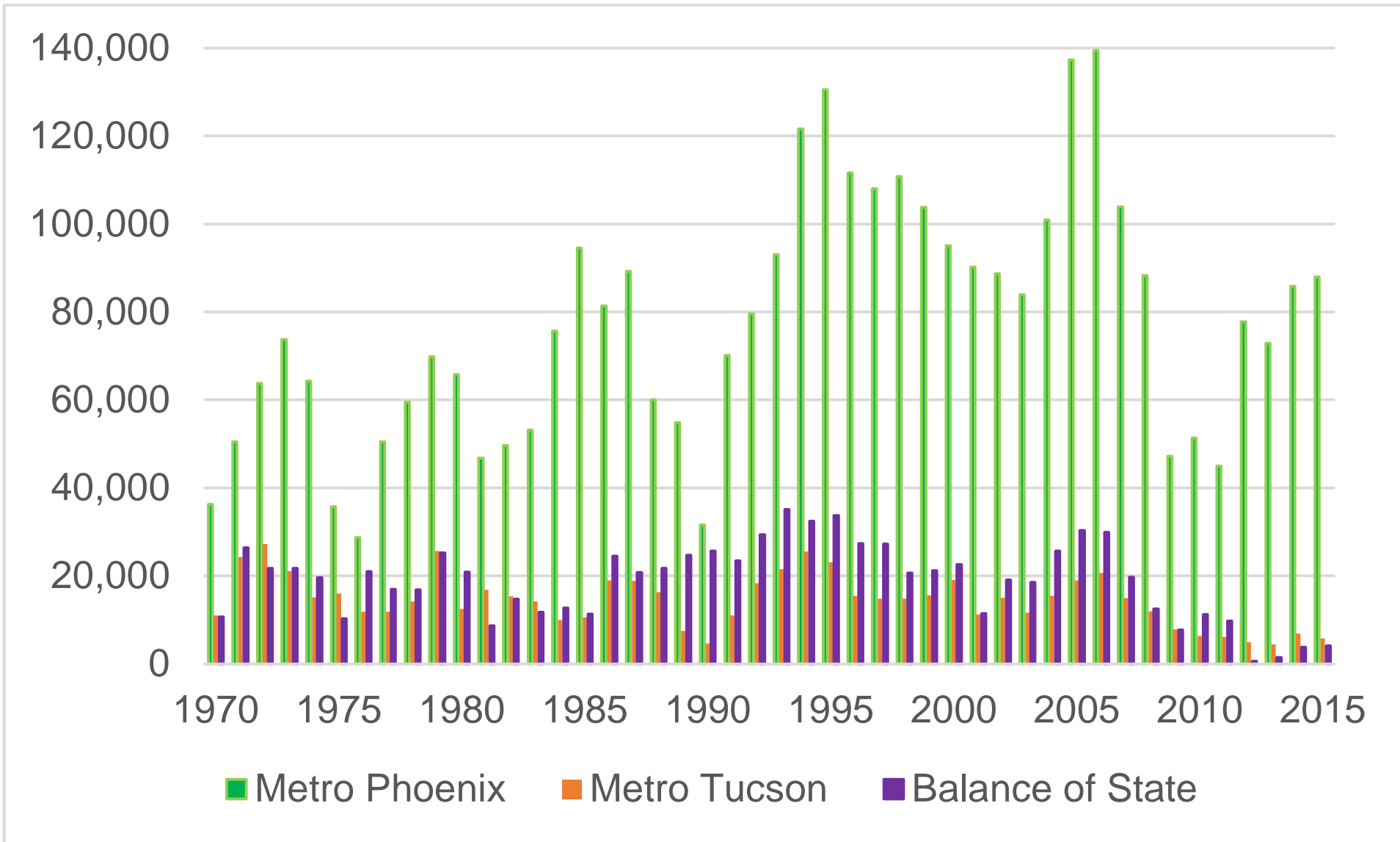
Annual Population Change, Arizona (Census Bureau)



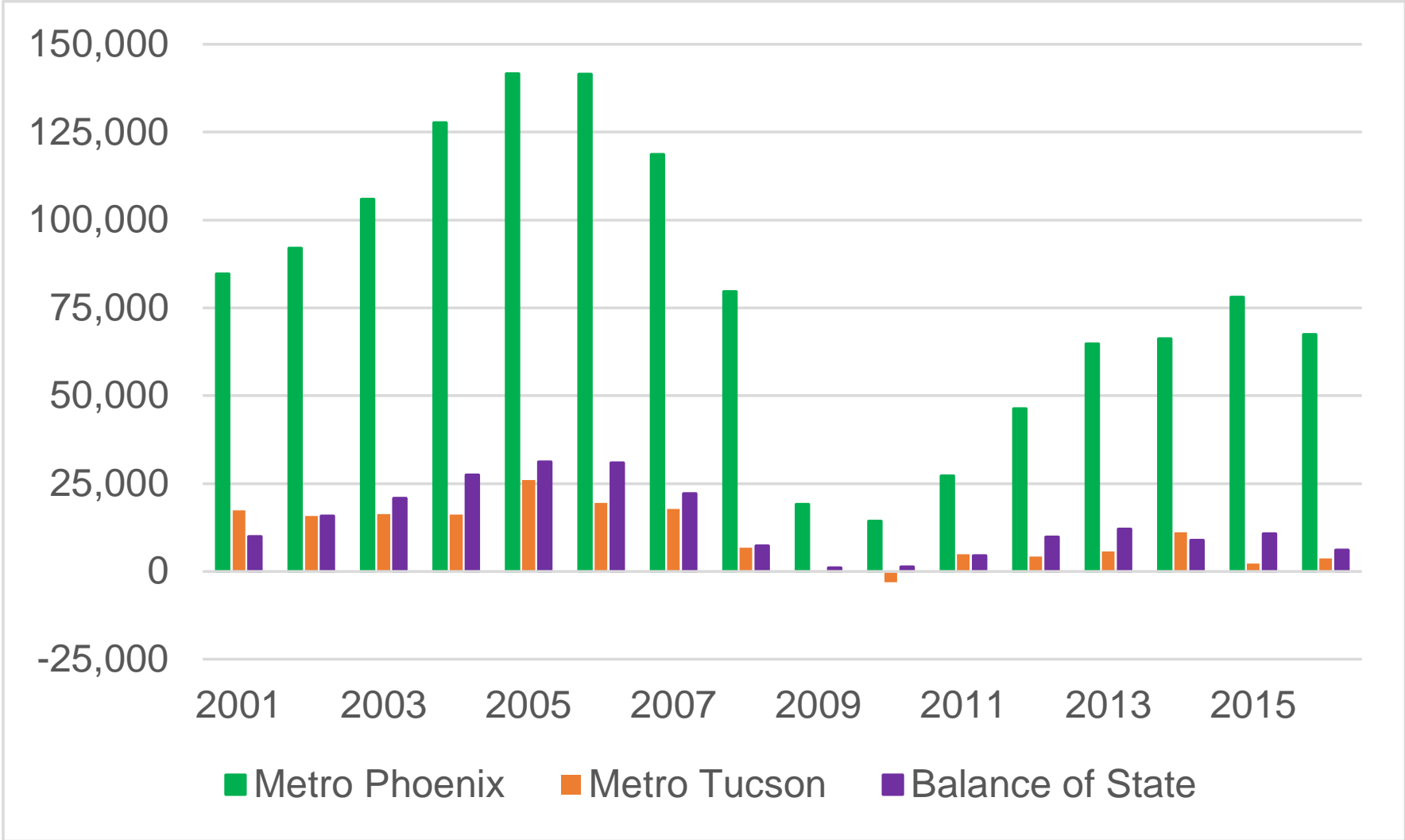
Annual Population Change, Arizona



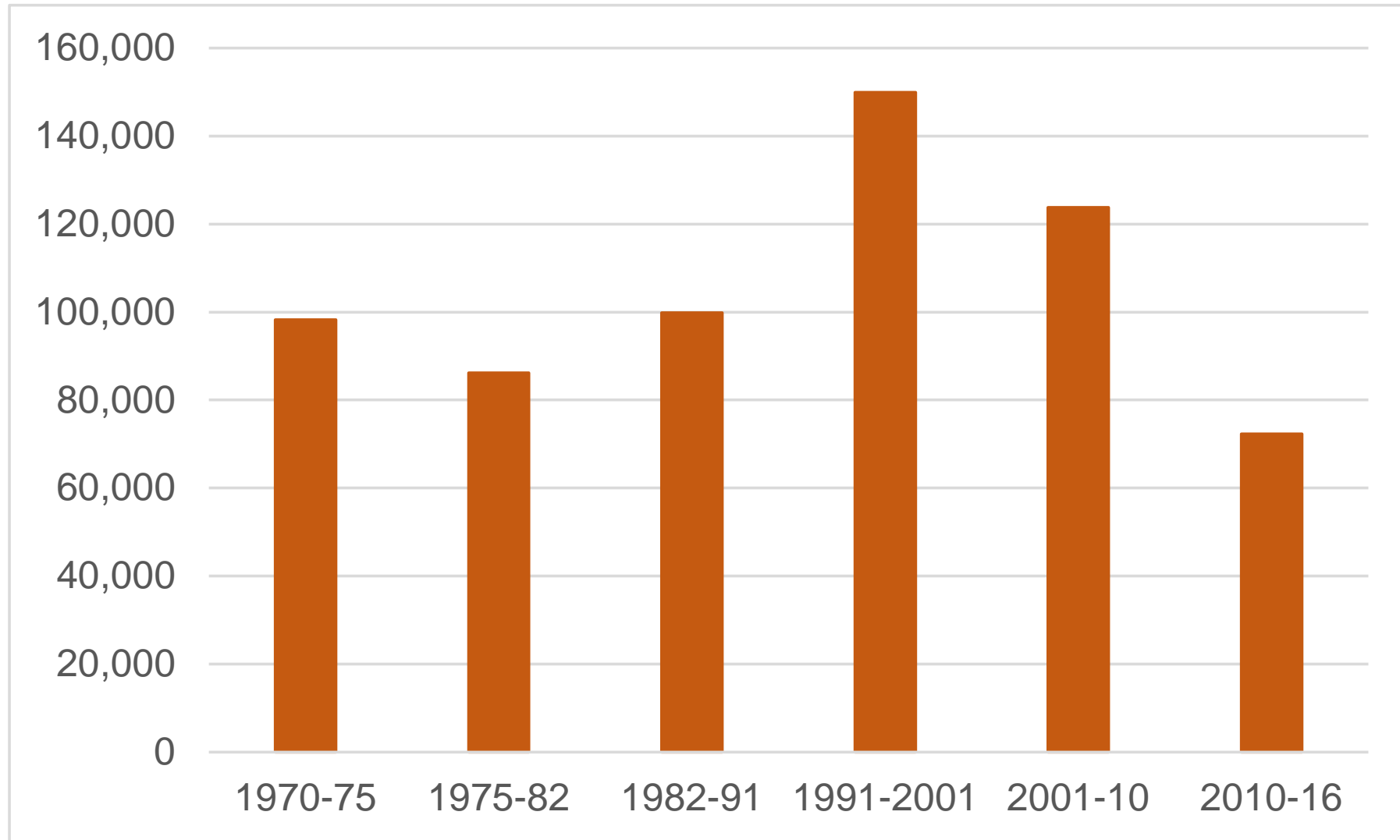
Annual Population Change Within Arizona (Census Bureau)



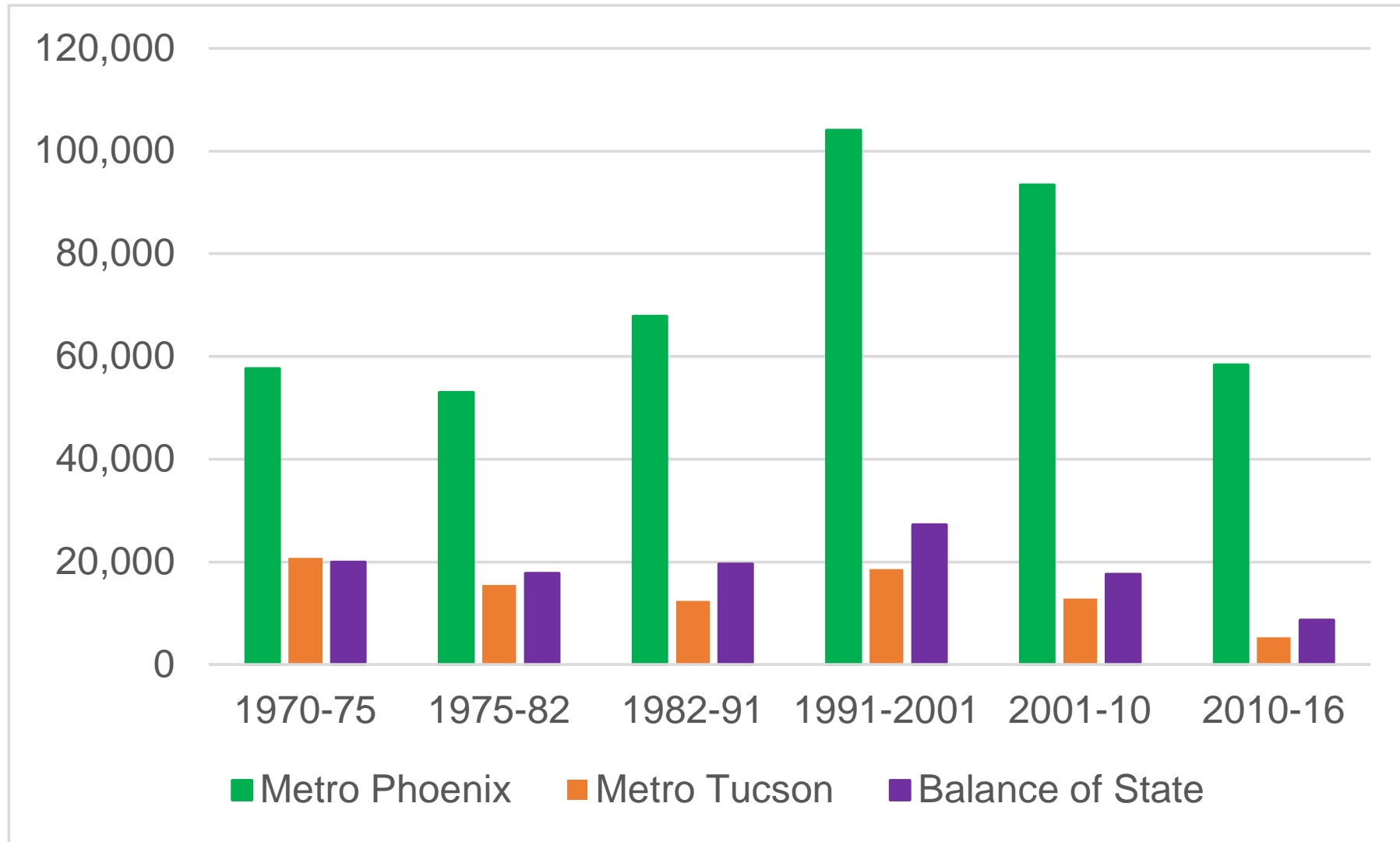
Annual Population Change Within Arizona (OEPS)



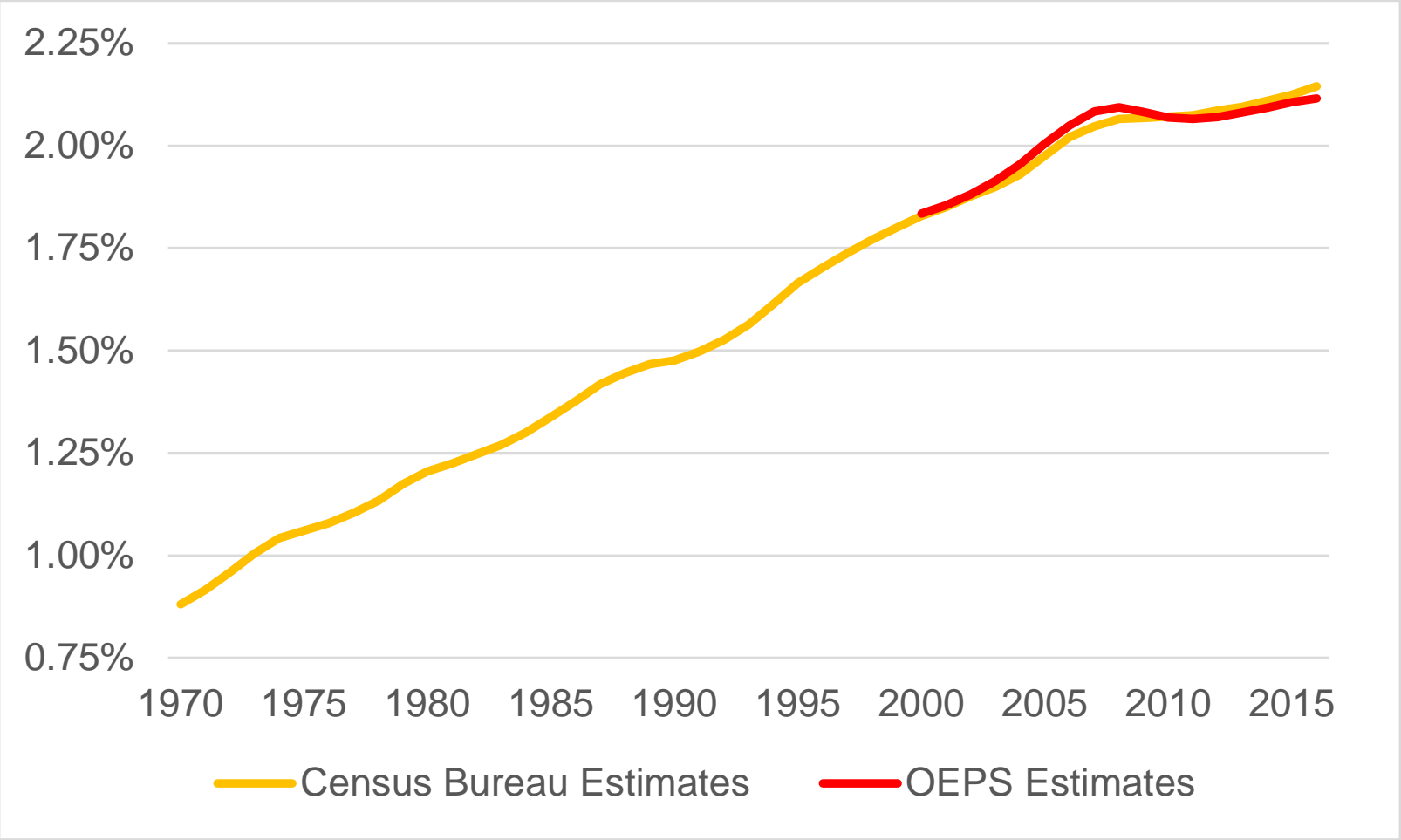
Annual Average Population Change by Economic Cycle, Arizona (Census Bureau Through 2000, OEPS Since)



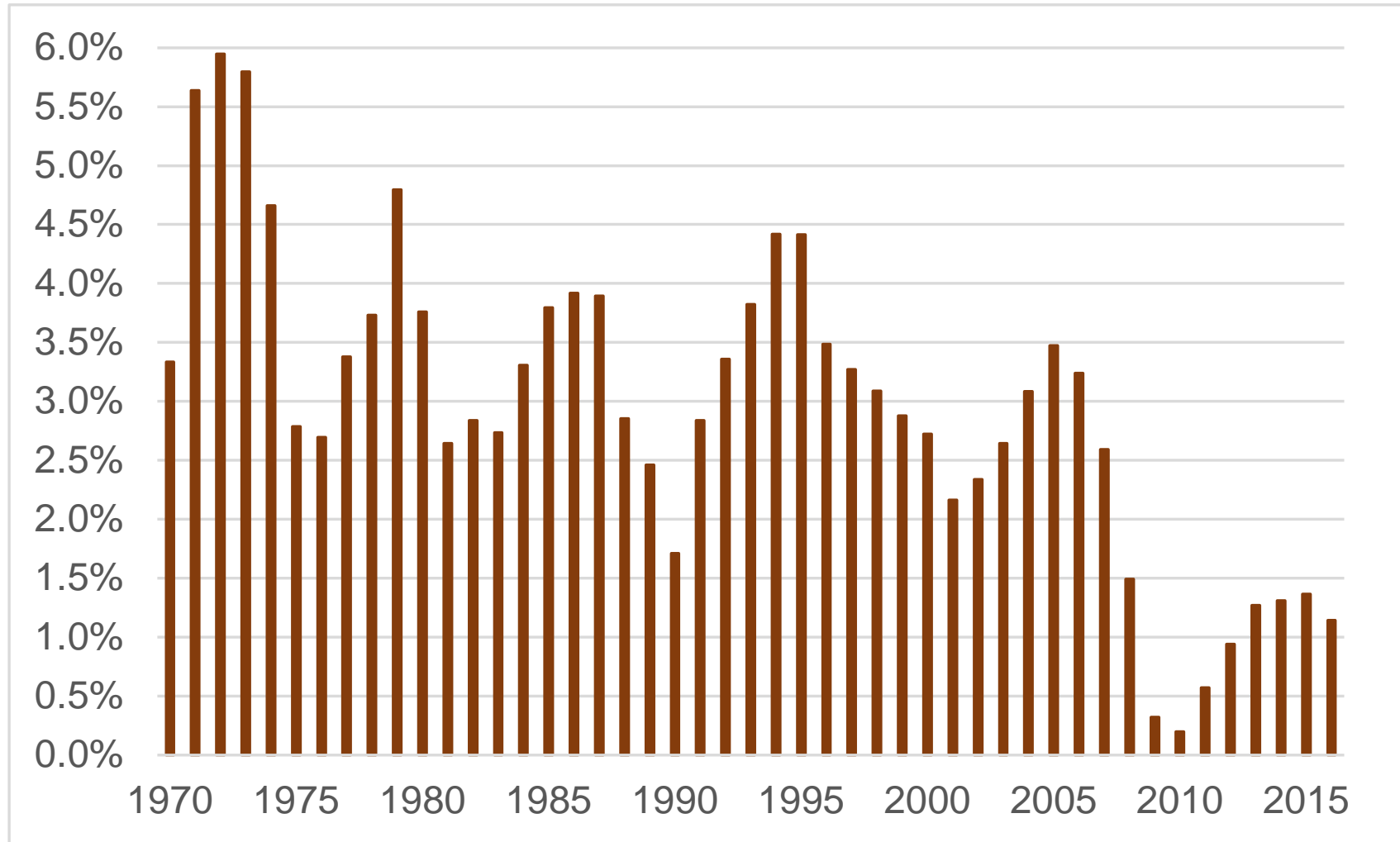
Annual Average Population Change by Economic Cycle Within Arizona (Census Bureau Through 2000, OEPS Since)



