

DRAFT Regional 2050 Population and Employment Forecasts

Model Users Group
September 12, 2024

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MARC is preparing long-range population and employment forecasts needed to update the Connected KC 2050.

- A two-step process is used:
 1. First forecast how fast the entire region will grow between now and 2050. This establishes the total number of people and jobs that our future transportation system will need to serve.
 2. Then distribute that growth to communities and neighborhoods using small areas like census tracts and transportation zones (TAZs)
- We lock in the totals first to bound the discussions of how much more each community can be expected grow over the next 25 years.
- Both steps are overseen by the Technical Forecast Committee, comprised mainly of local government planners from around the region.

Who else uses
these forecasts?

Short answer:
Anyone investing
for the long term.

- Utilities
- School Districts
- Businesses
- Consultants
- Local governments

Two different models used for the two different types of forecasts.

- Regional Forecast: REMI
 - From Regional Economic Models, Inc
 - Examines how the regional economy has competed against the rest of the nation for market share at the level of 70 industries
- This means it requires a national forecast as input into the regional forecast
 - U.S. Census Bureau for population forecasts
 - U.S. Bureau of Labor Statistics for employment forecasts
- Used by State economic development agencies and MPOs around the country.
 - MARC has used it since about 1988

Later this year we will present the distribution of the the regional totals to communities and neighborhoods using a model called UrbanSim.

- Like REMI, UrbanSim is used by many MPOs around the country, including Chicago, Seattle, Boston, San Diego, Albuquerque, Detroit.
- It models the demand to live or work in a location based on the attractiveness of each area based on things like its level of access to jobs and services, the price of housing, and the income characteristics of the neighborhood.
- Demand is constrained to operate within supply constraints set by future land use/zoning and availability of sewers. This is how we ensure MARC's forecast is consistent with local plans.
- We are currently soliciting this land use data, along with known economic development projects, from the Technical Forecast Committee.



DRAFT 2050 Population and Employment Forecasts



U.S. Input:

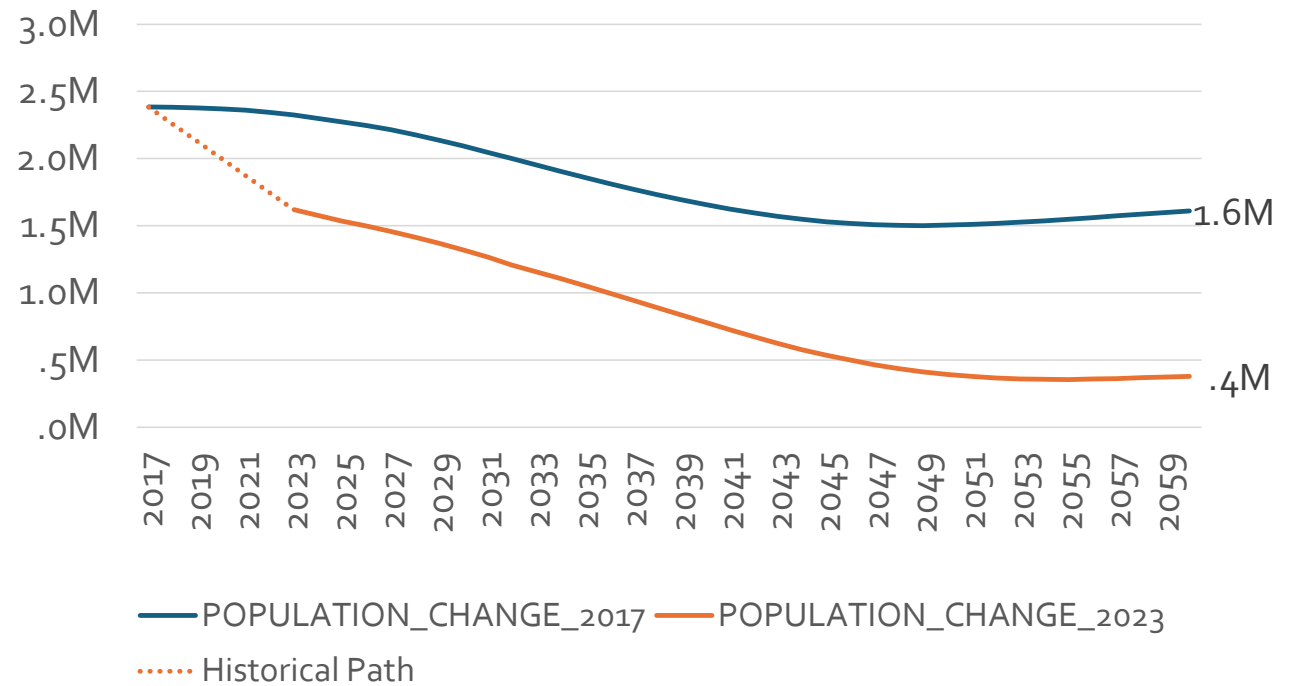
New Census Bureau Population Forecasts

2017 vintage vs. 2023 vintage



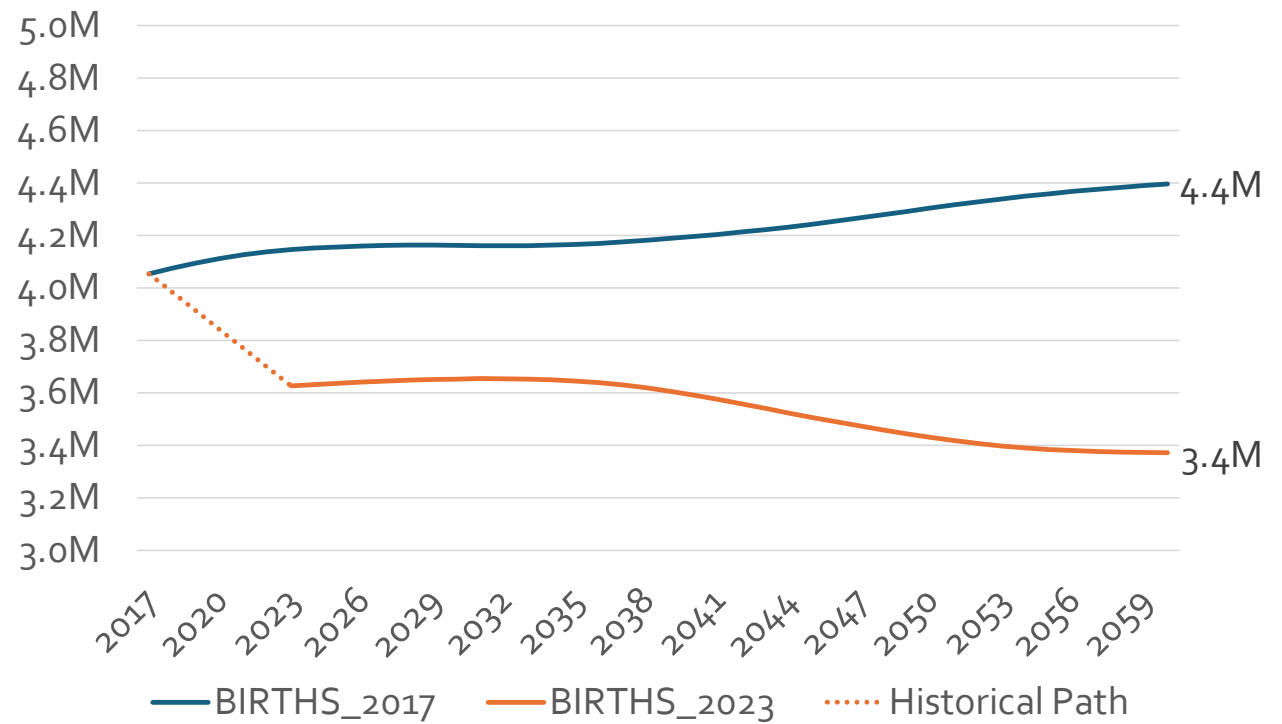
By the end of the projection period (2060), U.S. population growth is running about 1.2M per year less in the 2023 projection vs. the 2017 projections, according to the Census Bureau.

U.S. Population Projection Comparison, 2017 vs. 2023 Population Change



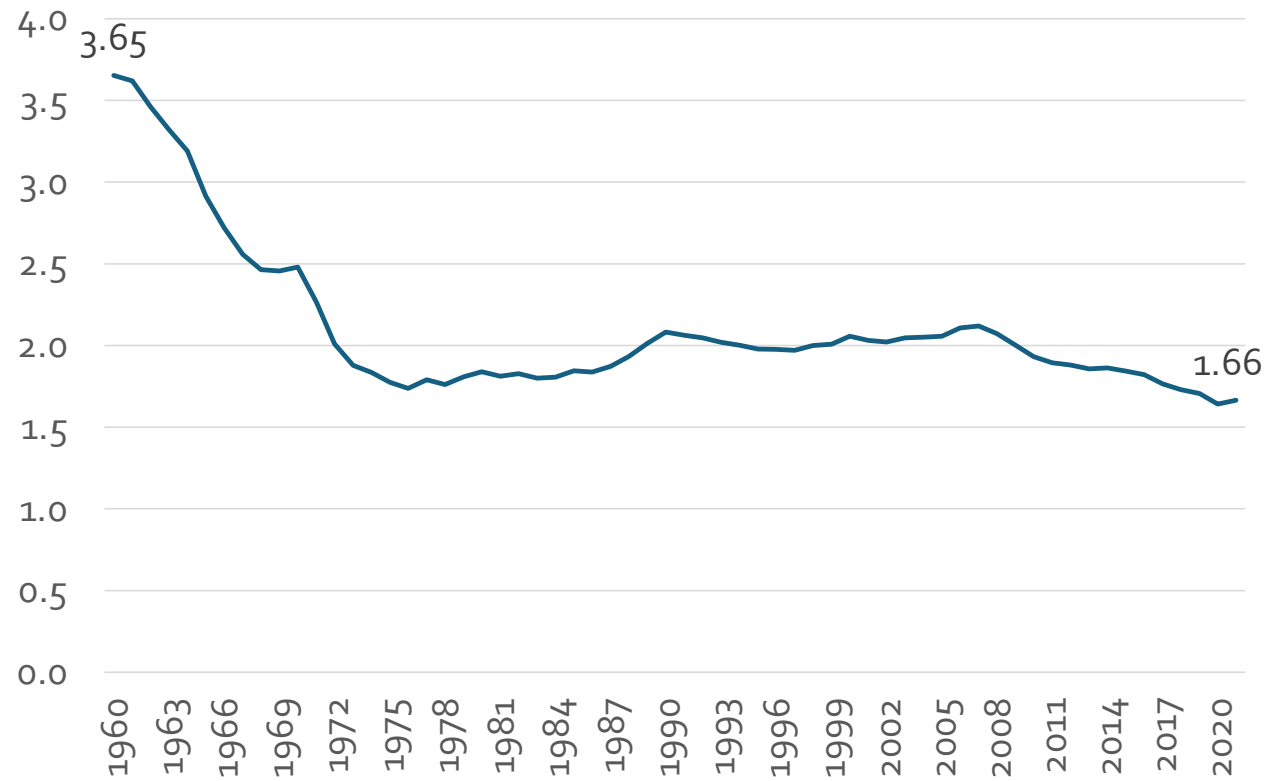
The main reason is because births are about 1M lower by the end of the projection period (2060).

U.S. Population Projection Comparison, 2017 vs. 2023 Births



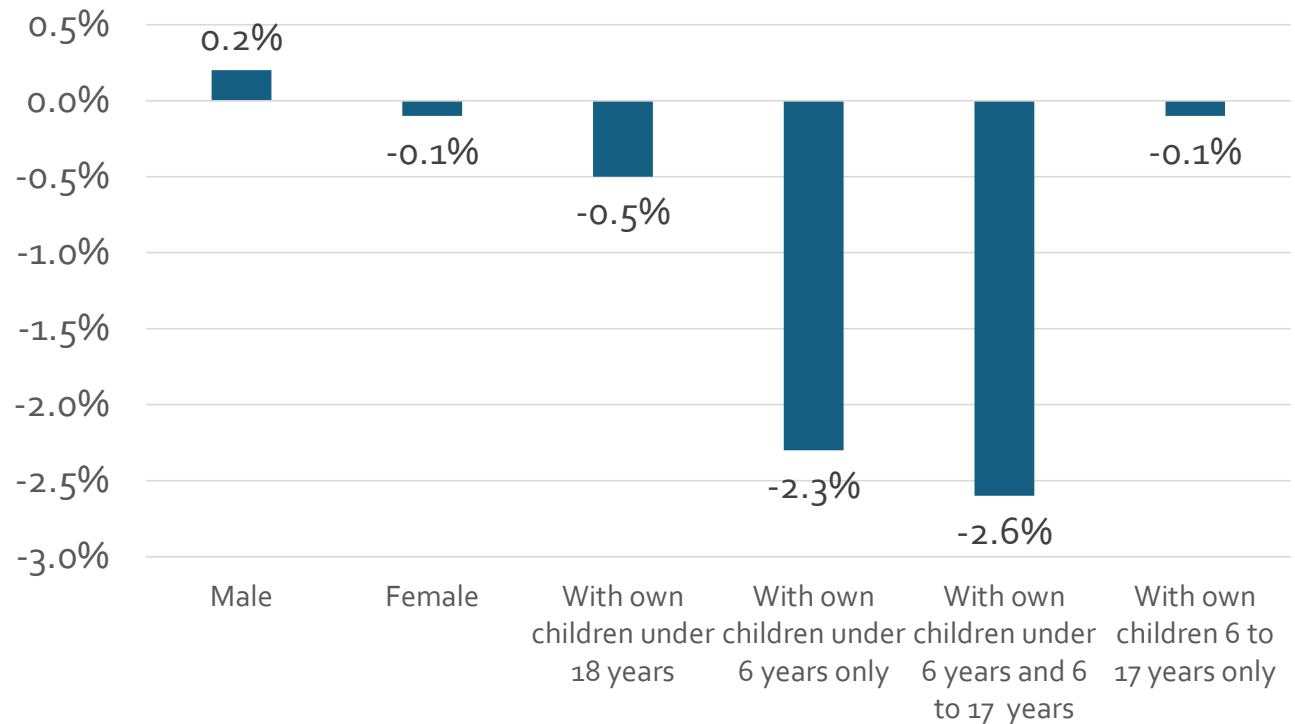
As late as 2007, U.S. fertility rates were at the replacement level. But in 2008, the Great Recession began and fertility rates started to decline. Unexpectedly, they continued to decline even as the economy rebounded.

U.S. Total Fertility Rate



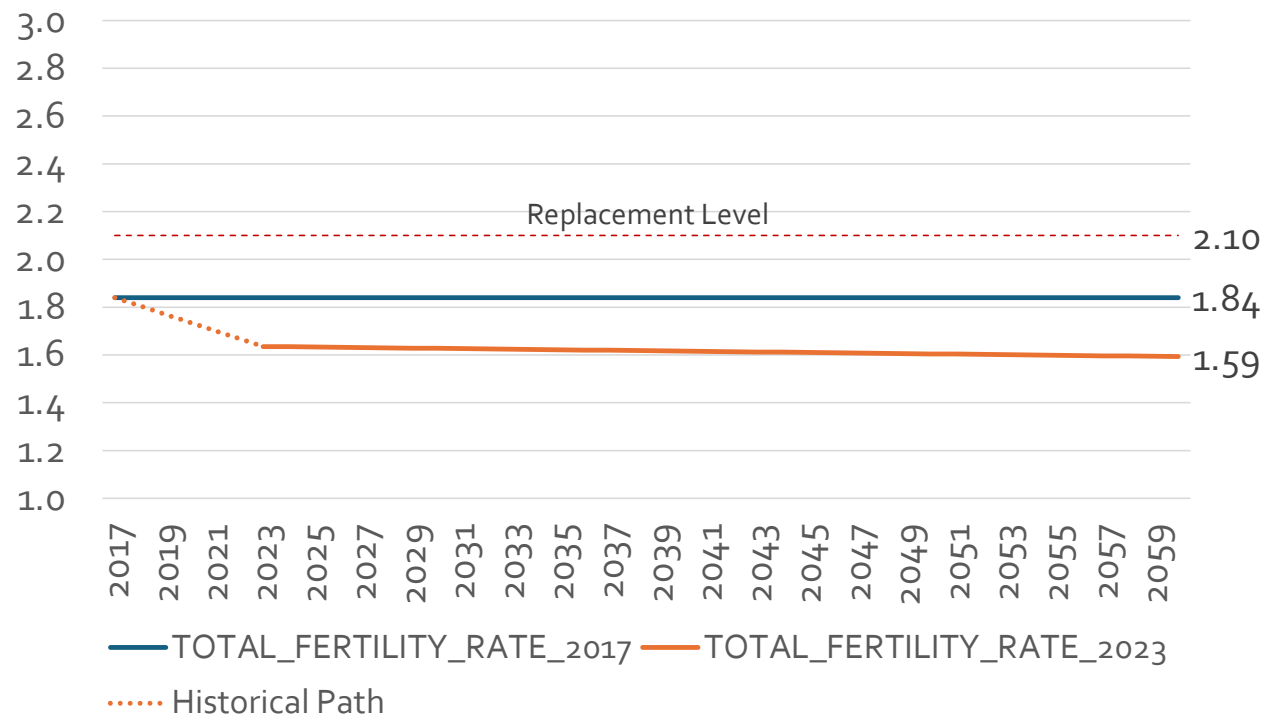
One reason for the decline in fertility in recent years is that the opportunity cost of having children also appears to have increased. Difficulty in finding quality, affordable childcare for young children is causing more women to drop out of the labor force.

