

Southeast Michigan's Long-Run Demographic and Economic Future: Baseline and Alternative Scenarios



Presented to the Southeast
Michigan Council of Governments
October 13, 2022

Research Seminar in Quantitative Economics



Forecast Background

How the Forecast Was Produced

- The baseline forecast was produced by the University of Michigan's Research Seminar in Quantitative Economics (RSQE) in partnership with the Michigan Department of Transportation (MDOT)
- The forecast is the product of:
 - The Regional Economic Models, Inc. (REMI) TranSight economic and demographic forecasting and simulation model
 - RSQE's U.S. and Michigan forecasts and forecasting judgment
 - Comments and insights from SEMCOG and other local Metropolitan Planning Organizations and regional planning organizations
- The data for 2019 and earlier in our figures and tables are generally estimates from the REMI model and do not include subsequent data revisions
- We worked with SEMCOG staff to develop four alternative scenarios for the southeast Michigan region

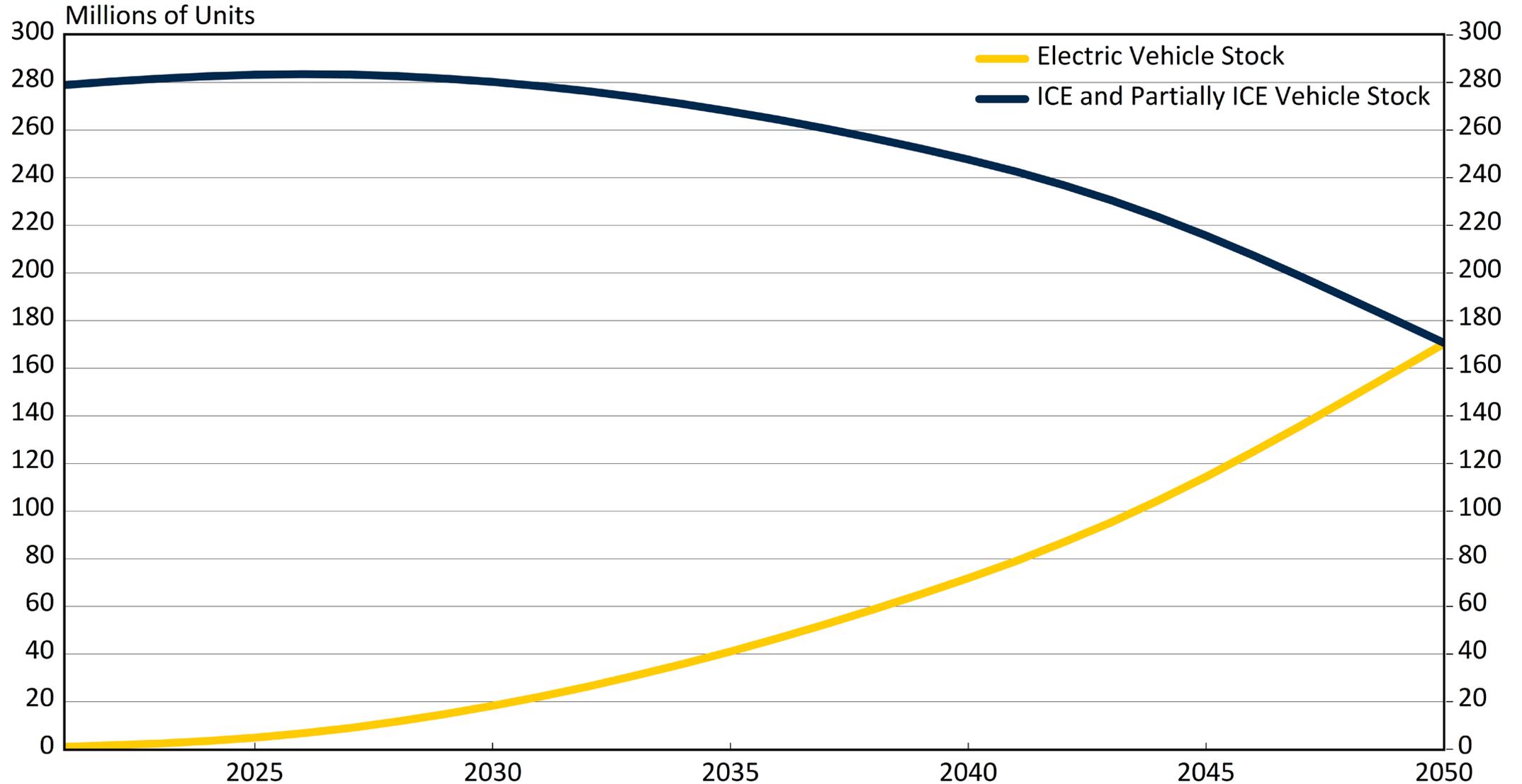
Summary of U.S. Forecast

- We did not change REMI's national population forecast
- We modified the REMI model's national GDP forecast in several ways
 - We used key parts of RSQE's internal U.S. economic forecast through 2026
 - From 2026–2050, we targeted the CBO's long-run forecast for certain variables, aiming for smooth transitions from our internal forecast
 - We held the shares of major components of GDP approximately constant at 2030 values
 - We increased social insurance and personal taxes
 - We adjusted productivity by industry

Electric Vehicle Forecast

- Assumption of 9 percent U.S. new vehicle sales in 2025 will be totally EV
- Assume 24 percent in 2030
- Assume 54 percent in 2040
- Assume 100 percent in 2050
- Newly sold electric vehicles replace the existing fleet with a delay
 - Legacy (non-electric) vehicles will remain in the fleet long past 2050