Arizona's Share of the National Population (Census Bureau for Nation)



Annual Population Percent Change, Arizona (Census Bureau Through 2000, OEPS Since)

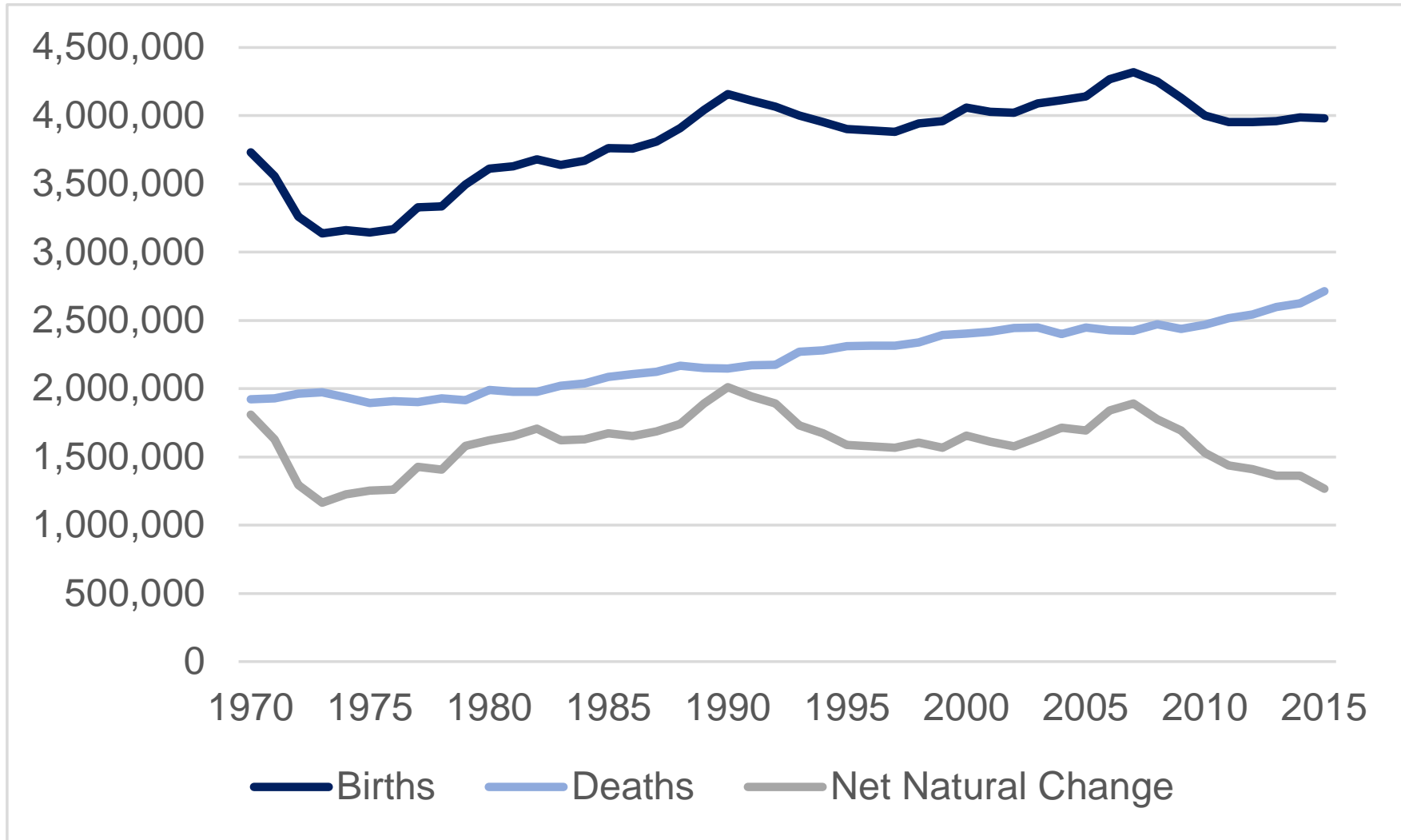


COMPONENTS OF POPULATION CHANGE

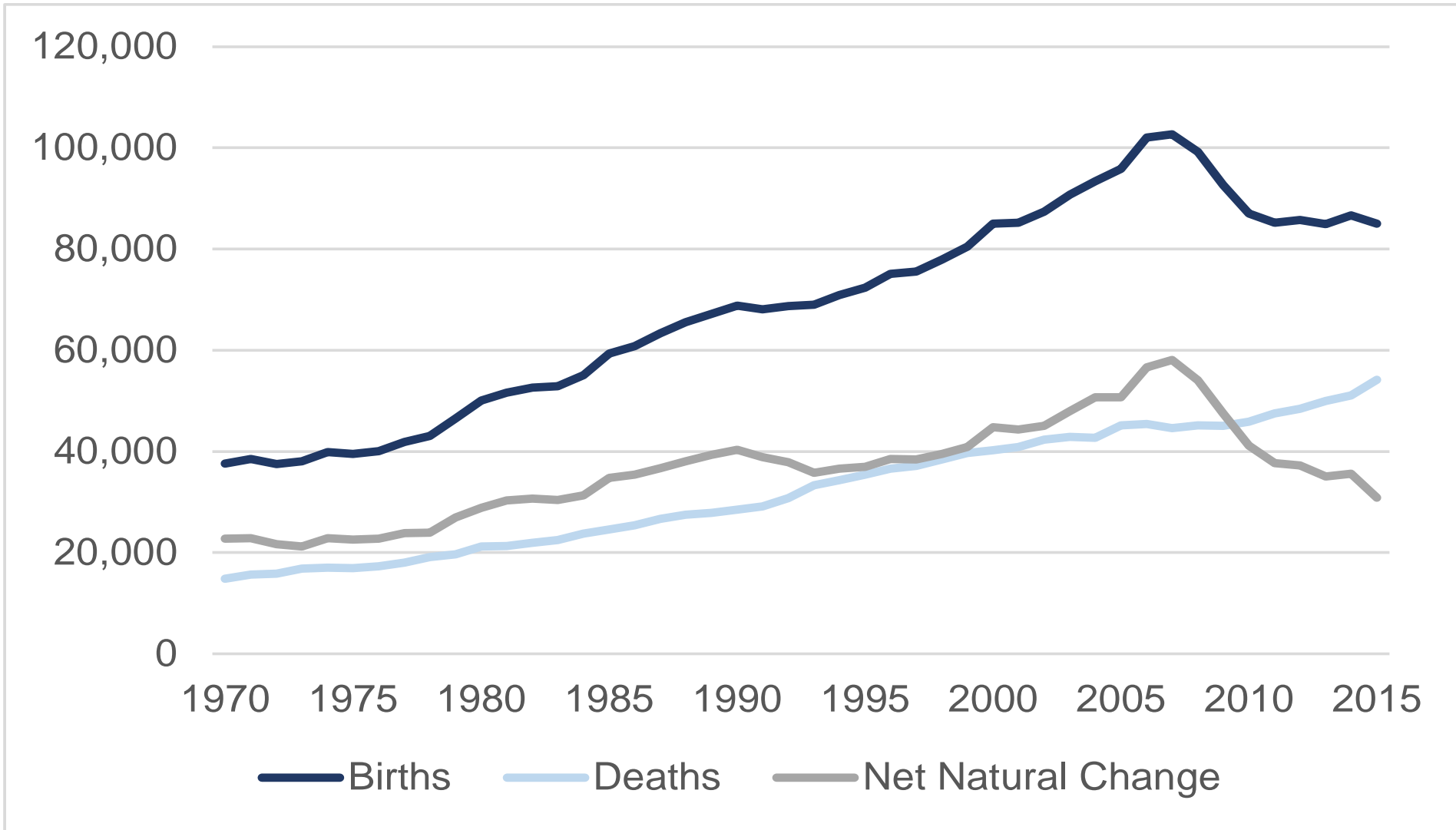
- Population change consists of the sum of:
 - Net natural change (births minus deaths)
 - Net migration (in-migration minus out-migration)
- When possible, net migration is split into two pieces:
 - Net domestic migration
 - Net international migration

Births and Deaths

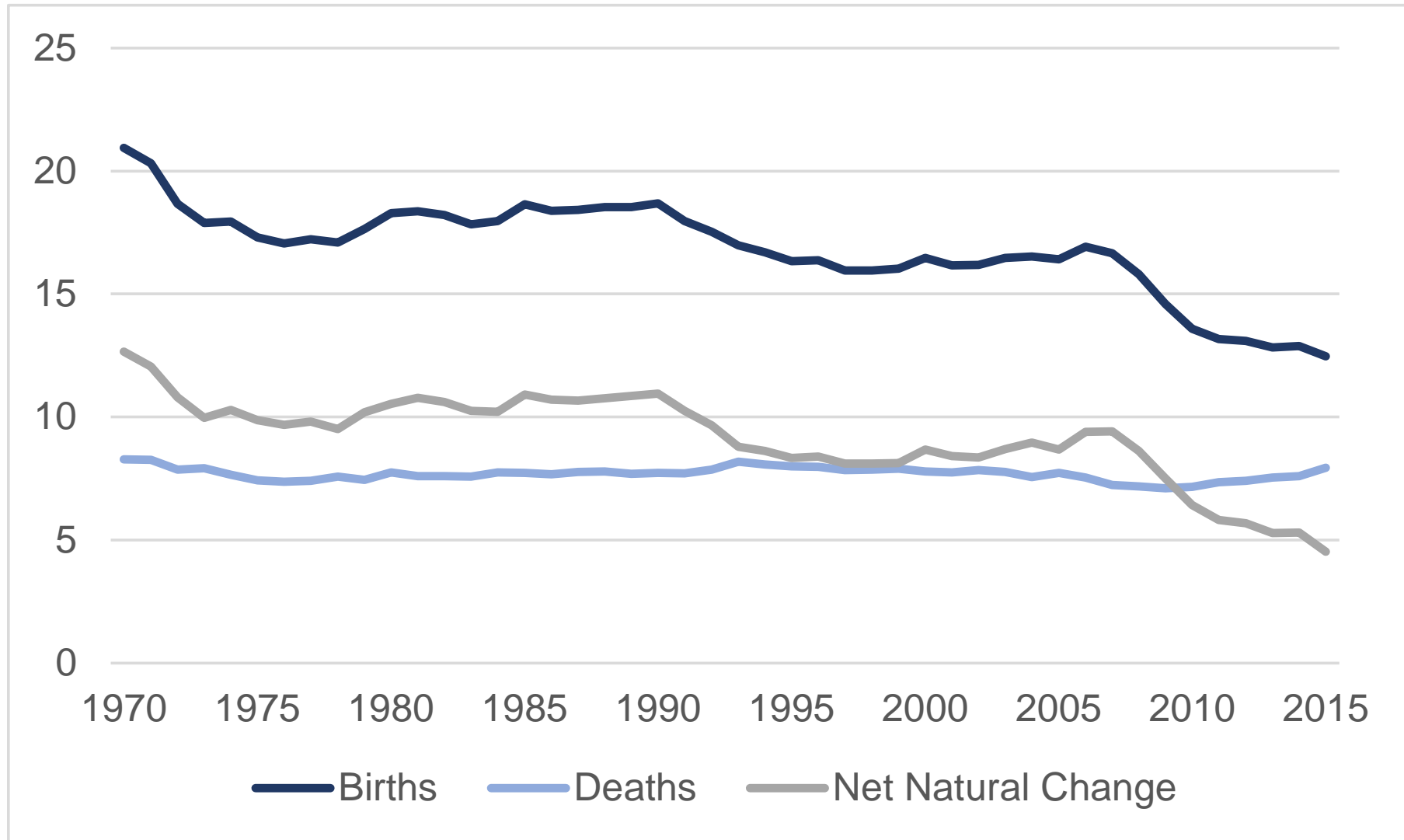
Net Natural Change, United States (National Center for Health Statistics)



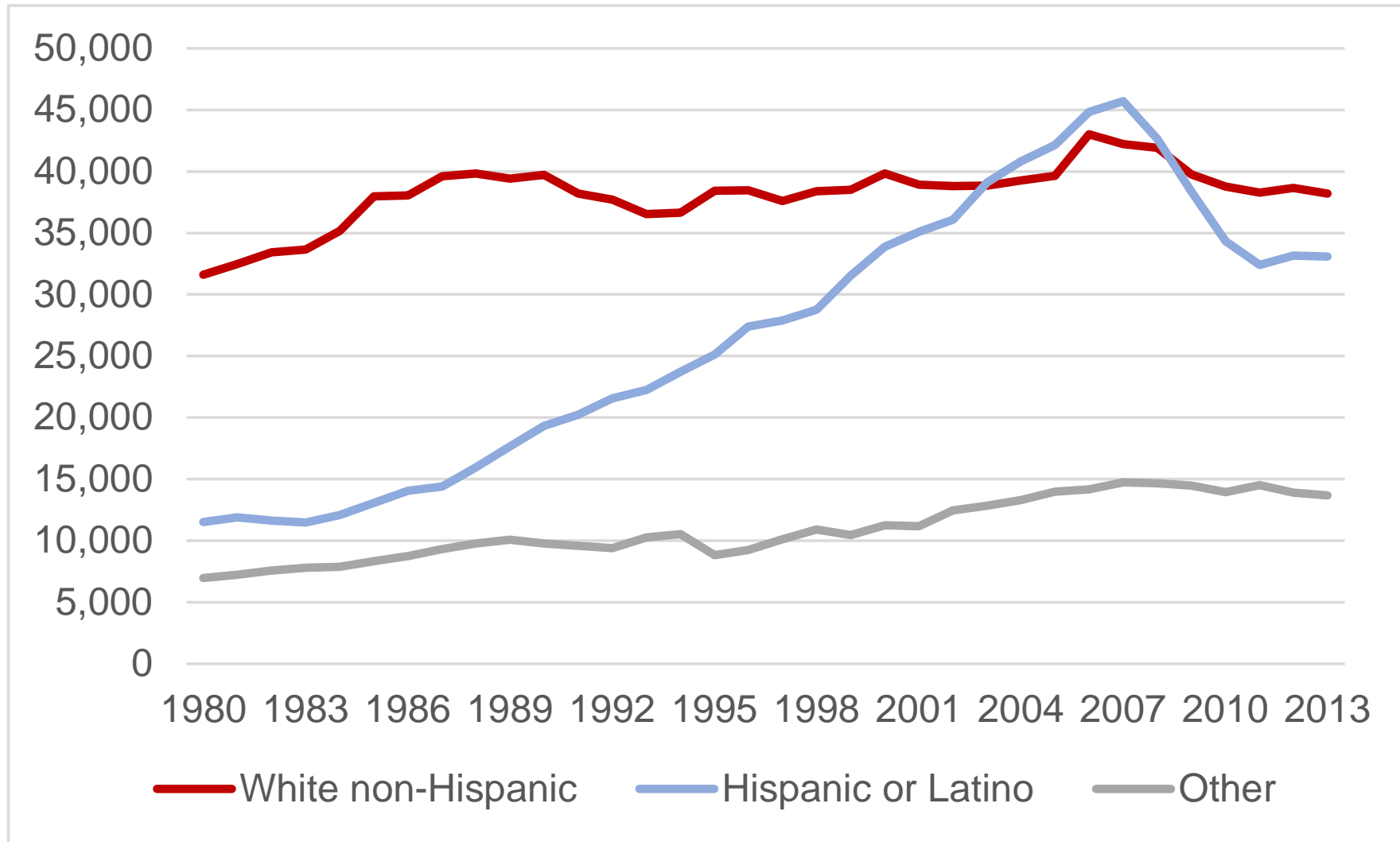
Net Natural Change, Arizona (Arizona Department of Health Services)



Crude Rates of Net Natural Change, Arizona (Arizona Department of Health Services)

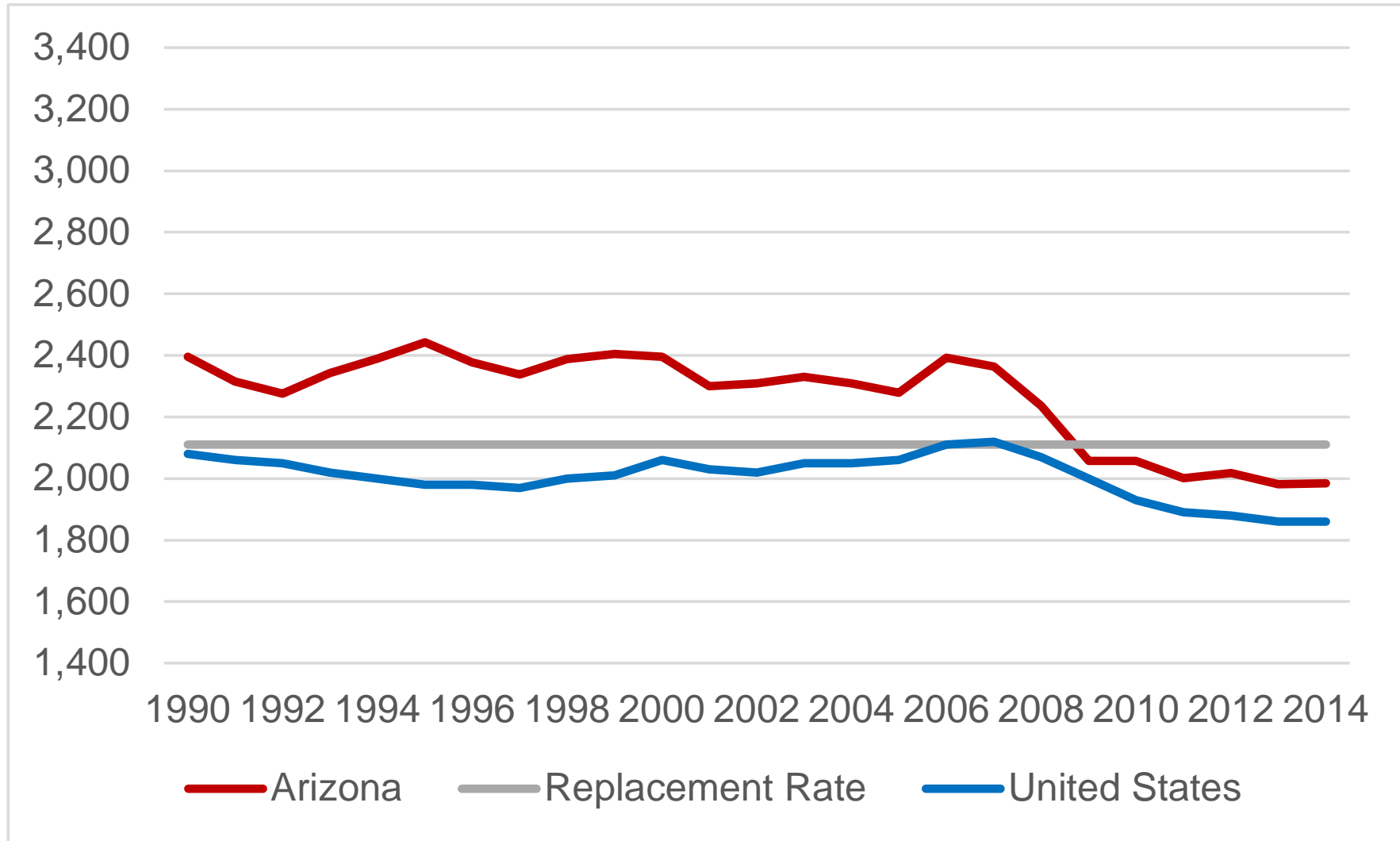


Births by Race/Ethnicity of Mother, Arizona (Arizona Department of Health Services)