KC Change in Labor Force Participation Rate by Gender and Presence of Children, 2019-2022



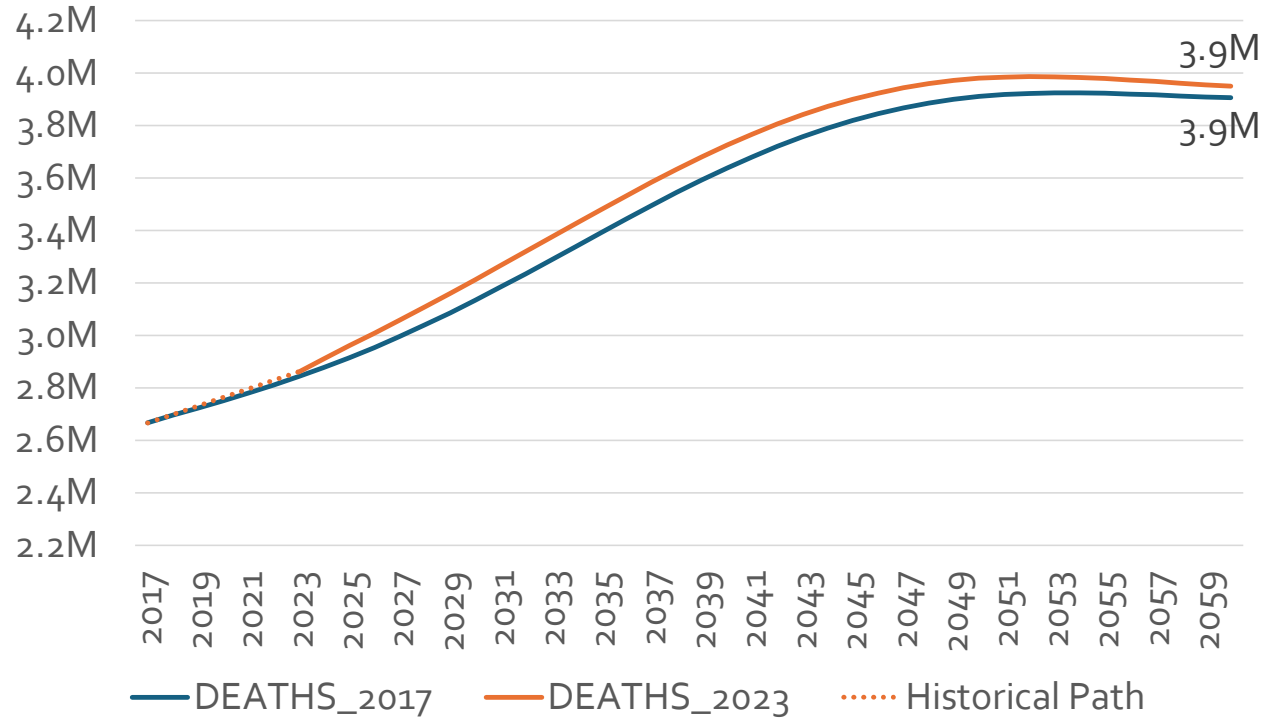
As a result, the 2023 forecast assumes significantly lower total fertility than in 2017. But both are well below the level needed to keep population stable, making population growth increasingly reliant upon immigration.

U.S. Population Projection Comparison, 2017 vs. 2023
Total Fertility Rate (Lifetime births per woman)



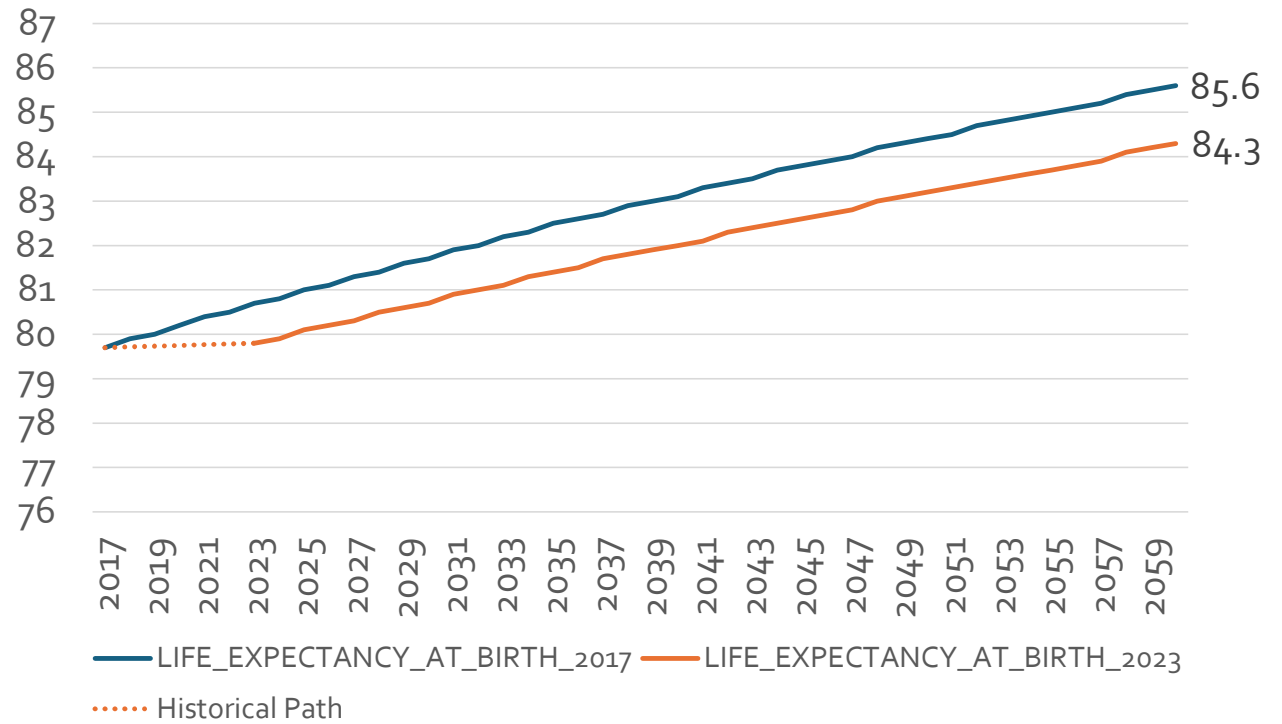
Deaths are only slightly higher in the new series vs. the prior one,

U.S. Population Projection Comparison, 2017 vs. 2023 Deaths

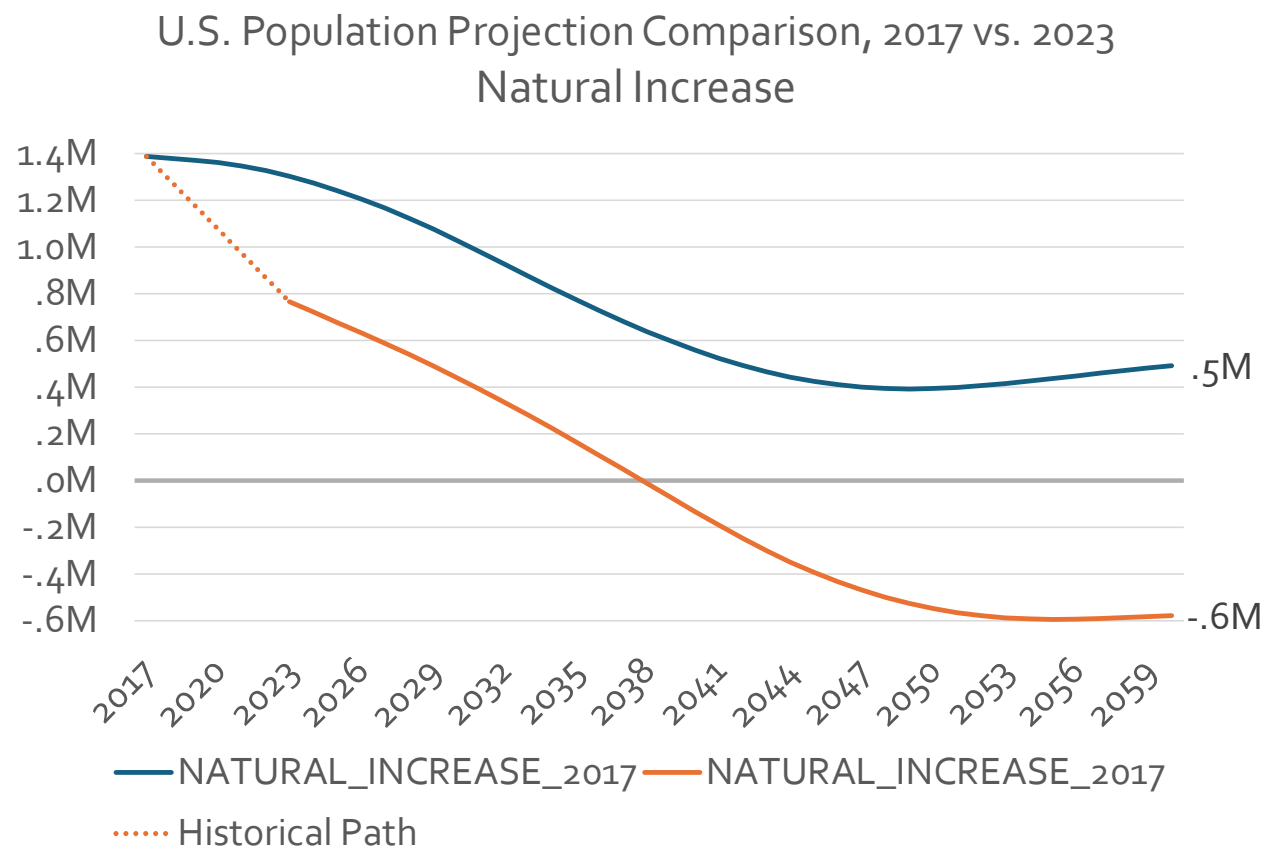


Life expectancy took a hit during Covid. While it begins improving again at about the same rate as before, it does not catch up to the prior projection.

U.S. Population Projection Comparison, 2017 vs. 2023 Life Expectancy at Birth



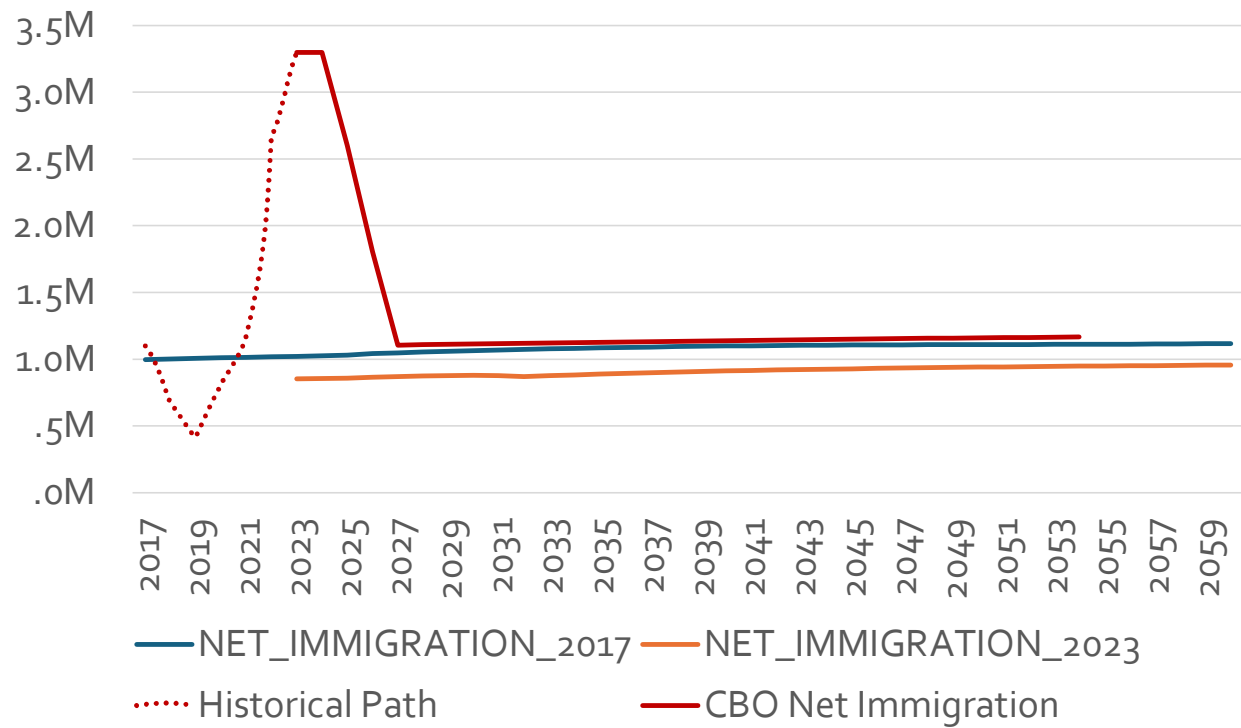
As a result, the natural increase in population (i.e., Births minus Deaths) is about 1.1M less in the 2023 projection than in the 2017 projection by the end of the period. Natural increase turns negative nationwide in 2038. After this point, U.S. population would begin to decline without immigration.



So, what is projected for immigration levels?

Both the Census Bureau and the Congressional Budget Office see the current high rates of immigration as reverting to something approaching historical levels. But which historical period?

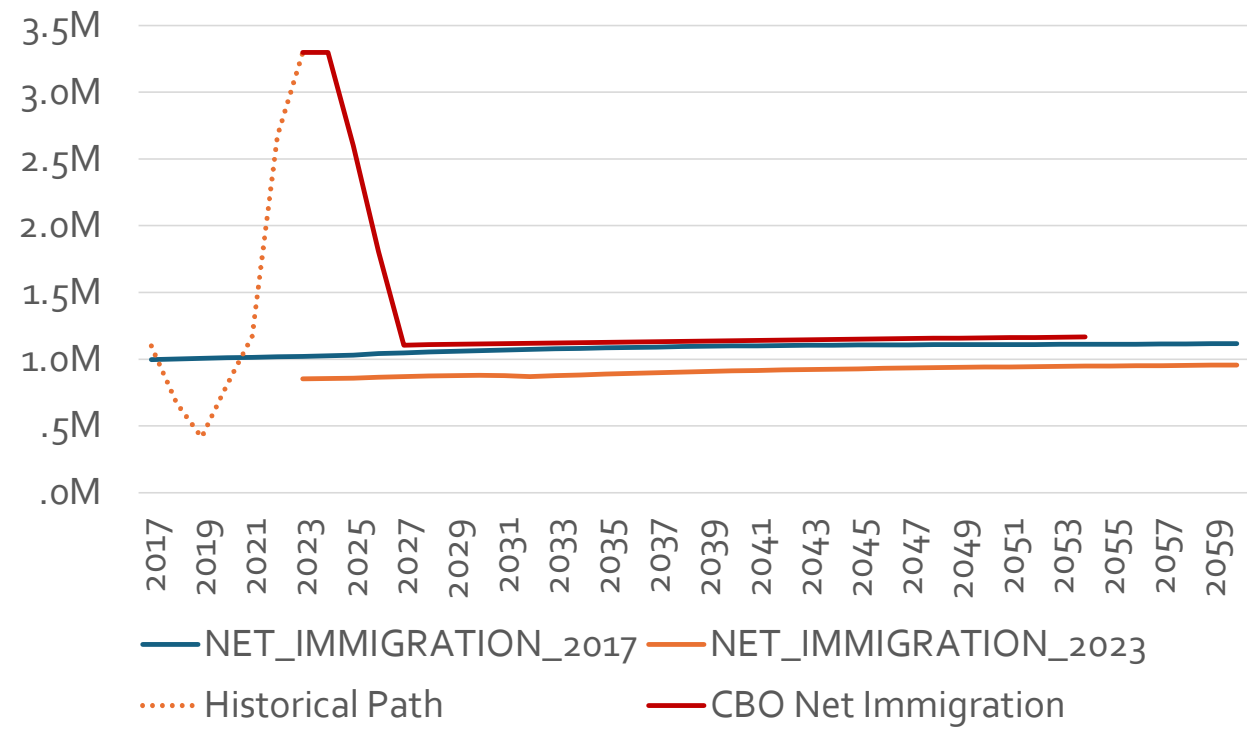
U.S. Population Projection Comparison, 2017 vs. 2023
Net Immigration



CBO uses a long-term average. The Census Bureau appears to use the average during the Trump administration.