U.S. Light Vehicle Fleet by Power Type

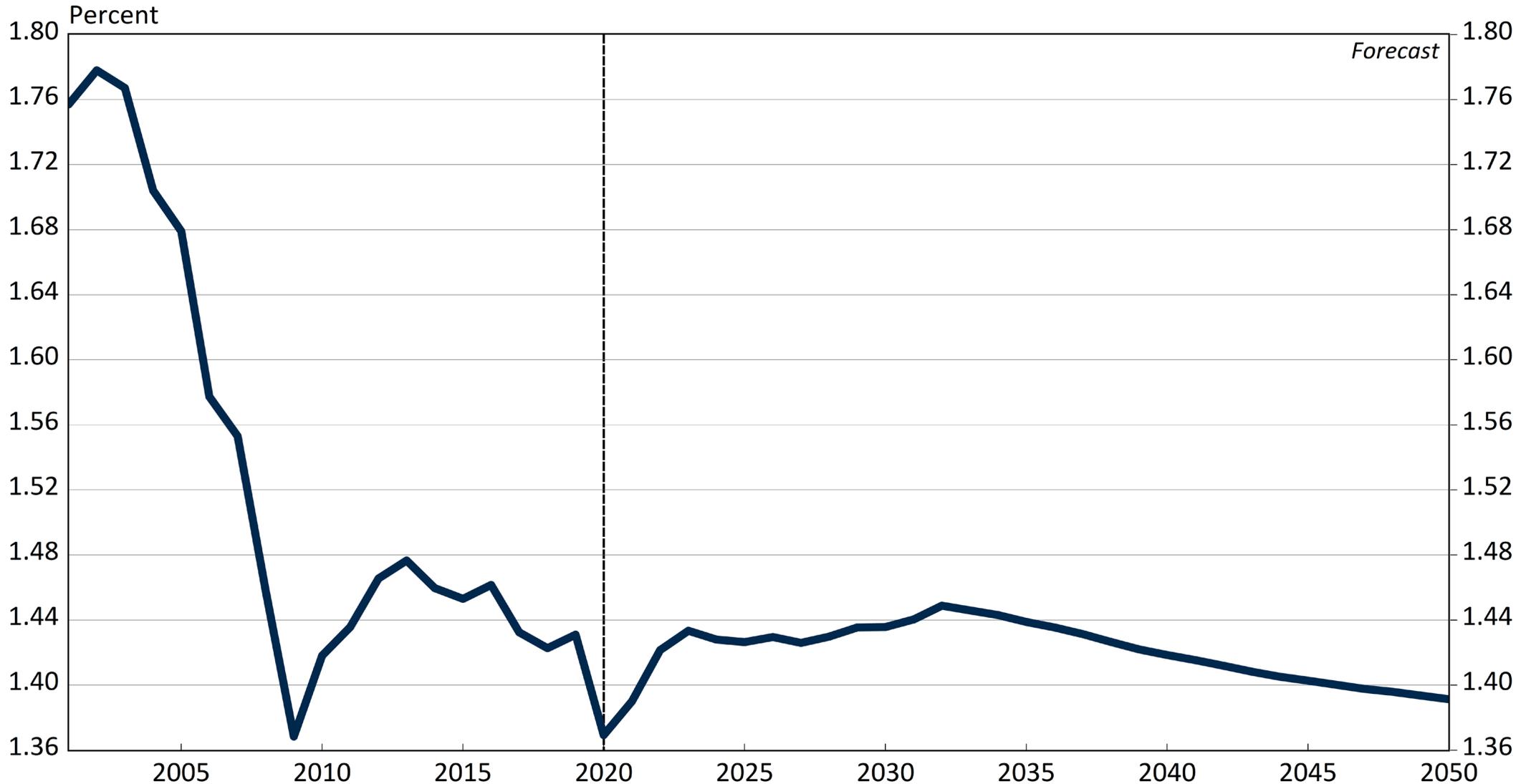


U.S. Employment in Motor Vehicles, Bodies, and Parts Manufacturing

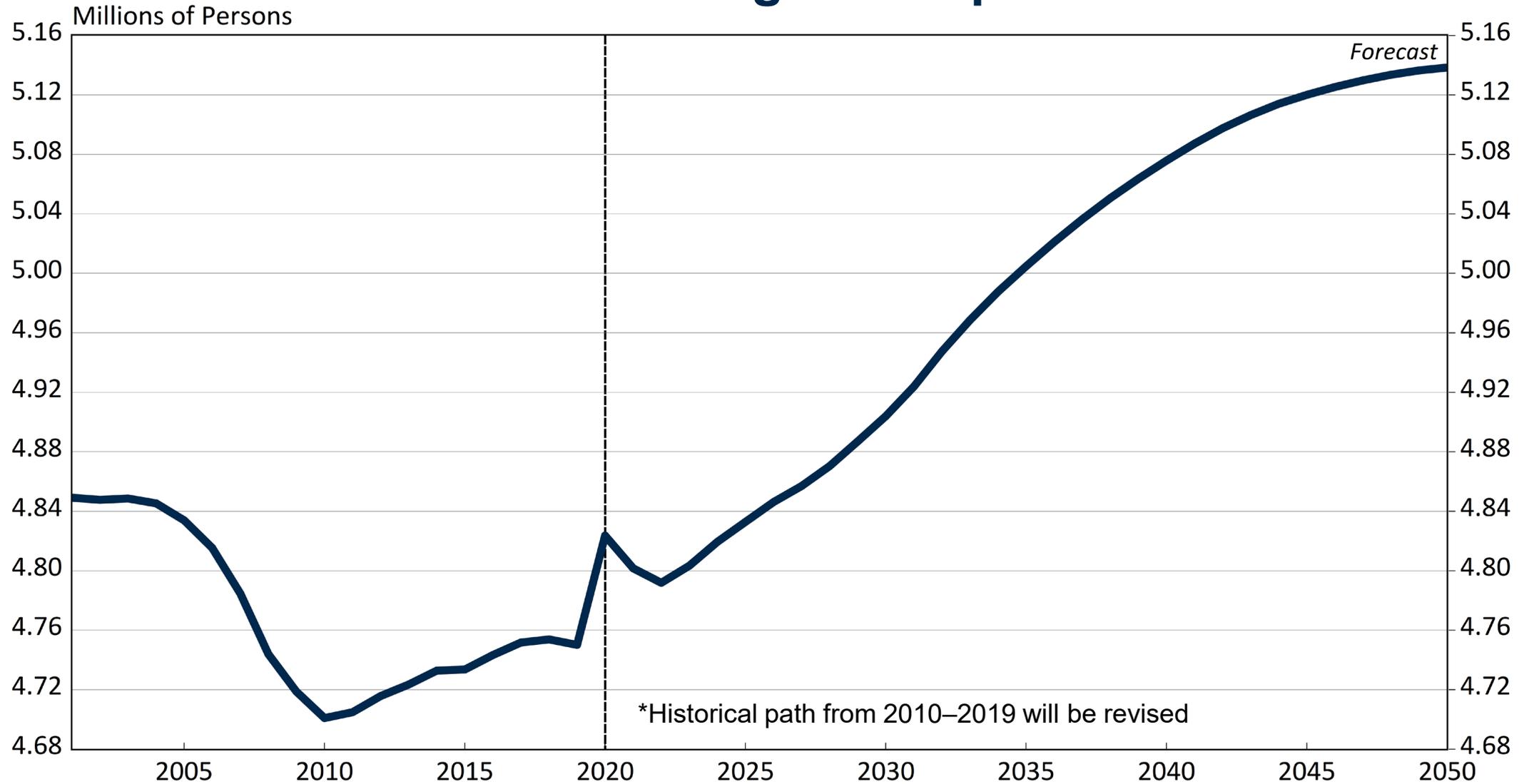


Southeast Michigan (SEMCOG) Baseline Forecast

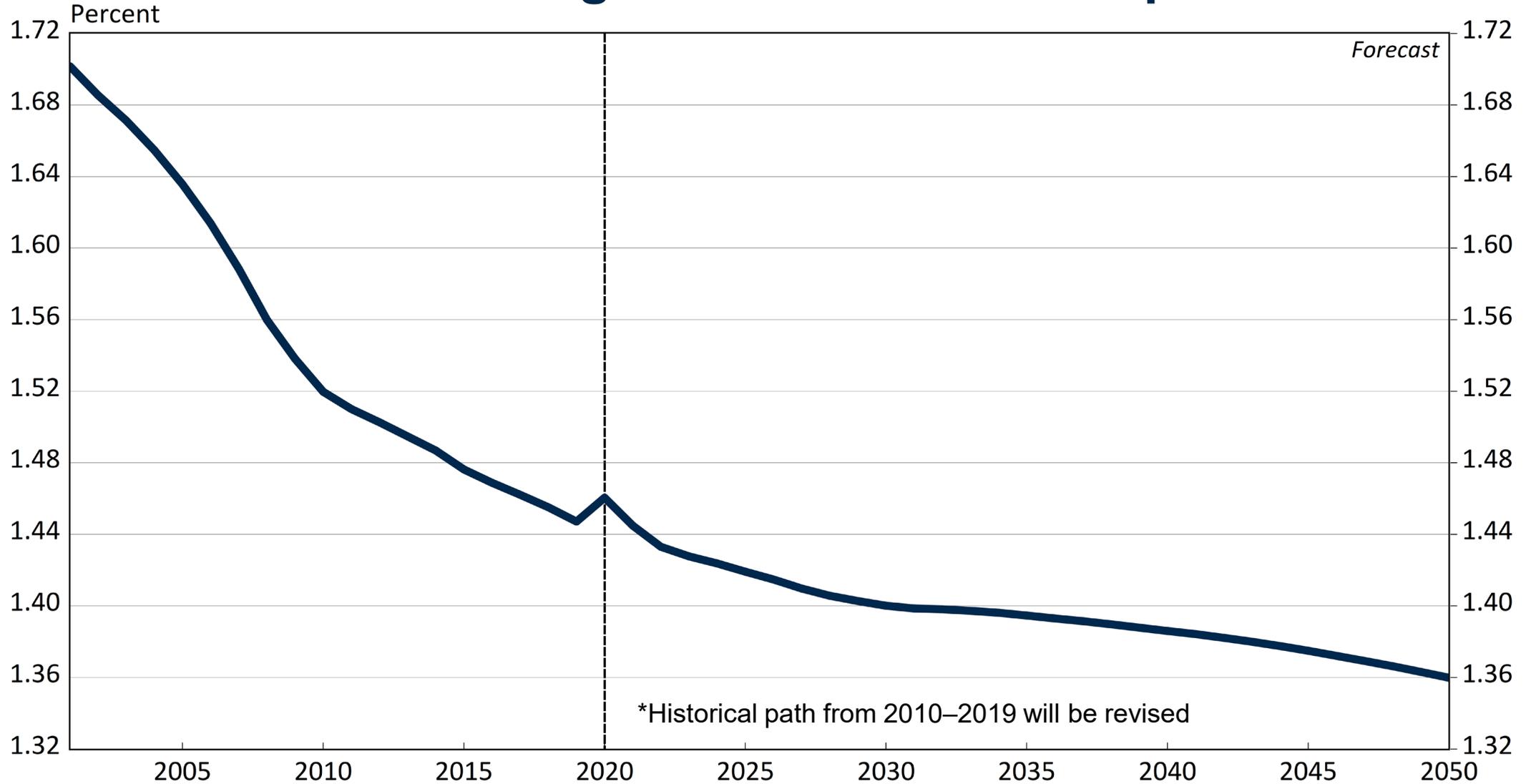
Southeast Michigan's Share of U.S. Real GDP



