

Developing Regional Solutions



SEMCOG

Southeast Michigan Council of Governments

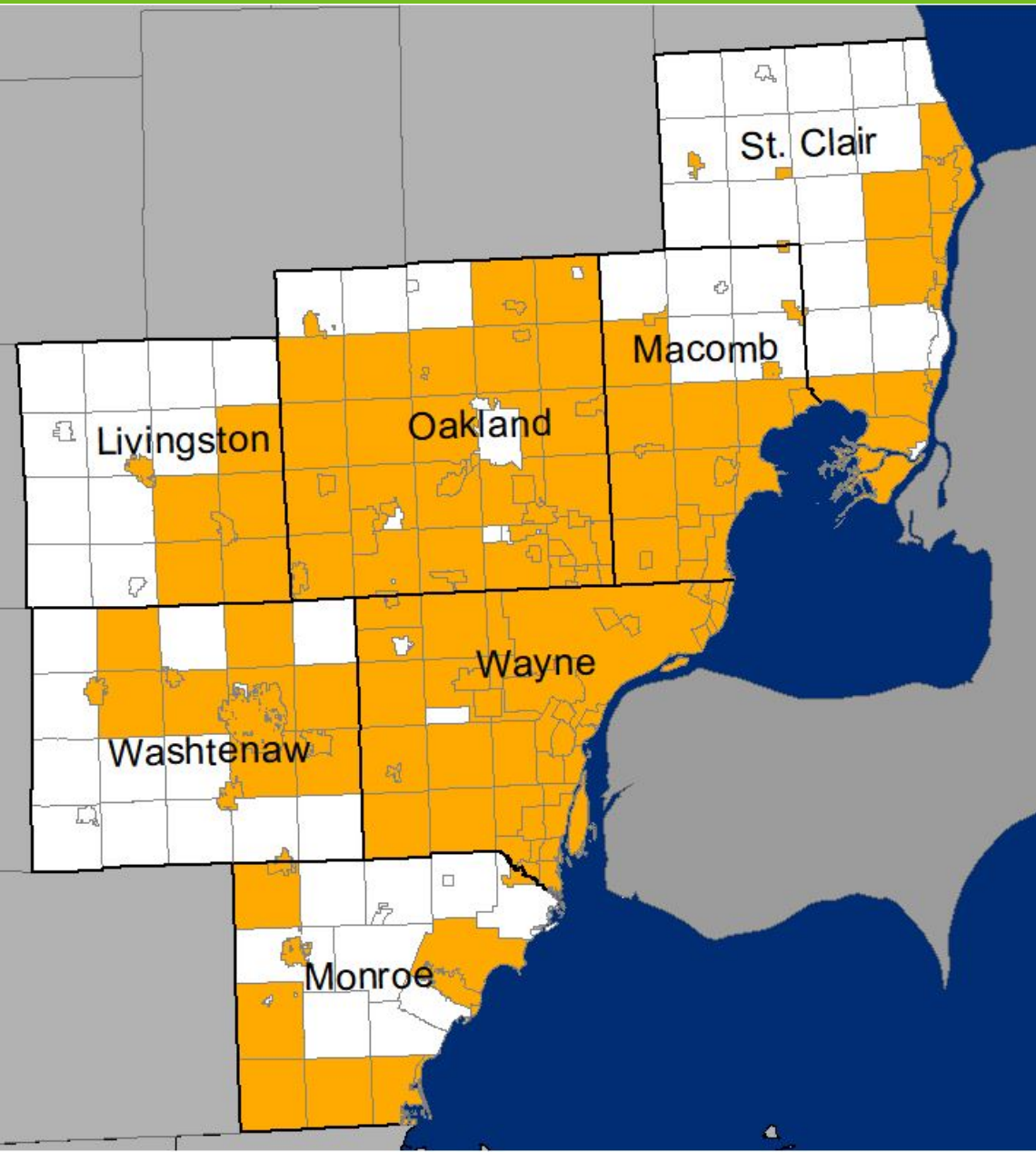
Developing Regional Solutions



Southeast Michigan and the US/Canada International Border

Presentation to
Eastern Border Transportation Coalition
October 2, 2019

SEMCOG Region



171 Total Members

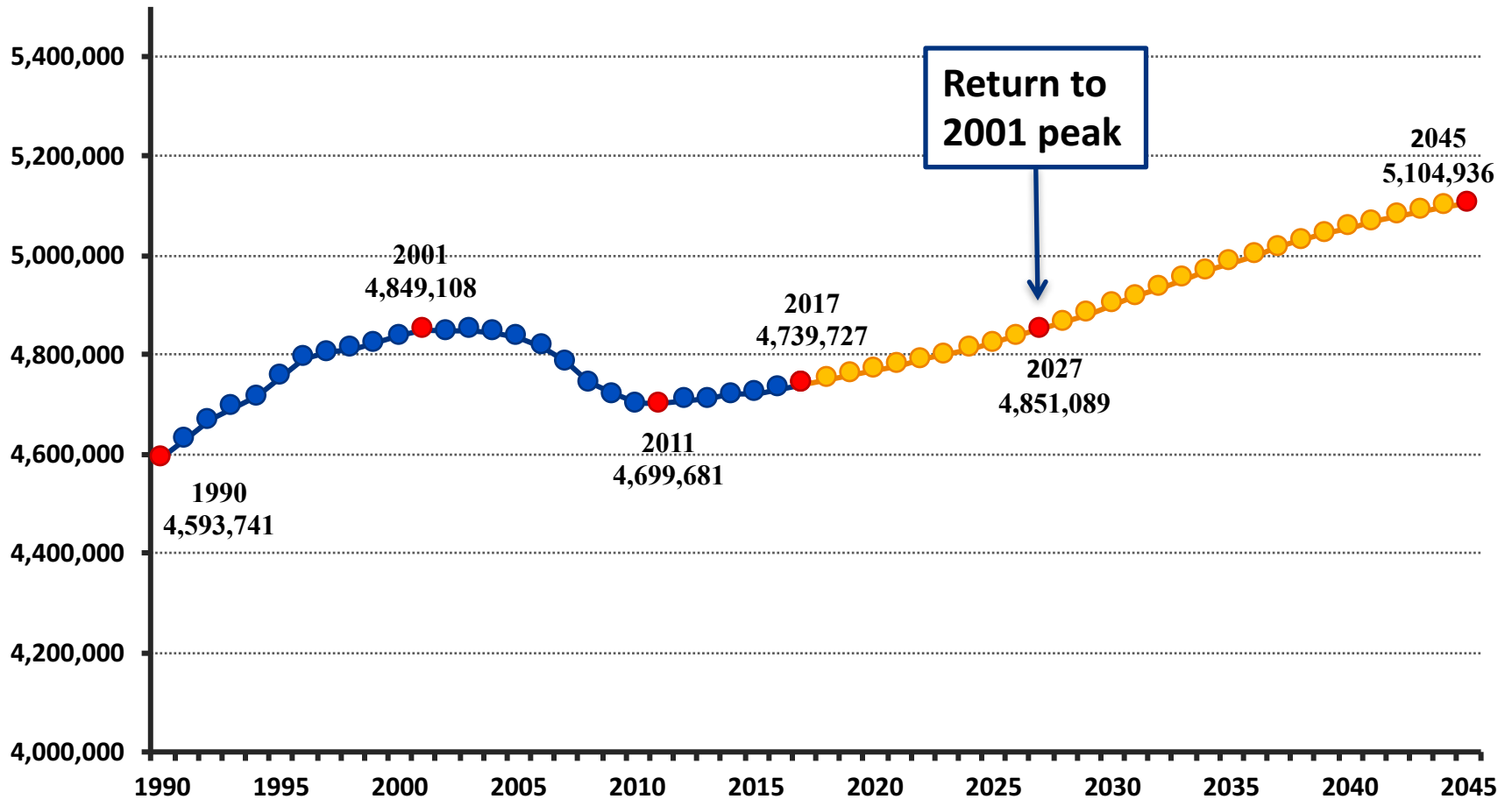
Including Education Members:

