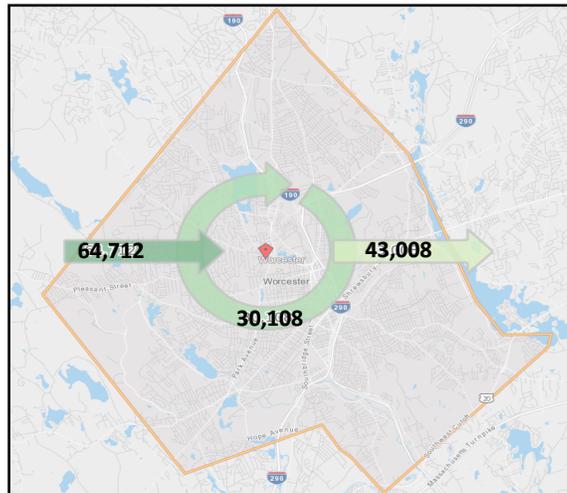


Worcester's Weekday Commute



Source: U.S. Census Bureau, Center for Economic Studies

Worcester's economic success derives from its importance as a transportation nexus. The north-south Blackstone Canal, connecting the city with Providence, Rhode Island, followed by the east-west rail connection to Boston, drove a commercial boom that was responsible for the community's early expansion and ensured Worcester's prominence during the Industrial Revolution. Worcester's accessibility made it a hub of industry, commerce, and people, expanding into the second largest city in New England.

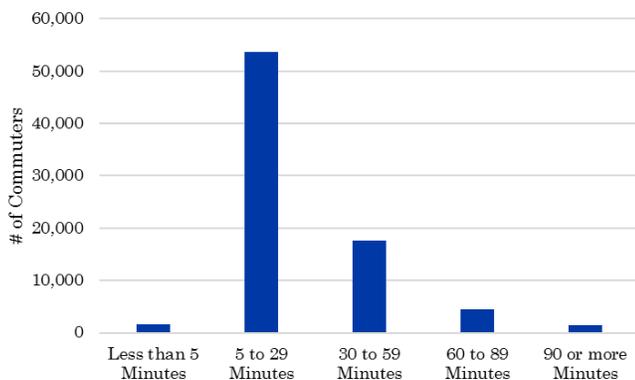
While the economic underpinnings of Worcester have changed, transportation remains as critical as ever. Of the nearly 100,000 jobs in the city, two-thirds, almost 65,000, are held by non-residents commuting into Worcester. More than 40,000 Worcester residents commute out of the city for employment. Limited transportation alternatives and time-consuming congestion would restrict Worcester's ability to draw new residents and businesses. In fact, while the city's location has not changed, its accessibility via various modes of travel has waxed and waned over time, notably by air and rail. With its growing might in higher education, medicine, and life sciences, Worcester is in an enviable position in the heart of the Commonwealth. Taking stock of the city's transportation needs and opportunities is critical to the city's, and the region's, continued rise.

Road

In Worcester, **72 percent of commuters travel to work alone by car, truck, or van, while 12 percent carpool**, according to the U.S. Census Bureau. While Worcester residents commute to work throughout Massachusetts and New England, the majority of residents—84 percent—work in Worcester or Worcester County. Around 2

percent of city residents commute out of state. Around **70 percent of Worcester residents have a commute time of less than 30 minutes**. Worcester commuters spend an average of 14 hours, or 5 percent of driving time, in traffic. Commuters headed east will find that number significantly increased; Boston commuters spend nearly 60 hours a year in traffic. In July 2015, the Central Massachusetts Regional Planning Commission (CMRPC) issued a wide-ranging report, Mobility2040, predicting both population (75,000 residents) and job growth (25,000 jobs) for the Greater Worcester region and warning that almost all parts of the four main interstate highways could suffer from significant traffic congestion by 2040.

Worcester Commute Times



Source: U.S. Census Bureau, 2016 5-year American Community Survey

Despite the automobile's popularity, the WRTA remains an important service to low-income residents of the city, with nearly **70 percent of respondents to an agency survey indicating an income of less than \$25,000 per year**. The WRTA made nearly 3.8 million passenger trips in



2017, according to the agency's annual report for that year, and drove nearly 3.2 million miles. It took in around \$3 million in fares on its fixed route service, compared to the nearly \$20 million operational cost of running those routes. **Passenger fare revenues decreased by more than 7% from 2016 to 2017**, in part due to a decrease in ridership related to an April 2017 fare hike and service reduction.

In addition to taxi and livery services, national ridesharing companies Uber and Lyft operate in the city. Uber entered the Worcester market in October 2014, while Lyft started in February 2017. **Nearly 850,000 ridesharing trips originated in Worcester in 2017**, according to data released by the Department of Public Utilities. **The number of trips ranks Worcester 9th in Massachusetts.**

Worcester's sidewalk capacity addresses just over half its street network. According to one study using Massachusetts Department of Transportation data, **Worcester has the highest concentration of dangerous intersections in the state for pedestrians.** Automobiles are the biggest threat to pedestrian safety, so improving walkability also includes addressing automobile activity.

Busier bike intersections in Worcester average 2 to 4 cyclists per hour. The city's local bikesharing company, ofo, announced its withdrawal from Worcester and a number of smaller cities in Massachusetts in 2018. Bikeshare remains popular nationwide, however, with major companies like Uber developing or acquiring their own bikesharing operations.

Rail

In 2016, approximately 1,500 passengers rode commuter rail service daily from Worcester, making Union Station the 8th busiest MBTA station in the commuter rail network. Reliability can be an issue—from December 2015 to May 2016 **only 65 percent of trains between Worcester and Boston arrived on time.** In 2013, CSX expanded and upgraded its freight rail yard in Worcester by consolidating functions previously distributed throughout the region.

Air

Worcester Regional Airport (ORH) is positioning itself as a more convenient and cost-effective local option. The airport, which is owned and operated by the Massachusetts Port Authority (Massport), has seen **the number of annual passengers out of Worcester rise from 72,000 in 2014 to 121,000 in 2016.** In the past few years, Massport has invested heavily in infrastructure improvements at the airport.

Autonomy, Mobility on Demand, and Electrification

In June 2018, the City of Worcester, the State, and thirteen other communities agreed to facilitate the testing of automated vehicles. According to some experts, **the average vehicle spends 95 percent of its time empty**, but autonomy allows a vehicle to return to its home garage during non-use hours or continue on to drive other people. This could increase the total vehicle miles traveled on local streets, and emissions. While electrification cannot resolve new congestion, it can help to address the environmental impact.

The Way Forward

Greater Worcester is coming off significant infrastructure upgrades, including improvements to I-290 and Route 146, expansion of commuter rail at Union Station, and investment at Worcester Regional Airport. As the economy and population grow, now is the time to plan for improved efficiencies and new investments. Increased density in the urban core allows for a refocus on alternatives to the automobile. Technological advancement, especially with the potential of automation and ridesharing, may transform the way residents procure and utilize transportation assets. Transportation is changing. To remain mobile, Greater Worcester must change with it.

For greater detail, read *City on the Move: An Overview and Assessment of Worcester's Transportation Needs* at www.wrrb.org.

