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
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.
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
Southeast Michigan (SEMCOG) Baseline Forecast
Southeast Michigan’s Share of U.S. Real GDP

Forecast

Percent

2005 2010 2015 2020 2025 2030 2035 2040 2045 2050

RSQE: October 2022
Southeast Michigan’s Population

*Historical path from 2010–2019 will be revised

RSQE: October 2022
Southeast Michigan’s Share of U.S. Population

*Historical path from 2010–2019 will be revised
Components of Southeast Michigan’s Population Growth

*Domestic Migration 64 and Less in 2020 is not shown because it includes an adjustment to target the 2020 Census population count.
Southeast Michigan’s Employment Growth by Selected Industry Groups

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

*Domestic Migration in 2020 is not shown because it includes an adjustment to target the 2020 Census population count.
Total Population in Southeast Michigan

*Historical path from 2010–2019 will be revised
Total Employment in Southeast Michigan

Thousands of Jobs

- Reduced International Migration Scenario
- Baseline Scenario

RSQE: October 2022
Total Employment in Southeast Michigan

- **Faster Professional Services Growth Scenario**
- **Baseline Scenario**

Thousands of Jobs

- Forecast: 3,350
- 2022: 3,000
- 2025: 3,100
- 2030: 3,200
- 2035: 3,300
- 2040: 3,400
- 2045: 3,500
- 2050: 3,600

RSQE: October 2022
Total Population in Southeast Michigan

Thousands of Persons

- Faster Professional Services Growth Scenario
- Baseline Scenario

*Historical path from 2010–2019 will be revised

RSQE: October 2022
Faster EV Adoption Scenario
Total Population in Southeast Michigan

- Historical path from 2010–2019 will be revised.
Faster EV Adoption and Reduced Vehicle Manufacturing Share Scenario
Total Population in Southeast Michigan

*Historical path from 2010–2019 will be revised

RSQE: October 2022
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