- Livingston Educational Service Agency
- Macomb Community College
- Macomb Intermediate School District
- Monroe County Community College
- Monroe County Intermediate School District
- Oakland Schools
- Schoolcraft College
- Washtenaw Community College
- Washtenaw Intermediate School District
- Wayne County Community College District
- Wayne County Regional Education Service Agency

2045 Regional Forecast

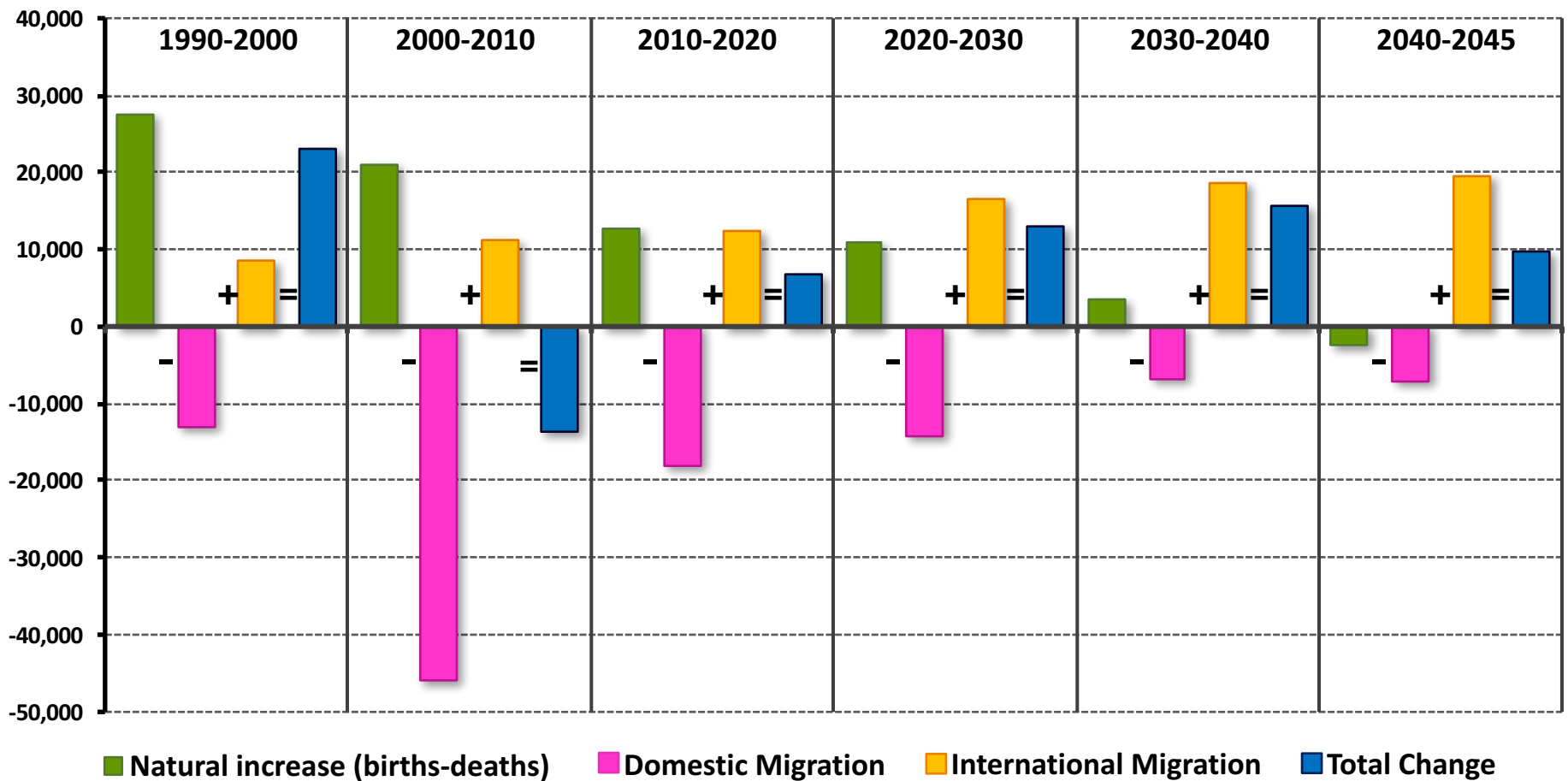
Population Will Grow Modestly

Southeast Michigan, 1990-2045



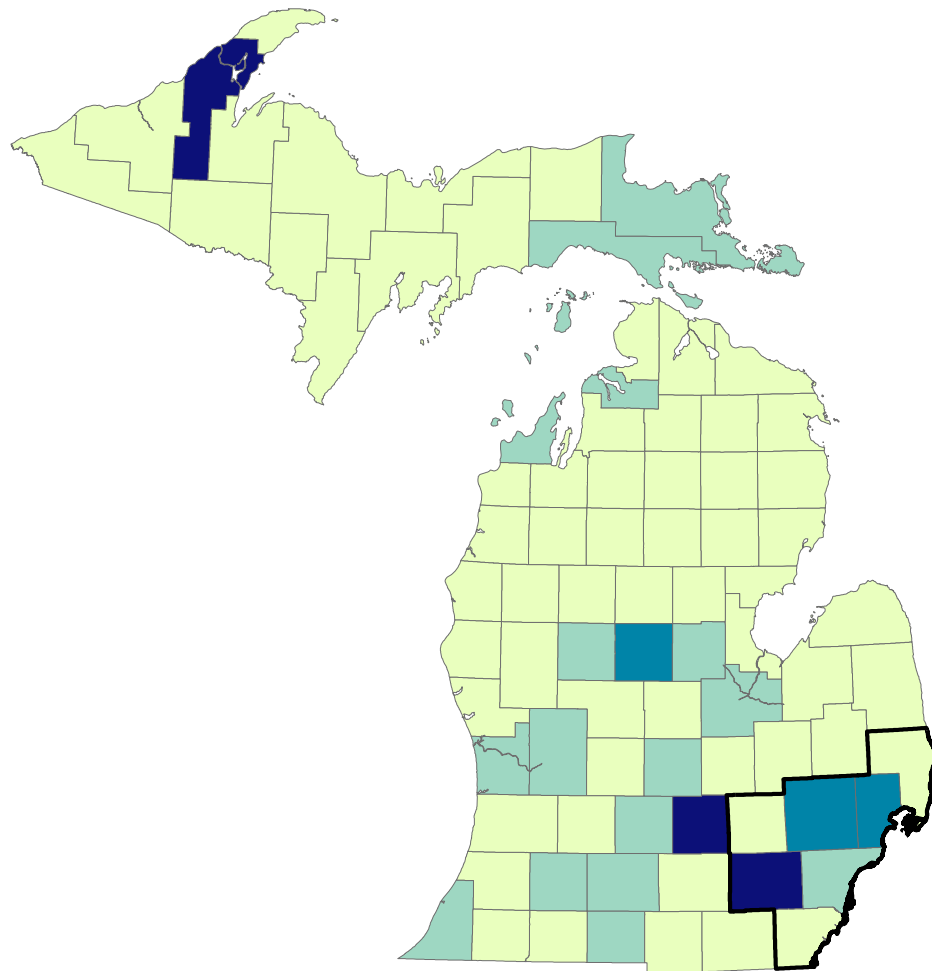
Change of Population Components

Annual Average, Southeast Michigan



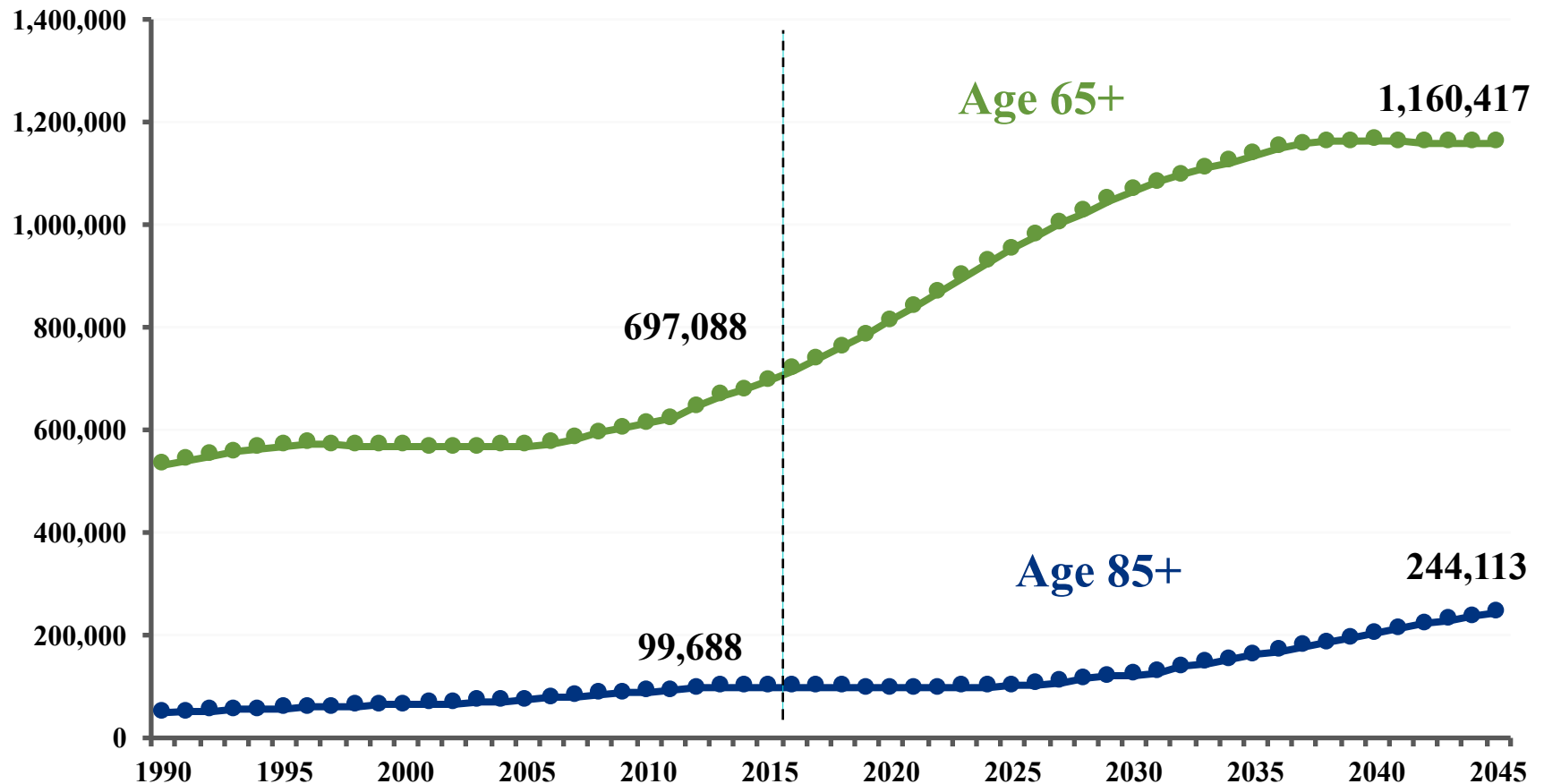
Rate of International Immigration

Counties in Michigan, 2015-2016



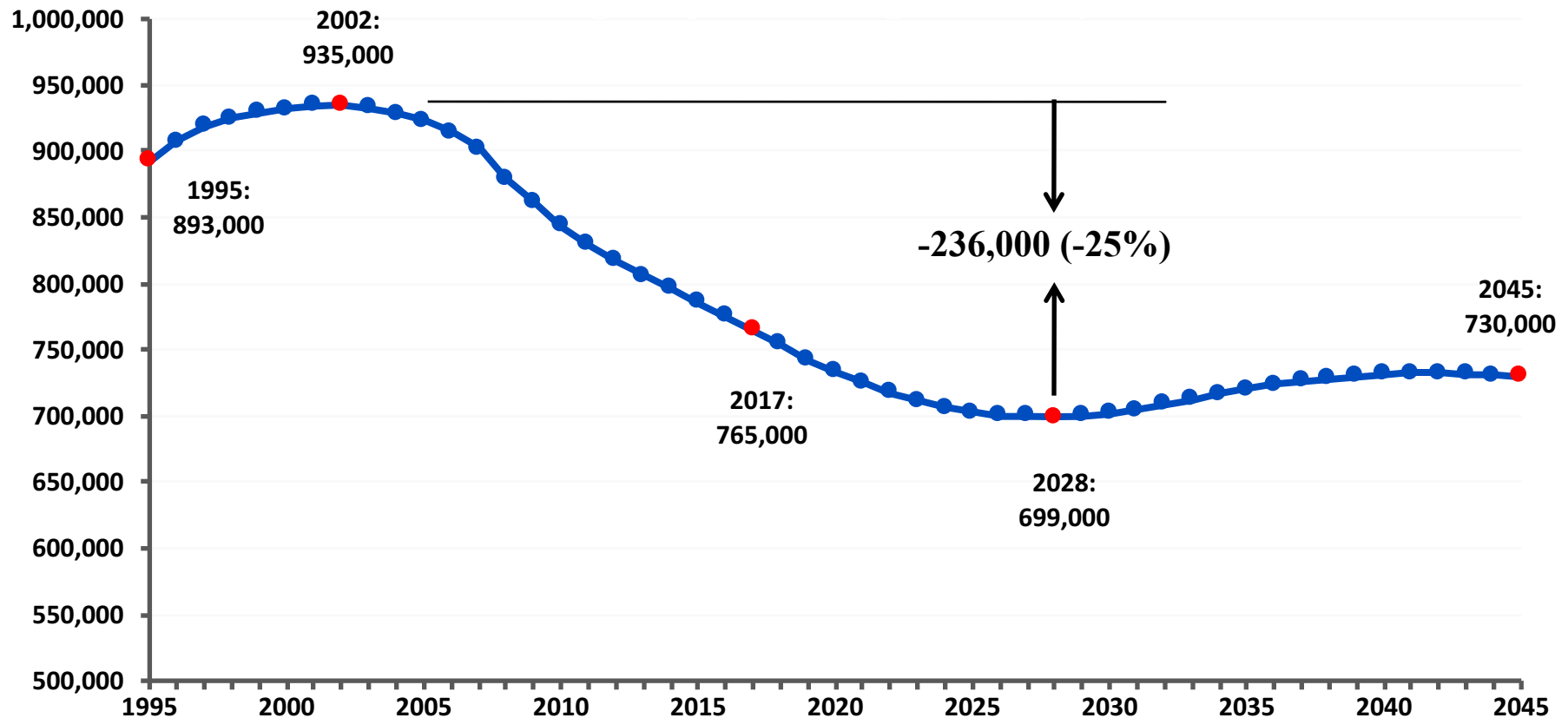
Rapid Growth of Senior Population