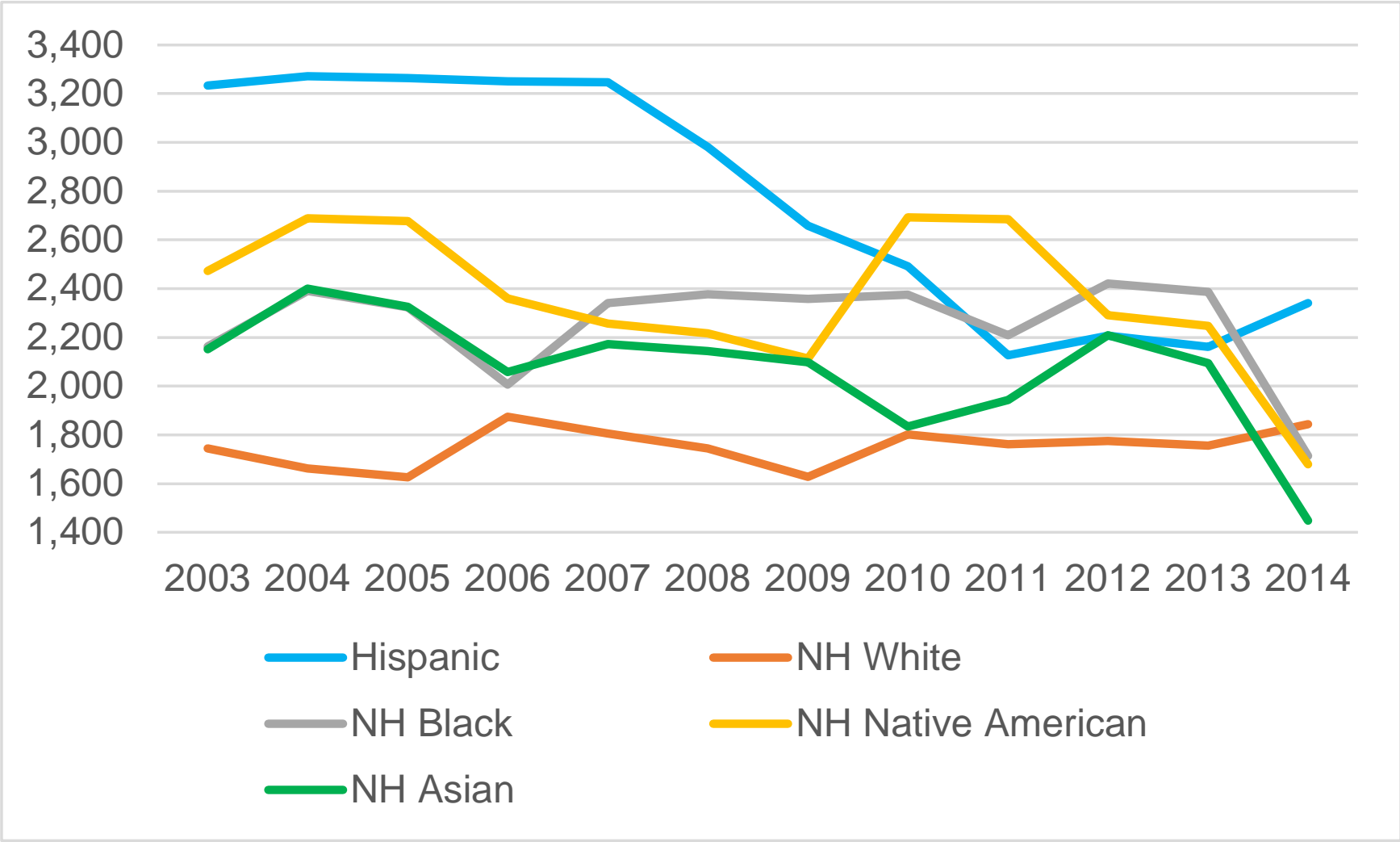


Total Fertility Rate

(Arizona Department of Health Services and World Bank)



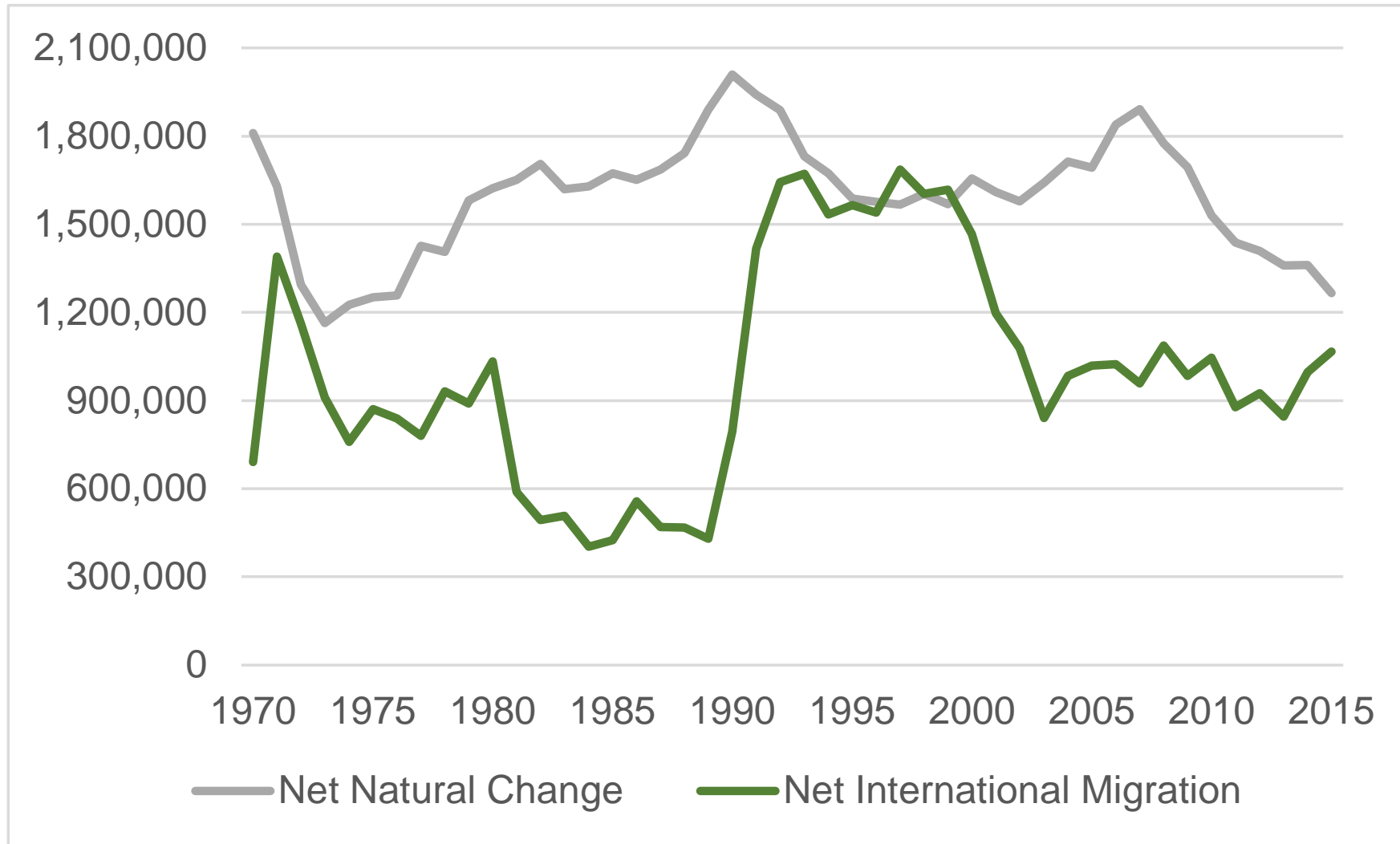
Total Fertility Rate by Race/Ethnicity, Arizona (Arizona Department of Health Services)



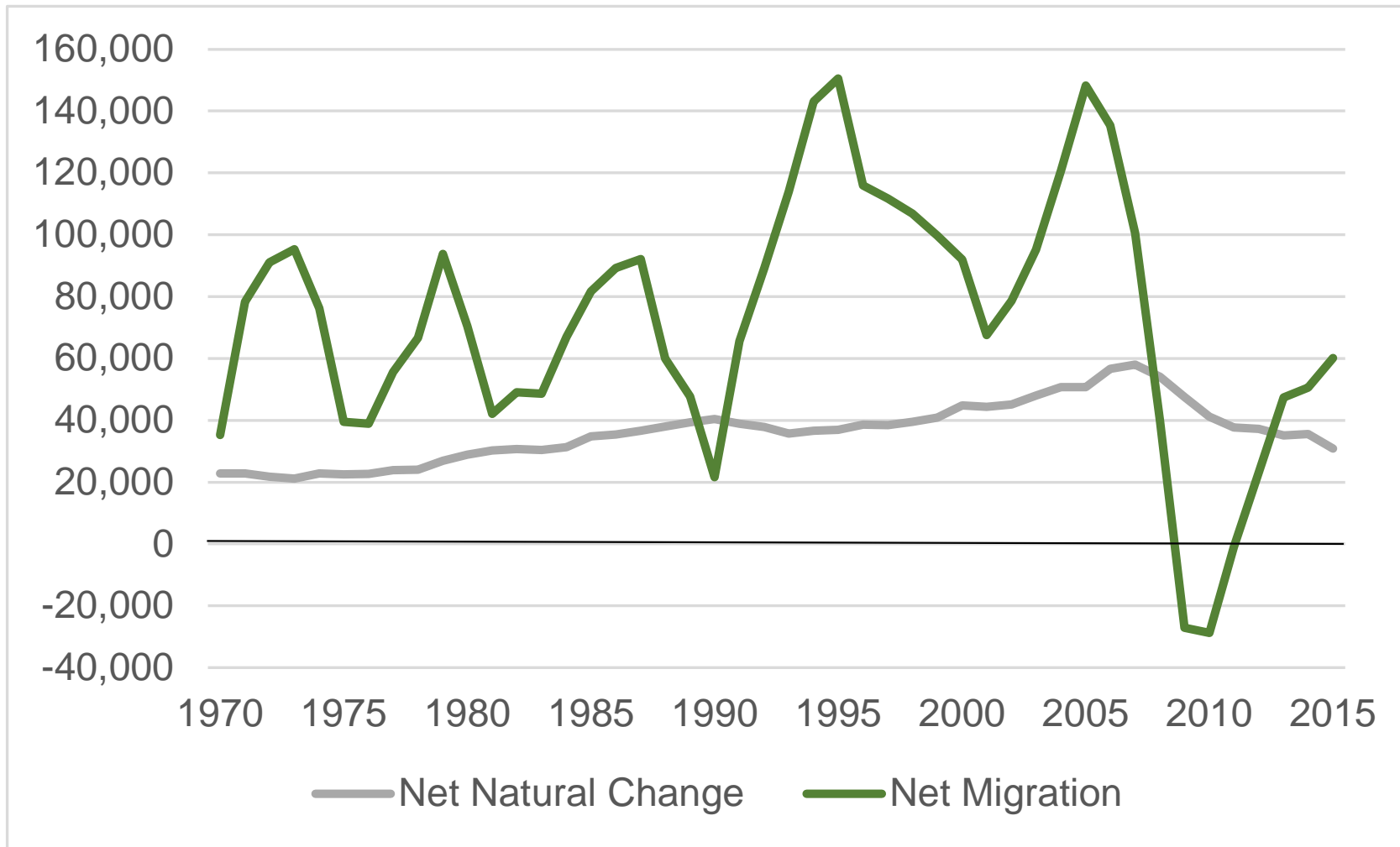
Migration

- Net international migration as a share of the nation's population change since 1970 has averaged 38.5%, but has varied from less than 20% to more than 50%.
- Net migration – international and domestic – as a share of Arizona's population change has averaged 66.7% since 1970, but has varied from negative to 80%.

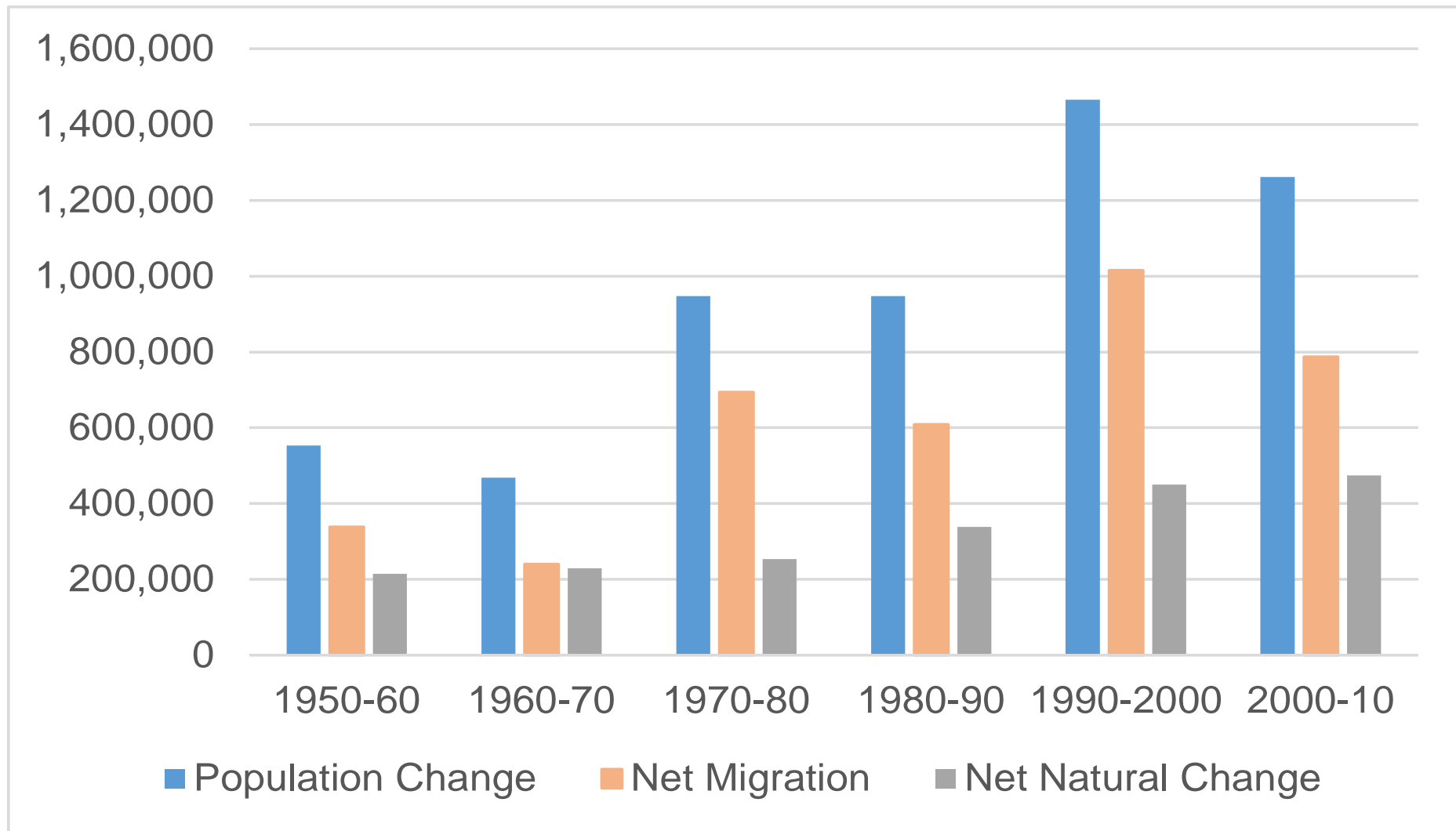
Components of Population Change, United States (Census Bureau and National Center for Health Statistics)



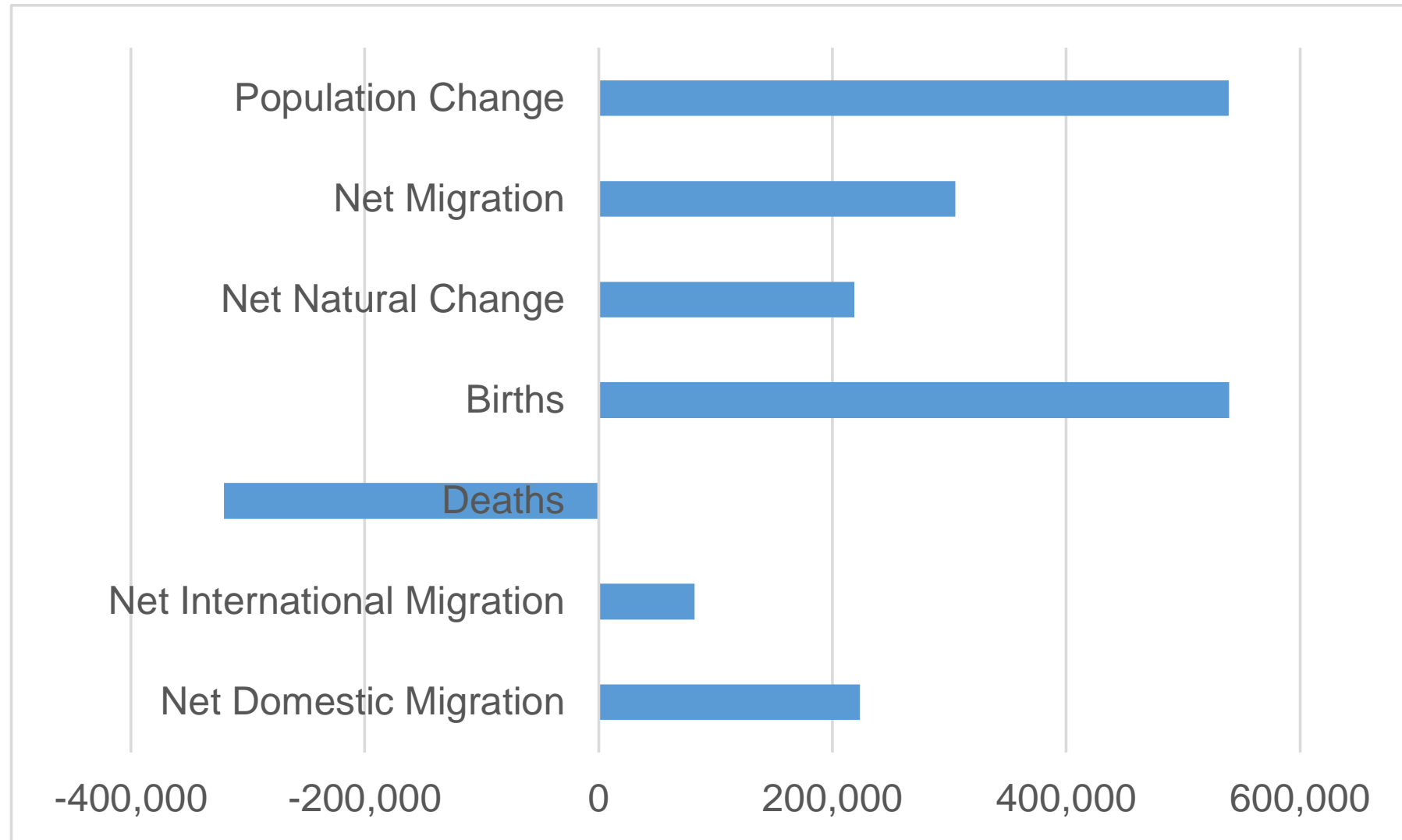
Components of Population Change, Arizona (Census Bureau, OEPS, and Arizona Department of Health Services)



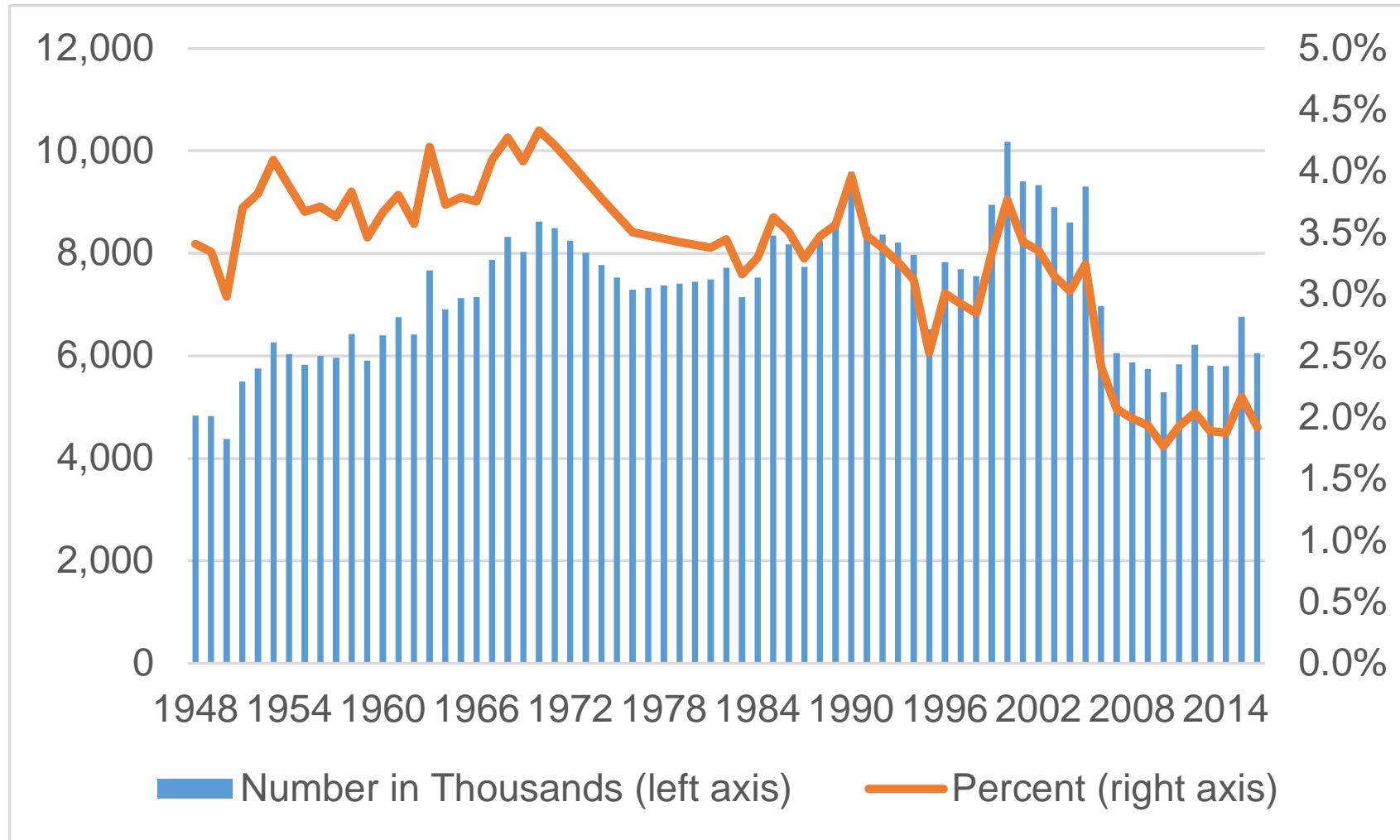
Components of Population Change, Arizona (Decennial Census Counts and Vital Records)



