

INDICATOR: TRANSPORTATION TRENDS IN SOUTHEAST MICHIGAN

Background

In the 1950s, people began moving out of the city of Detroit with the ease of owning an automobile. This pattern of people moving out of the city to the surrounding suburbs created a longer commute. The greater number of people driving to work every morning creates an environmental stressor with additional road construction, air pollution, and the overuse of natural resources, such as petroleum (Figure 1). Before the 1950s many people in Detroit walked or rode the bus to work. In 2004 the southeast Michigan transportation system had a total of:



Figure 1. I-75 photo taken from the bridge on Ferry Street in Detroit, MI (Photo credit: Southeast Michigan Council of Governments).

- 4 million registered vehicles;
- 36,693 kilometers (22,800 miles) of public, state and county roads;
- 164,900 automobile accidents;
- 1,156 kilometers (718 miles) of pedestrian and bicycle pathways;
- six marine ports;
- 30 airports;
- 1,473 kilometers (915 miles) of active rail; and
- 3,560 bridges (SEMCOG 2004).

Status and Trends

In general, travel time to work and the distance to work have increased, and personal vehicle use (instead of mass transit) has increased for southeast Michigan. The population trends from this area, viewed in the Human Population Trends and Distribution in Southeast Michigan

indicator report, should be taken into account when viewing these travel transportation data. As the suburban population increases, commuter time will also increase. From 1980 to 2000, residents of southeast Michigan continued to make longer commutes to get to their workplace and the distance traveled to work increased (Figure 2).

The number of people driving personal vehicles (i.e., cars, trucks, and vans) to work has nearly doubled between 1960 and 2000 (Figure 3). Not only is it taking more time to drive to the workplace, residents are more often driving alone. In 1980, approximately 1.7 million people drove to work alone. Ten years later, over 1.9 million people drove to work alone (U.S. Census Bureau). This means that in 10 years, approximately 200,000 more people were driving to work alone in southeast Michigan, increasing air pollution and traffic congestion.



Figure 2. Mean travel time to work in southeast Michigan, 1980-2000, U.S. Census Bureau.

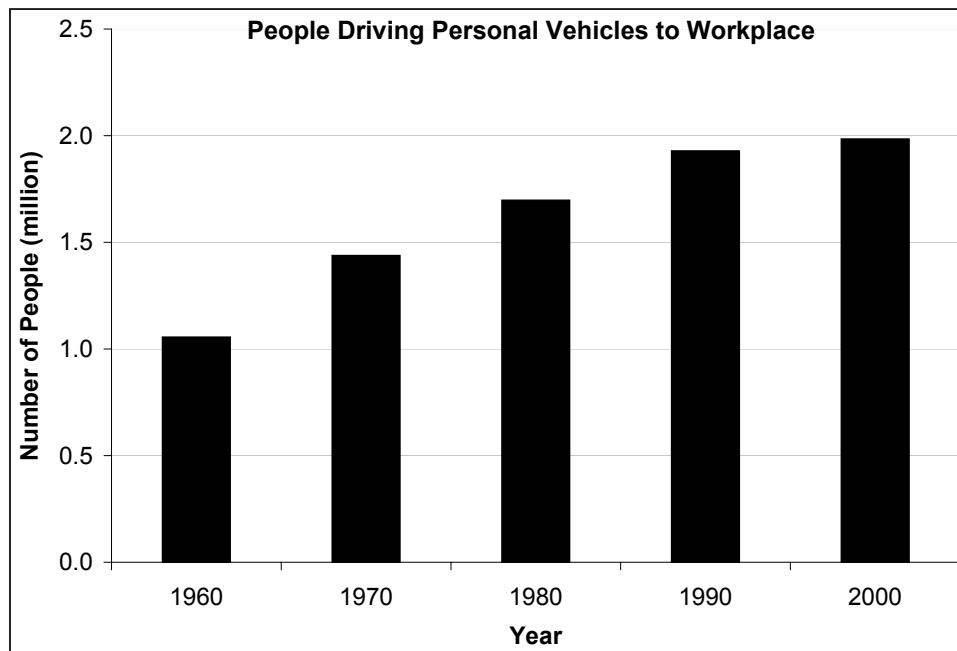


Figure 3. Number of people driving personal vehicles to work in southeast Michigan, 1960-2000, U.S. Census Bureau.

In contrast, the use of mass transit has greatly decreased (Figure 4). This trend is likely due to economics and limited availability and reliability of a mass transit system. In the greater Detroit area there is currently no widespread, easy-to-use, and reliable mass transit system.