Southeast Michigan, 1990-2045



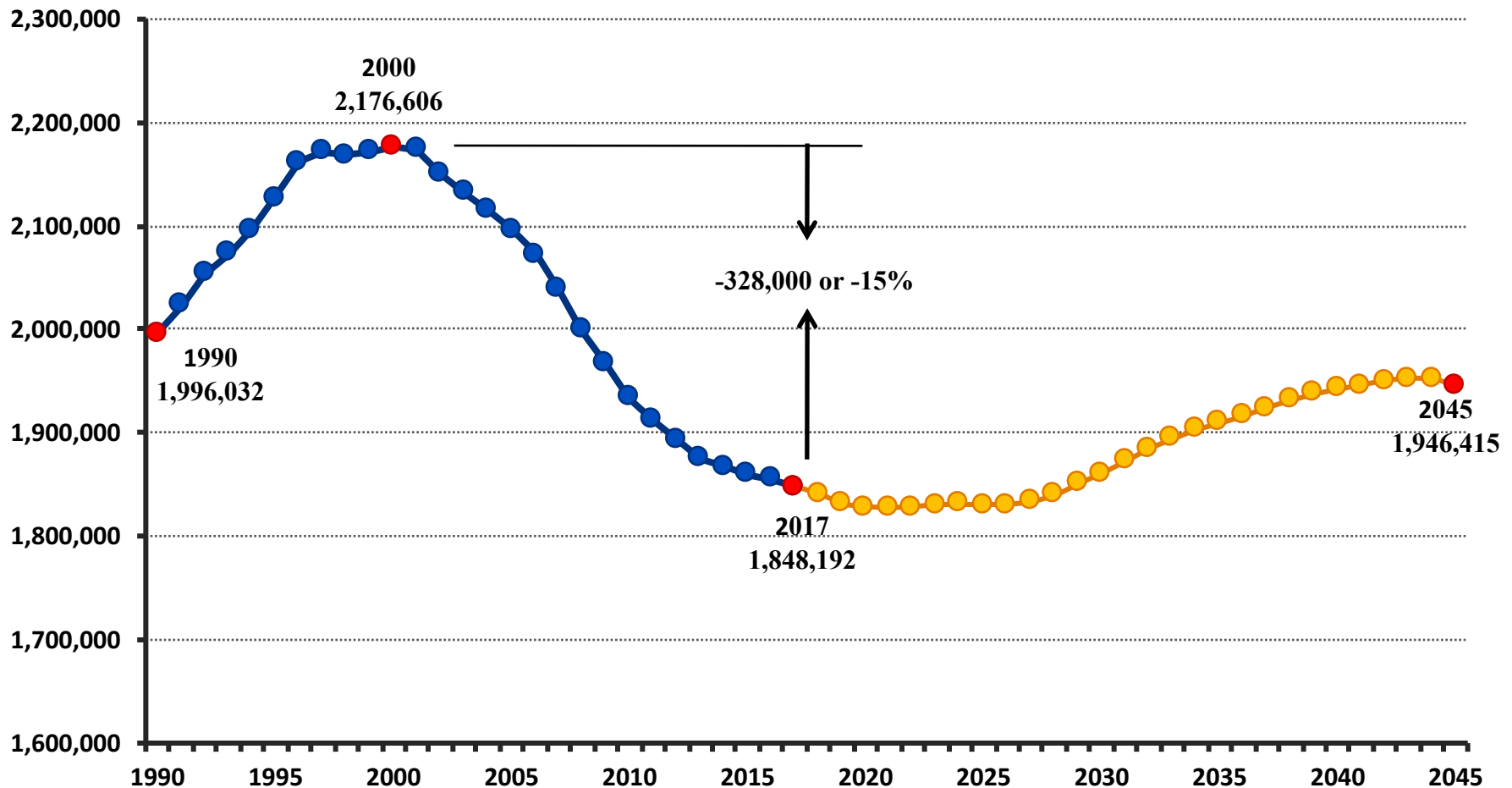
Declining School Age Population

Age 5-17, Southeast Michigan, 1995-2045



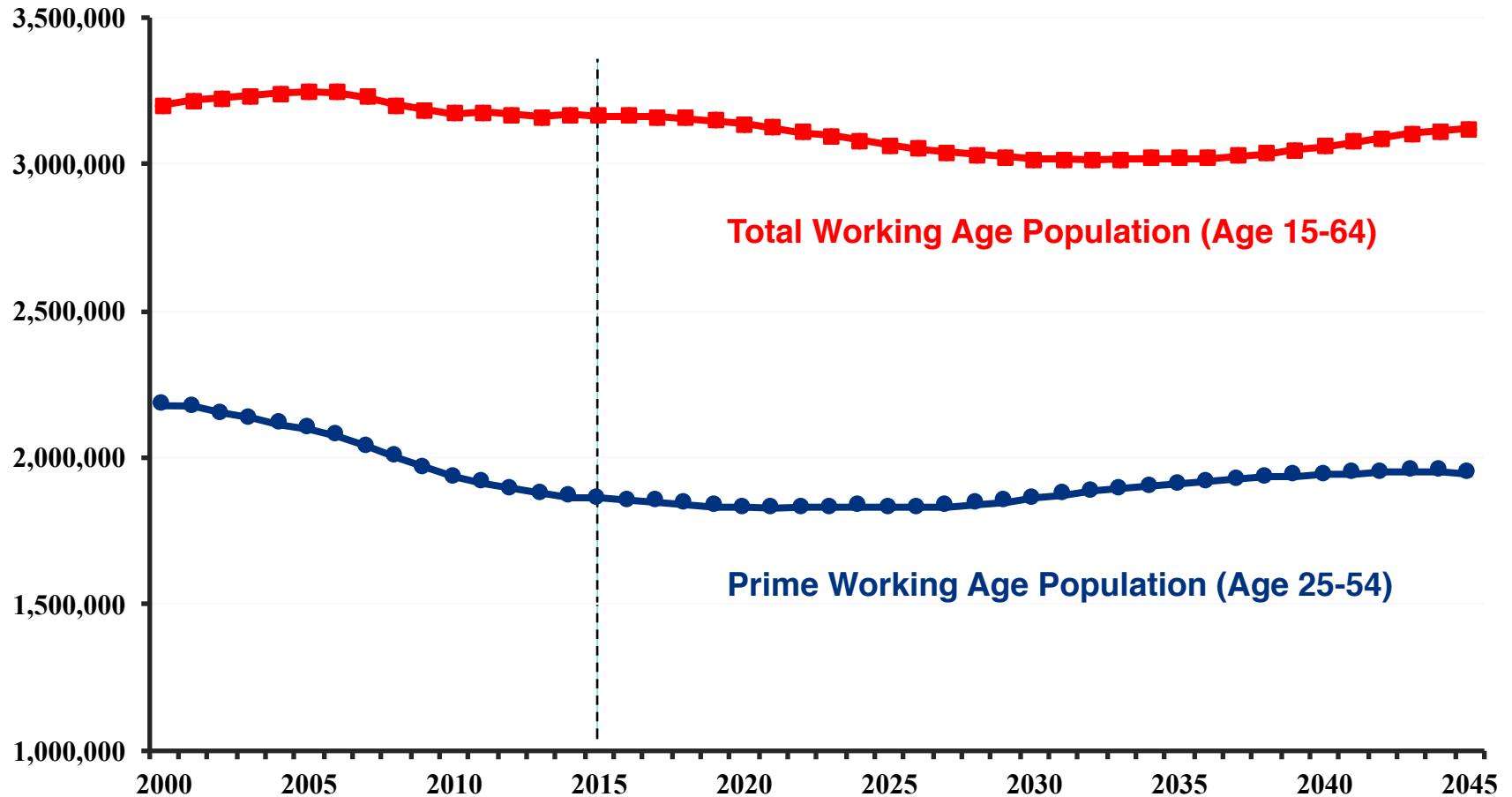
Declining Prime Working Age Population

Age 25-54, Southeast Michigan, 1990-2045



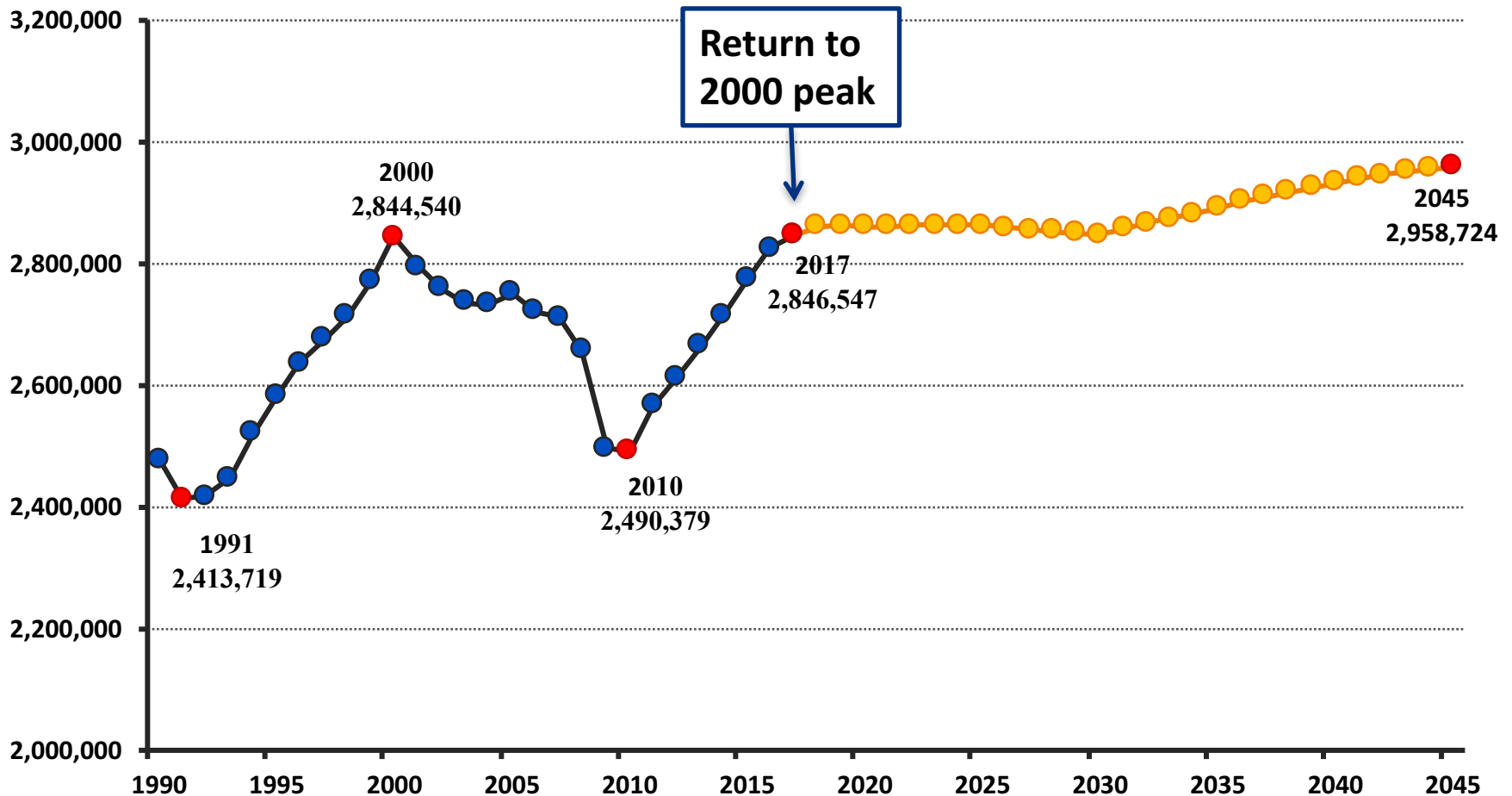
Declining Working Age Population

Southeast Michigan, 2000-2045