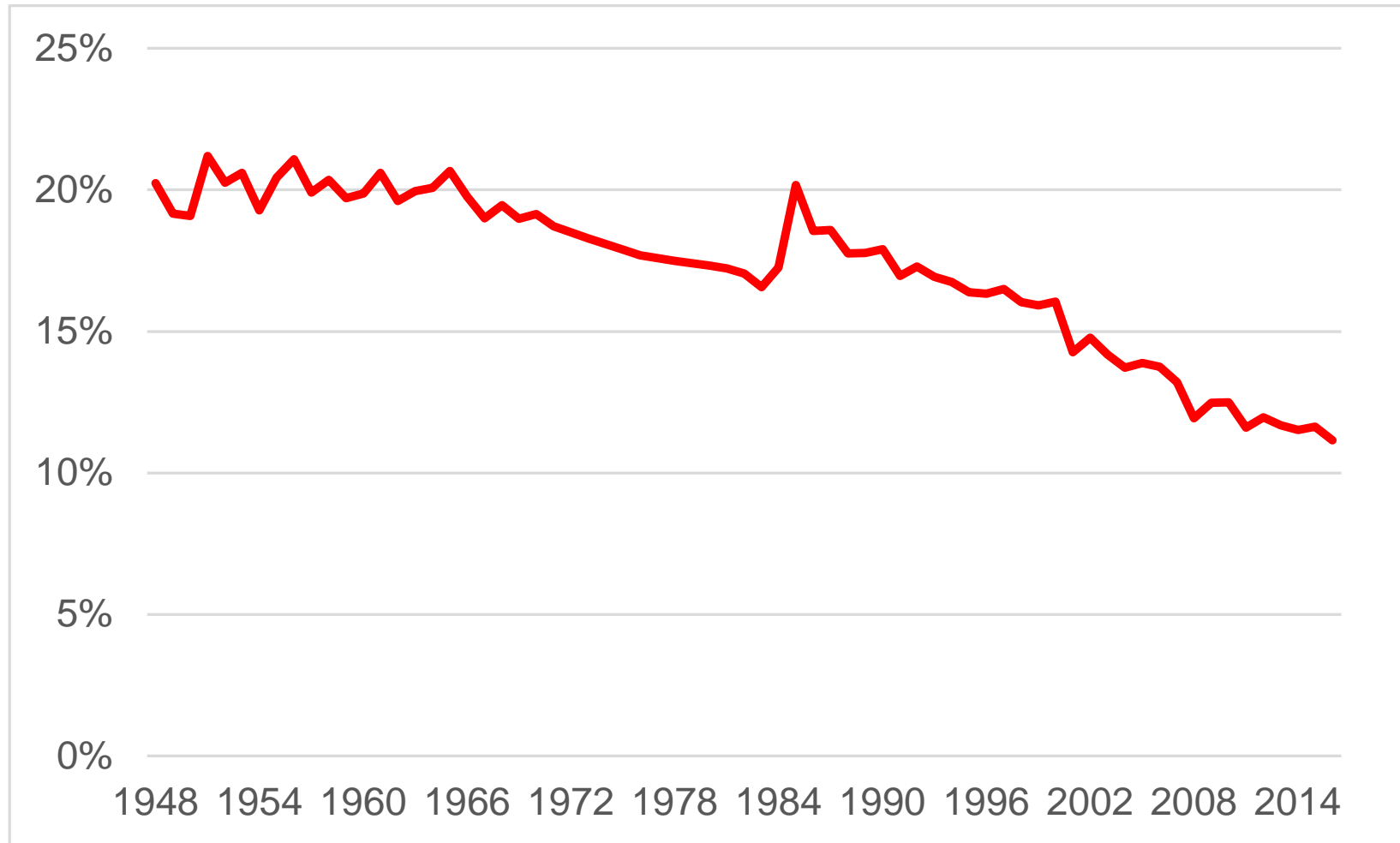
Components of Population Change, Arizona, 2010 Through 2016 (Census Bureau Estimates)



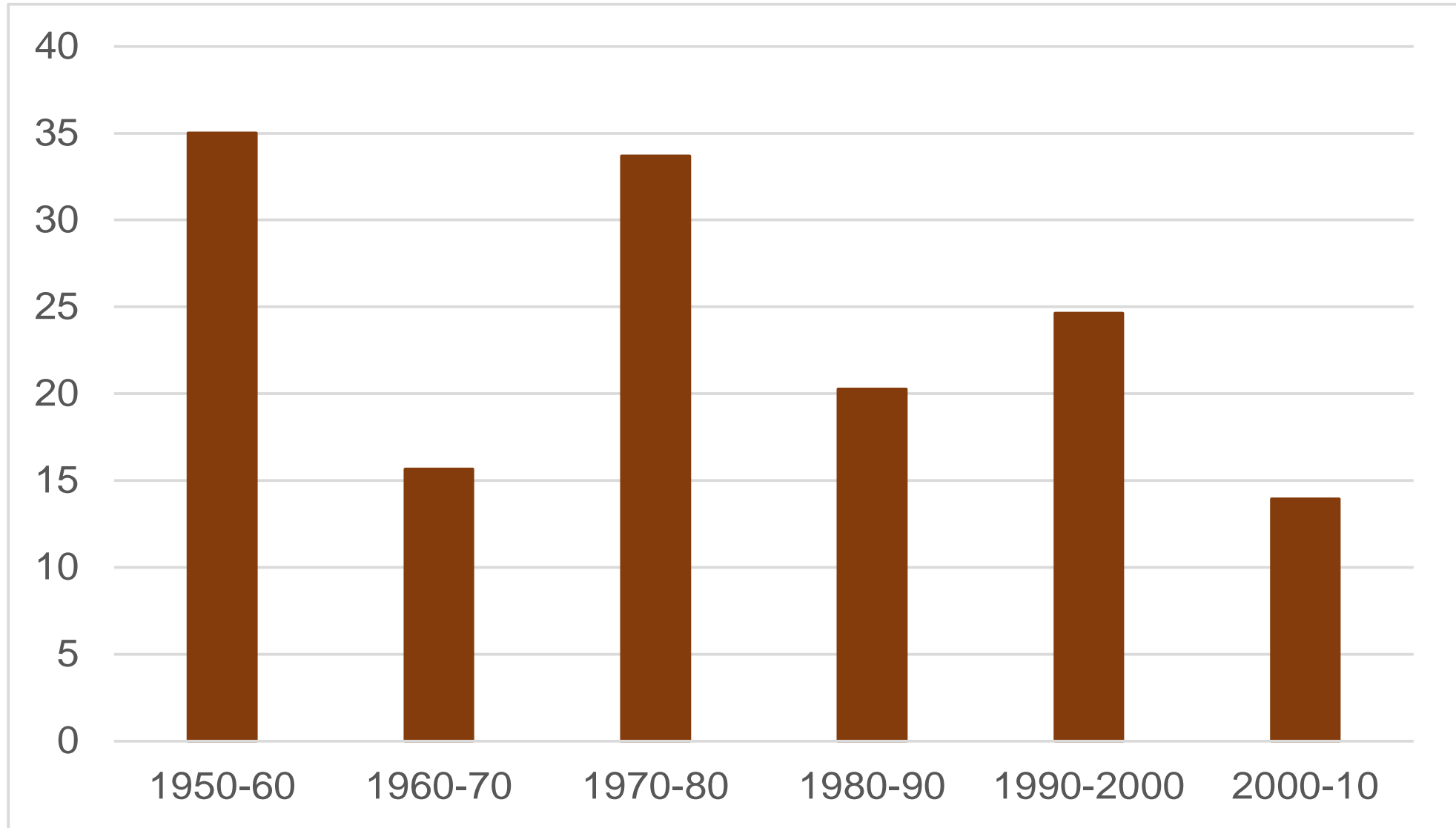
Migration From Another State or From Abroad, United States (Census Bureau)



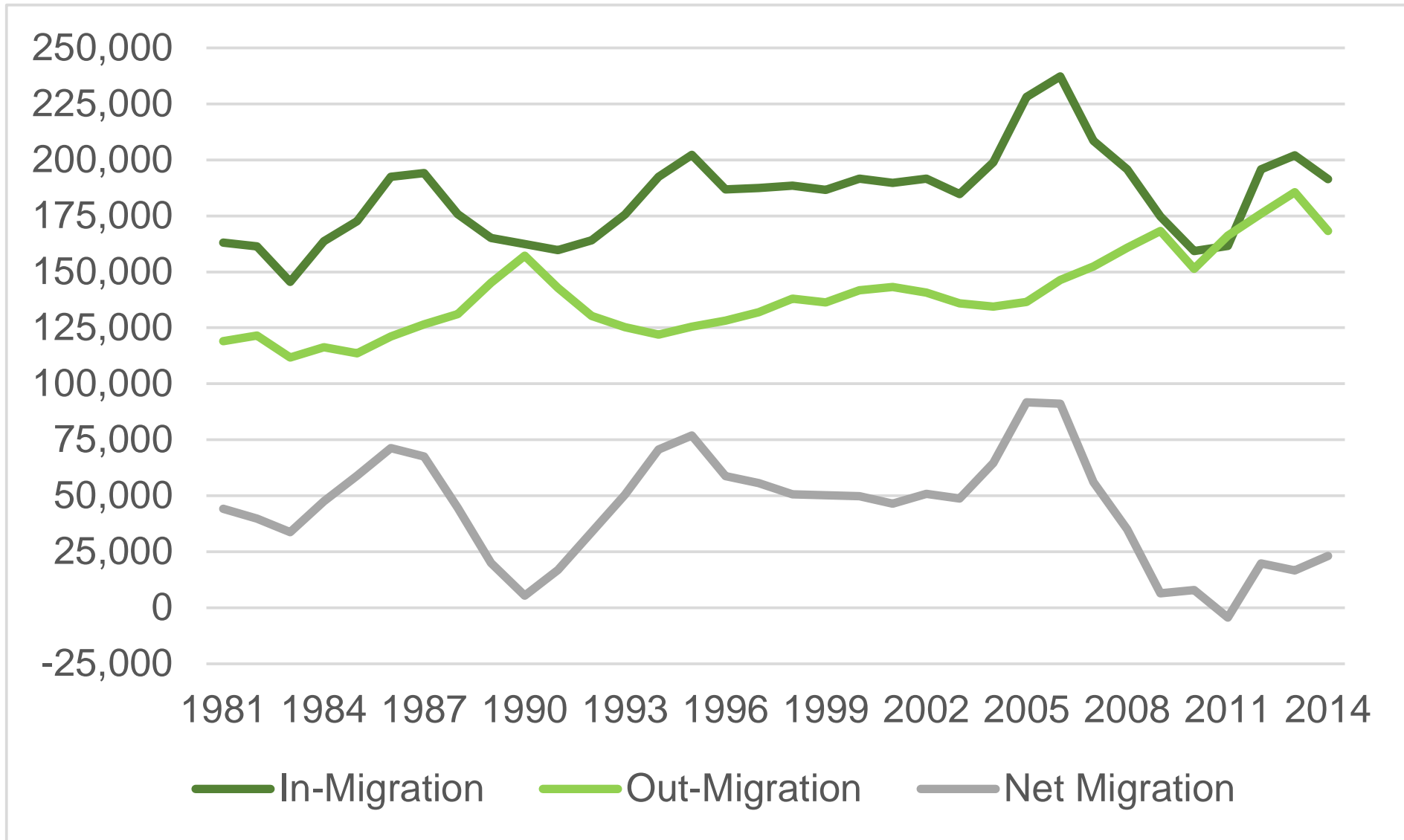
Percentage of the U.S. Population Moving in a Year (Census Bureau)



Net Migration Rate, Arizona (University of Wisconsin)



Net Domestic Migration, Arizona (Internal Revenue Service)

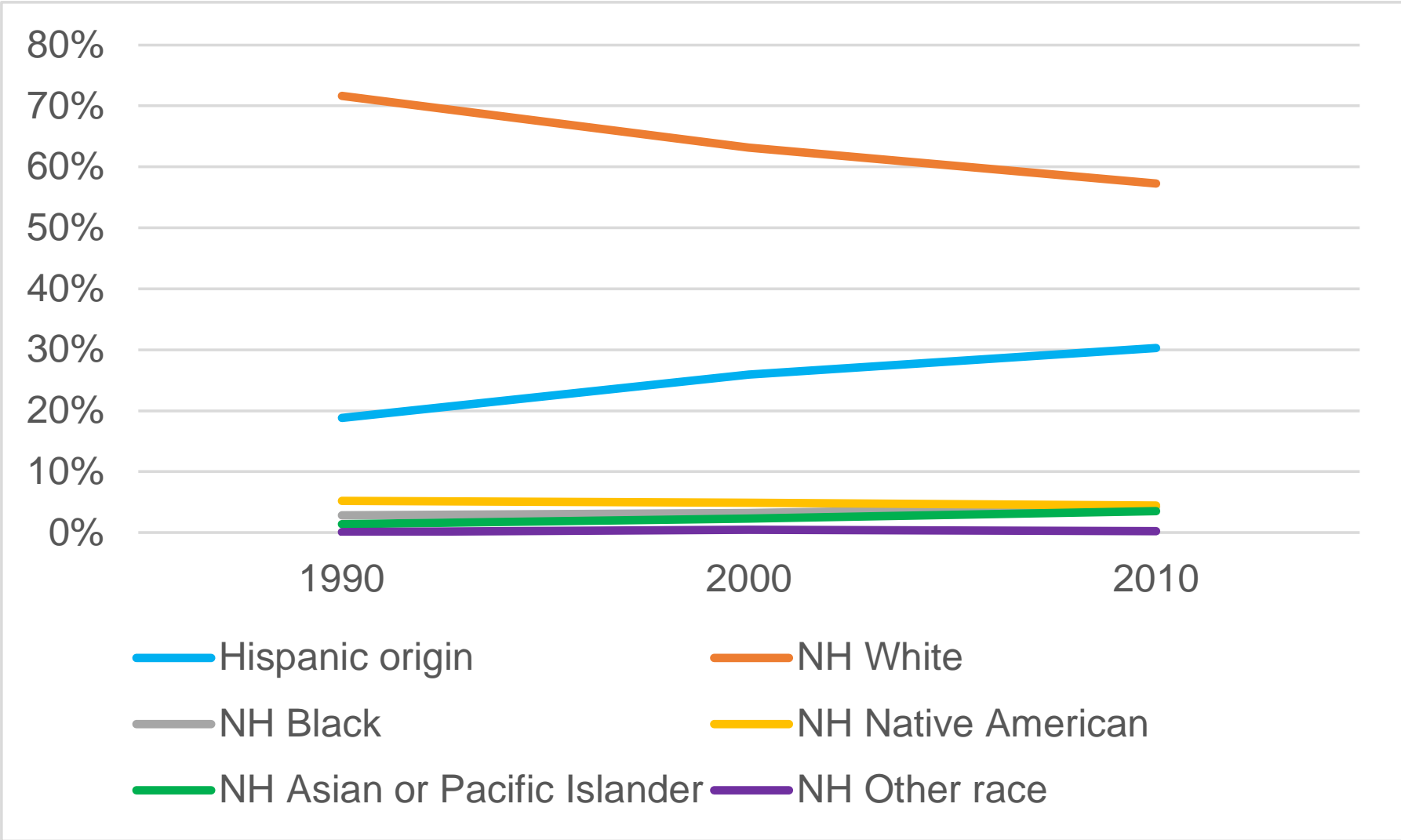


DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION

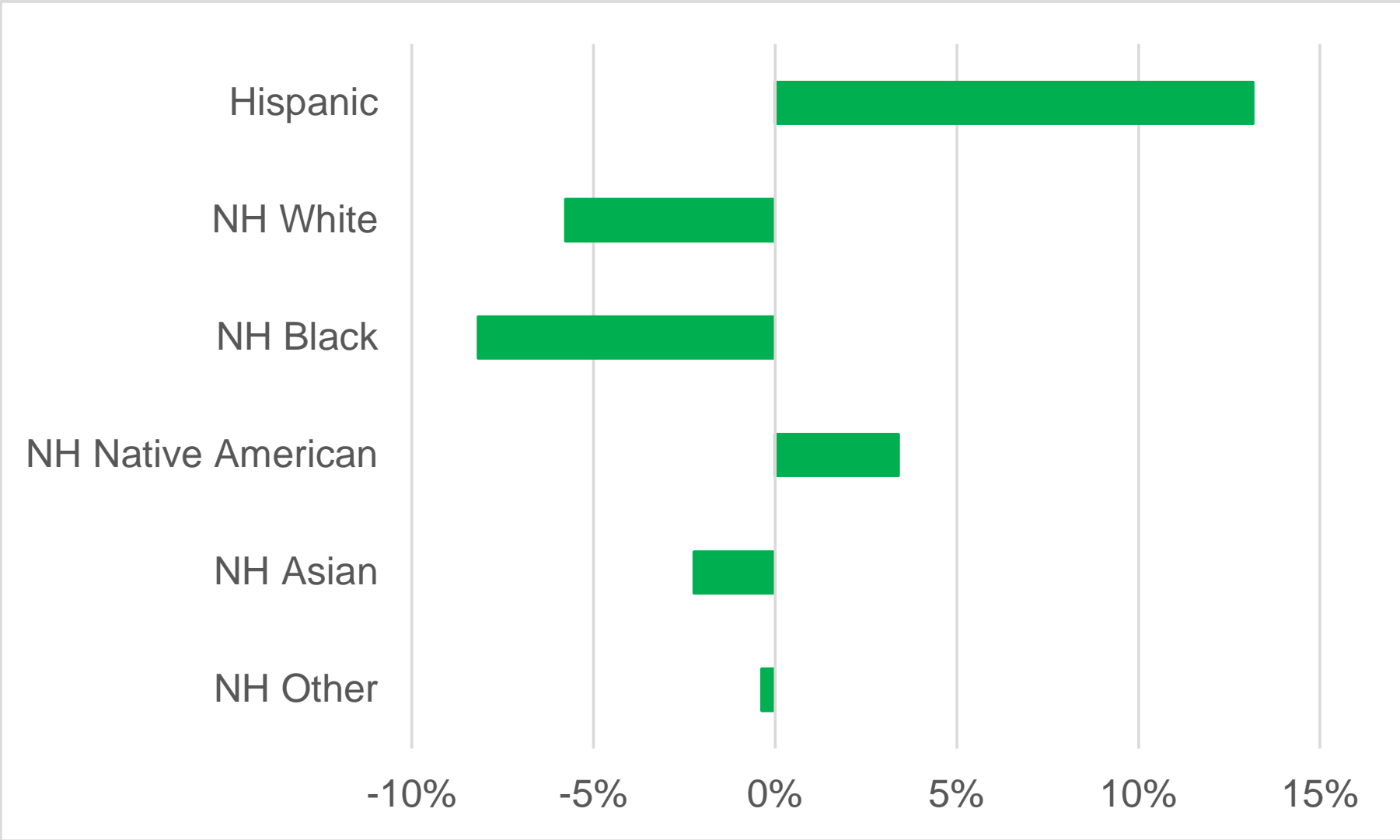
- Characteristics of the population include race/ethnicity, age, homeownership, etc.
- The decennial census was the primary source of this information through 2000.
- The American Community Survey (ACS) has provided such information annually since 2005, but survey error is a concern.