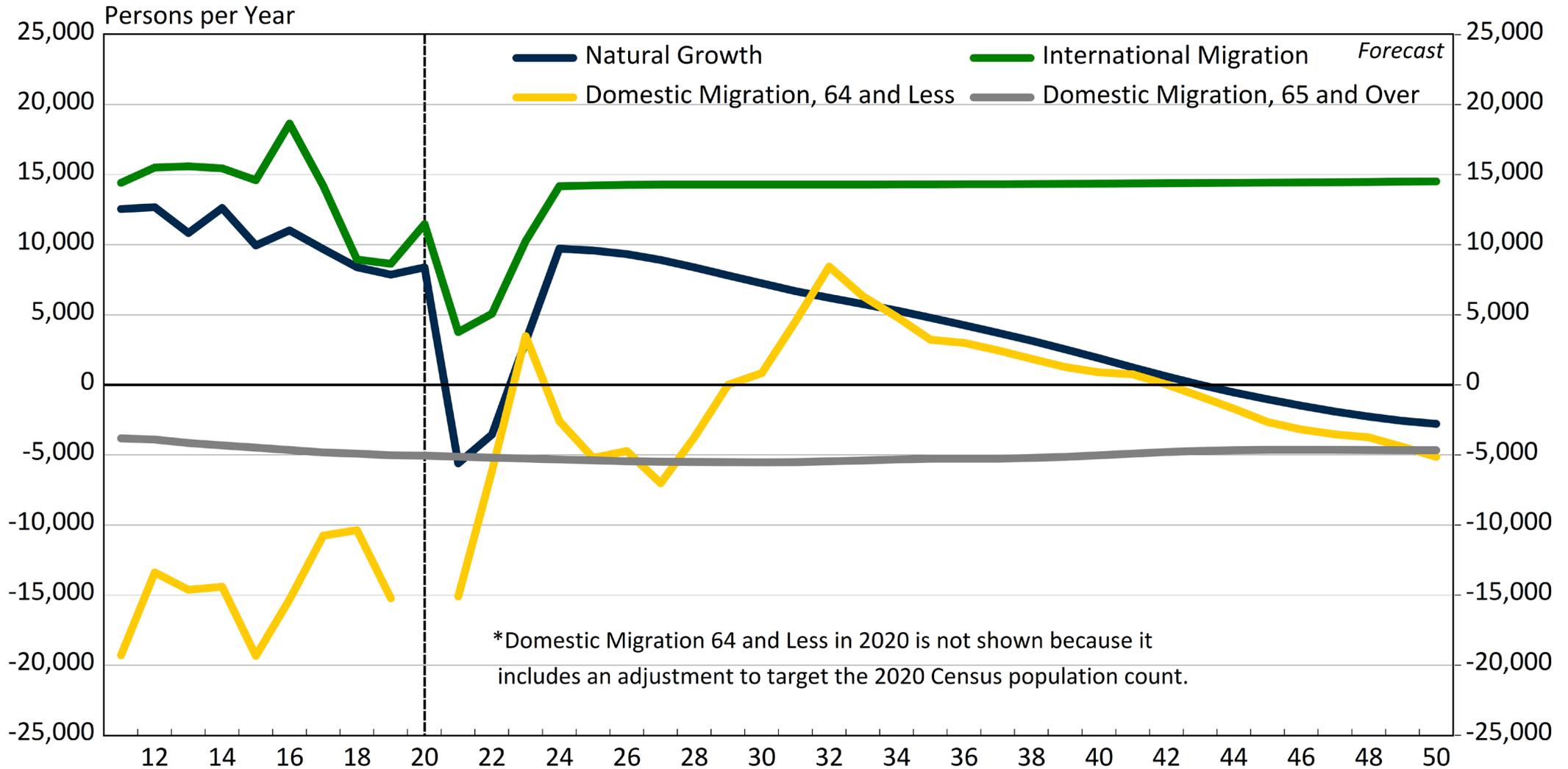
Southeast Michigan's Population



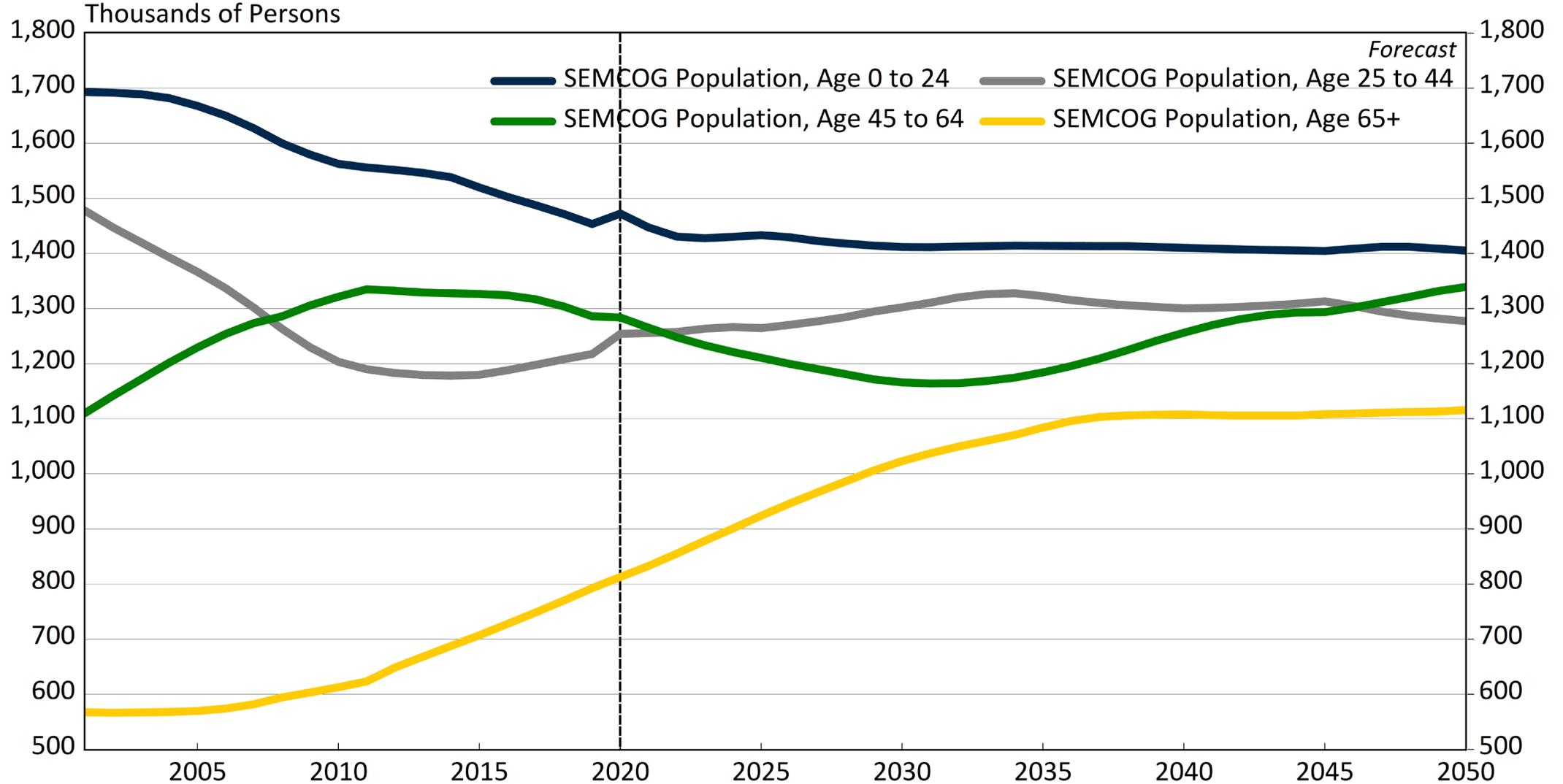
Southeast Michigan's Share of U.S. Population



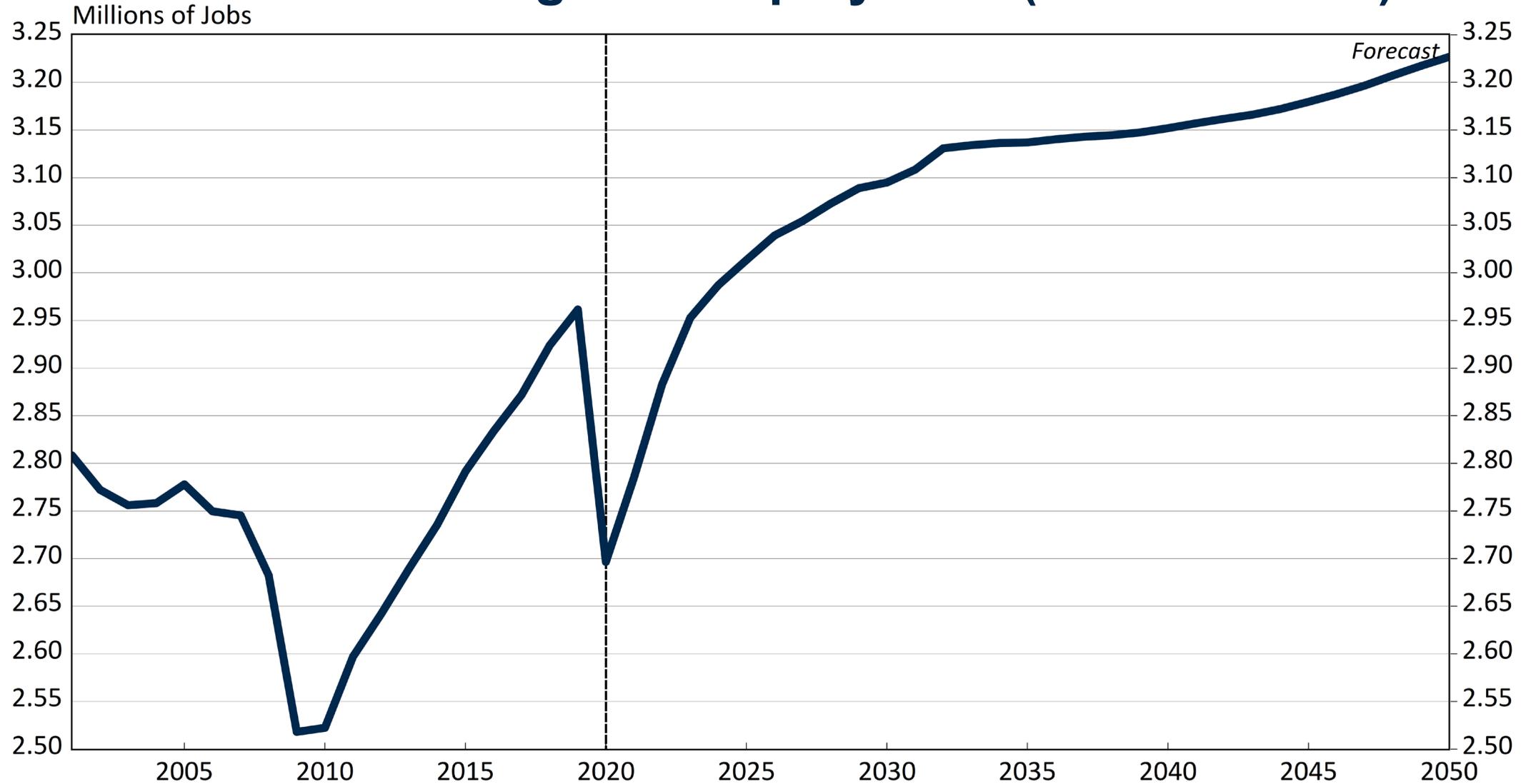
Components of Southeast Michigan's Population Growth



Southeast Michigan's Population by Age Category



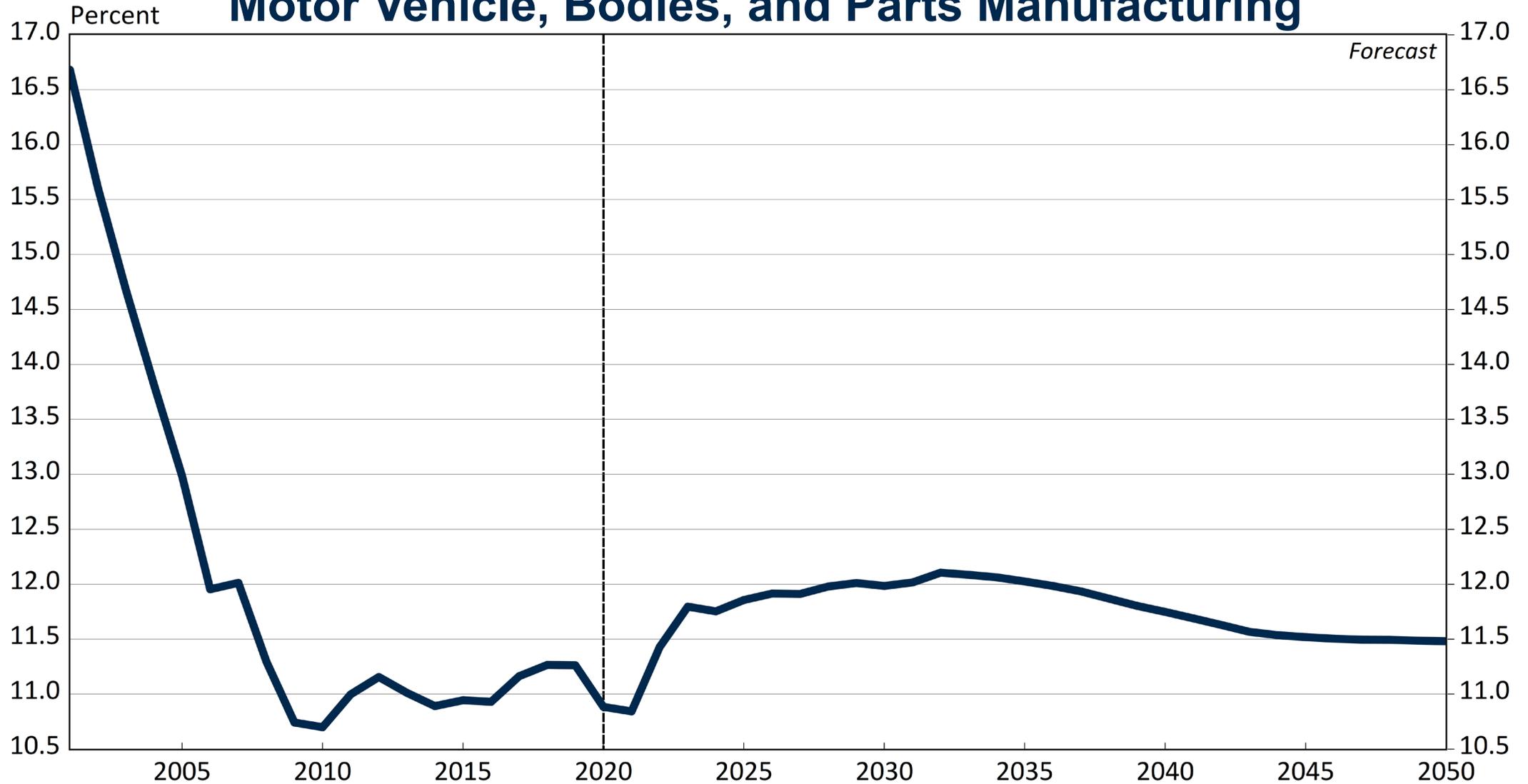
Southeast Michigan's Employment (BEA Measure)