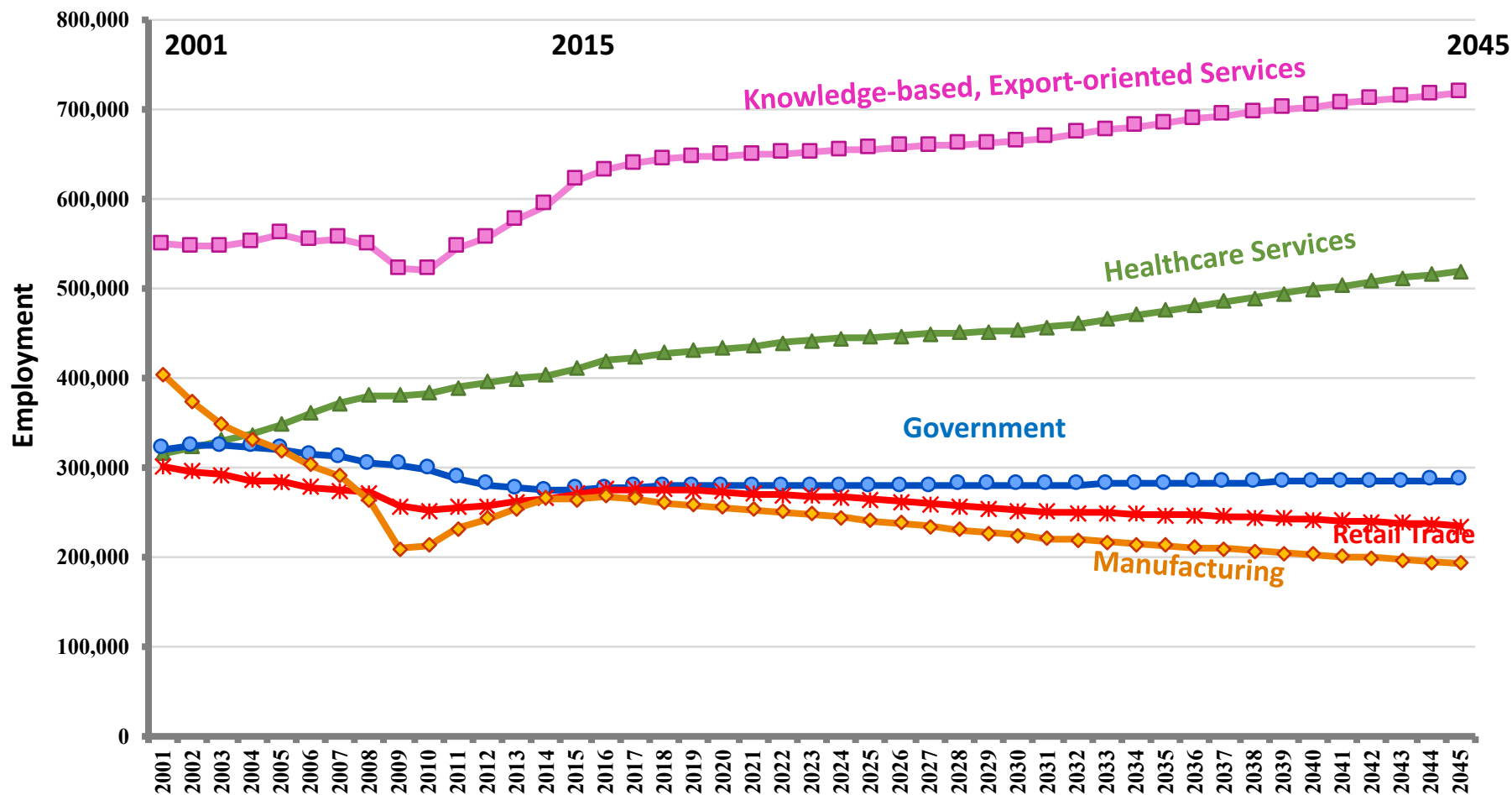
Modest Employment Growth

Constrained by Labor Force



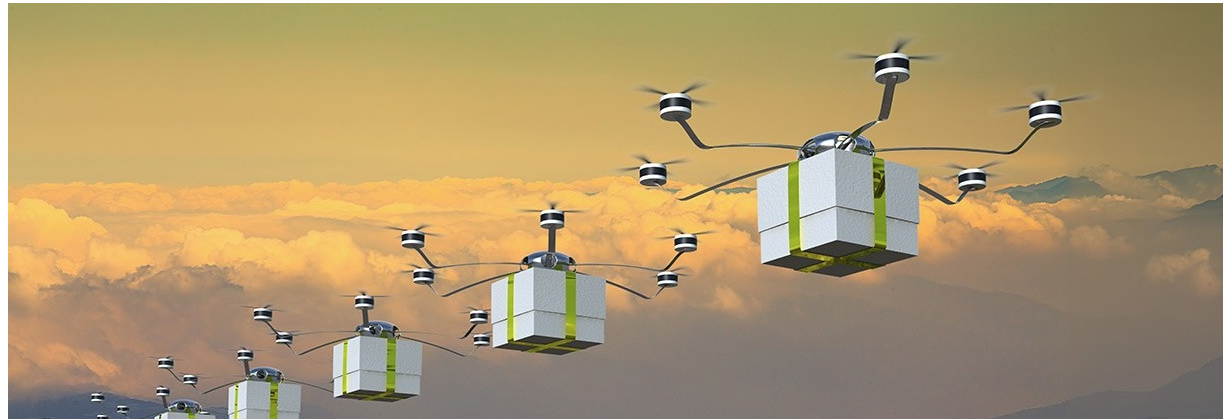
Jobs by Major Sector

Southeast Michigan, 2001-2045



Higher Productivity with Technology

But fewer jobs in some industries



Macy's to close 4 stores, cut 335 jobs in Michigan

The department store chain plans to close 100 stores across the country in a cost-cutting move.