Race/Ethnicity

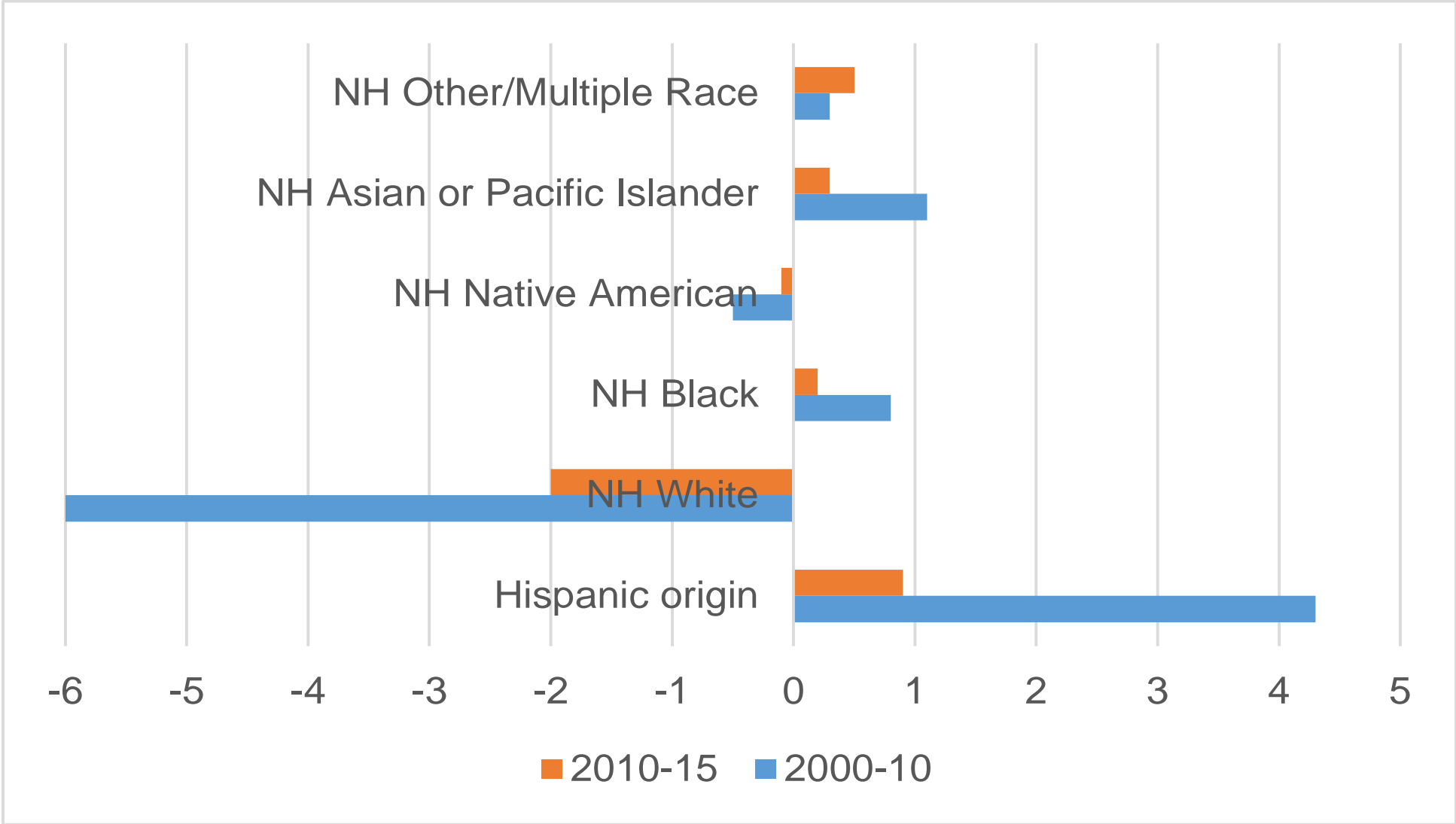
Race/Ethnicity, Share of Population, Arizona (Decennial Census)



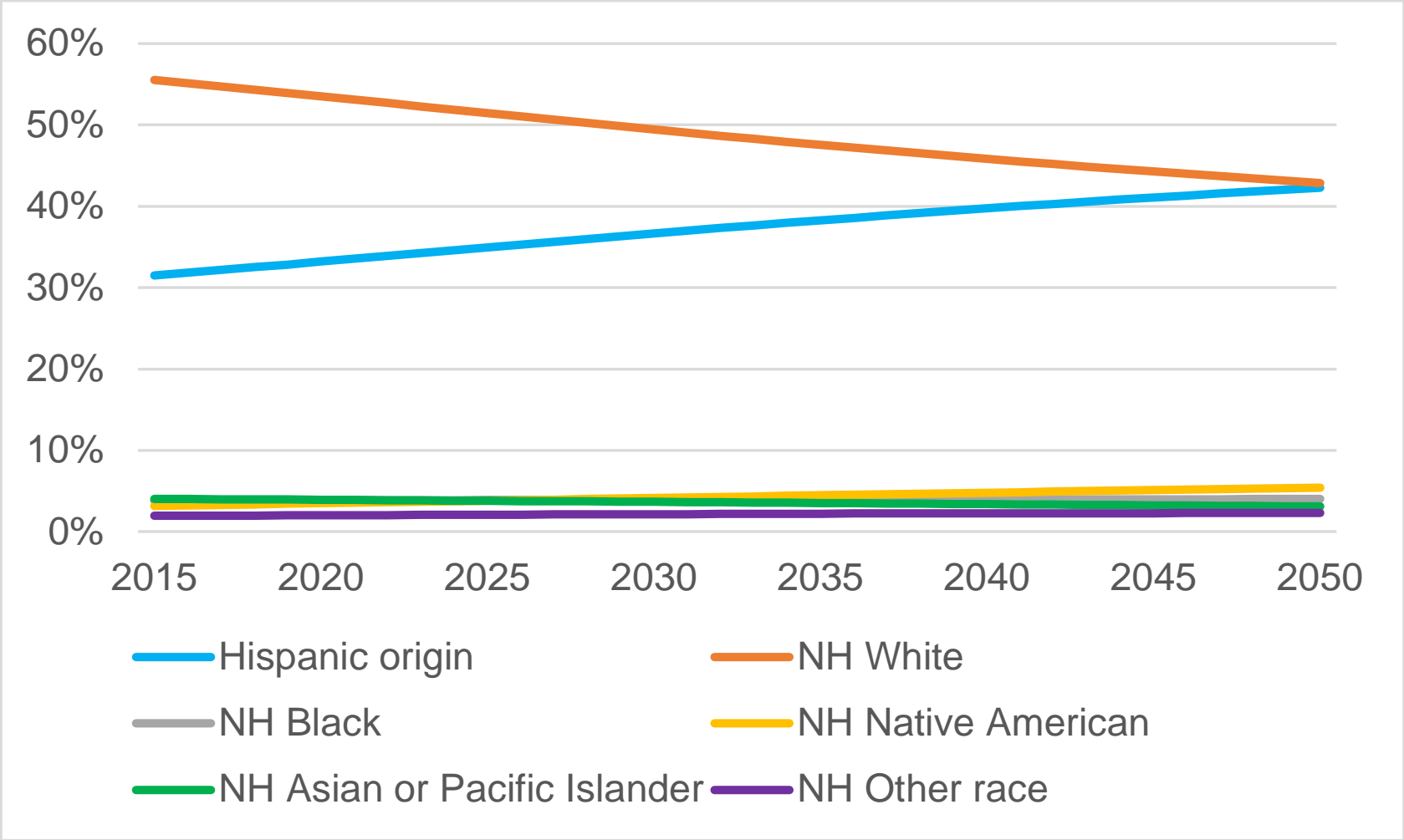
Race/Ethnic Distribution, Arizona Less United States, 2015 (American Community Survey)



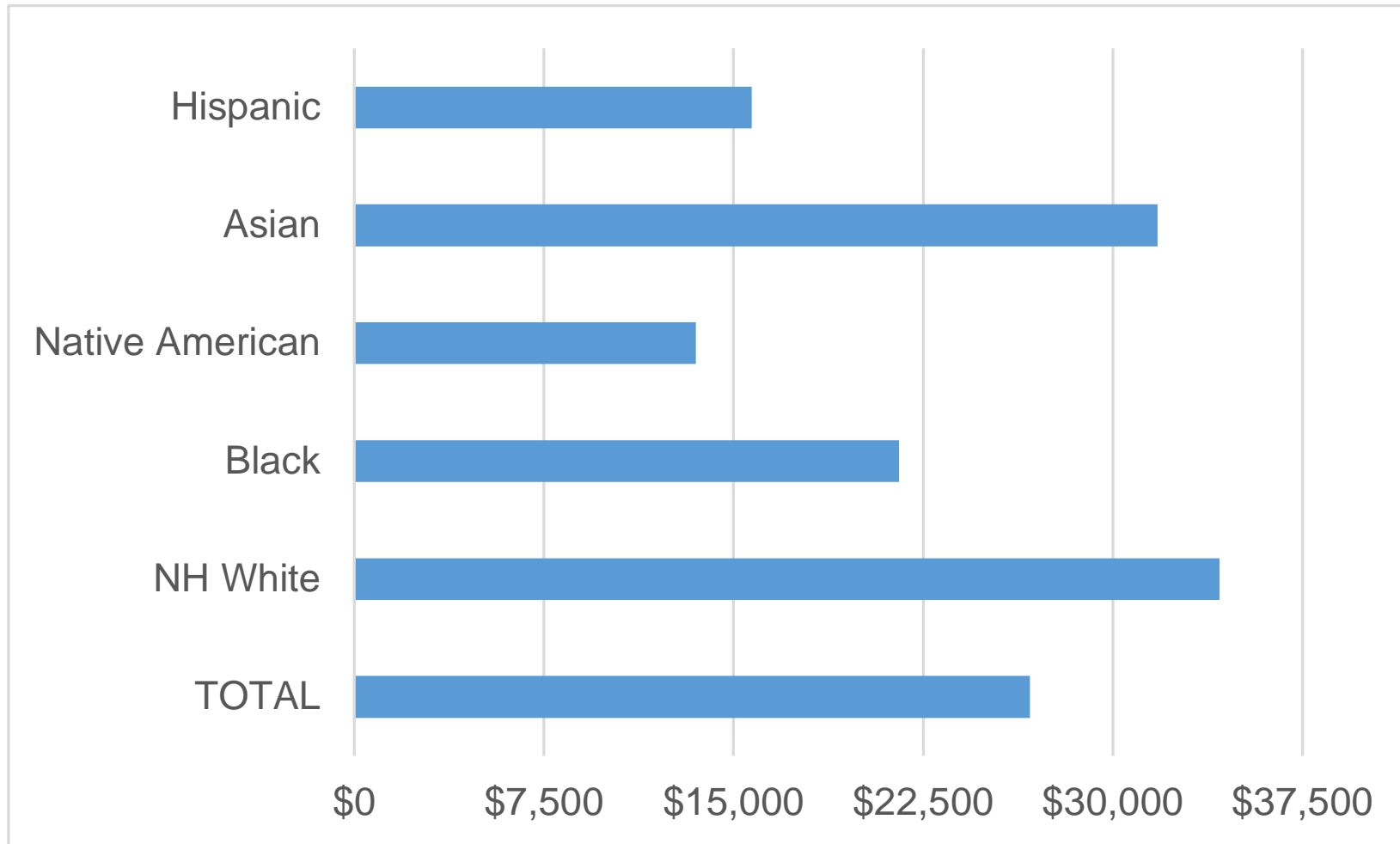
Race/Ethnicity, Percentage Point Change in Share, Arizona (Census Bureau)



Race/Ethnicity, Projected Share of Population, Arizona (OEPS)



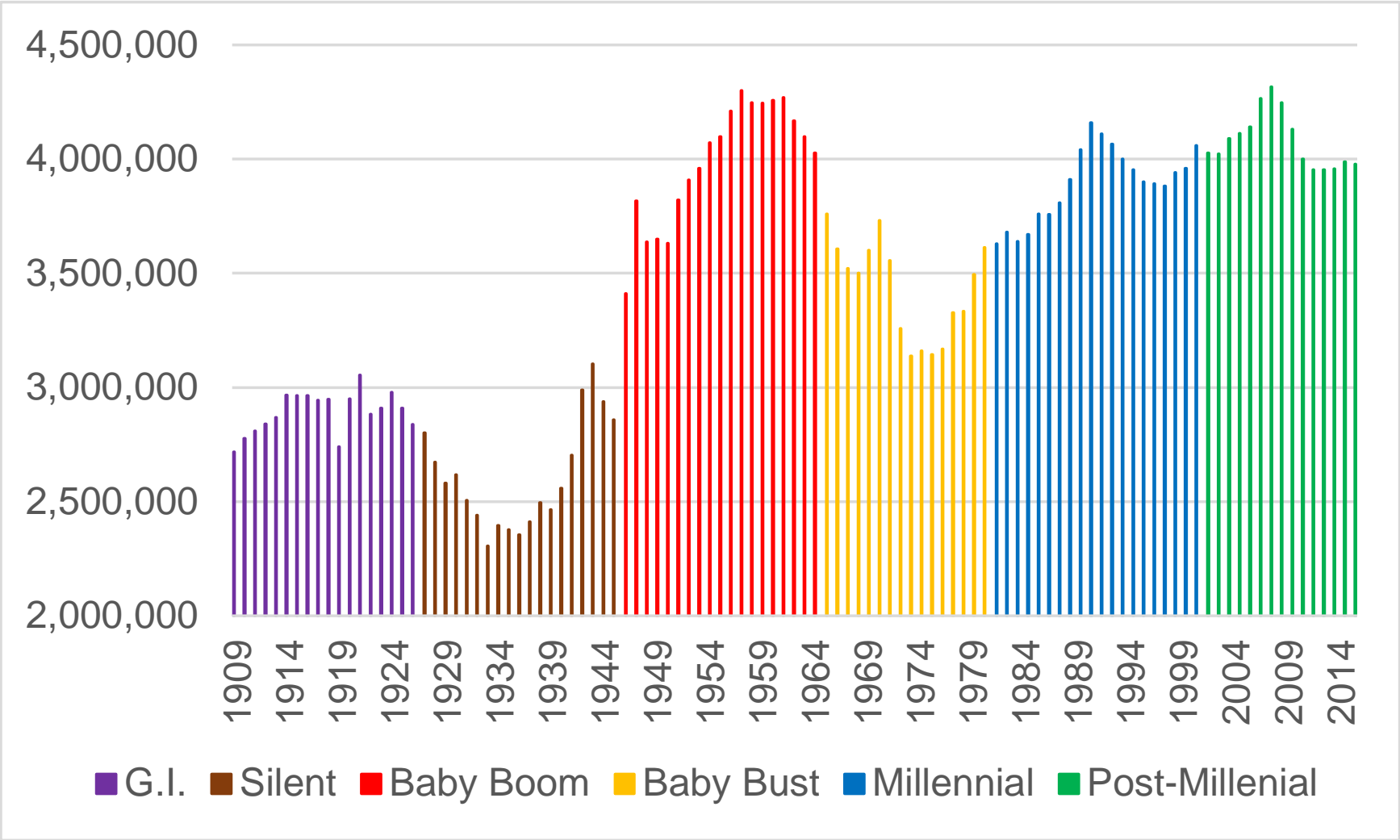
Per Capita Income by Race/Ethnicity, Arizona, 2015 (American Community Survey)



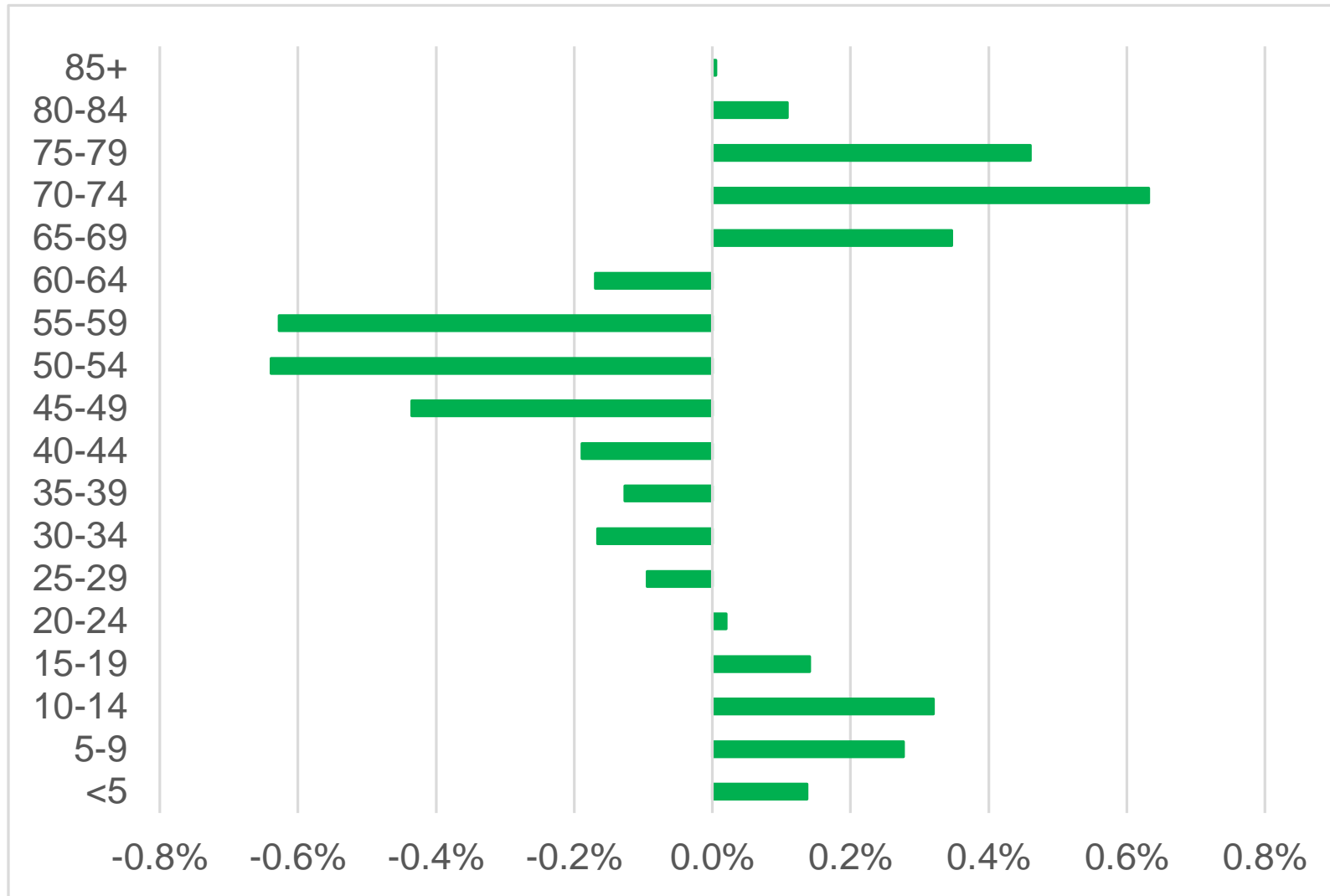
Age

- As defined by generation birth dates:
 - “G.I. Generation” (“Greatest Generation”): roughly 1901-1926 (ages 90 and older)
 - “Silent Generation”: roughly 1927-1945 (ages 71-89)
 - “Baby-Boom Generation”: 1946-1964 (ages 52-70)
 - “Baby-Bust Generation” (“Generation X”): 1965-roughly 1980 (ages 36-51)
 - “Millennial Generation” (“Generation Y” or “Baby-Boom Echo”): roughly 1981-2000 (ages 16-35)
 - “Post-Millennial Generation” (“Generation Z”): roughly since 2001 (younger than 16)

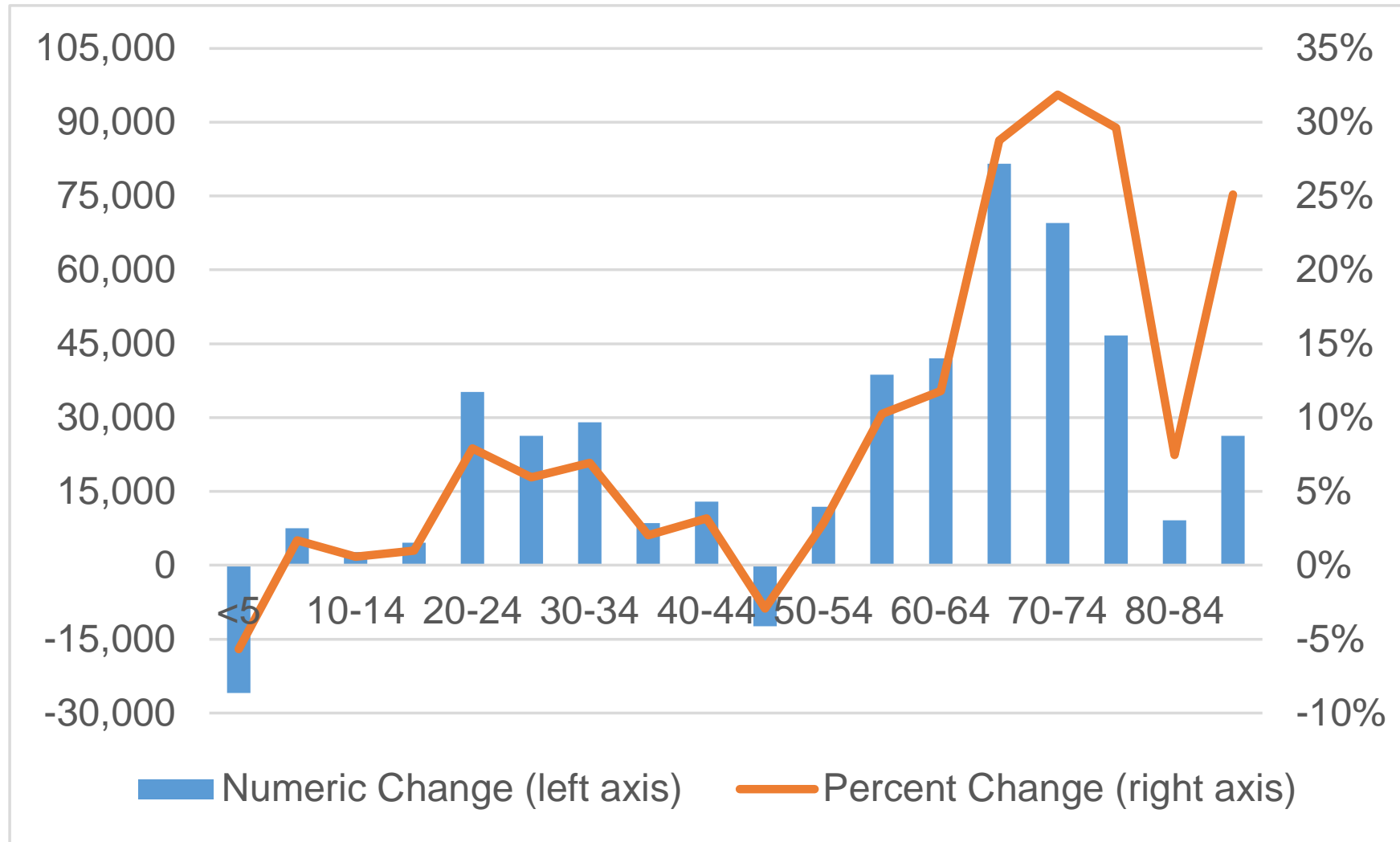
Number of Births in United States and Generations