Southeast Michigan's Share of U.S. Employment



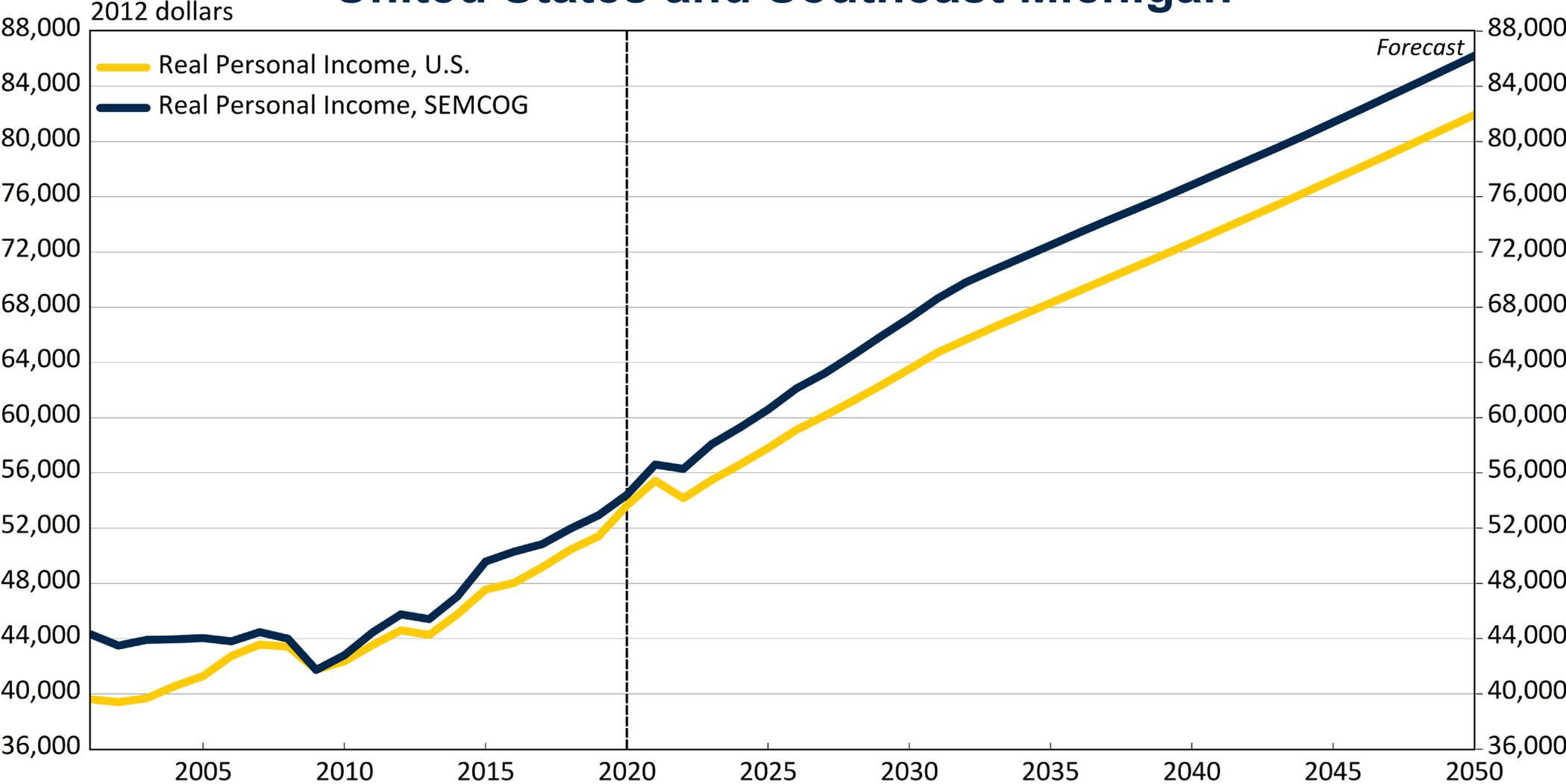
Southeast Michigan's Share of U.S. Employment in Motor Vehicle, Bodies, and Parts Manufacturing



Southeast Michigan's Employment Growth by Selected Industry Groups

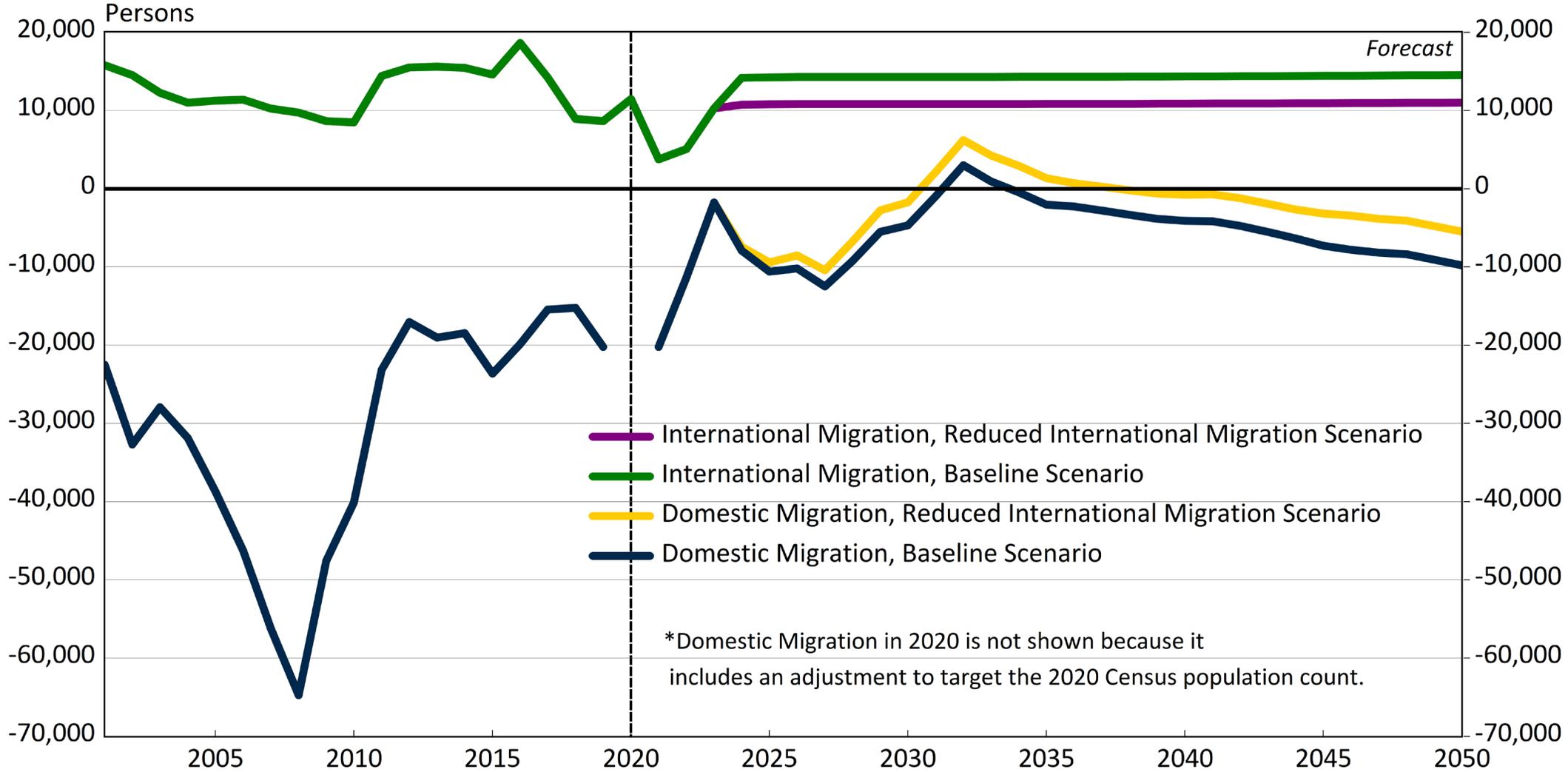
Employment by Selected Industry Groups	Average Annual Percent Change, 2019–2050
Construction	0.66%
Transportation, Warehousing, Wholesale Trade, and Utilities	0.63%
Private Education and Health	0.62%
Administrative Support and Waste Management	0.54%
Information, Financial Activities, Professional Services, and Management of Companies	0.52%
Leisure and Hospitality	0.17%
Government	0.15%
Other Private Services	0.14%
Other (non-Transportation Equipment) Manufacturing	-0.10%
Natural Resources, Mining, and Agriculture	-0.30%
Motor Vehicle Manufacturing	-0.61%
Retail Trade	-0.91%
<i>Addenda:</i>	
Total Jobs	0.28%