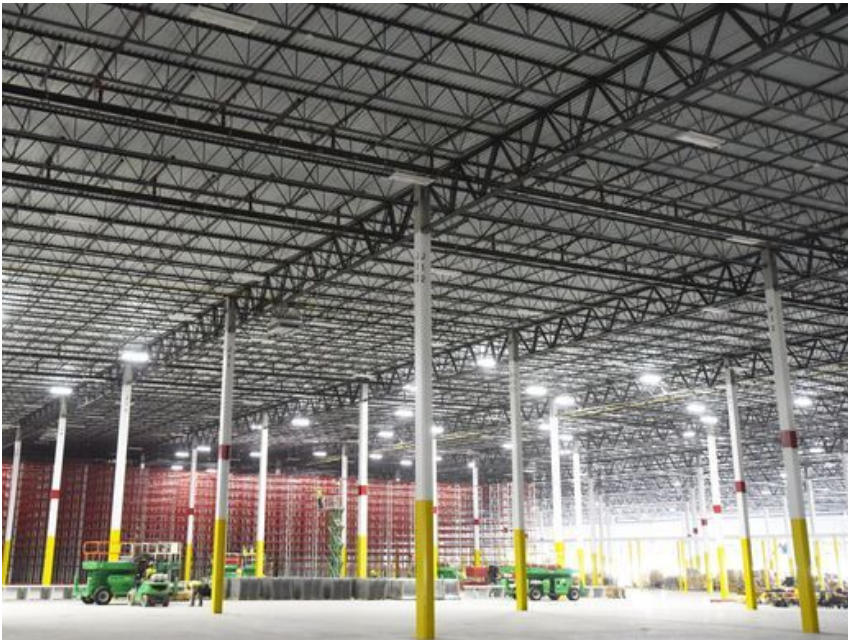


10 Kmart stores, 1 Sears location in Michigan to close

The closings include the Garden City location — the retailer's very first Kmart store — as the parent company seeks to stem long-term decline.

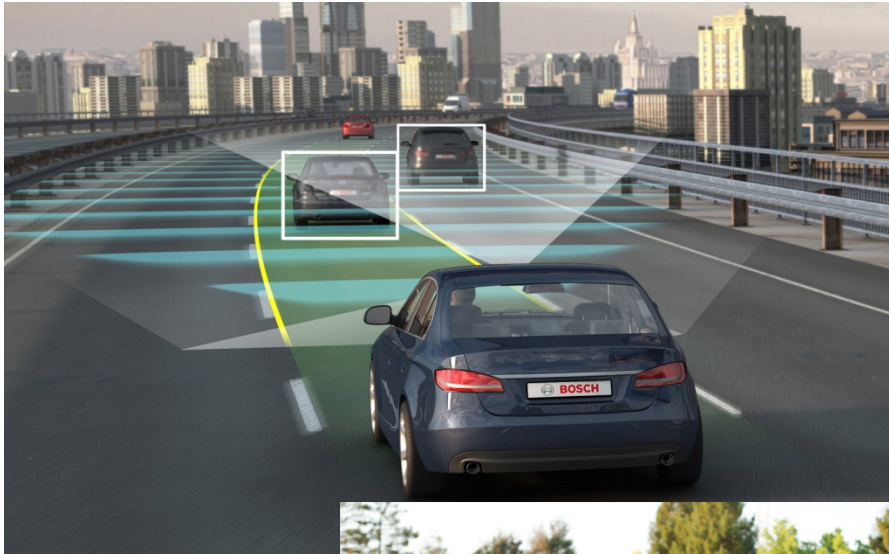
Amazon's "Fulfillment Centers"

In Southeast Michigan



Future Mobility

Opportunity and Challenge for Michigan



Autonomous
and
Sharing



Mcity: A 32-Acre Outdoor Lab



Mcity is the world's first full-scale simulated urban environment designed expressly for testing the performance and safety of connected, automated, and autonomous vehicles under controlled and realistic road conditions. It is a 32-acre outdoor laboratory for advanced mobility systems that includes:

- Urban and suburban streets, including various lane configurations and sidewalks, pedestrian crossings, bike lanes, ADA ramps, street lights, parallel and diagonal parking, and a bus turnoff/stop.
- Instrumentation throughout, including a control network to collect data about traffic activity using wireless, fiber optics, Ethernet, and a highly accurate real-time kinematic positioning system.

Other features include:

Straight gravel roadway with a railroad crossing.

Traffic circle, a smaller version of a roundabout that is common in Europe and some older cities in the U.S.

Signalized intersections in different configurations, with mast arms, wood and metal poles, and pedestrian crossings.

Trunk line road, a rural roadway with a fully equipped railroad crossing, guard rail, and temporary and permanent pavement markings.

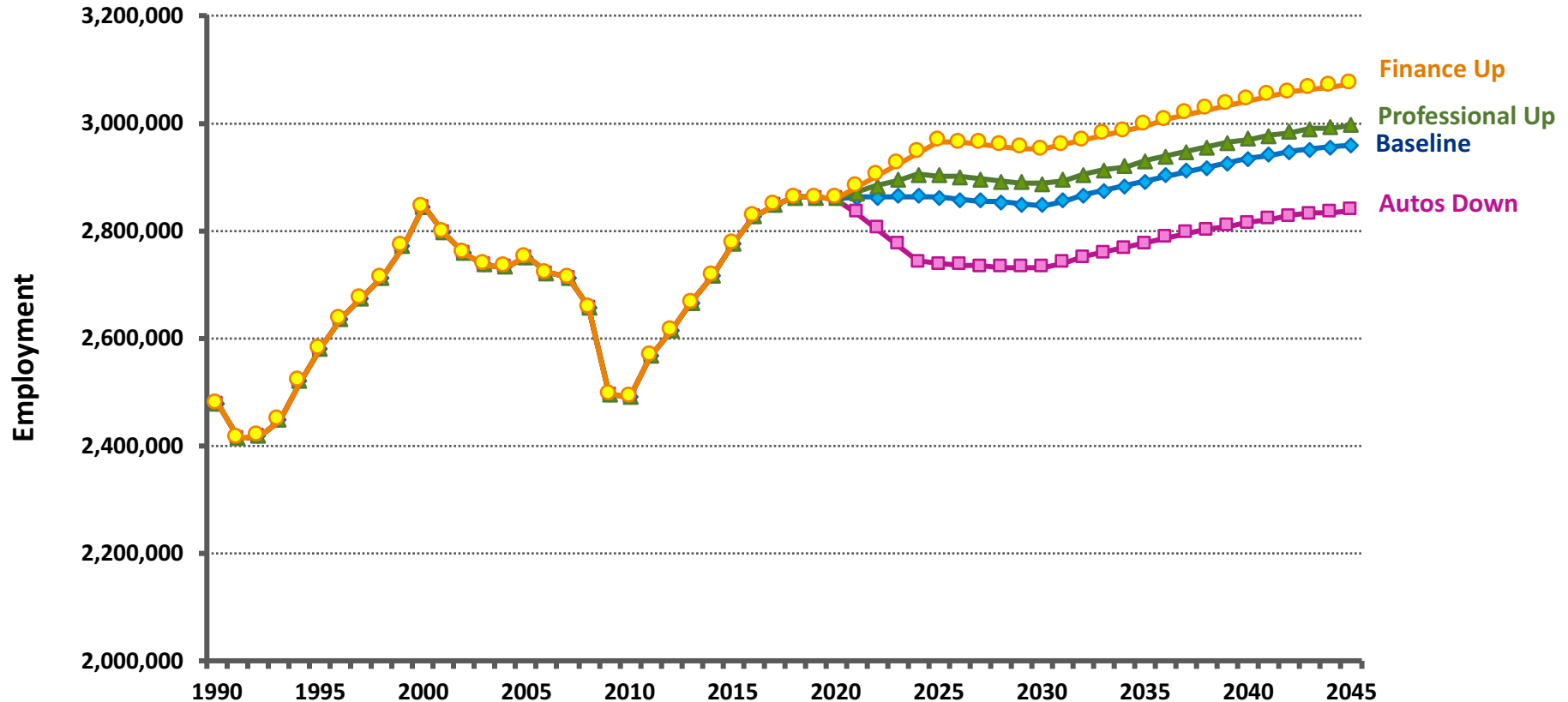
Brick paver road simulated with stamped concrete.