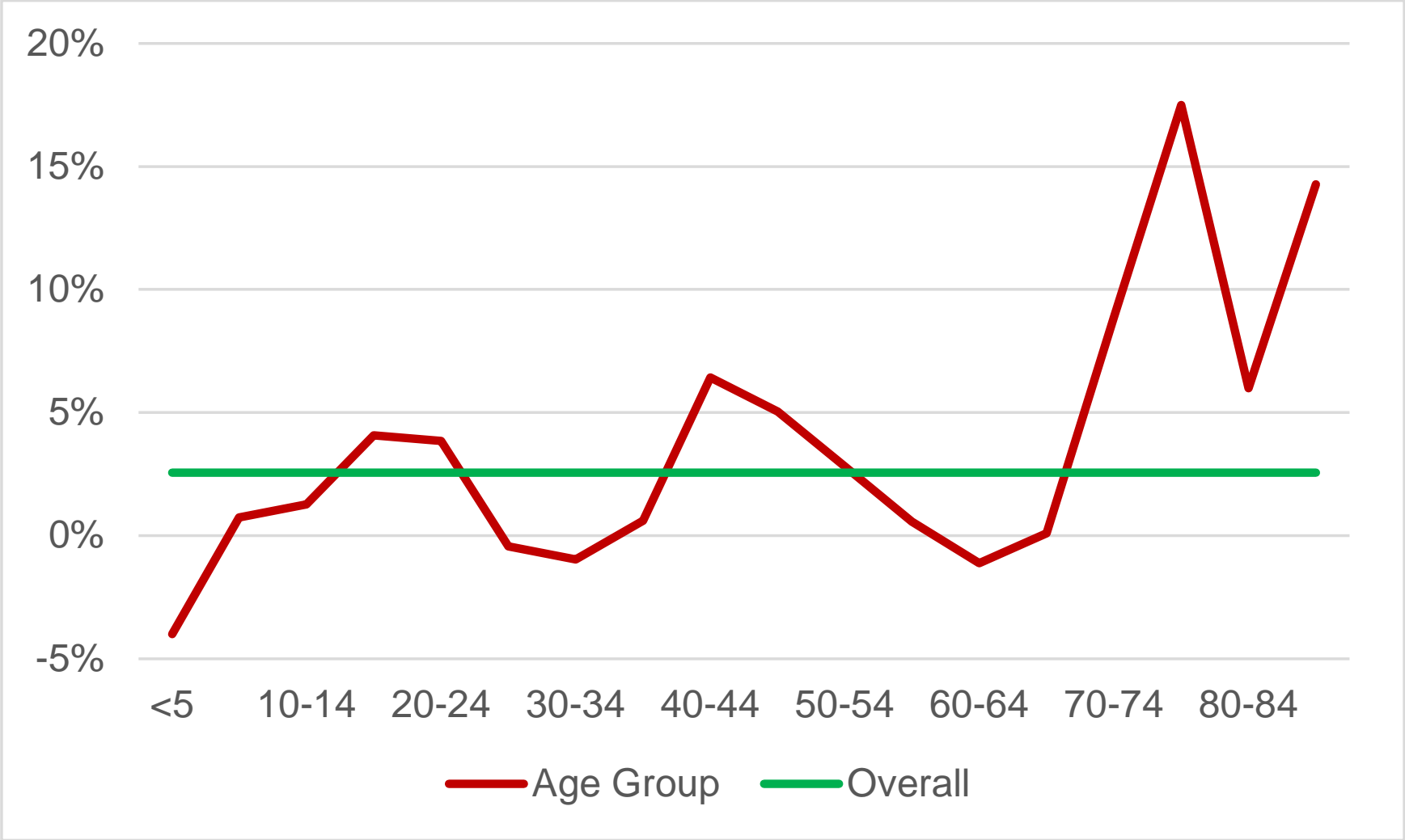
Age Distribution, Arizona Less United States, 2015 (American Community Survey)



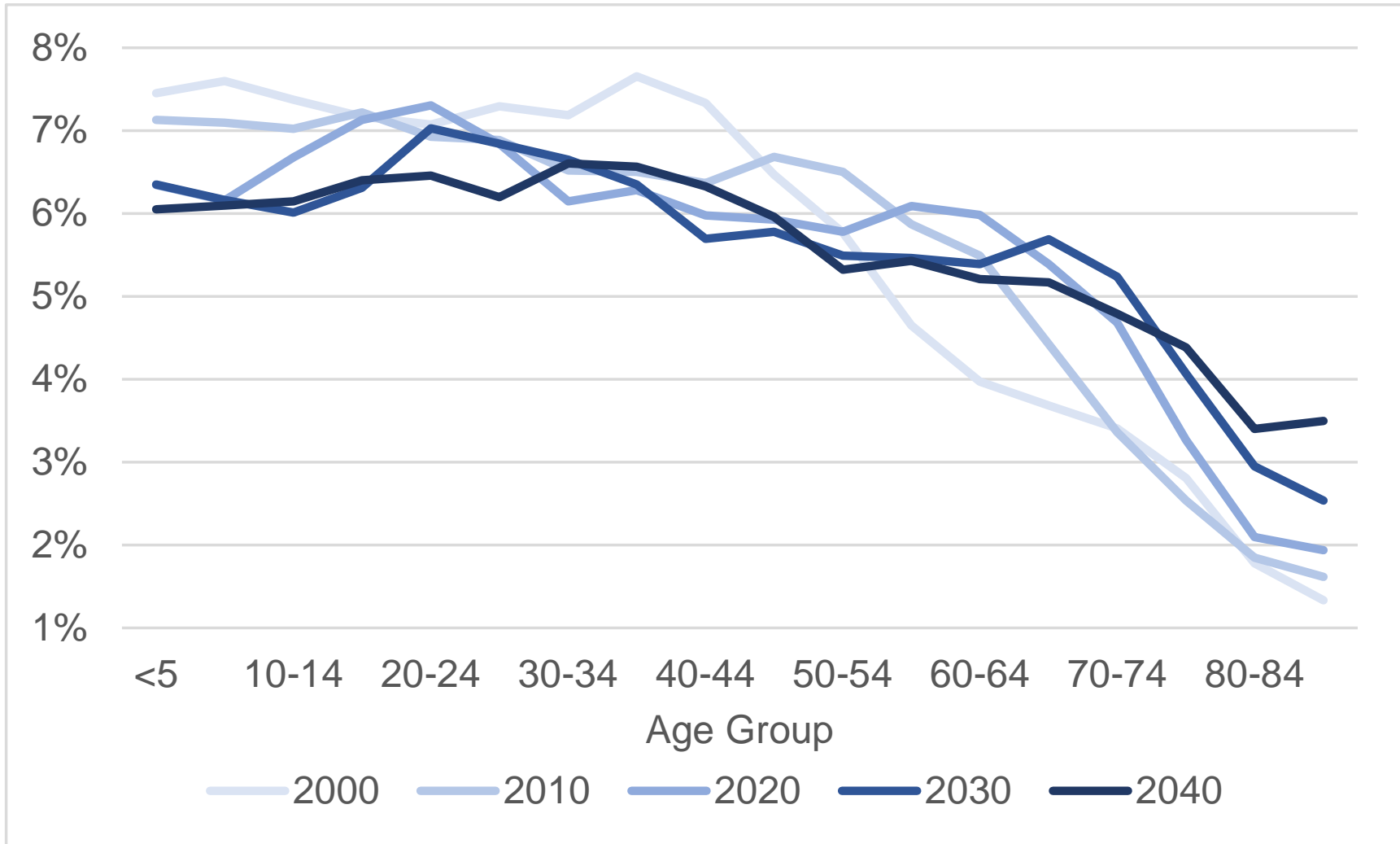
Change in Population by Age Group, Arizona, 2010-to-2015 (American Community Survey)



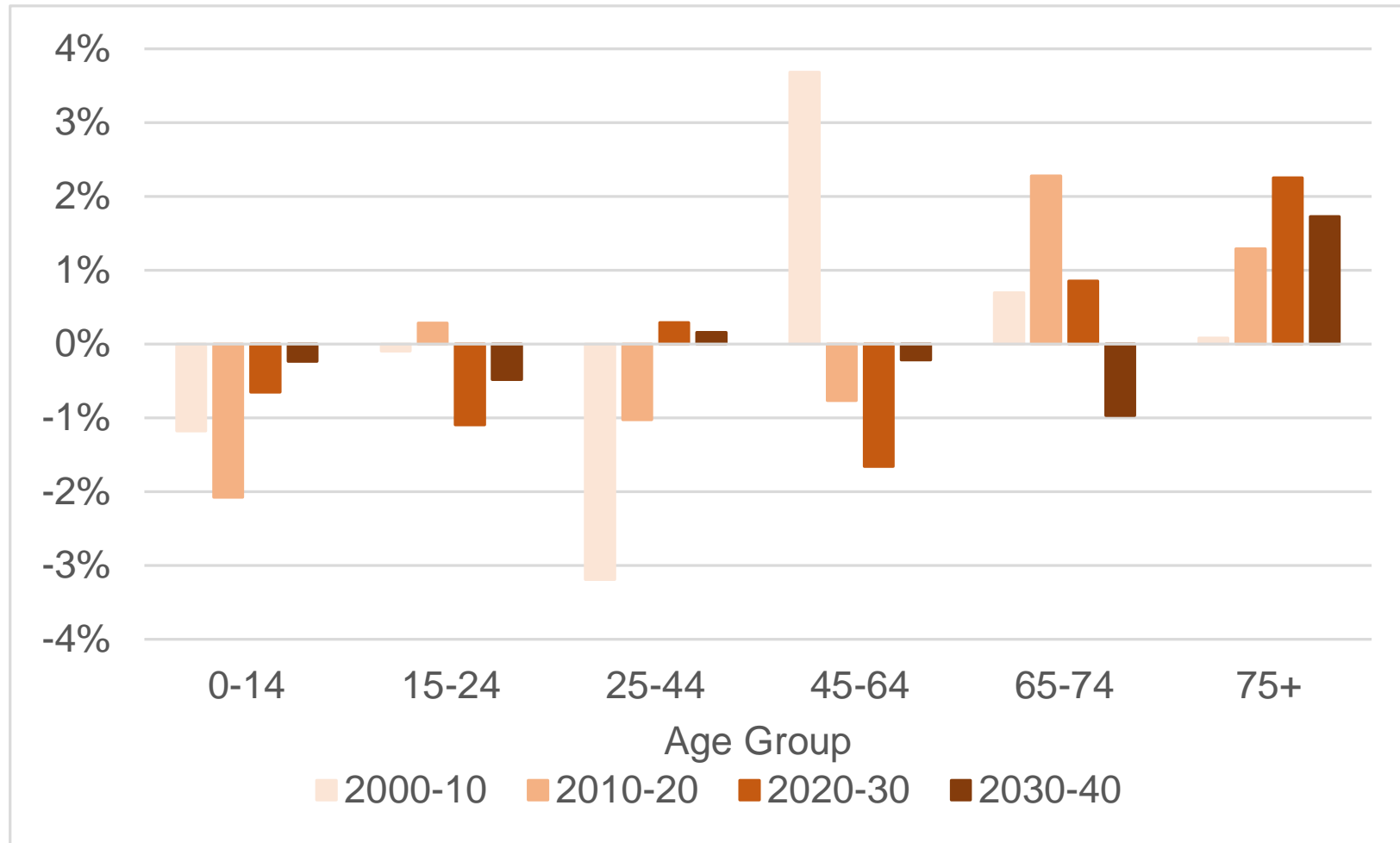
Percent Change in Population by Age Group, 2010 to 2015, Arizona Less United States (American Community Survey)



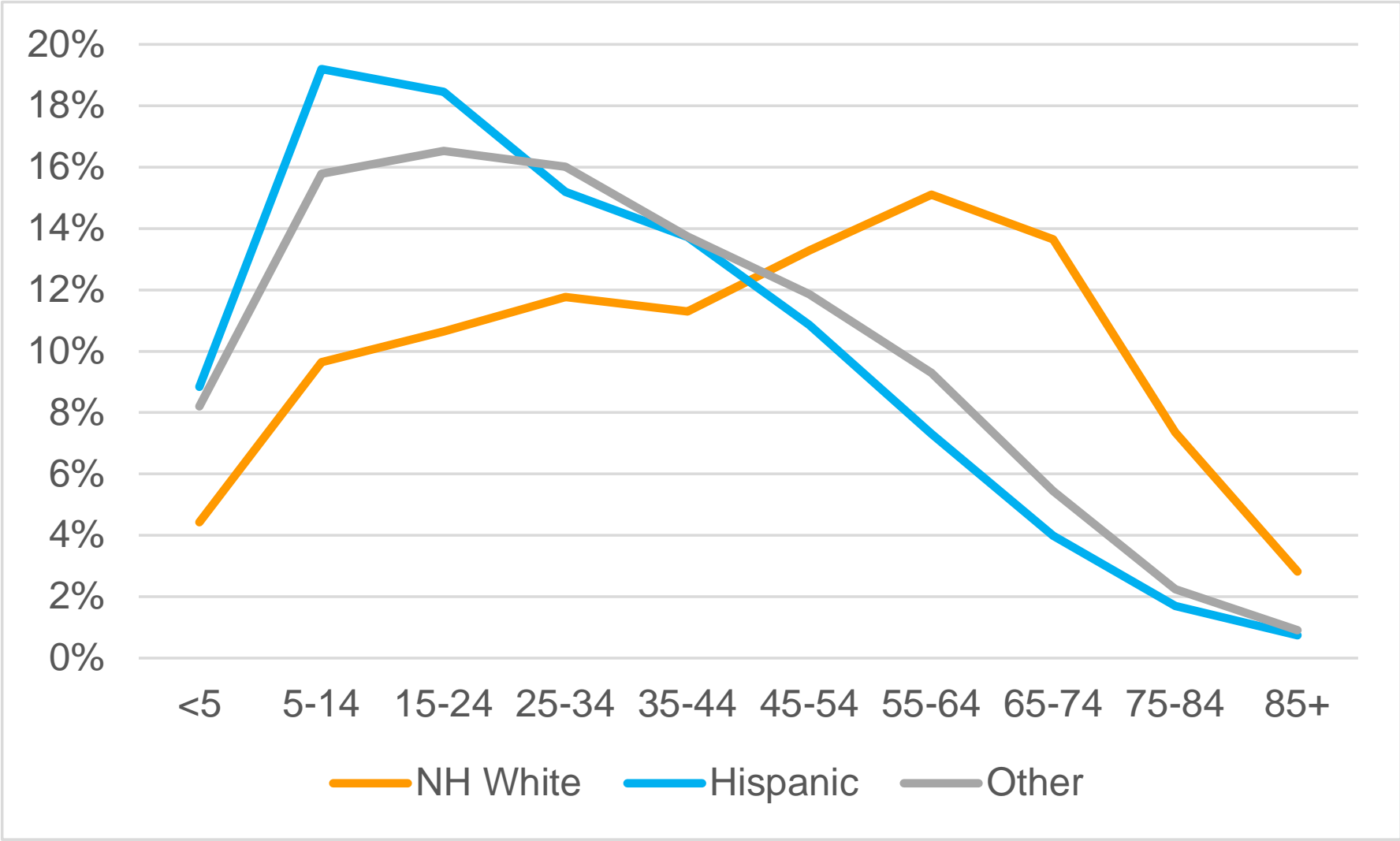
Share of Population by Age Group, Arizona (Census Bureau and OEPS Projections)



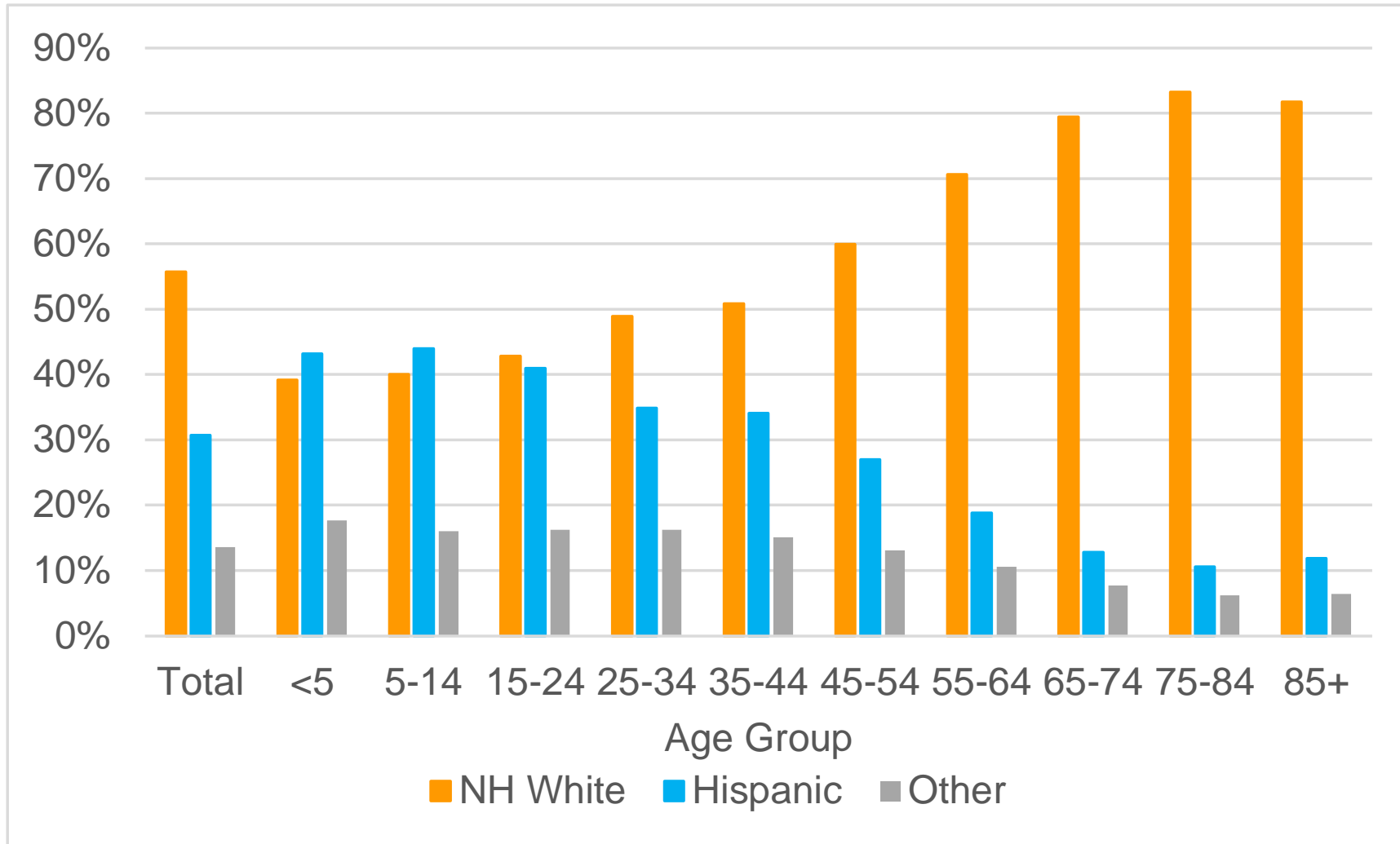
Change in Share of Population by Age Group, Arizona (Census Bureau and OEPS Projections)



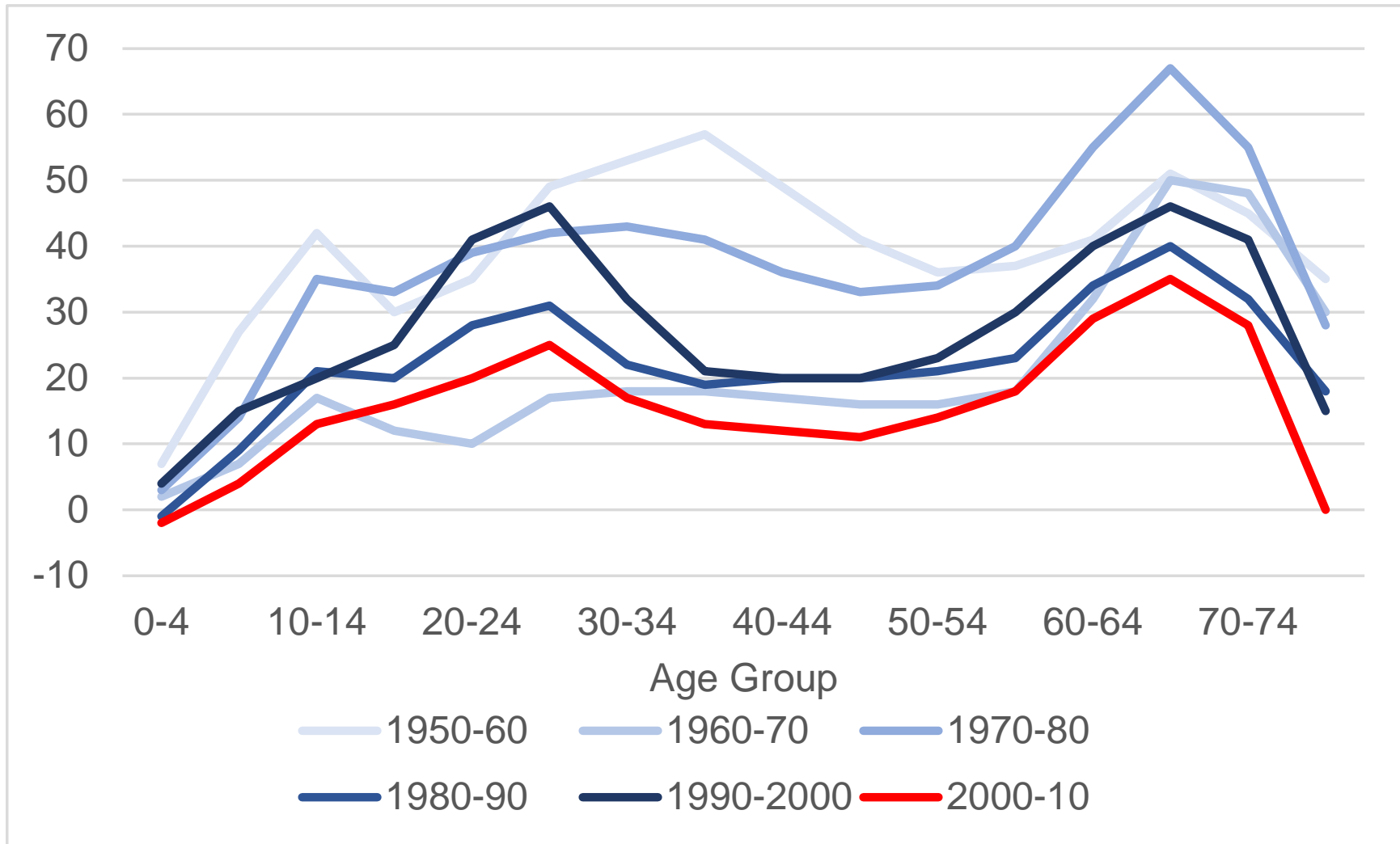
Share of Population by Age Group and Race/Ethnicity, Arizona, 2015 (American Community Survey)