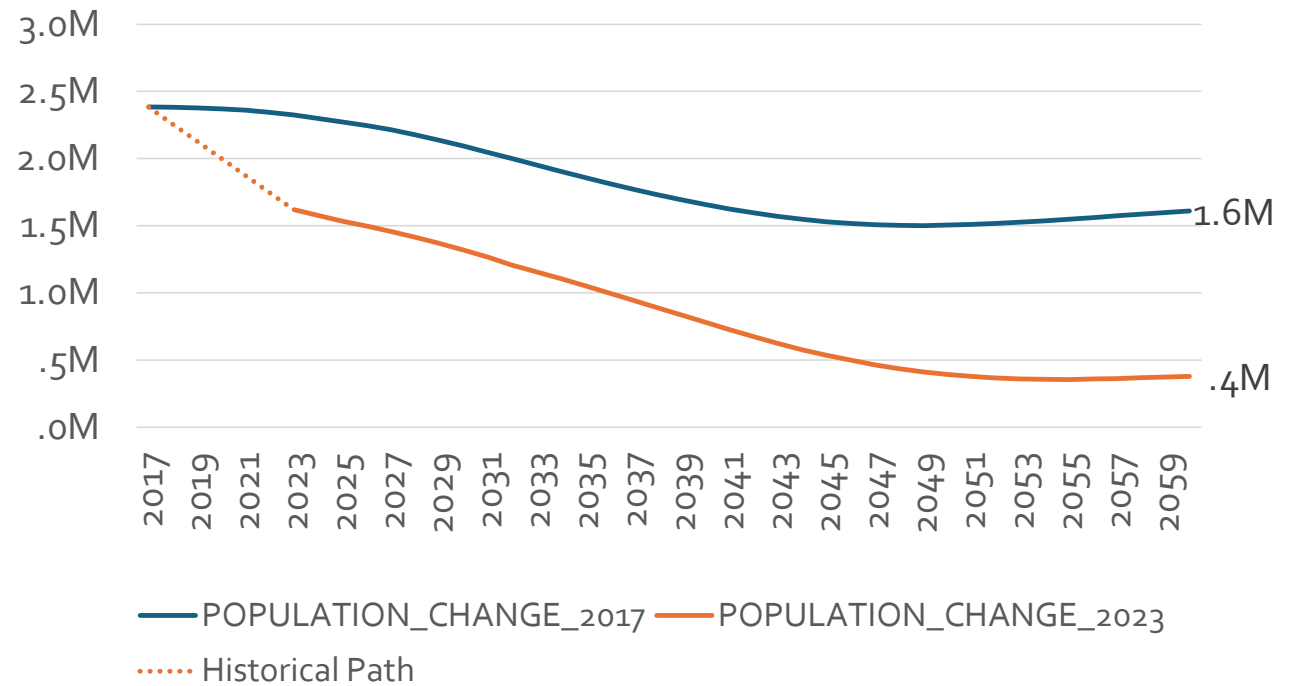
This highlights that the level of immigration is a policy choice. The demand to move to the US far exceeds historical levels.

U.S. Population Projection Comparison, 2017 vs. 2023 Net Immigration



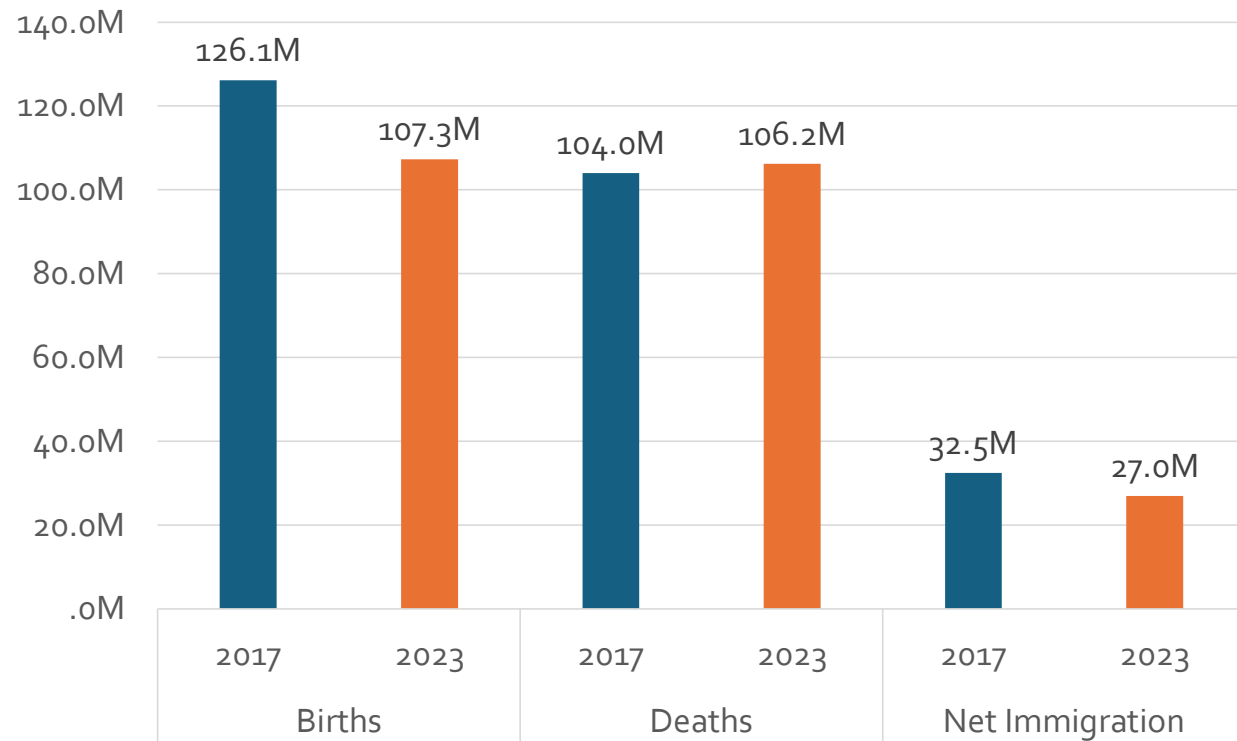
As a result of all these assumptions, U.S. population is now forecast to grow much more slowly than in 2017. In fact, the current projection says U.S. population reaches its peak in 2080 and begins to decline after that.

U.S. Population Projection Comparison, 2017 vs. 2023 Population Change

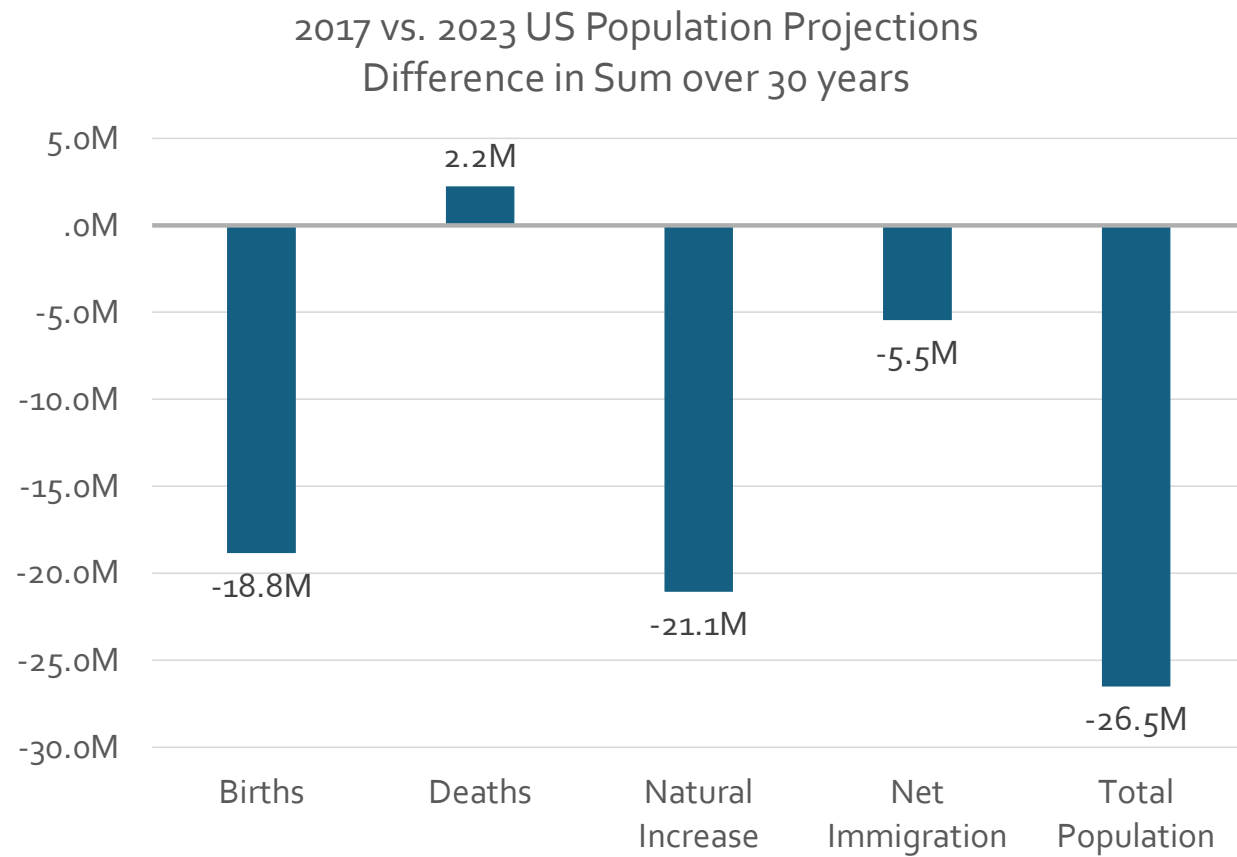


Which assumption is most important to explaining the difference between the 2017 and 2023 Census Bureau forecasts?

2017 vs. 2023 US Population Projection
Sources of change: Sum over 30 years



80% of the difference in the forecasts is due to differences in the natural increase, not the immigration assumption.



Assumptions
carried into the KC
DRAFT forecast:

- Birth rates: Census Bureau
- Survival Rates: Census Bureau
- International Migration: Congressional Budget Office.
- Employment growth rate: Bureau of Labor Statistics (*0.3% per year*).

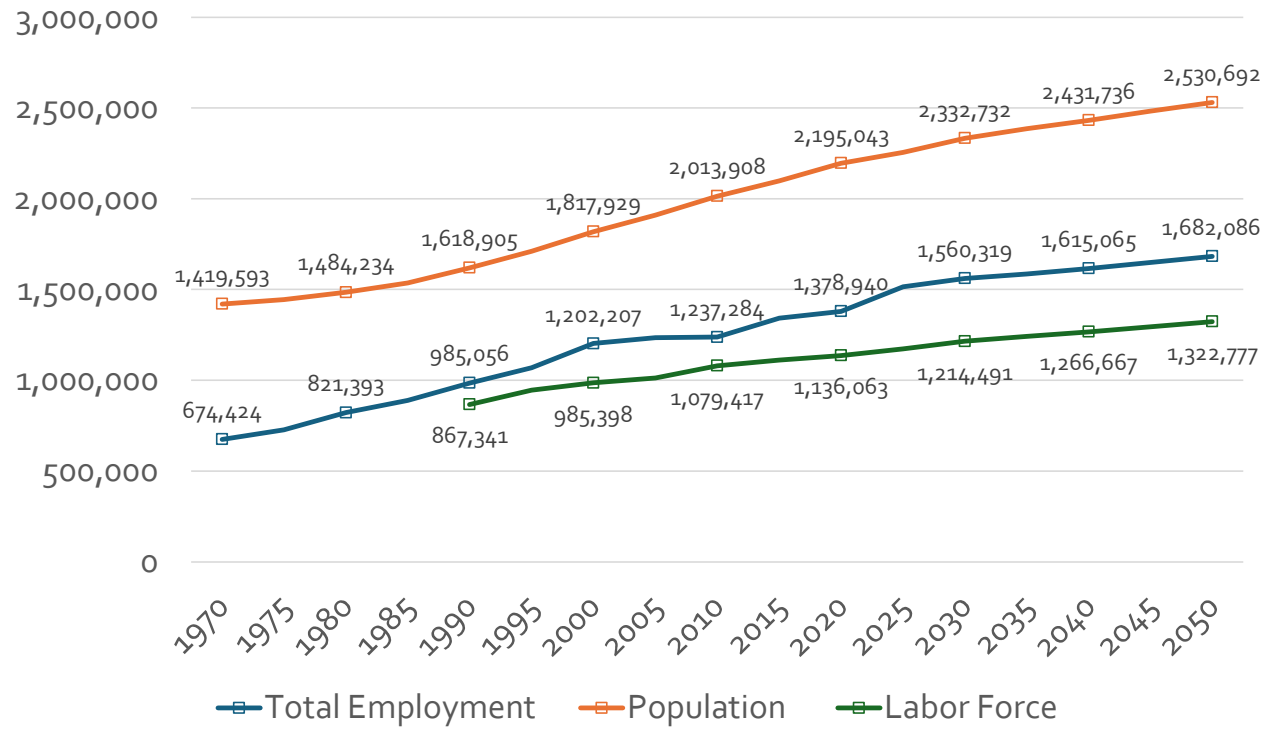
These DRAFT forecasts are based on maintaining our share of the national economy, which is slowing due to labor constraints. But could KC modestly outperform the nation?

- Panasonic plant adds an entirely new manufacturing industry to the region
- On-shoring, or reduced off-shoring, may increase employment in traditional manufacturing sectors
- Increasing geopolitical tensions increase demand for security-related assets
 - Ft. Leavenworth
 - Biosecurity/biodefense/biomanufacturing
 - National Security Campus managed by Honeywell
 - Cybersecurity cluster
- Climate migration? Or reduced outmigration to the Sunbelt?
- These are the kinds of things the Technical Forecast Committee will be looking at.