Underpass, simulated by a tunnel that blocks vehicles from wireless and satellite signals.

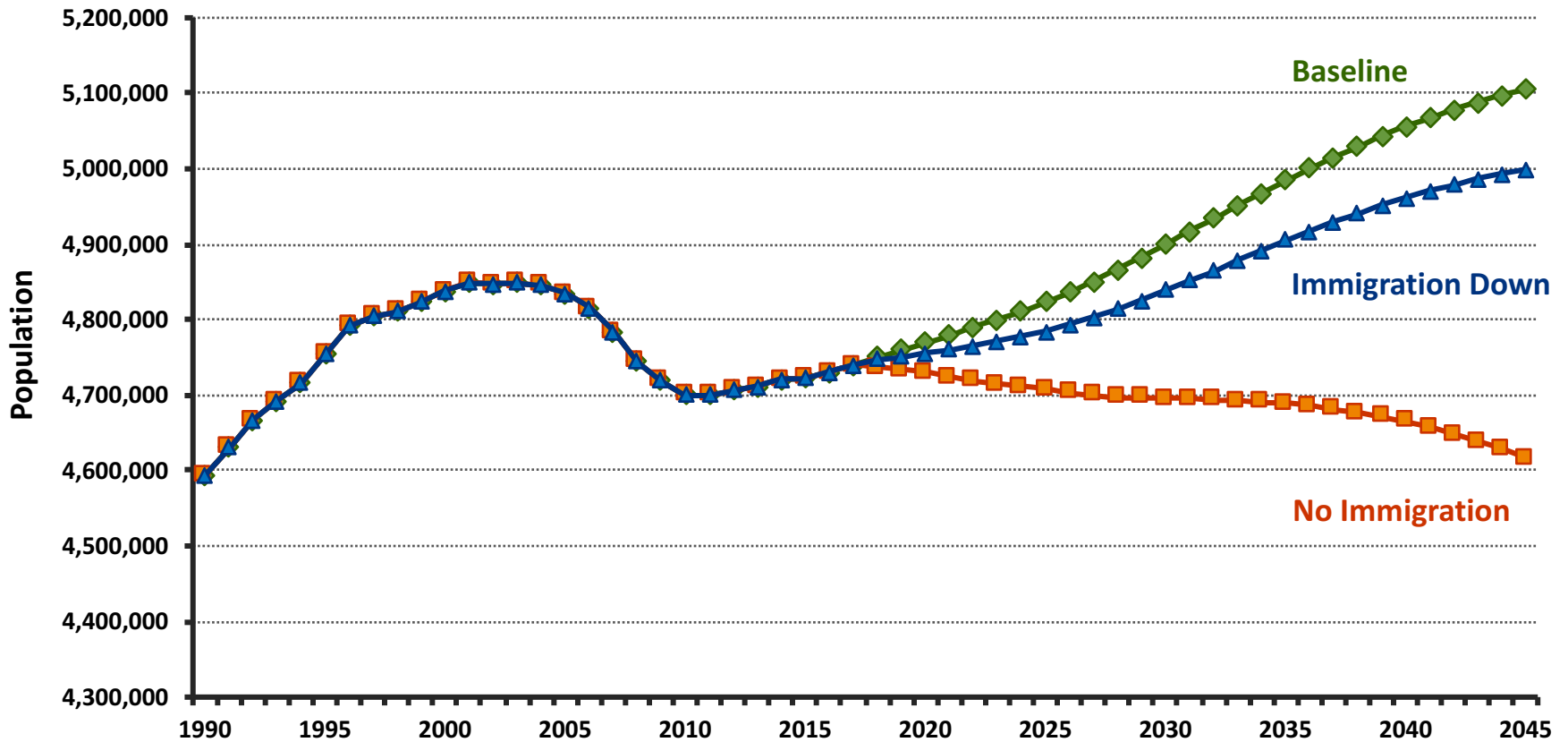
Roundabout, an increasingly common approach to intersection design intended to improve safety.