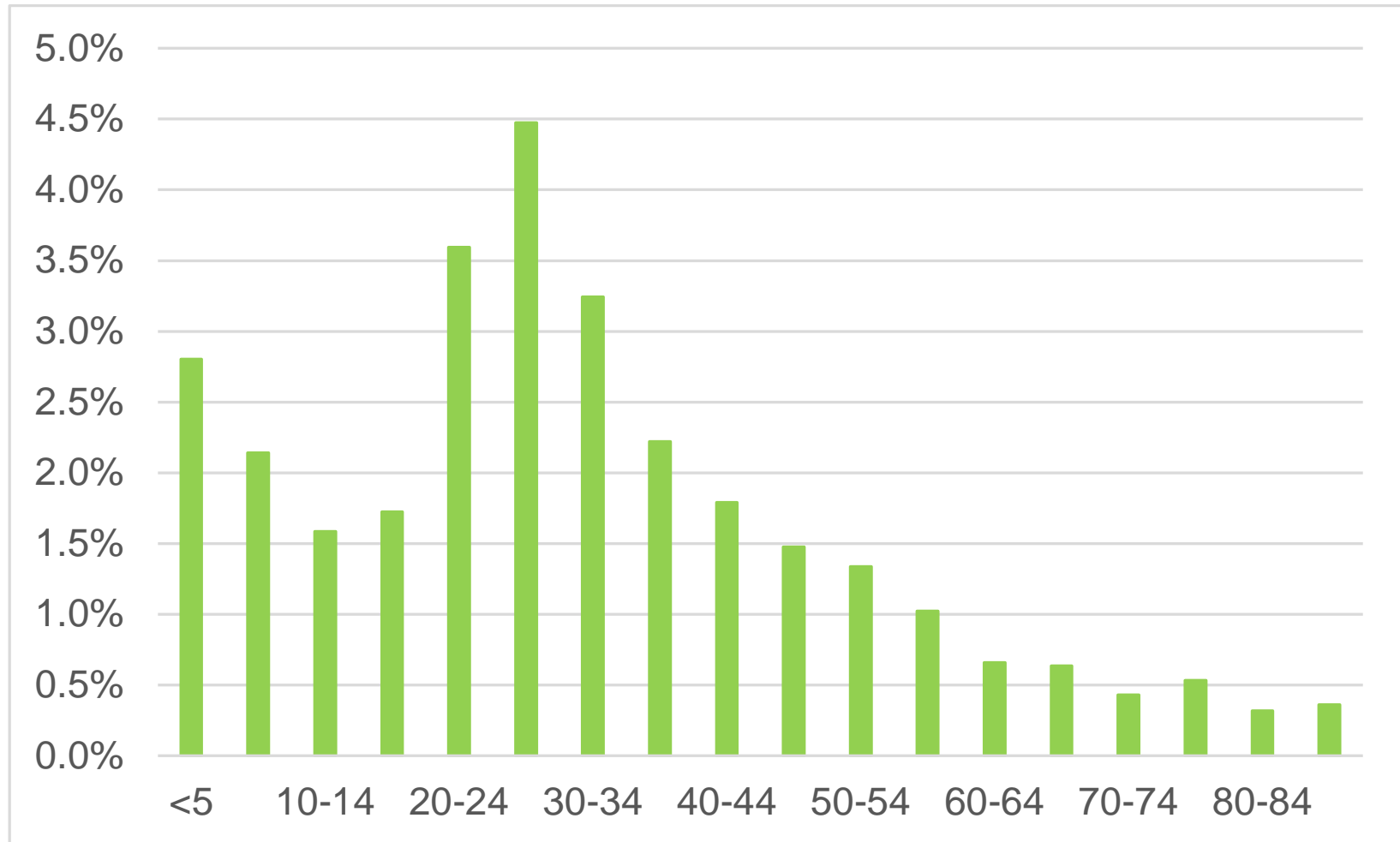
Share of Age-Group Population by Race/Ethnicity, Arizona (American Community Survey, 2015)



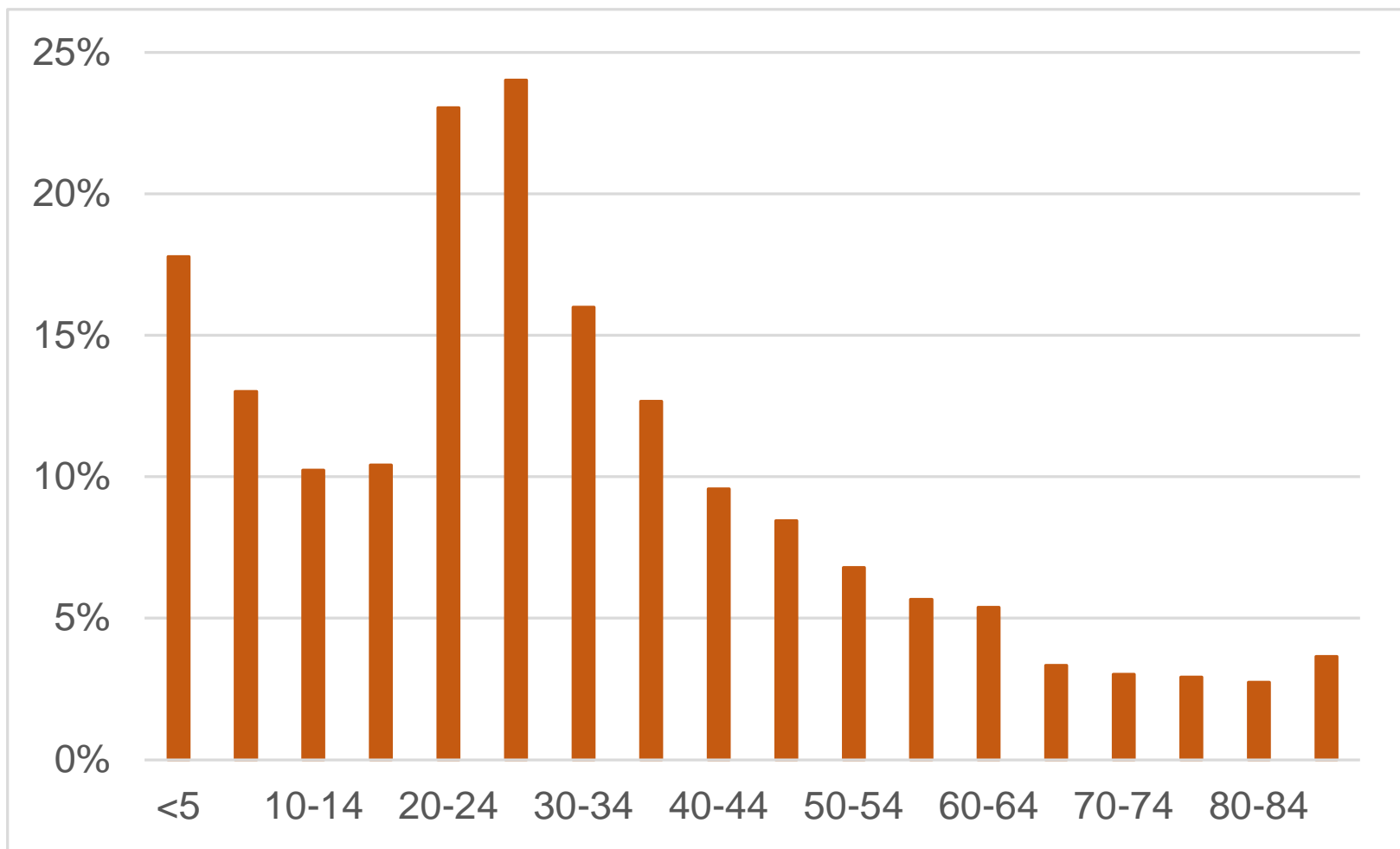
Migration Rate by Age Group, Arizona (University of Wisconsin)



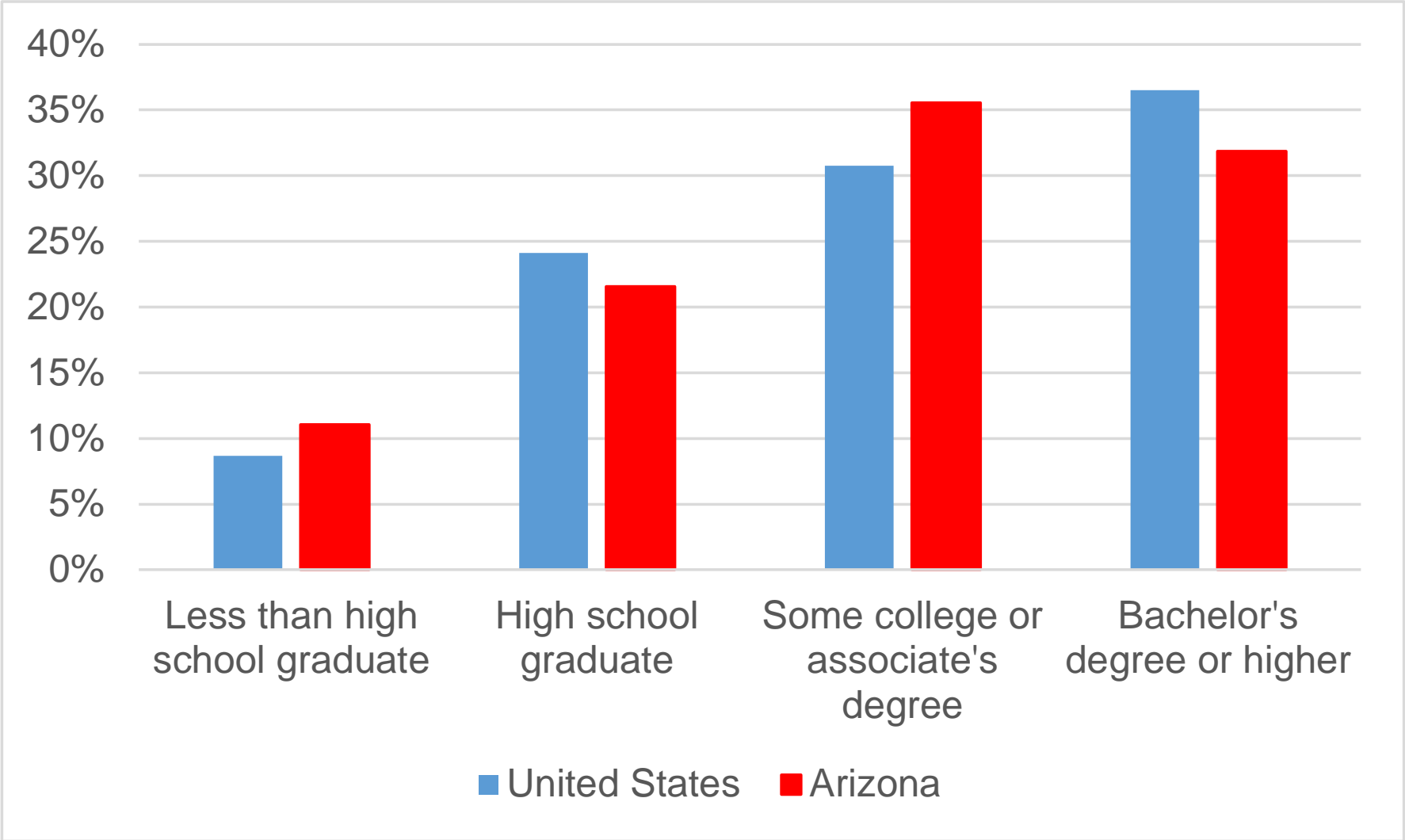
Migration From Another State or From Abroad, United States, 2015-16, by Age Group (Census Bureau)



Percentage of the U.S. Population Who Moved in 2015-16, by Age Group (Census Bureau)