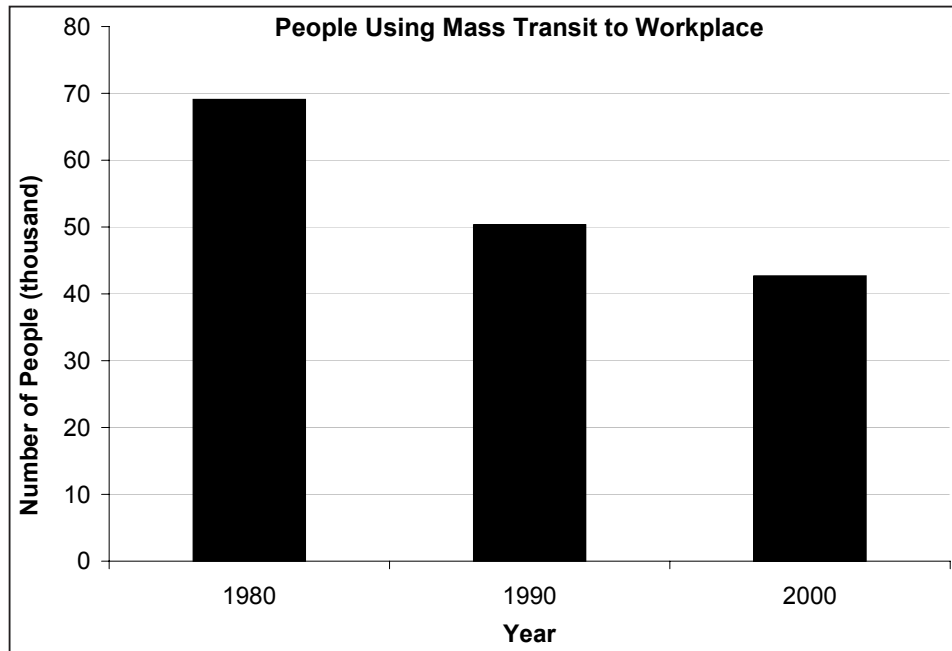


Figure 4. Number of people who use mass transit to get to work in southeast Michigan, 1980-2000, U.S. Census Bureau.

Management Next Steps

Southeast Michigan Council of Governments (SEMCOG 2004) forecasts that by 2030, there will be a 12% increase in population, 21% increase in households, and 16% increase in jobs. Roads and bridges throughout southeast Michigan are going to continue to age and deteriorate. In response, the region needs to continue to improve its regional transit system, emphasize the use of greenways, and increase carpooling (e.g., using the RideShare program organized by SEMCOG) to and from work throughout the region. Sharing a ride:

- cuts commuting costs;
- alleviates congestion by removing cars from the road;
- reduces stress; and
- improves air quality (SEMCOG 2005).

Forecasting models, such as the regional Travel Demand Forecasting Model (TDFM) implemented by SEMCOG, quantify the amount of travel expected to take place on the region's transportation system. Such models should be used by agencies and corporations to improve planning and management of our future transportation needs.

Greater emphasis needs to be placed on providing an effective mass transit system that is reliable, safe, accessible, and cost-effective. More people need to be encouraged to take public transit, or walk or bike to work. Mass transit systems should be increased, especially between cities such as Ann Arbor and Detroit, and other lines coming into Detroit from the north and south. Improved mass transit will:

- help keep the region economically competitive;

- provide a higher quality of life;
- help alleviate road congestion;
- help lessen air pollution and improve air quality; and
- serve those who cannot or choose not to drive (SEMCOG 2004).

Distinct transportation policies and initiatives designed to guide further progress toward stated goals and objectives, and ultimately enhance our regional transportation system, are set out in the *2030 Regional Transportation Plan (RTP) for Southeast Michigan* (SEMCOG 2004). The policies, initiatives, and projects outlined in the 2030 RTP comprise an aggressive, long-range vision for the region. A regional traffic operations committee should be established to oversee all activities designed to increase efficiency of the road network. No single agency can be responsible for implementing this vision; it requires coordination among many agencies, government units, special interest groups, and the general public (SEMCOG 2004). SEMCOG is responsible for bringing these parties together and making sure the RTP is implemented. The public should be kept informed about the progress of the RTP, which should be reviewed and updated in response to changing priorities.

Research/Monitoring Needs

Studies should be conducted on the environmental effects of southeast Michigan travel trends such as:

- monitoring changes in air pollution;
- monitoring noise pollution;
- fossil fuel consumption;
- habitat fragmentation; and
- road construction.

SEMCOG should continue to expand research on home-to-work commutes in southeast Michigan. Current data should be used to improve models, such as the TDFM, to make them more efficient in predicting estimated passengers on new routes, riders on new rapid transit lines, or responses to certain travel demand management policies (i.e., imposing higher parking fees). There should be additional research on the environmental effects of different modes of transportation.

References

[SEMCOG] Southeast Michigan Council of Governments. 2004. *2030 Regional Transportation Plan for Southeast Michigan*. <http://www.semco.org/TranPlan/RTP/index.htm>

[SEMCOG] Southeast Michigan Council of Governments. 2005. Conserve energy... RideShare. SEMscope.

Links for More Information

Southeast Michigan Council of Governments: www.semcog.org

Planes and Trains, Part II: <http://www.mlui.org/growthmanagement/fullarticle.asp?fileid=17015>

Detroit Regional Chamber, Transportation Central: <http://www.detroitchamber.com/centrals/index.asp?id=139>

Michigan Department of Transportation: <http://www.michigan.gov/mdot/>

SEMSCOPE, One day in southeast Michigan: <http://www.semcog.org/Products/pdfs/SEMscopeSpring2006.pdf>

A citizens' guide to transportation planning in southeast Michigan: <http://www.semcog.org/Products/pdfs/citizensguide2005.pdf>

SEMCOG, RideShare Program: <http://www.semcog.org/Services/CommuterPrograms/RideShare/index.htm>

A Summary of the 2030 Regional Transportation Plan for Southeast Michigan: http://www.semcog.org/TranPlan/RTP/assets/2030RTP_summary.pdf

Contact Information

Jennifer Evans
SEMCOG, Transportation Coordinator
E-mail Address: evans@semcog.org