Alternative Economic Forecasts

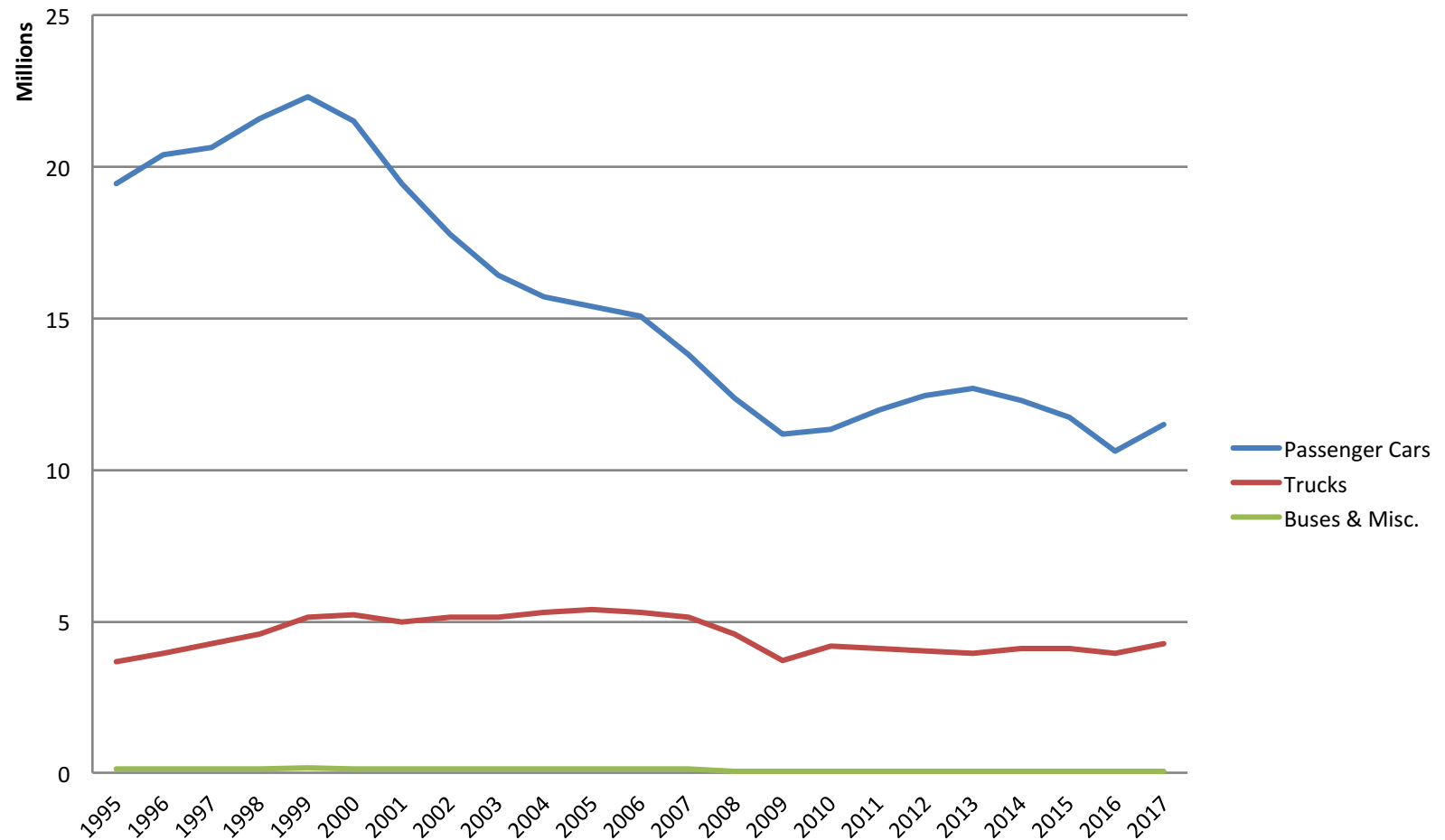


Alternative Demographic Forecast



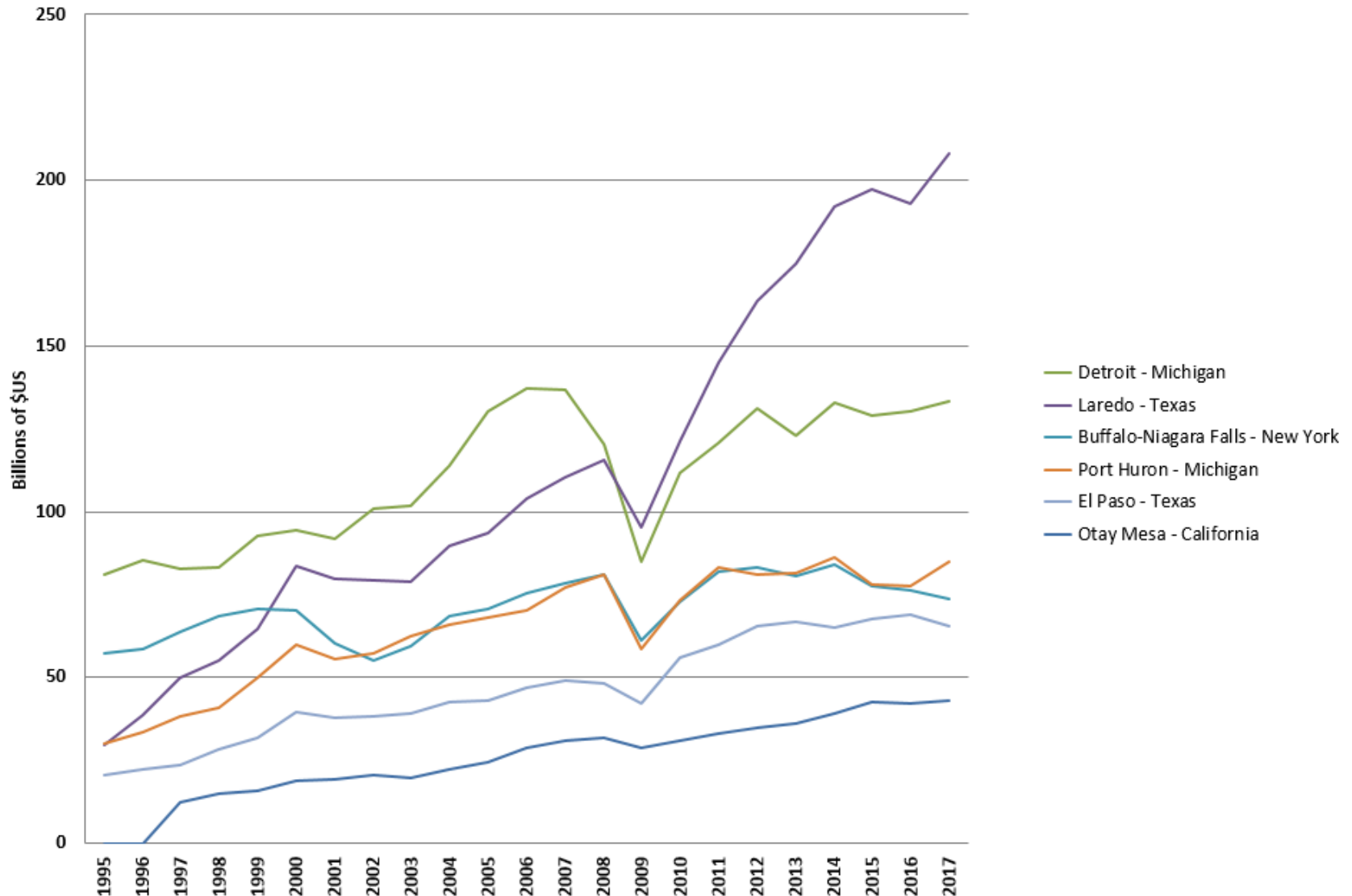
US/Canada Border Implications

SE Michigan/SW Ontario Crossing Volumes

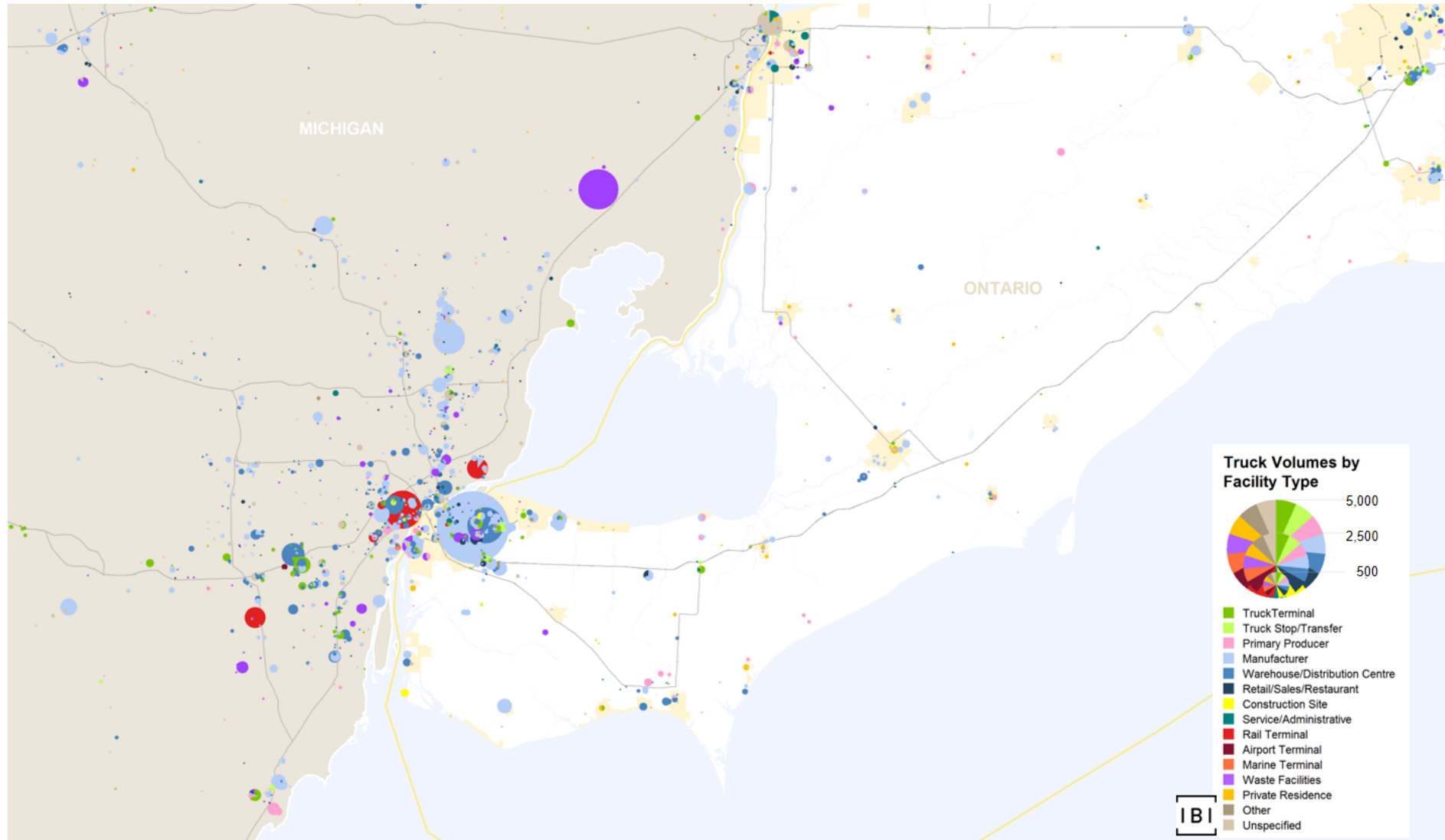


Top North America Land Border Trade Crossings

Total Annual Trade for Selected NAFTA Border Crossings



Border Crossing Generators (MTO, 2015)



Strengths and Opportunities

- Economic and social ties
- Canadian investment
- Knowledge corridor (Chi-Det-GTA)
 - Passenger rail
- Maritime cargo

Sources of Uncertainty

- Trade
 - Tariffs
 - Shift of assembly to Mexico
- Immigration
- US posture
 - Openness
 - Investment (facilities and staff)
- Technology

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