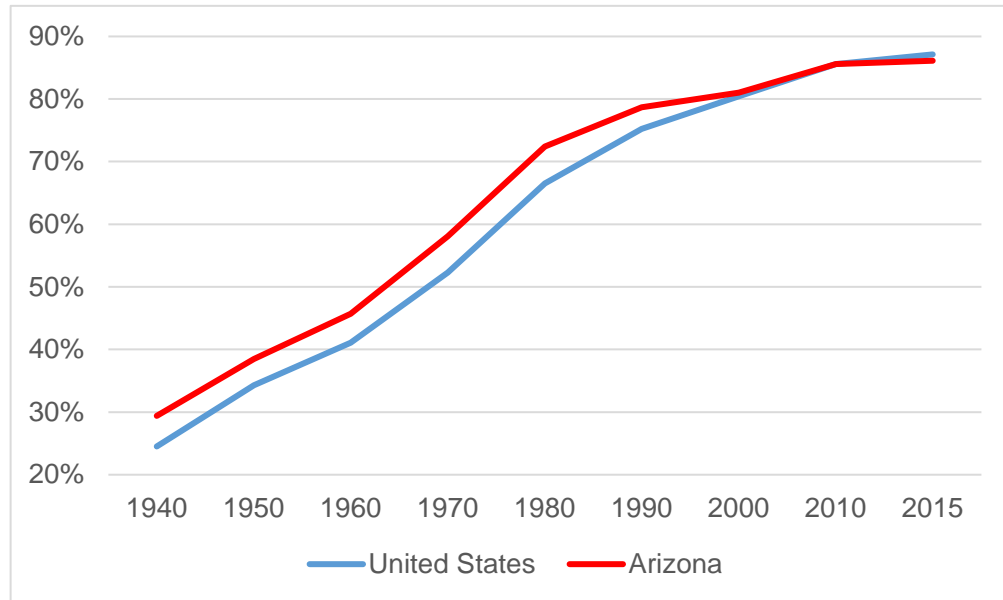


Educational Attainment of Workers, Ages 25 to 64, in 2015

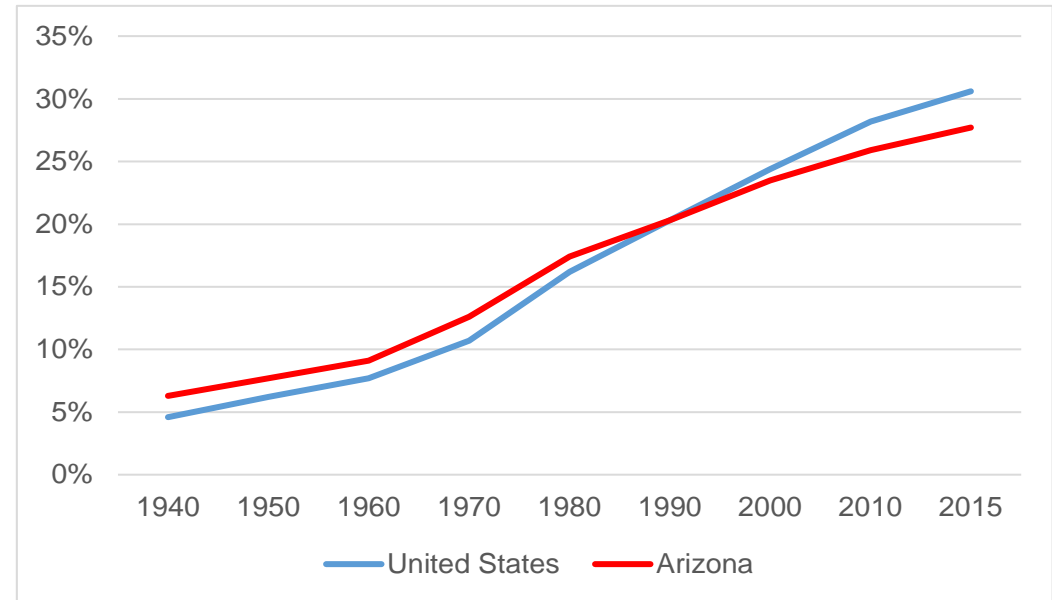


Educational Attainment, Age 25 and Older

High School Graduate or More

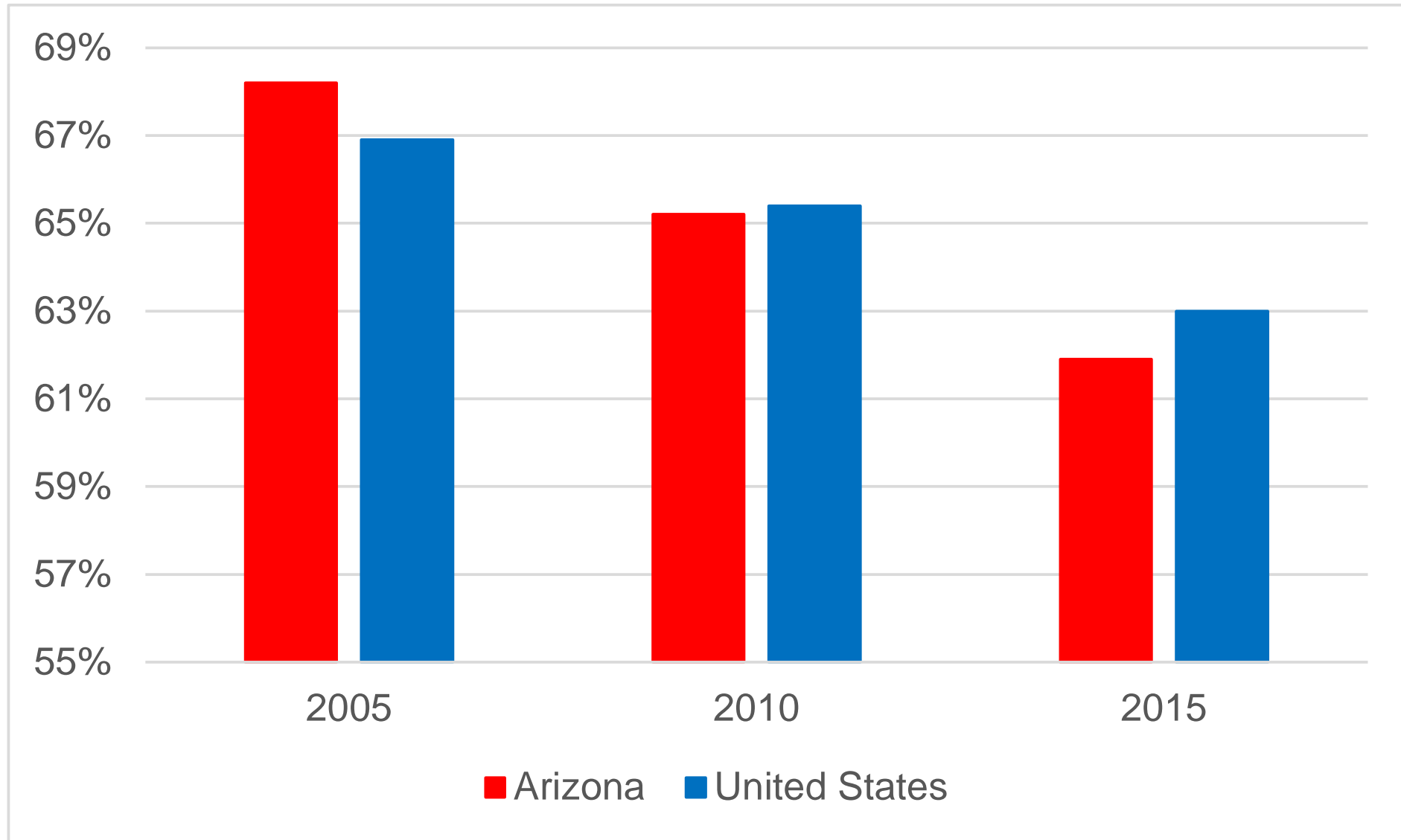


Bachelor's Degree or More

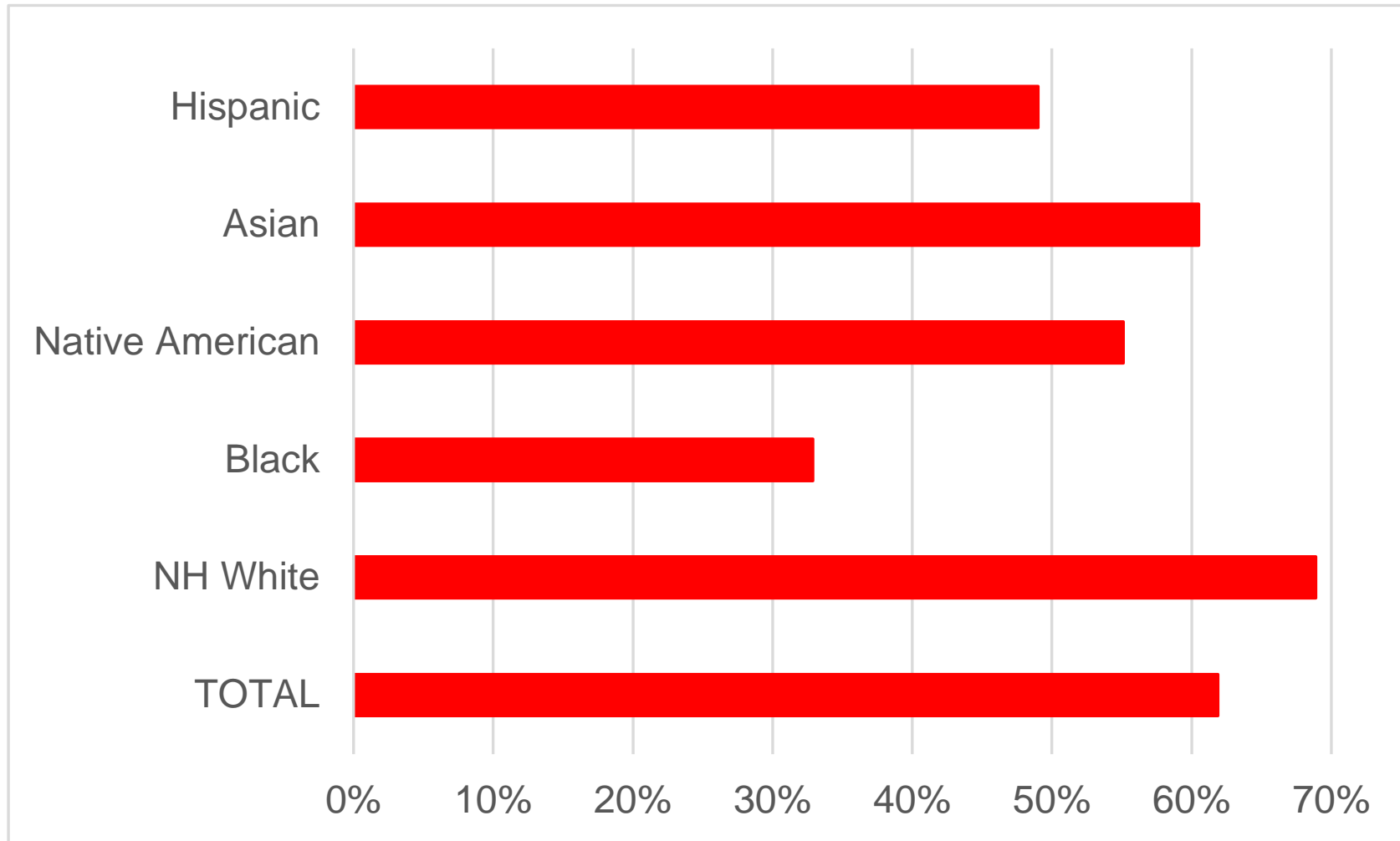


Homeownership

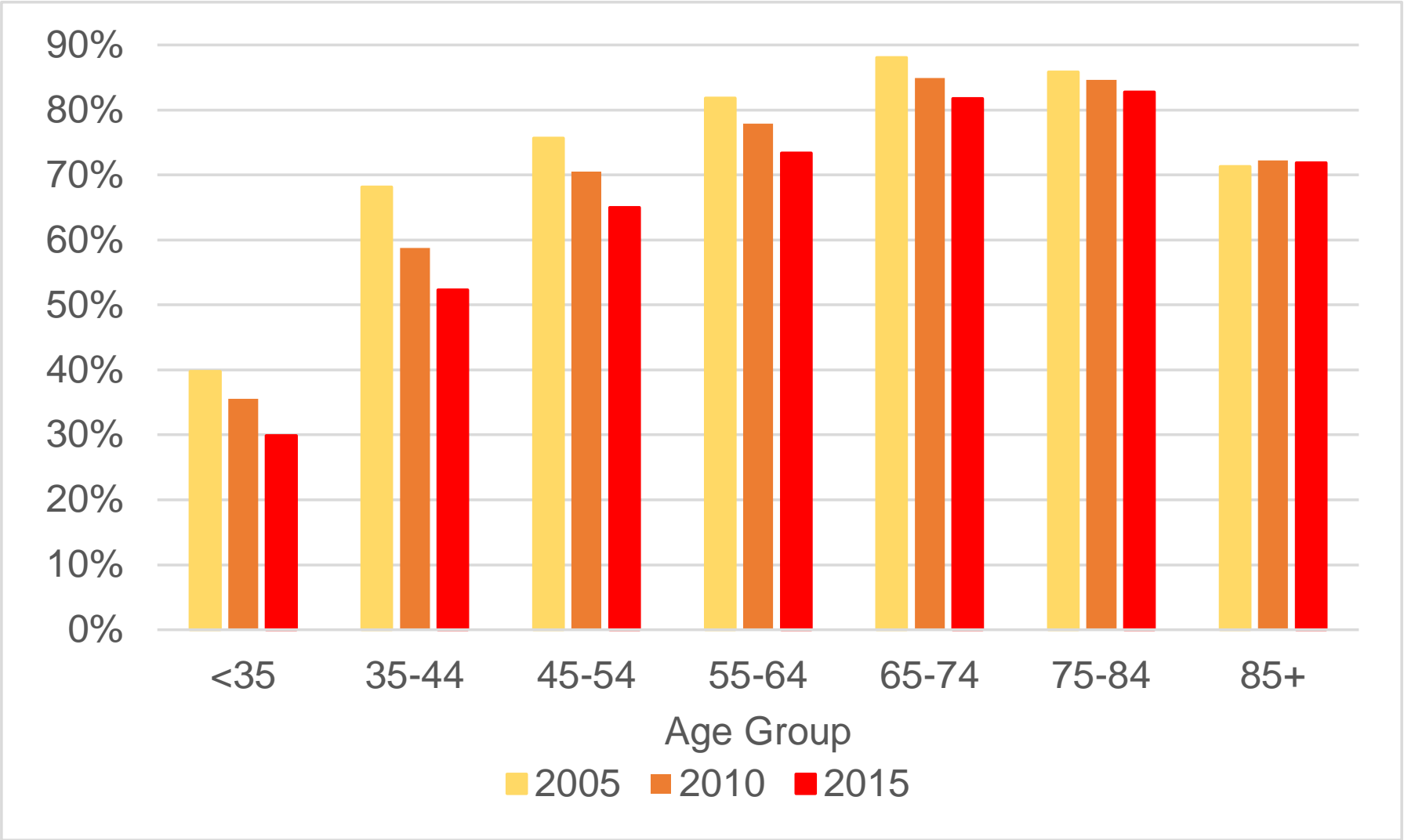
Homeownership (American Community Survey)



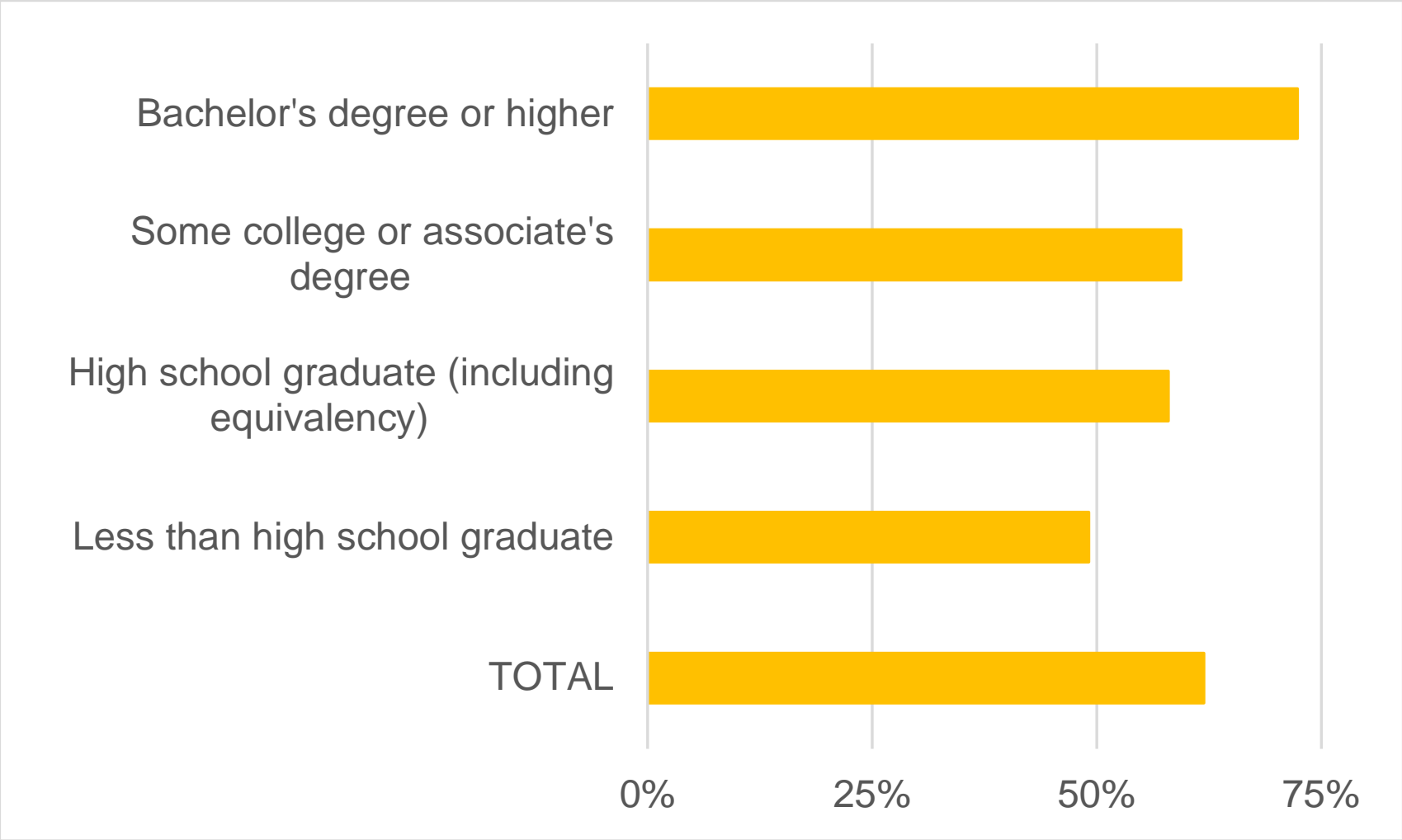
Homeownership by Race/Ethnicity of Householder, Arizona, 2015 (American Community Survey)



Homeownership by Age of Householder, Arizona (American Community Survey)



Homeownership by Educational Attainment of Householder, Arizona, 2015 (American Community Survey)



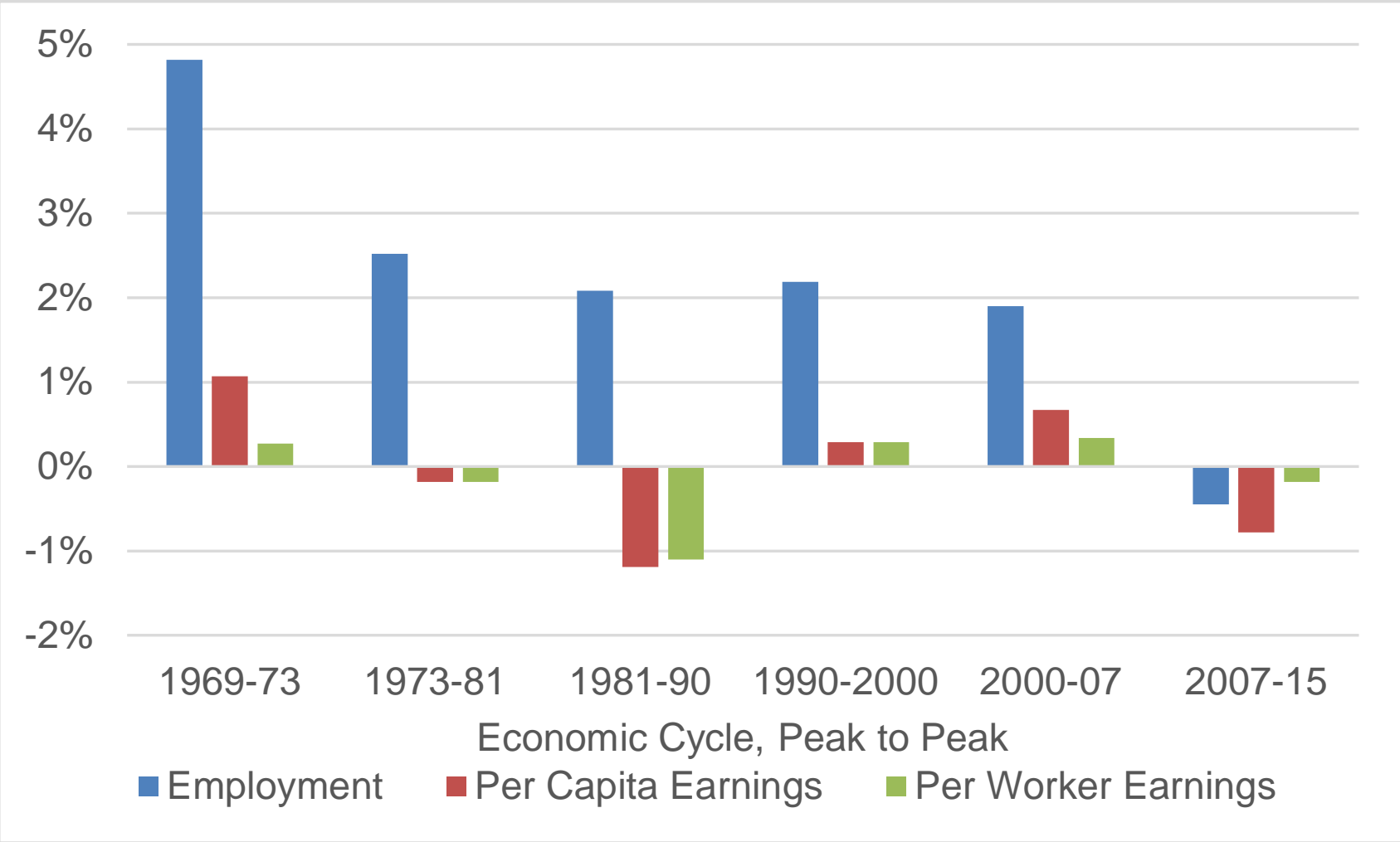
Summary of Demographic Effects on Real Estate

- **Slower:** Lesser population and economic growth than what has been experienced historically – lesser demand for all types of real estate.
- **Older:** As people age, they move less frequently, resulting in fewer home sales. An aging population also purchases smaller homes with smaller yards. Health-related businesses and the real estate supporting them experience greater demand.
- **More Diverse:** As the population composition shifts from non-Hispanic whites to Hispanics, residential real estate is affected. The lower incomes of Hispanics means lower homeownership and a higher proportion of lower-priced homes being sold. Demand increases for moderate-priced apartments and rental single-family homes.

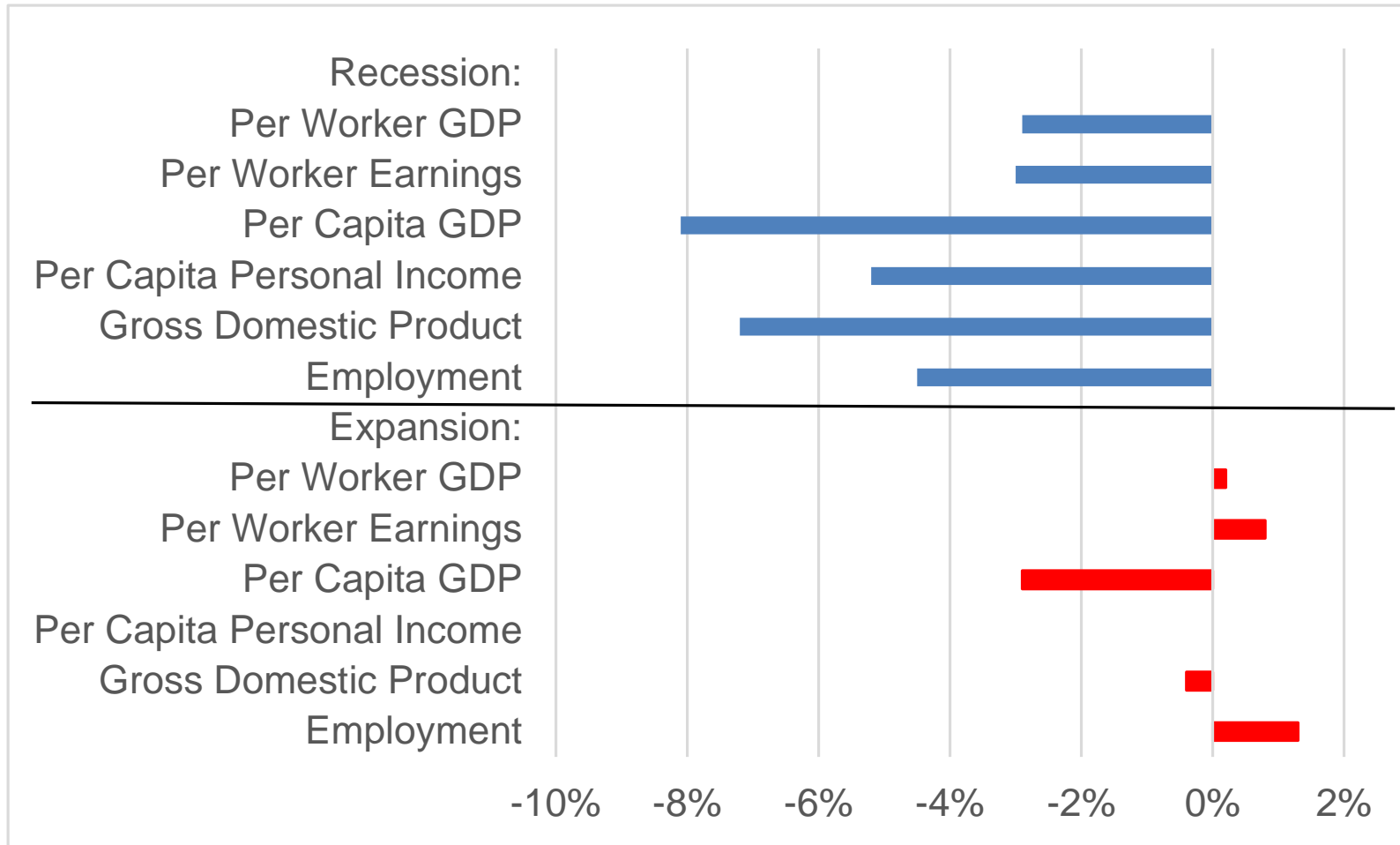
Why Has the Growth Rate in Arizona in This Cycle Been So Slow?

- Elliott Pollack cited two factors:
 - The subnormal national economic recovery.
 - The slowdown in population flows nationally and locally, which has the following effects:
 - Lower job creation in population-support activities.
 - Slower absorption of excess inventory.
- Even after controlling for the national growth rate, aggregate growth rates in Arizona still are far below the historical norm.
- Lesser net immigration and lower domestic migration rates nationally contribute to, but do not fully explain, Arizona's much slower growth.

Annual Average Real Percent Change, Arizona Difference From U.S. Average



Percent Change, Arizona Less United States, Current Cycle



Economic Dichotomy

- **Base (traded-sector)** economic activities drive regional economies, but account for only about 30 percent of total employment.
 - Traded economic activities are those that sell their goods and services to customers outside the region.
 - Importing money into the region is necessary since leakages of money are inevitable – no region produces all of the goods and services desired by its residents.
 - Most traded activities can locate anywhere, since their customers are spread out across the country or the world.
 - Economic development focuses on attracting, growing, and retaining traded activities.

Economic Dichotomy (cont'd)

- **Local (nontraded)** economic activities are location specific since they sell their goods and services to customers within the region.
 - Local activities do not display geographic concentrations across the country. Their presence is largely proportional to a region's size, as defined by purchasing power.
 - While an integral part of a regional economy, nontraded activities do not import money into the region. Their presence is due to the traded activities.
 - Traded activities drive the economy while nontraded activities respond to growth in the traded activities.

Economic Development

- Economic development focuses on base activities.
- Success is dependent on an area's business climate/competitiveness.
- The most important site selection factors are
 1. **Workforce quality and availability:** largely dependent on education – achievement and attainment – and workforce training.
 2. **Physical infrastructure** quality and availability: transportation, utilities, telecommunications, etc.
 3. **Costs:** particularly labor, but also taxes (evaluated in relation to the availability and quality of public services), real estate, and energy.

Arizona's Business Climate

- Arizona generally compares favorably on cost measures.
- Arizona is in the middle of the states on the physical infrastructure.
- On workforce quality – the most important factor – Arizona compares unfavorably. Its evaluation on workforce quality has declined over time.
- Overall, Arizona ranks in the middle of the states on the most reliable studies of business climate: #27 according to the Beacon Hill Institute and #26 according to *Forbes*.