Forecast results

Total population and employment for KC MSA

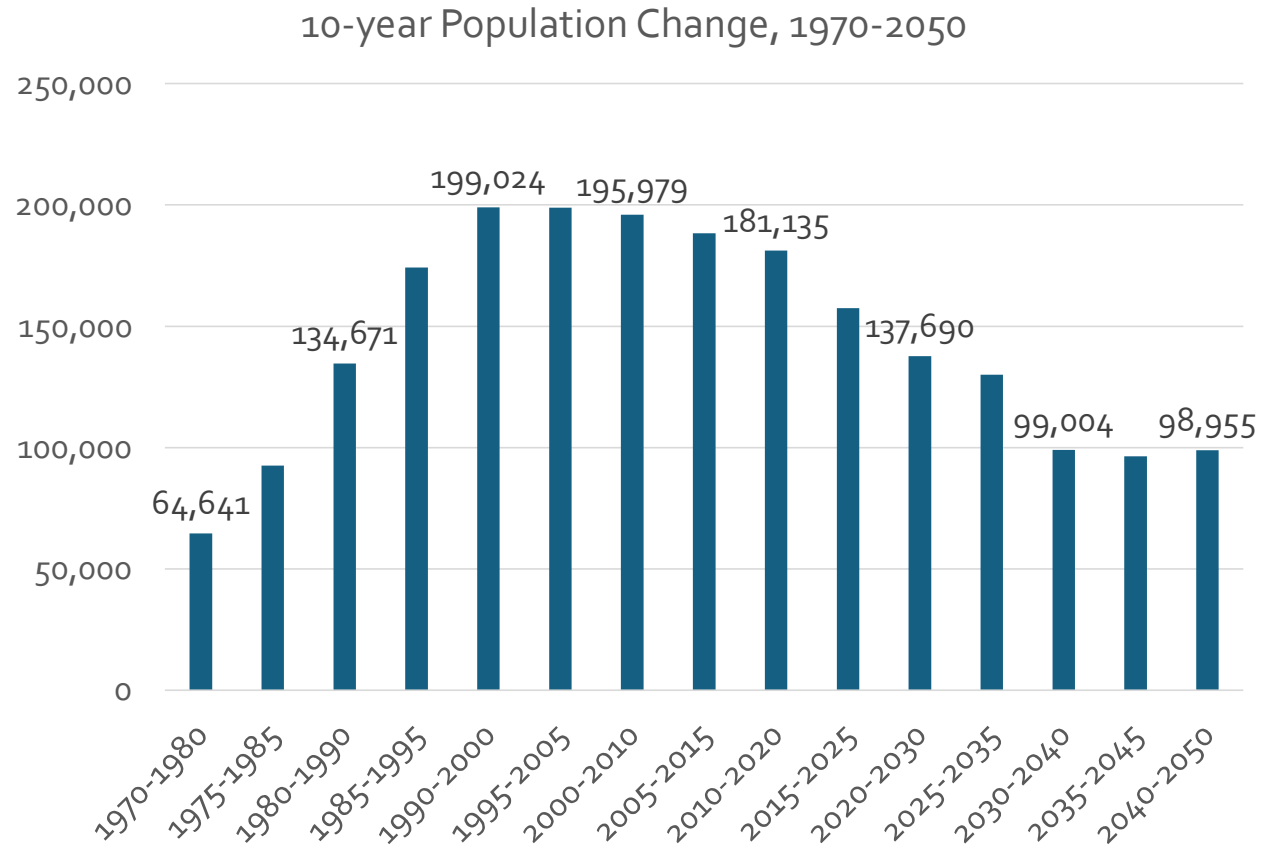
KC MSA Population, Employment, and Labor Force 1970 - 2050



Source: MARC

Forecast results

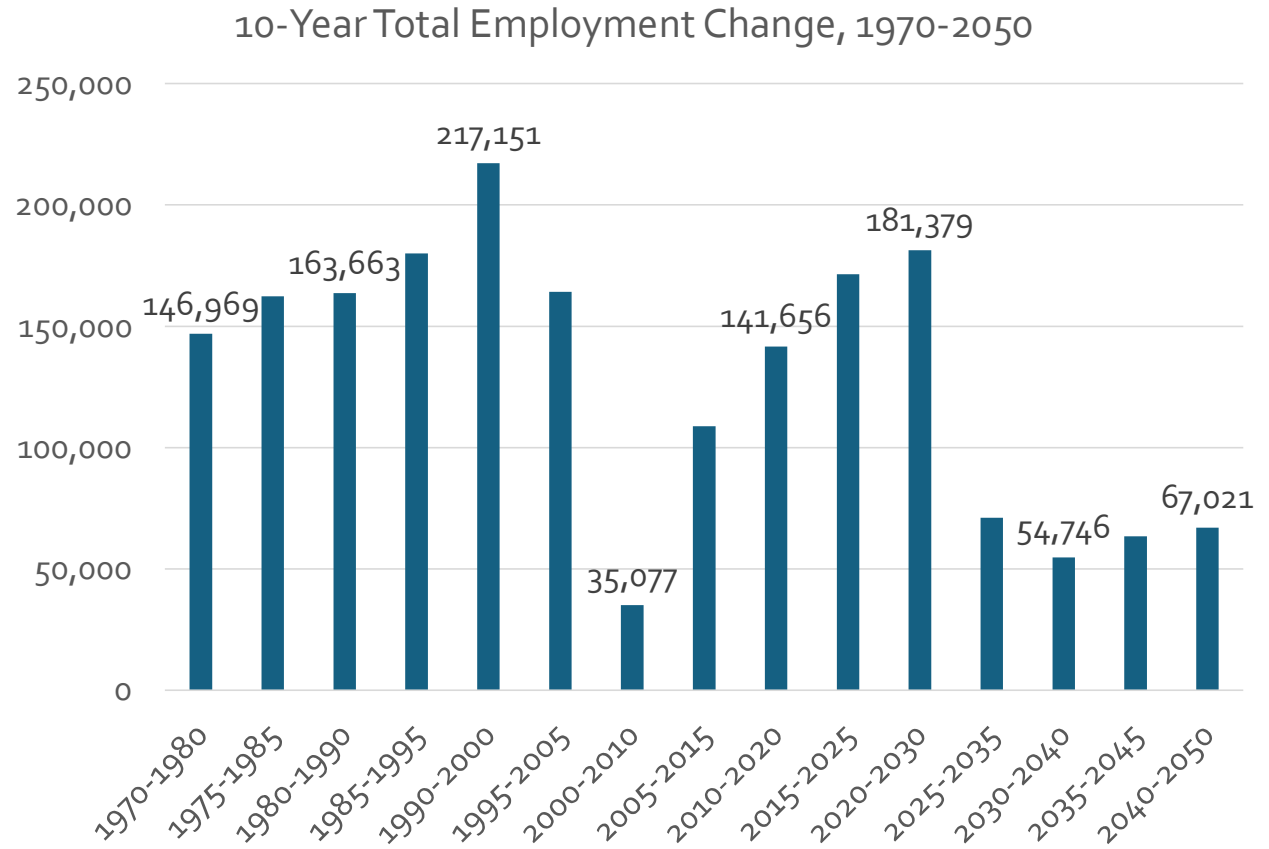
Population change by decade



Source: MARC

Forecast results

Employment change by decade

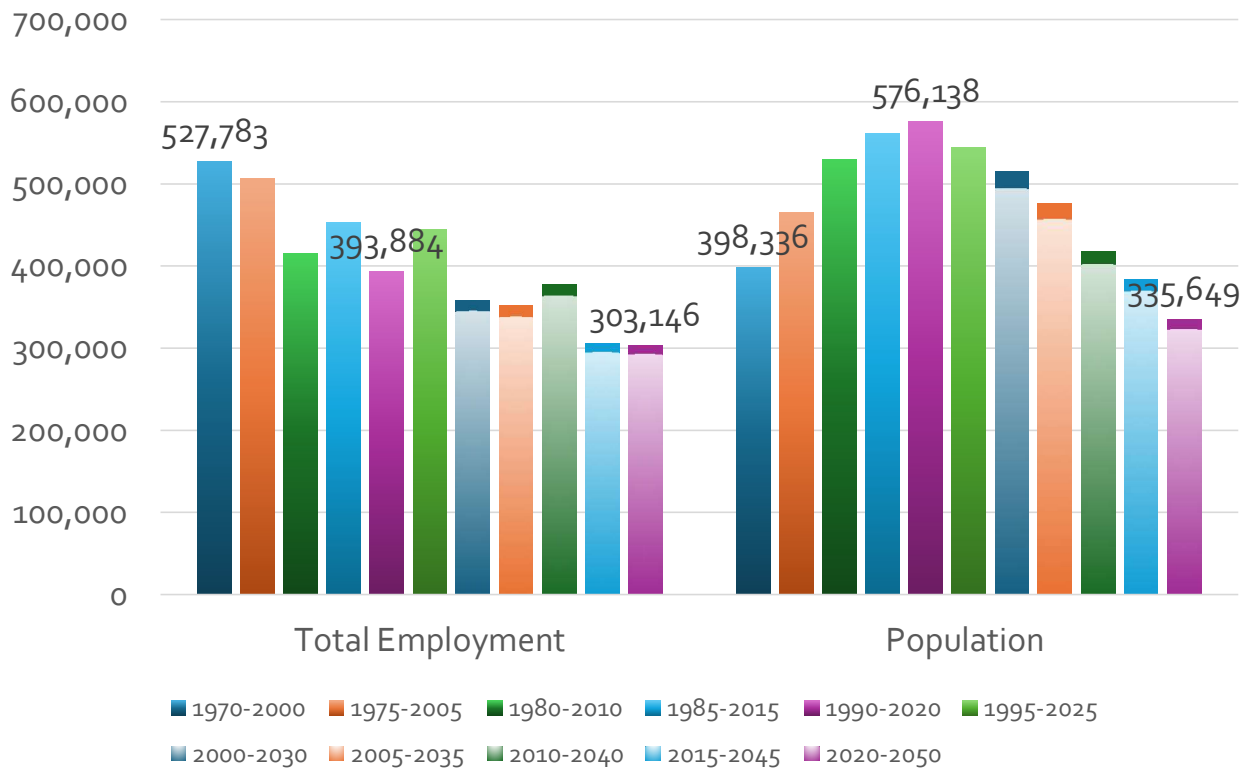


Source: MARC

Forecast results

Total population and employment for KC MSA

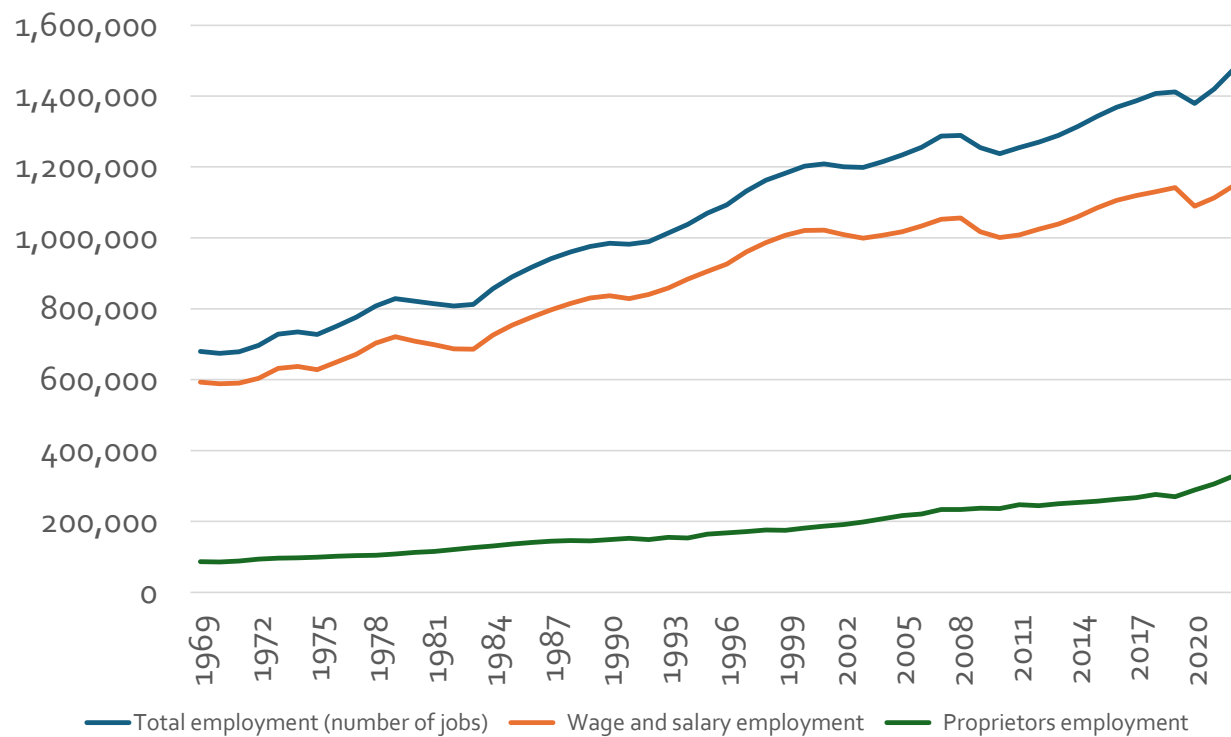
Trends in 30-Year Employment and Population Growth