Real Personal Income per Capita, United States and Southeast Michigan

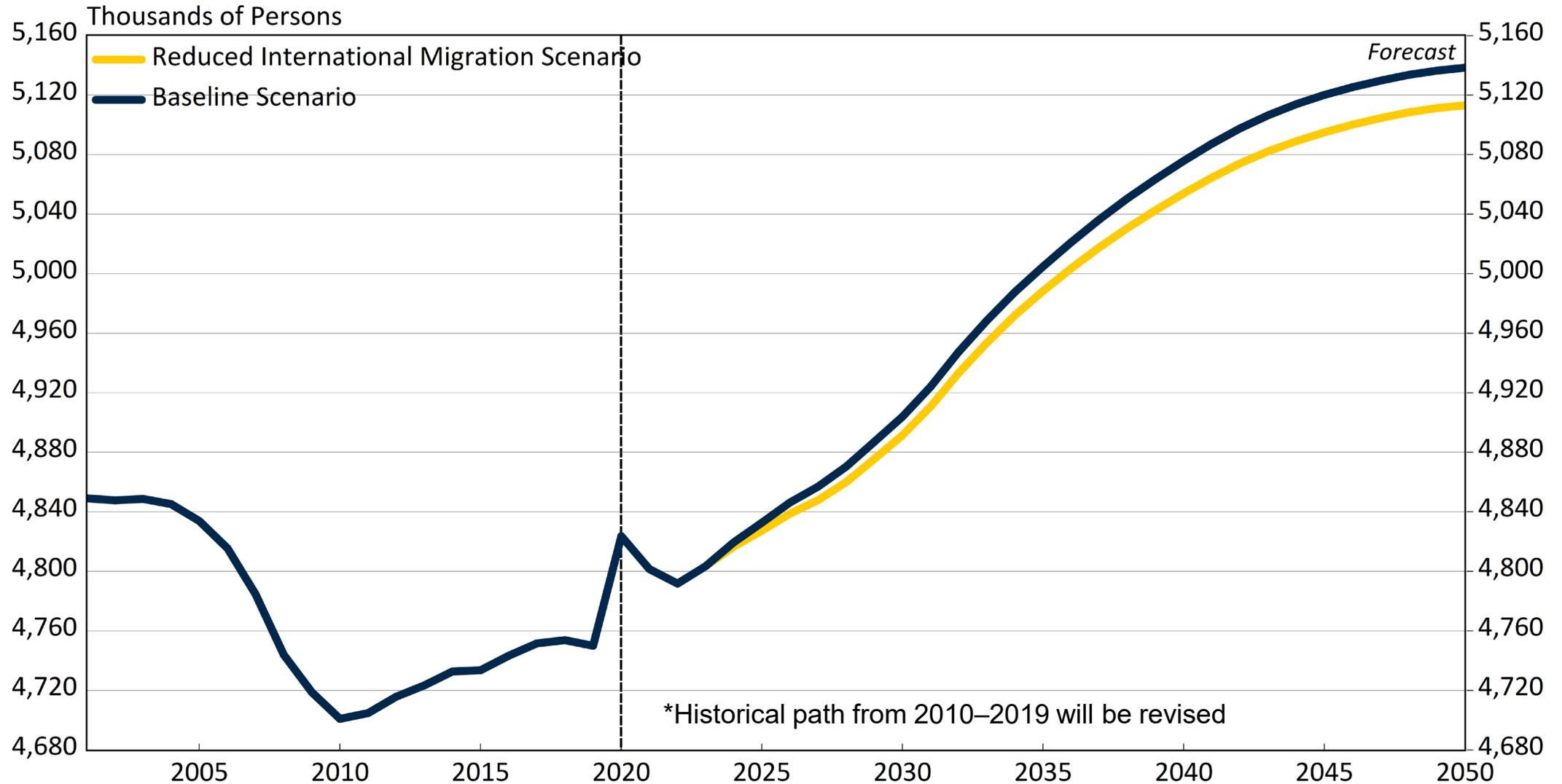


Reduced International Migration Scenario

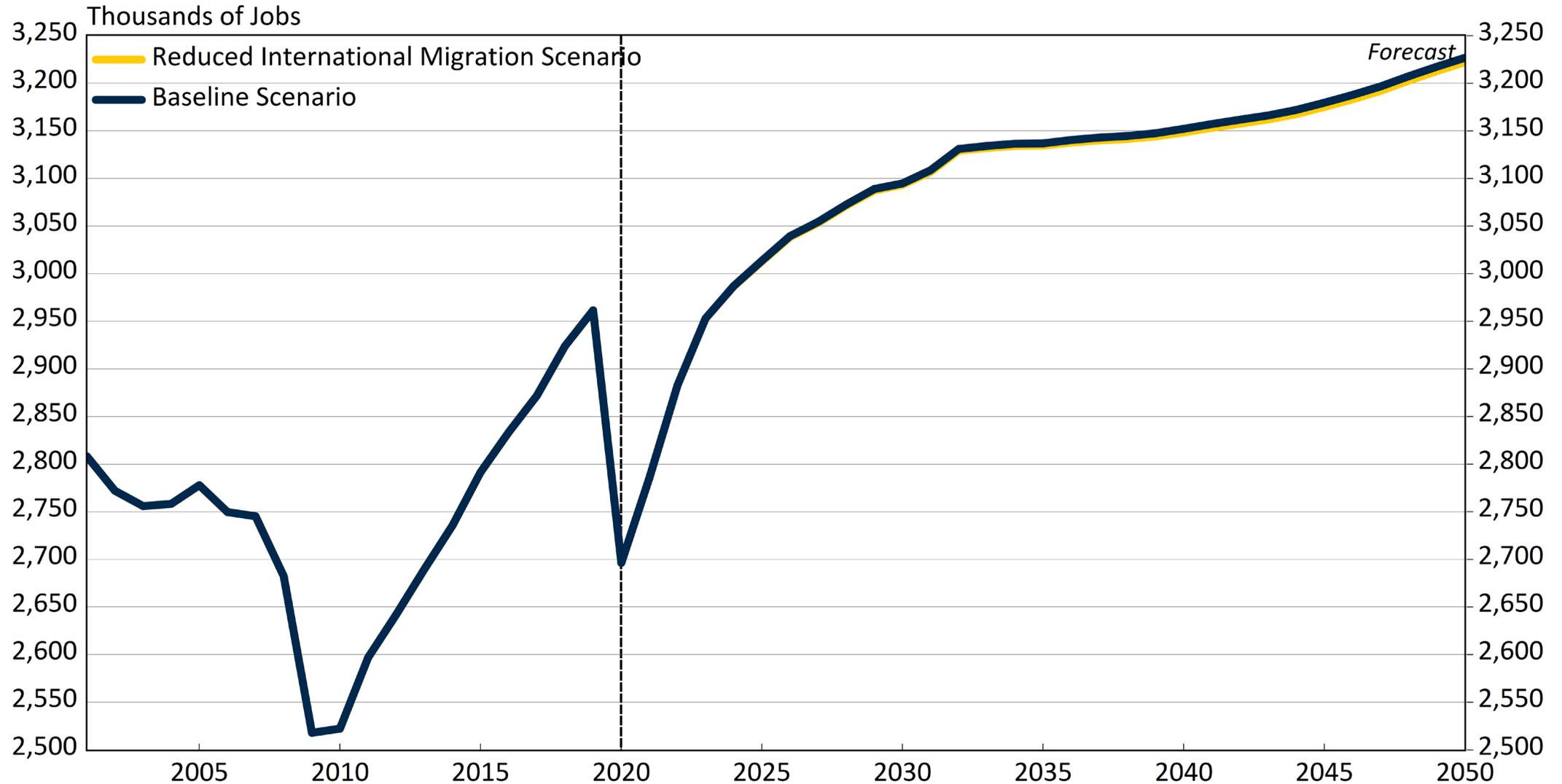
Domestic and International Migration to Southeast Michigan