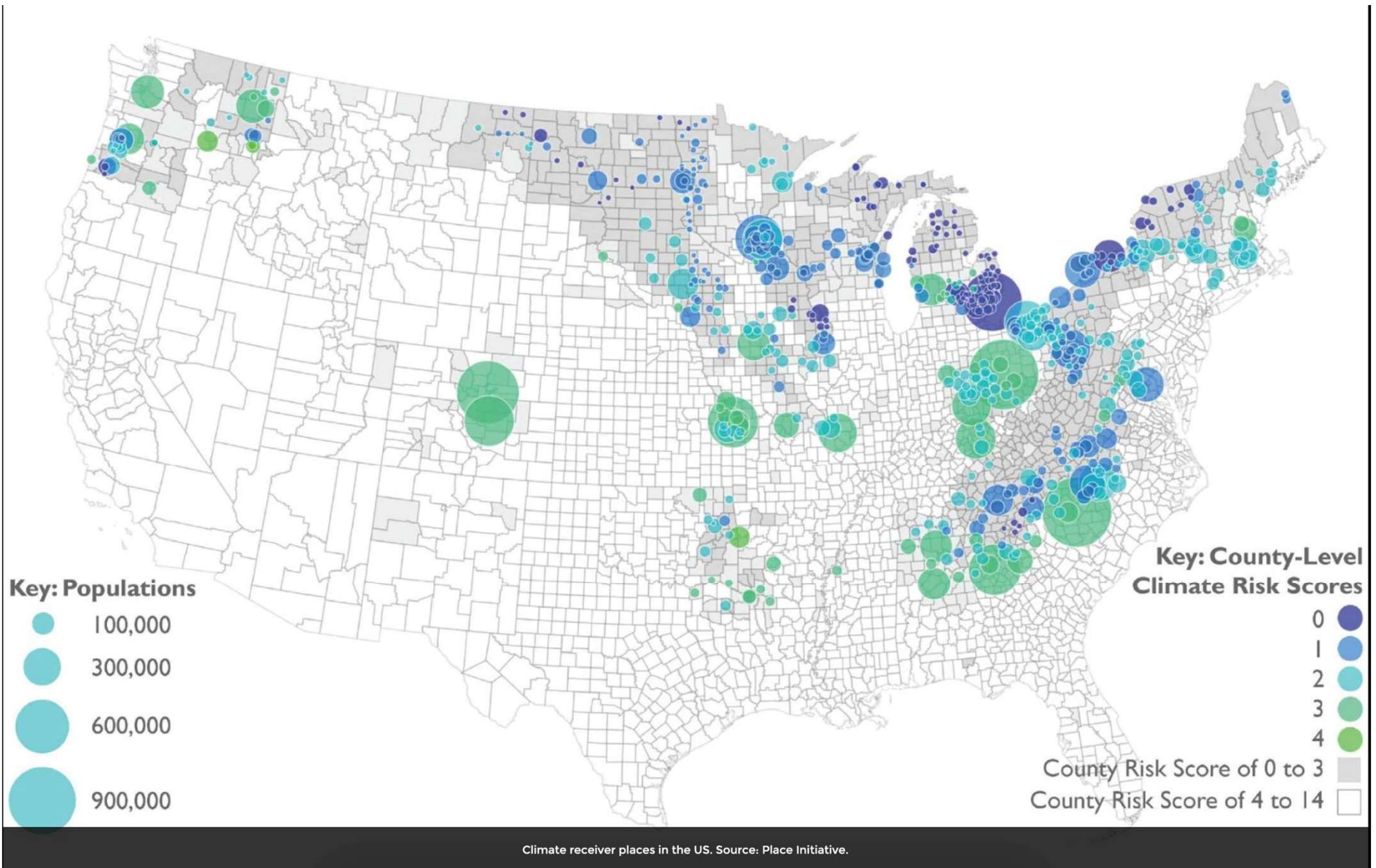


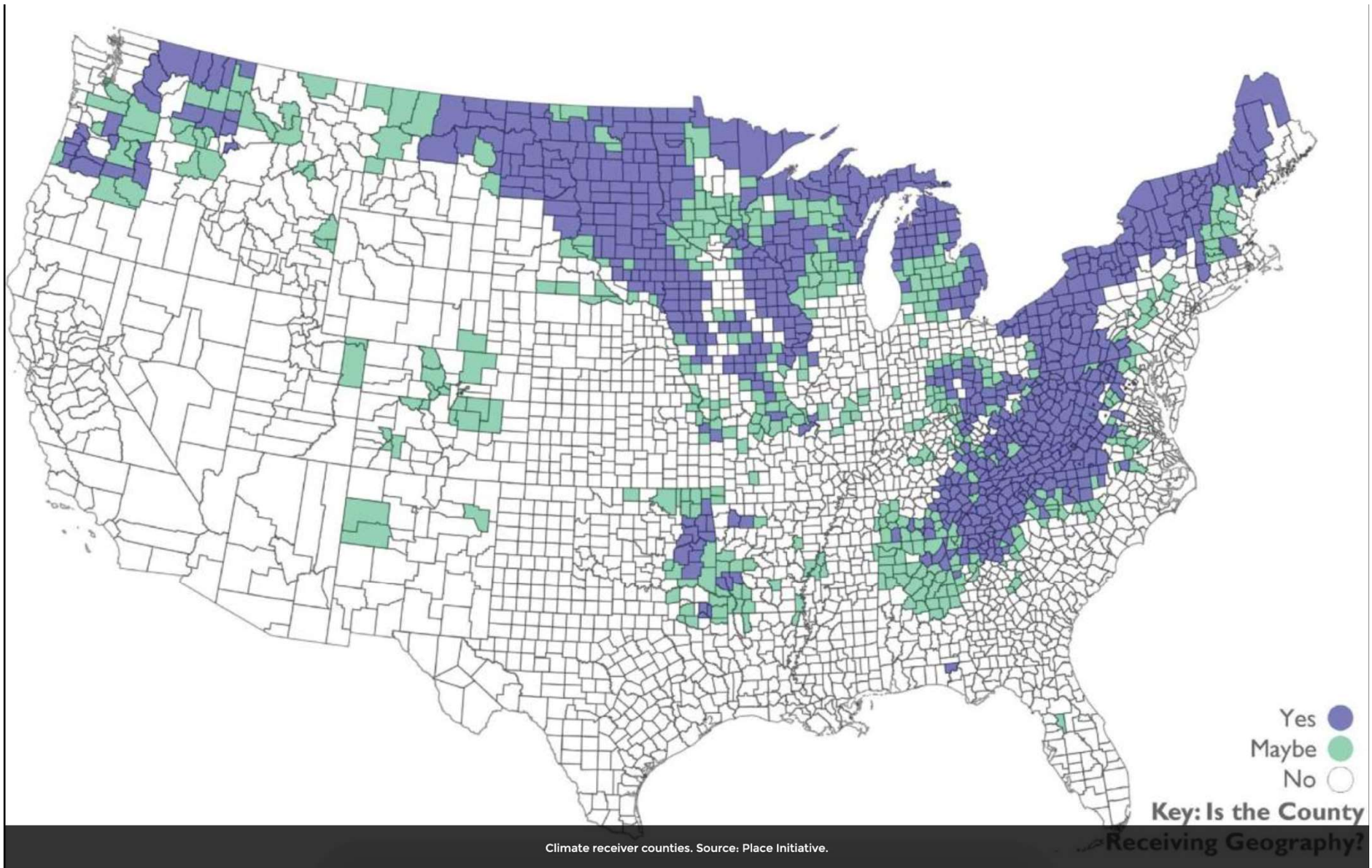
Source: MARC

Components of Total Employment using BEA's definition

KC MSA Total, Wage & Salary, and Proprietor Employment, 1969-2022, BEA Definition

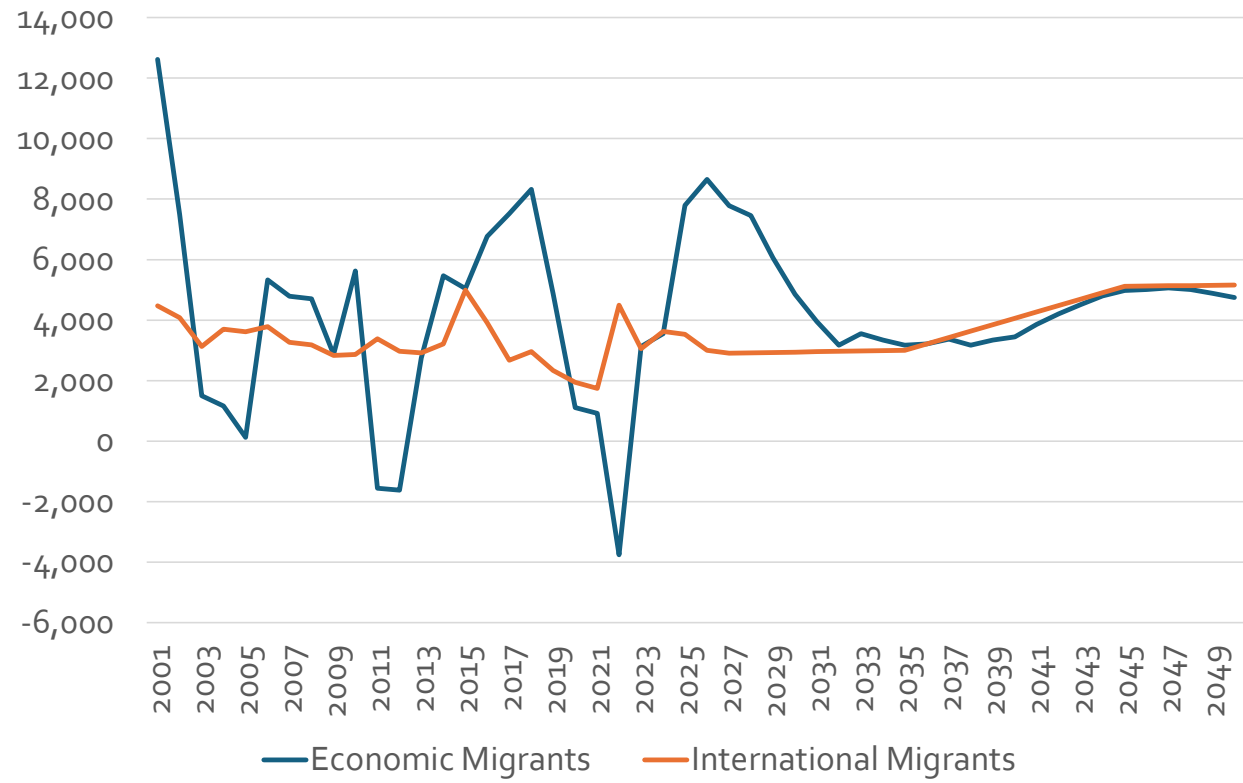




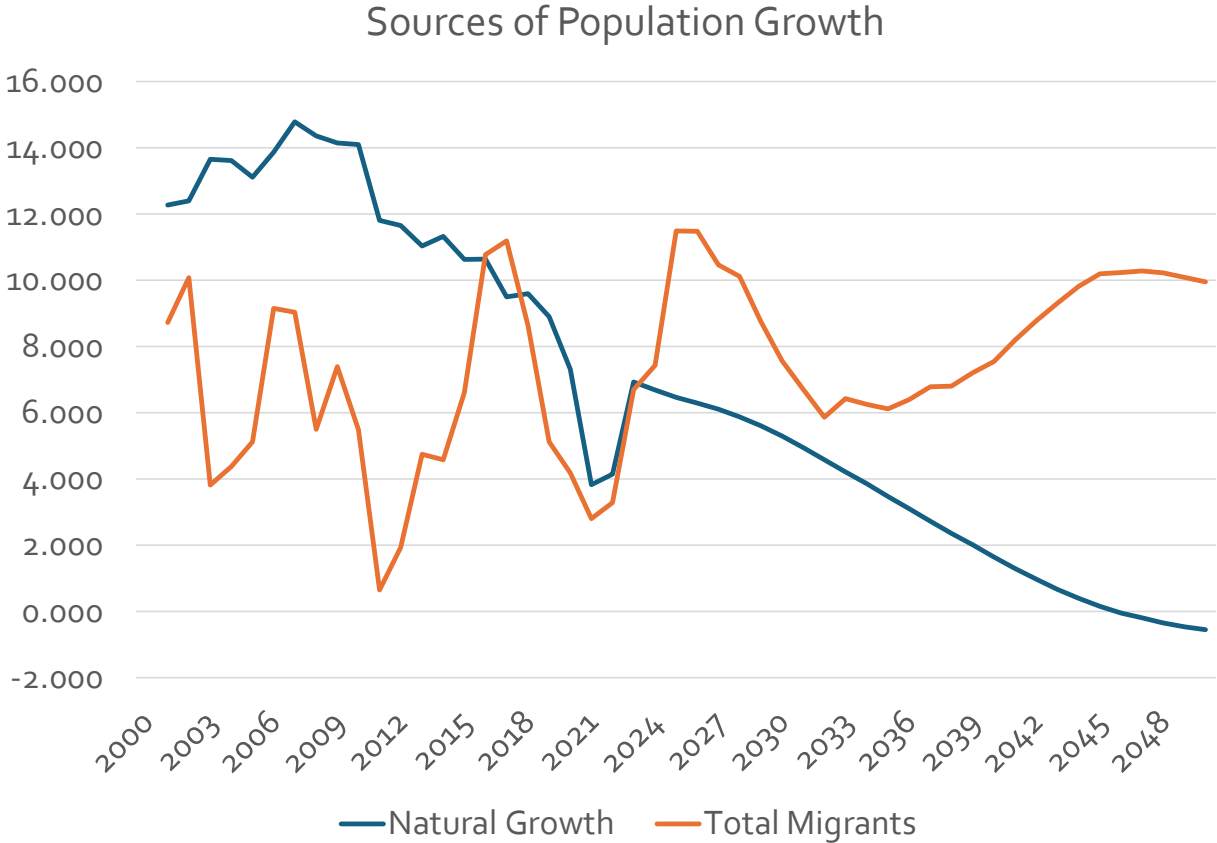


New Migration results

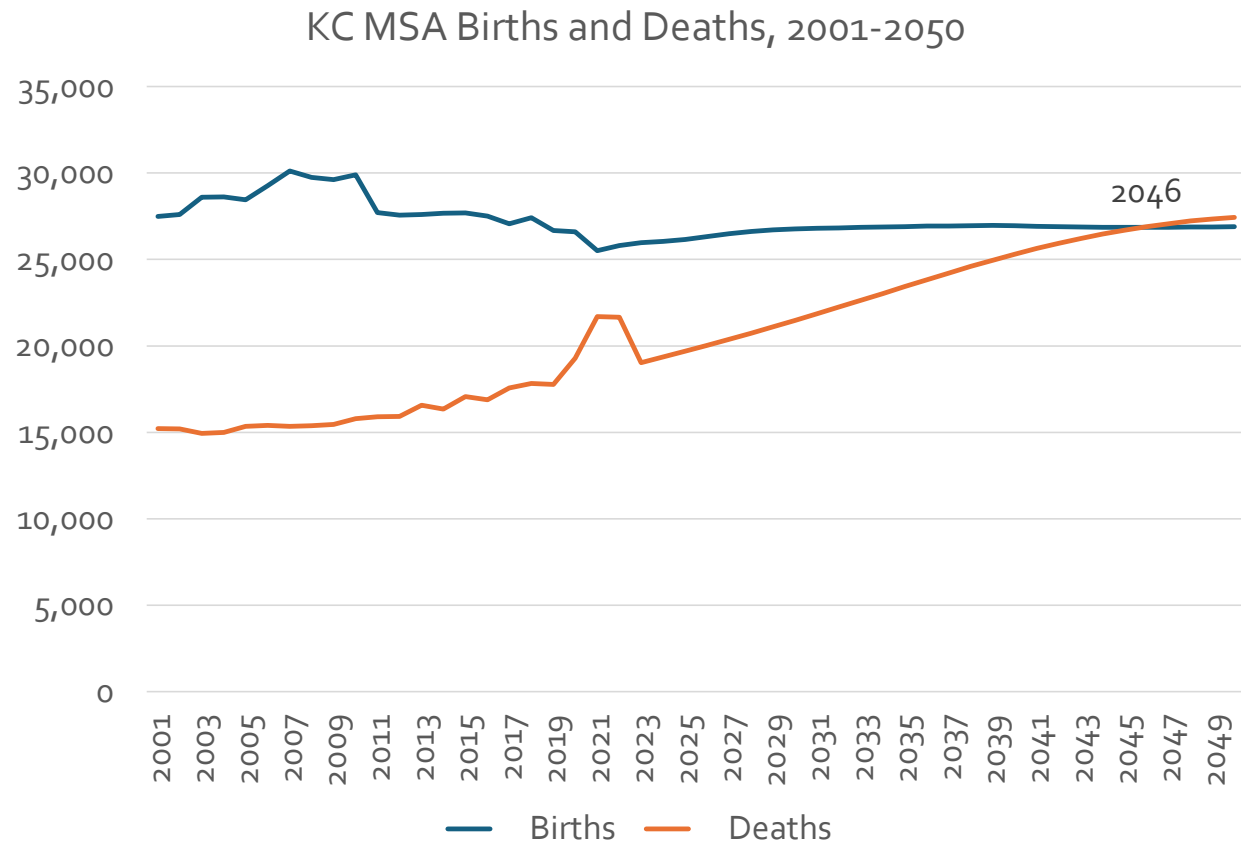
Economic and International Net Migration



Sources of Population Growth, 2001-2050

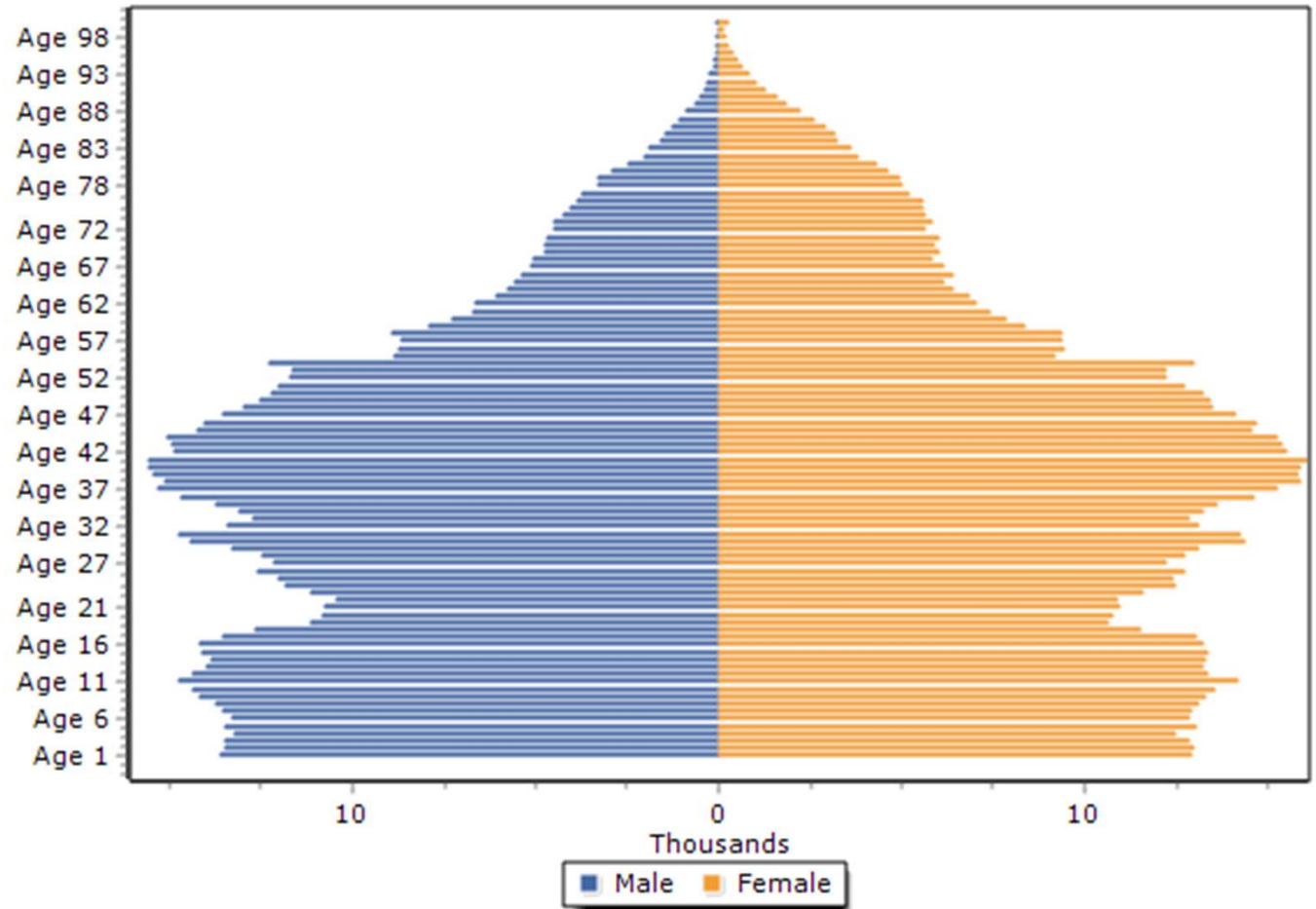


Deaths begin to exceed births in KC some eight years later than the nation as a whole.