Total Population in Southeast Michigan

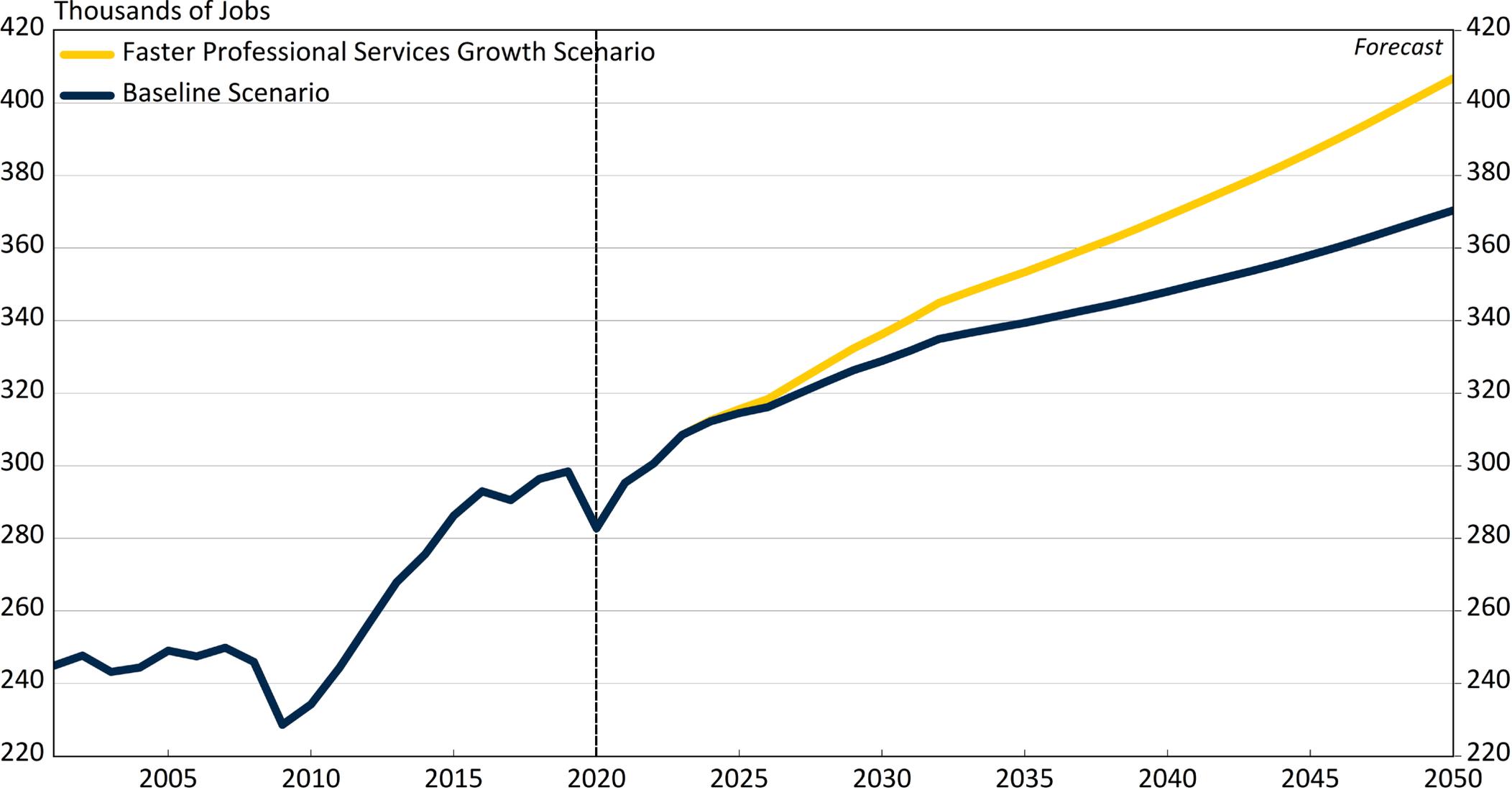


Total Employment in Southeast Michigan

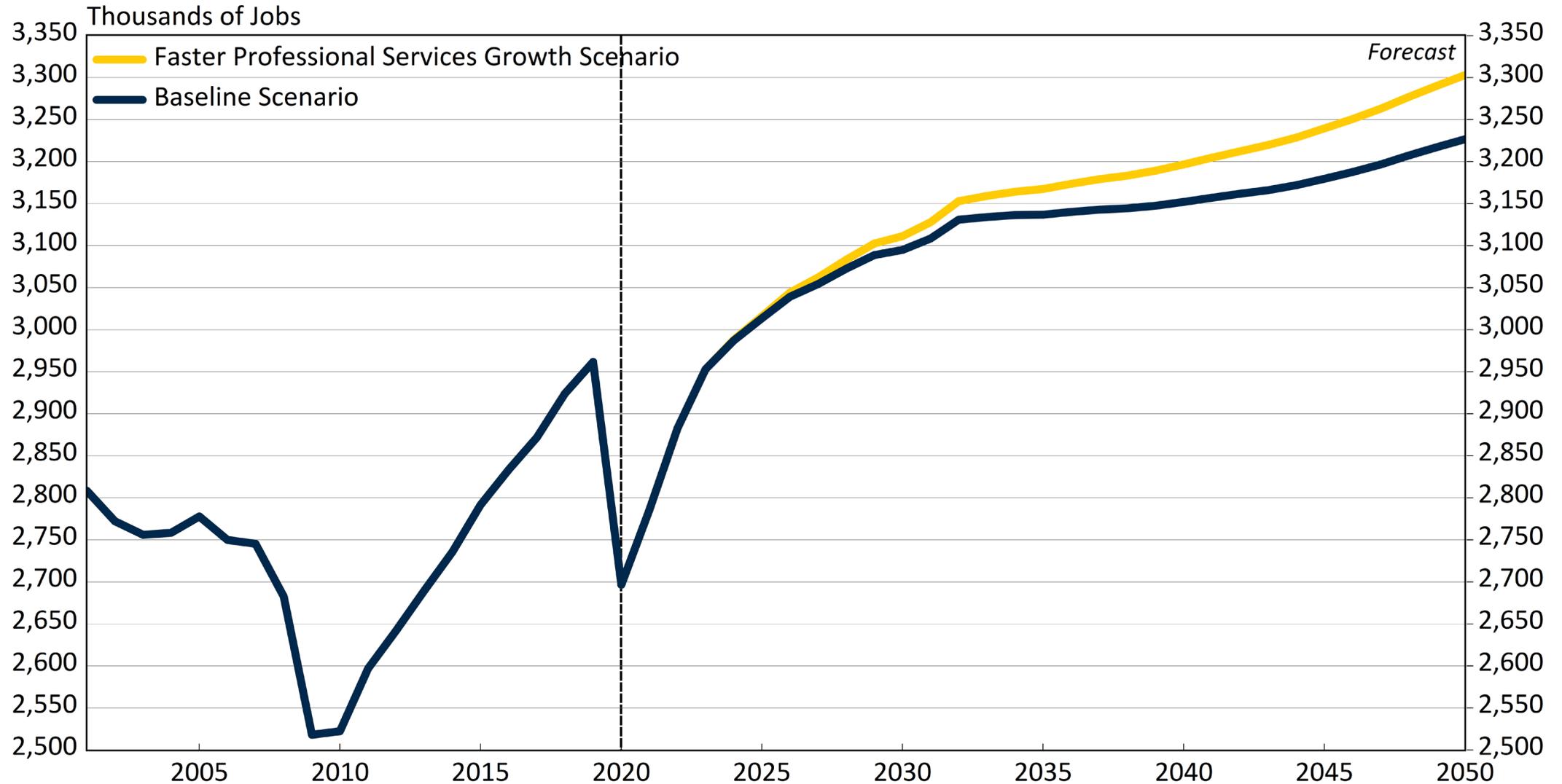


Faster Professional Services Growth Scenario

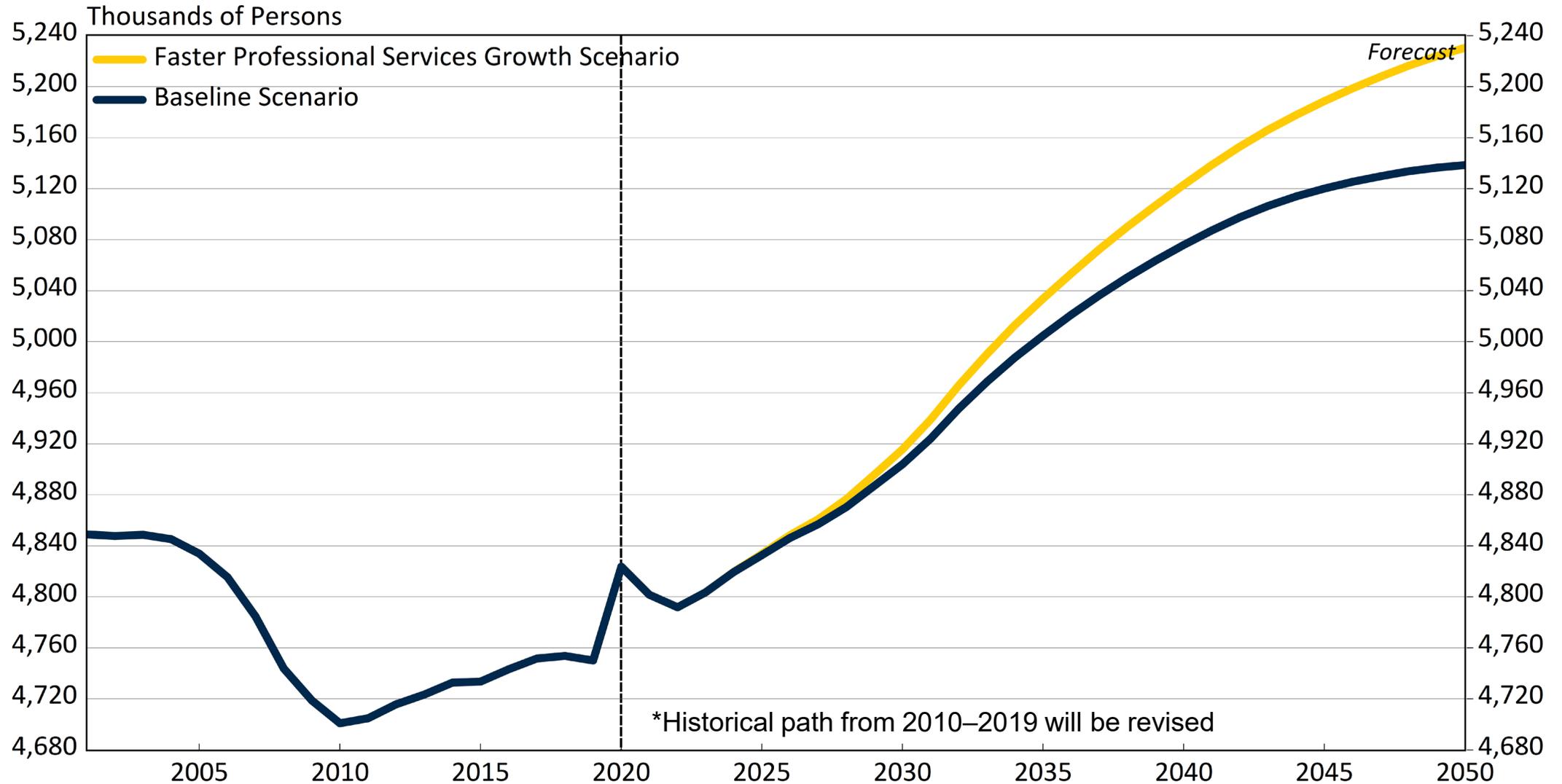
Employment in Professional and Technical Services in Southeast Michigan



Total Employment in Southeast Michigan

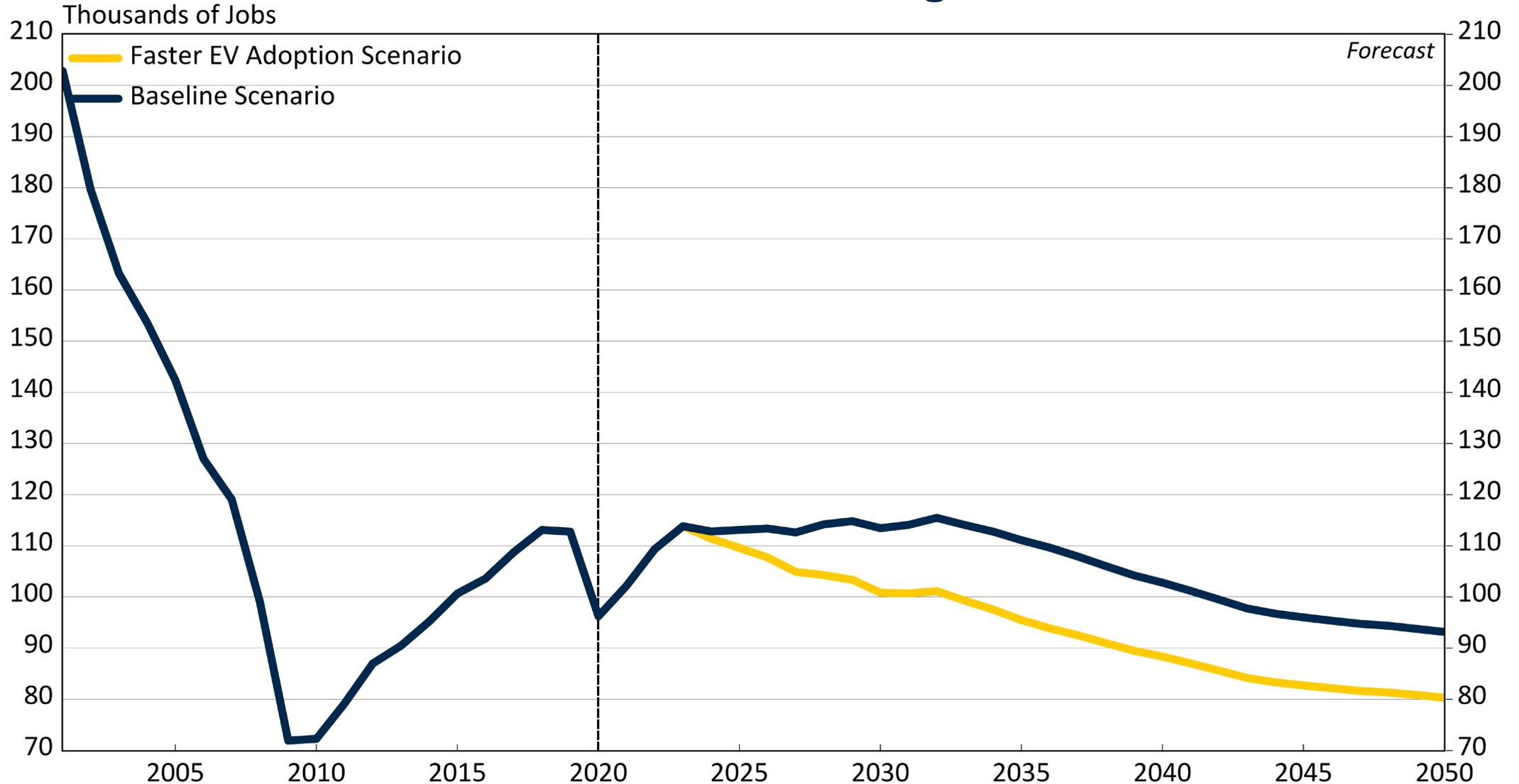


Total Population in Southeast Michigan

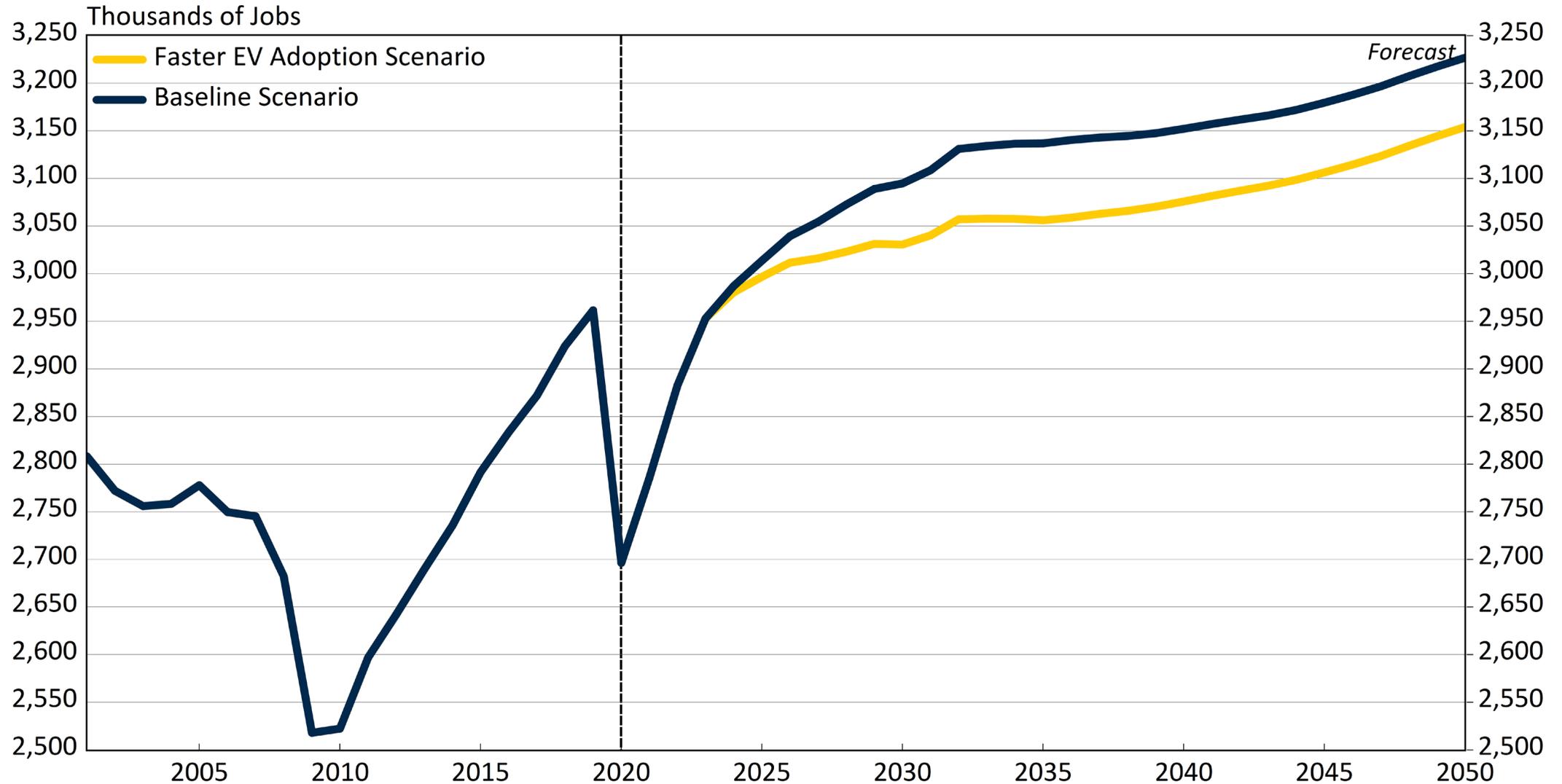


Faster EV Adoption Scenario

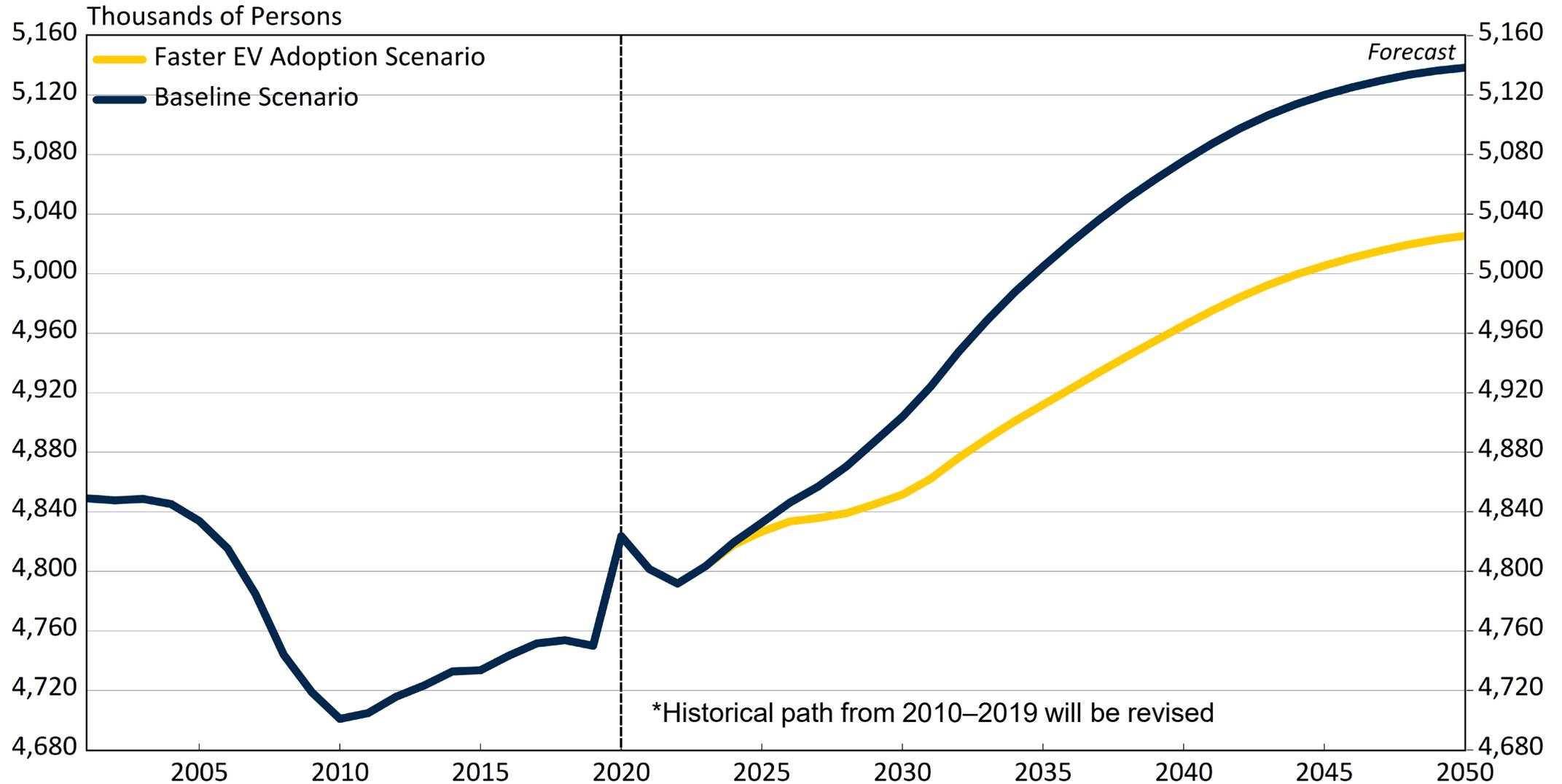
Employment in Motor Vehicle, Bodies, and Parts Manufacturing in Southeast Michigan