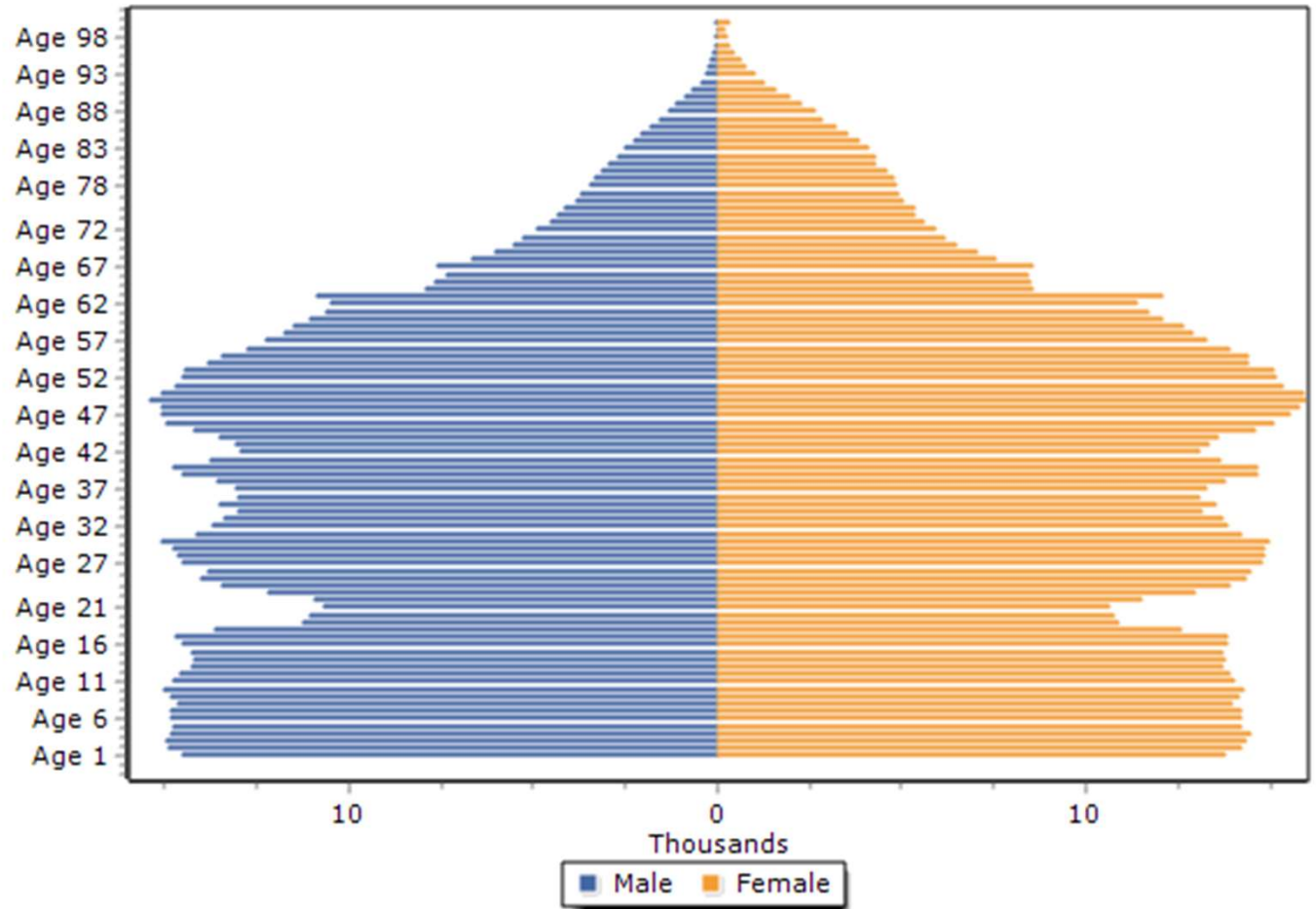
2001

Population 16 and over
that is 55+ = 26%



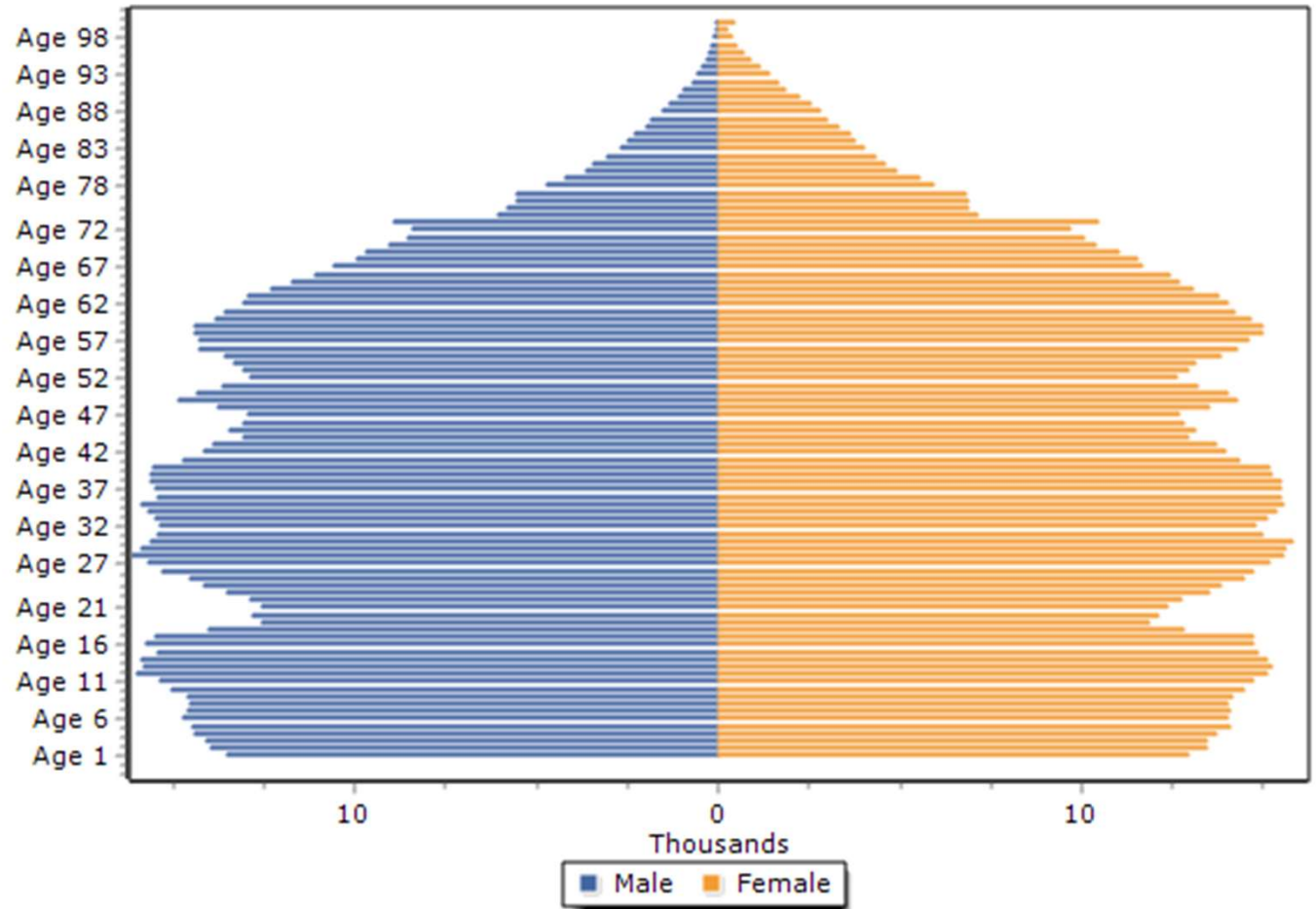
2010

Population 16 and over
that is 55+ = 31%



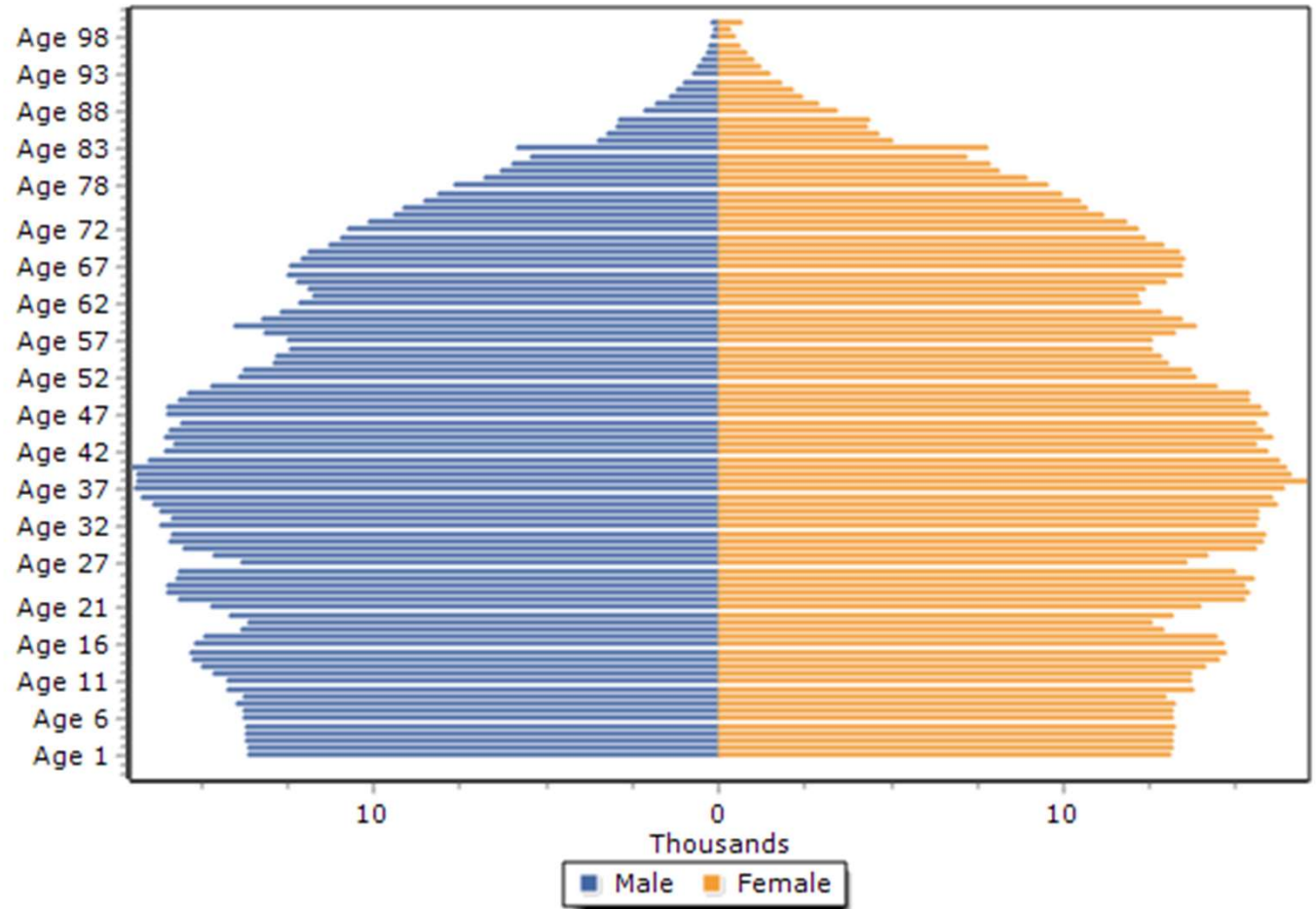
2020

Population 15 and over
that is 55+ = 35%



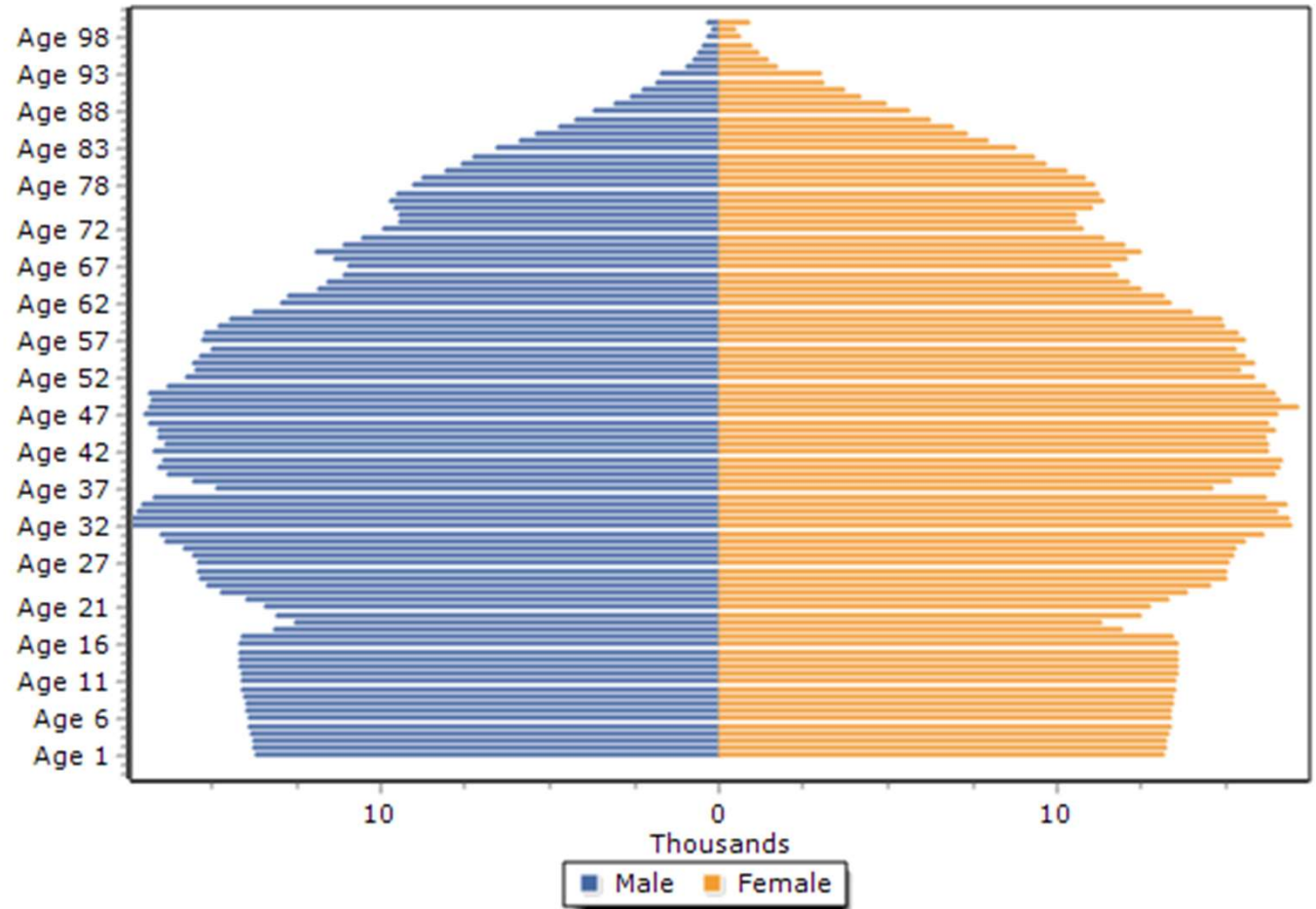
2030

Population 15 and over
that is 55+ = 36%



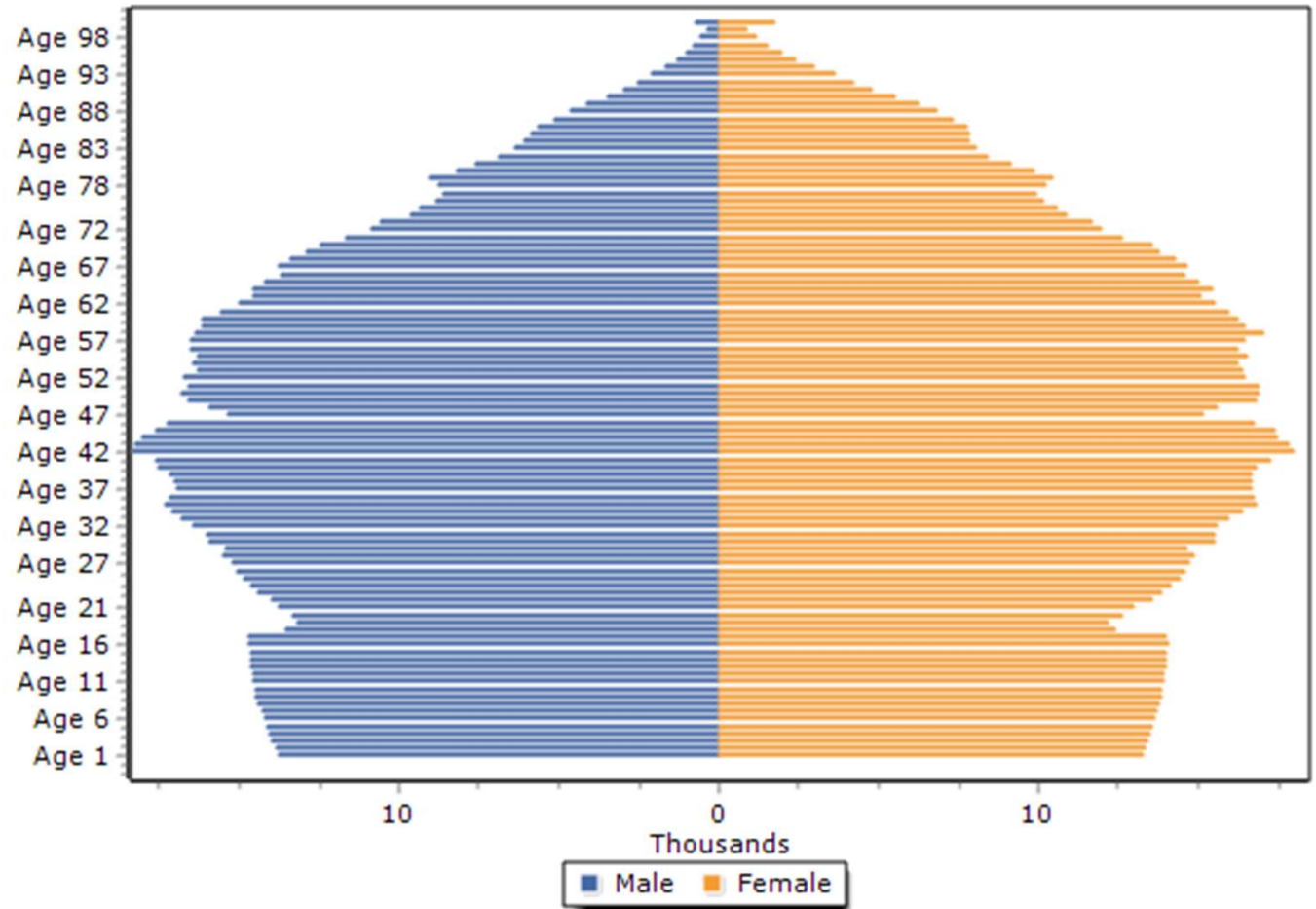
2040

Population 15 and over
that is 55+ = 39%

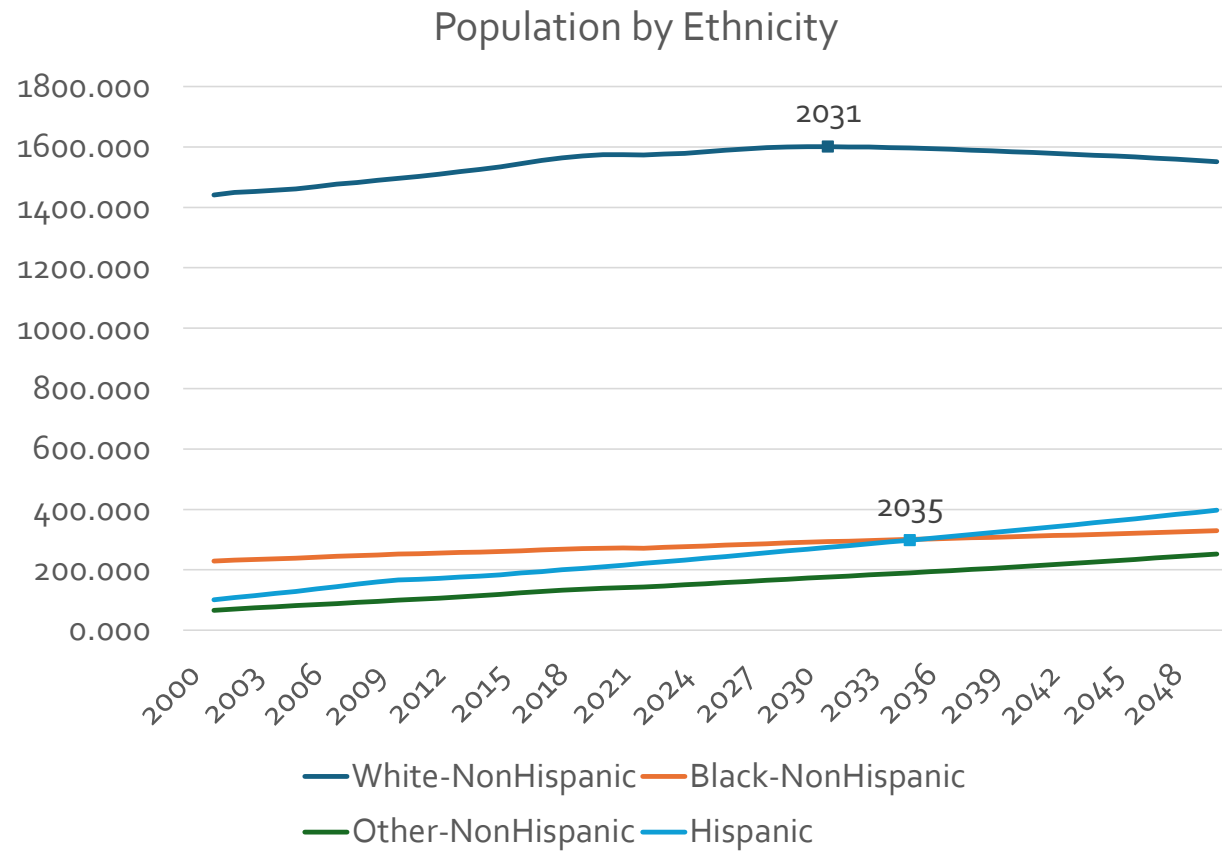


2050

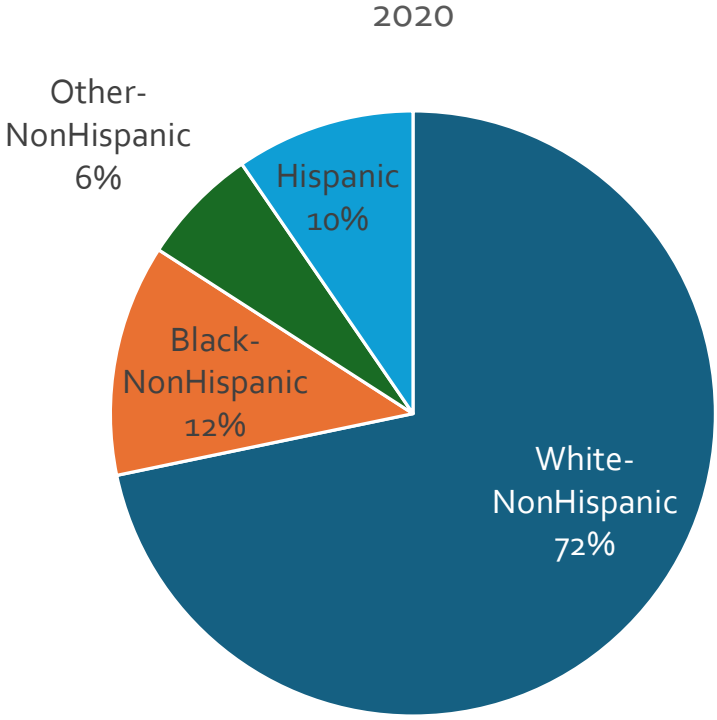
Population 15 and over
that is 55+ = 40%



Population trends, 2001-2050, by race/ethnicity

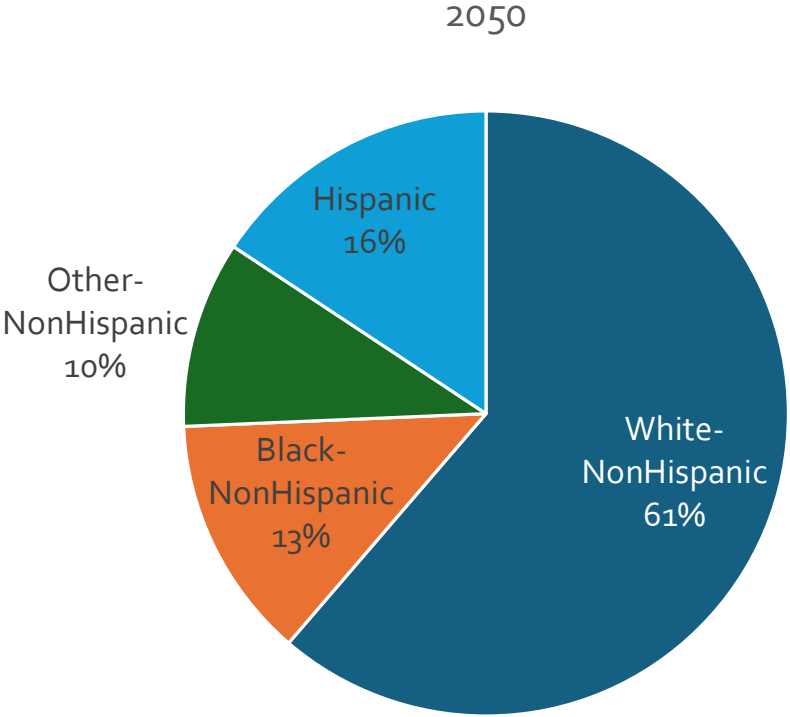


2020 Population Distribution by race/ethnicity



■ White-NonHispanic ■ Black-NonHispanic ■ Other-NonHispanic ■ Hispanic

2050 Population Distribution by race/ethnicity



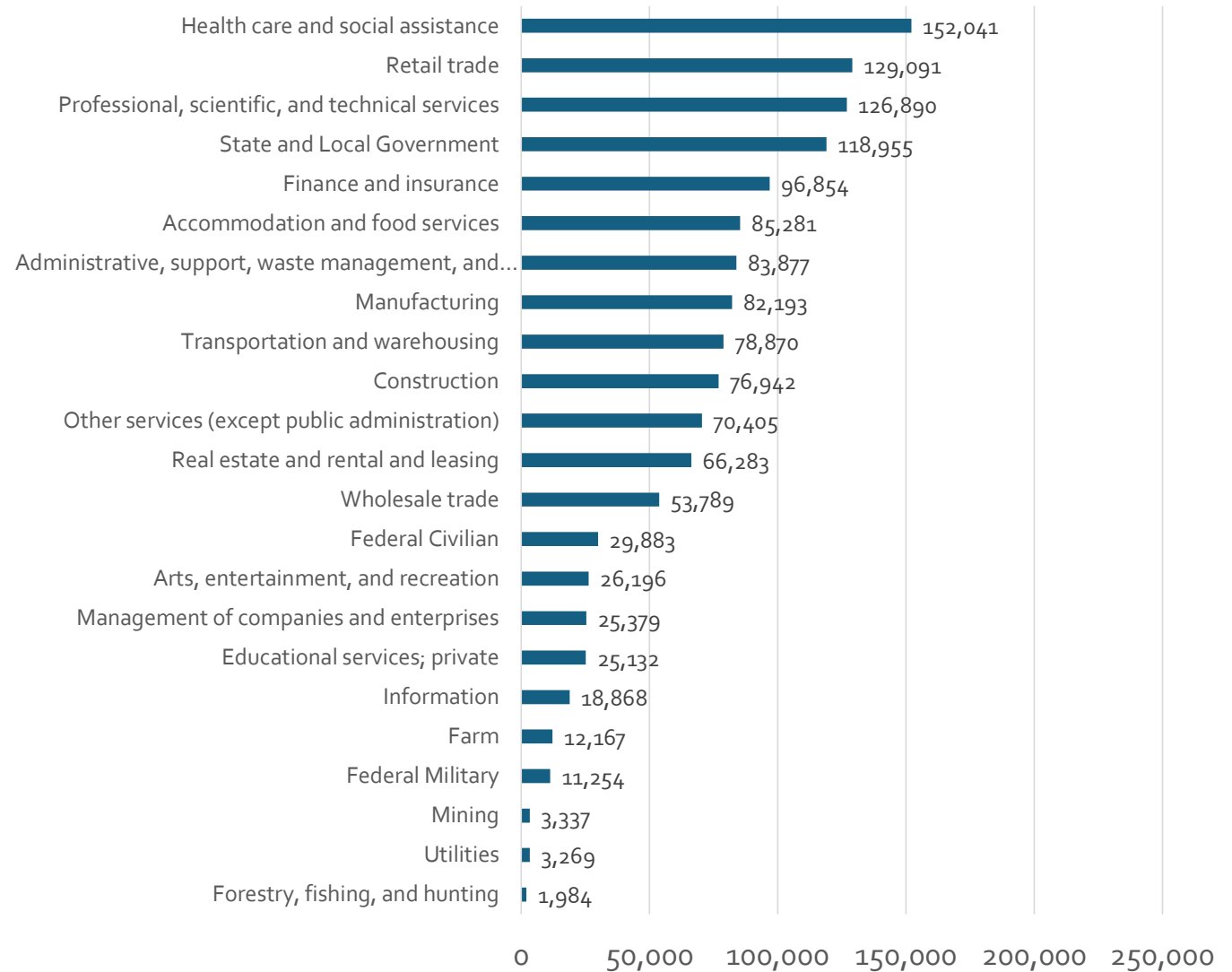
■ White-NonHispanic ■ Black-NonHispanic ■ Other-NonHispanic ■ Hispanic

Apply Household
Headship Rates by
race/ethnicity to
population forecast
by race/ethnicity

	2020	2030	2040	2050	Change, 2020-2050
Total Population	2,195,043	2,332,732	2,431,736	2,530,692	335,649
15+Population	1,762,602	1,921,848	2,021,086	2,113,403	350,801
Households	857,473	945,882	1,010,798	1,059,215	201,741
GQ Population	20,000	20,000	20,000	20,000	0
Household Population	2,175,043	2,312,732	2,411,736	2,510,692	335,649
Person/HH	2.54	2.45	2.39	2.37	-0.17