Total Employment in Southeast Michigan

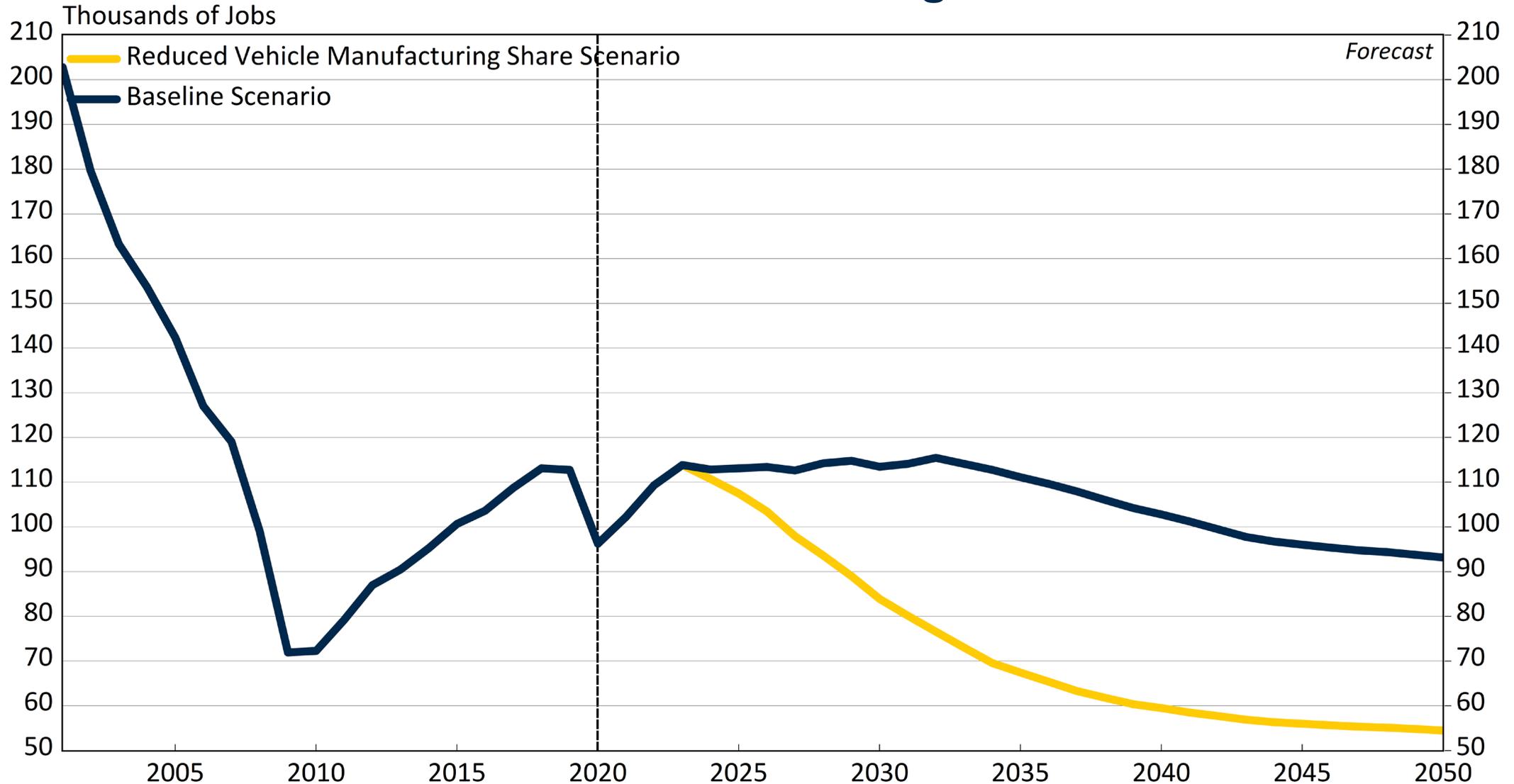


Total Population in Southeast Michigan

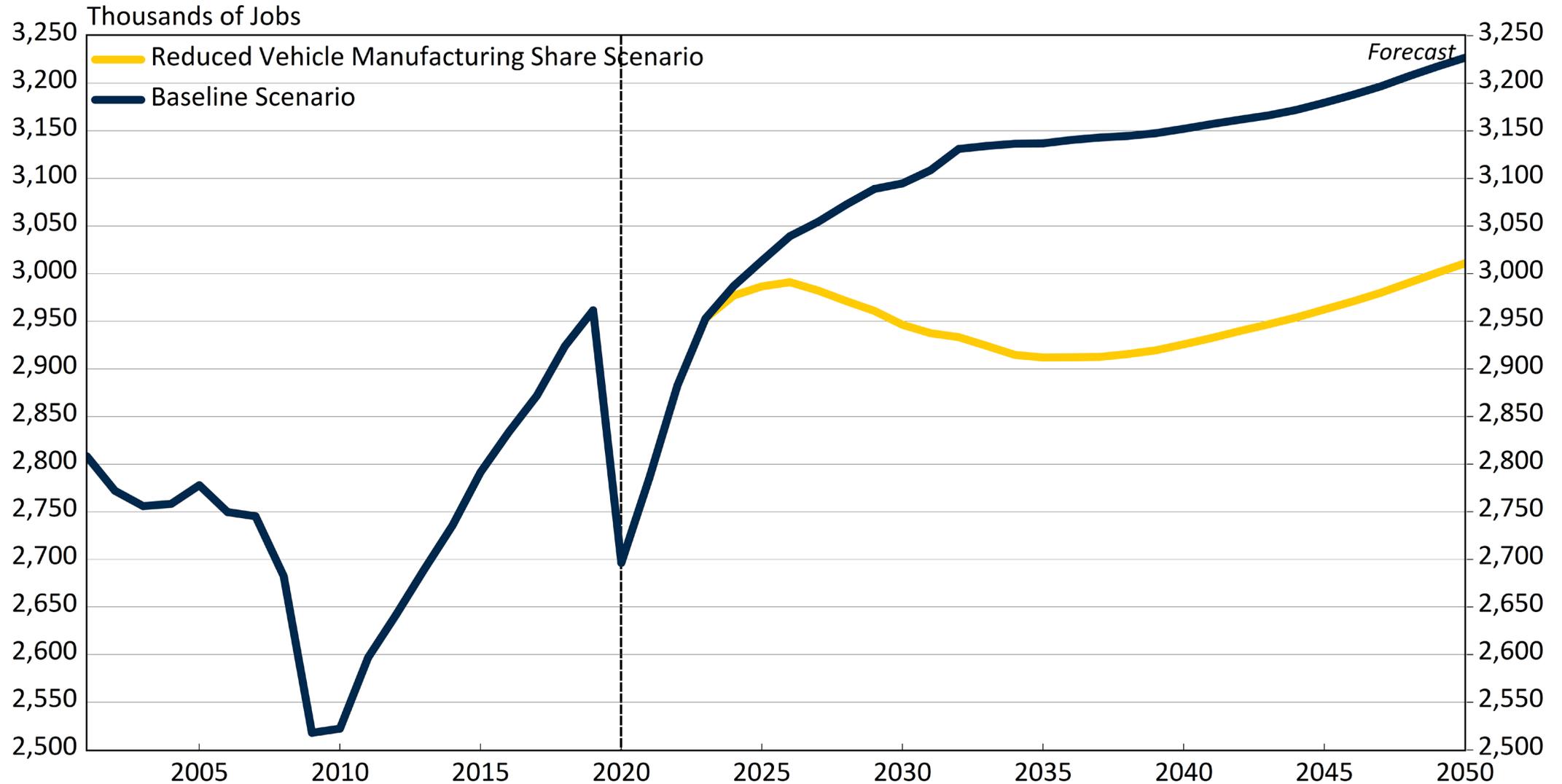


Faster EV Adoption and Reduced Vehicle Manufacturing Share Scenario

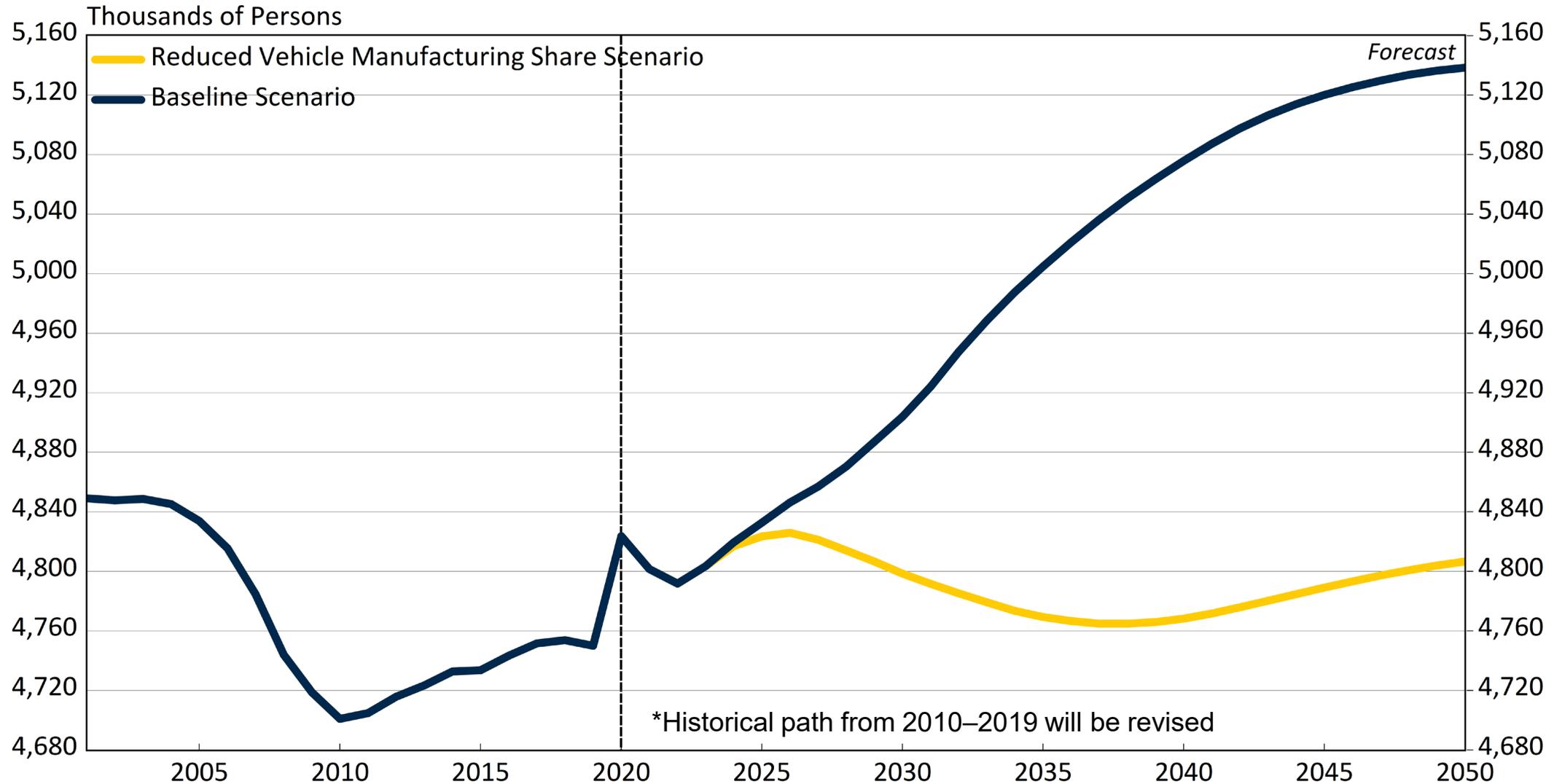
Employment in Motor Vehicle, Bodies, and Parts Manufacturing in Southeast Michigan



Total Employment in Southeast Michigan



Total Population in Southeast Michigan





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SAVE THE DATE!

The 70th Annual Economic Outlook Conference will take place on November 17–18, 2022 in Ann Arbor. The conference will feature RSQE's forecasts of the U.S. and Michigan economies plus a range of leading speakers from government, academia, and the private sector.

For more information: lsa.umich.edu/econ/rsqe

For Sponsorship information email: cedunn@umich.edu