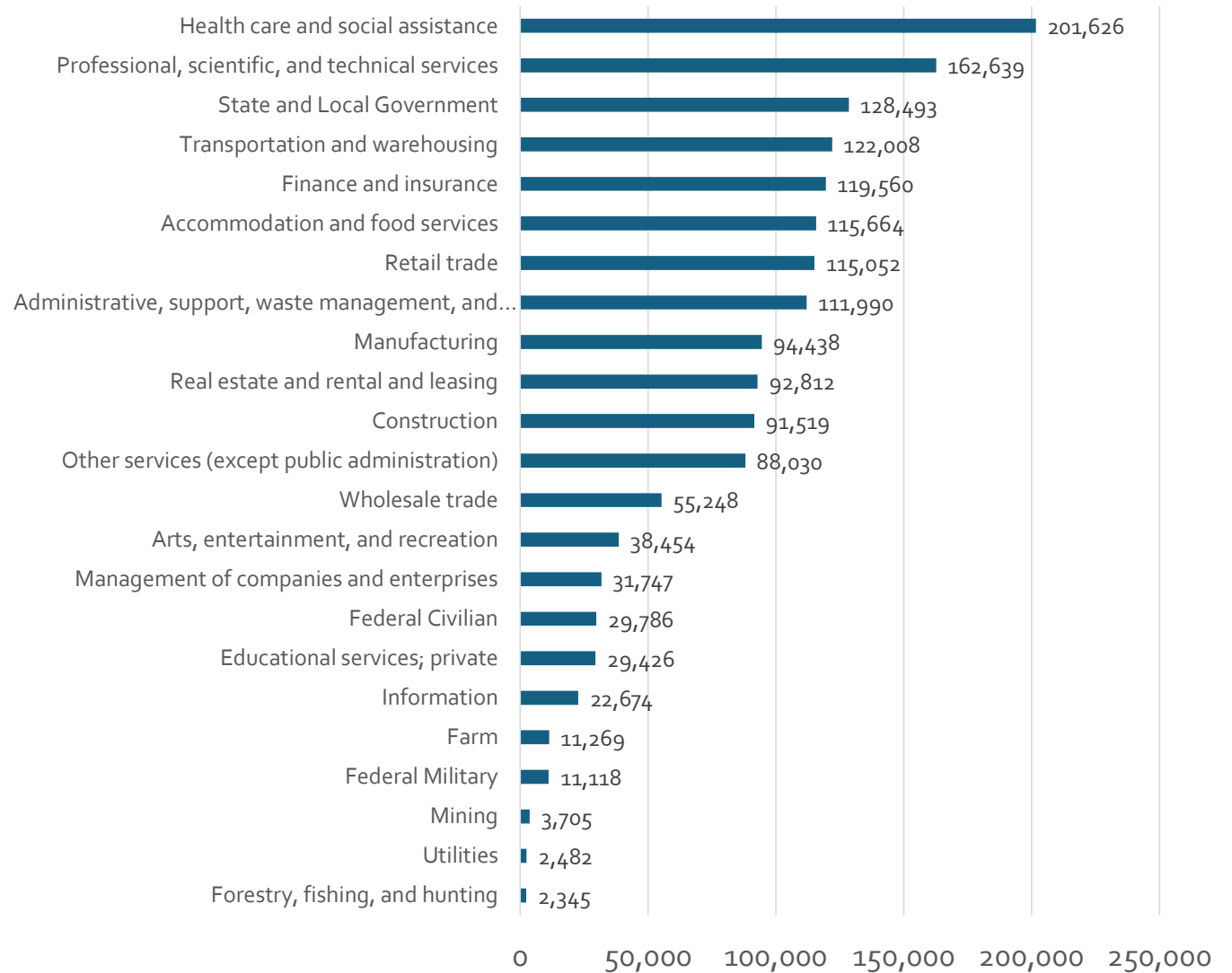
Current industry distribution of employment

2020 Employment by Industry



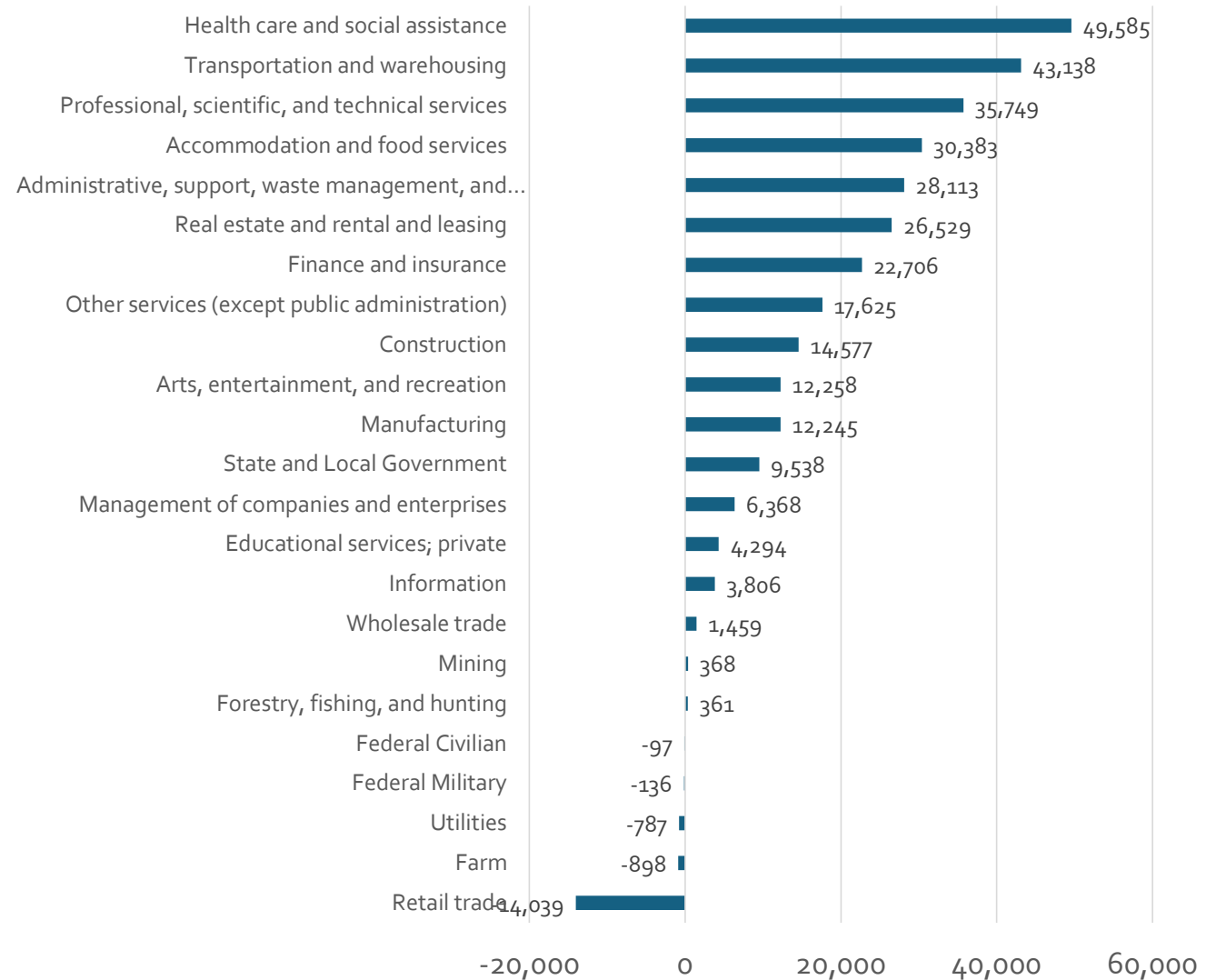
By 2050, retail employment drops in ranking while warehousing rises

2050 Employment by Industry



Between 2020 and 2050, transportation and warehousing gains the 2nd most jobs after health care, while retail loses jobs.

2020-2050 Employment Change by Industry



CURRENTLY ADOPTED FORECAST (2020-2050)



- ✓ 480,000 more people
- ✓ 230,000 more households
- ✓ 225,000 more jobs

KC DRAFT CONTROL TOTALS BASED ON NEW CENSUS BIRTH RATES, REMI SURVIVAL AND IMMIGRATION RATES (2020-2050)

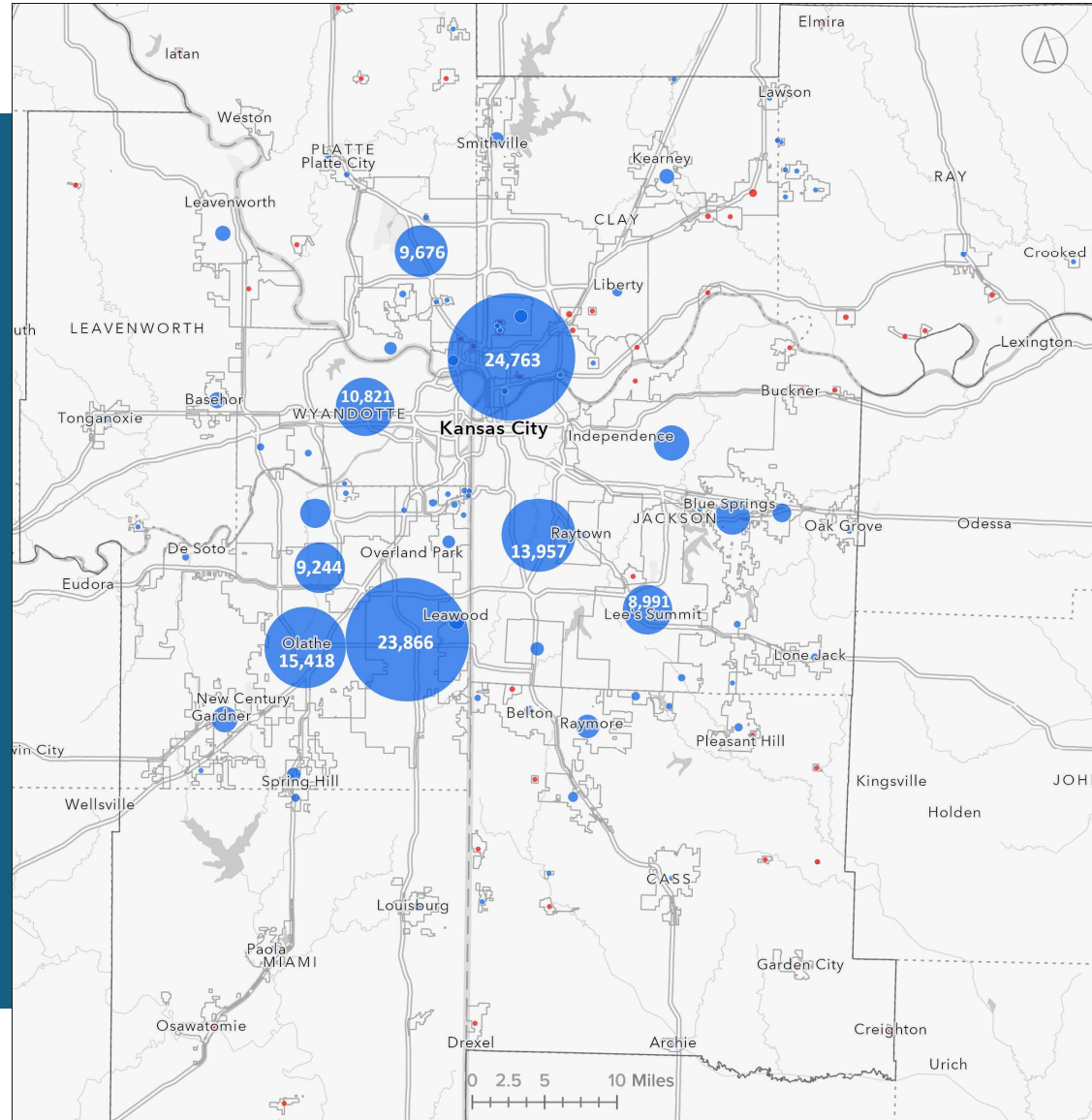


- ✓ 336,000 more people
 - 70% of prior forecast
- ✓ 301,000 more jobs
 - More than prior forecast
 - But prior forecast did not anticipate Covid recession in 2020
 - Nearly half of increase is simply rebound
 - Only 177,000 jobs added from 2024

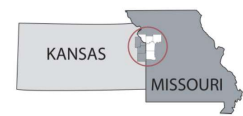
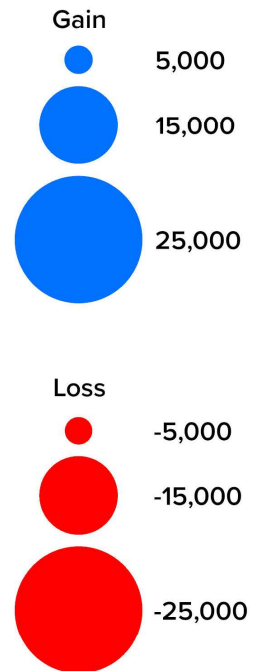
Next steps

- Include on-shoring of manufacturing
- Distribute regional totals to counties, cities and census tracts

Between 2010 and 2020, no city experienced significant population decline.



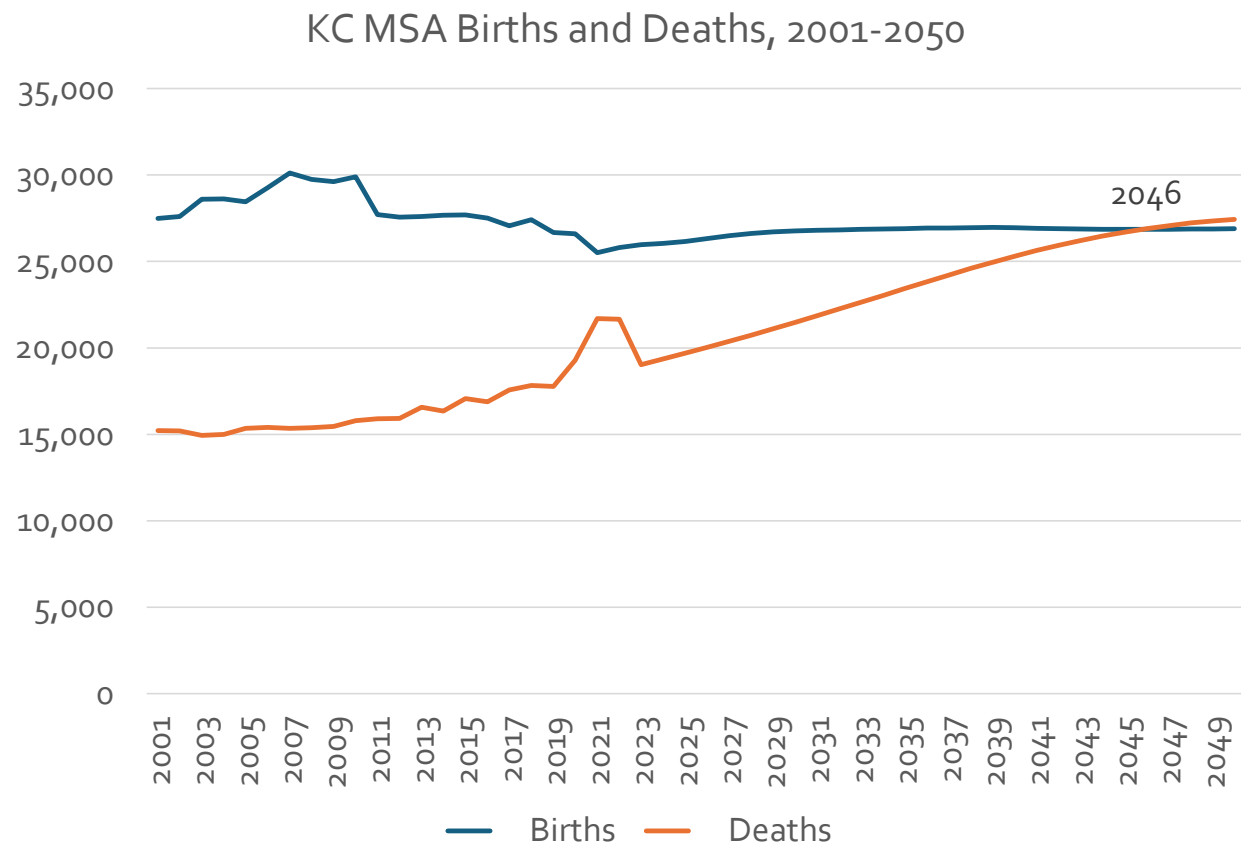
Change in Population by City 2010 - 2020



Which pattern is the long-term trend?

- The population estimates reflect the Covid pandemic period. Did this create forces that shift the population growth pattern back to what it was in the 20th Century – outward growth that is fed, in part, by a declining core?
- Or is it a short-term pattern, perhaps more reflective of the geographic distribution of the populations most affected by Covid-related deaths?

The large but temporary spike in deaths between 2020 and 2022 over and above what would be expected from a growing and aging population seems to support the latter hypothesis.



Questions?

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