

The Multimodal Regional Freight Plan takes a further look at freight-generating industries that are projected to grow in employment over the next decade. NOACA can direct its funding in a way that facilitates growth in the industries that will be employing more of the region's residents. Northeast Ohio has historically been known for manufacturing. It remains so today, but the face of manufacturing is changing. Driving this change are productivity gains due largely to mechanization and automation - more goods can be produced by fewer workers. Research from the Federal Reserve Bank shows that manufacturing output has been steadily increasing for decades and is at an all-time high, while the number of employees in manufacturing has been declining and is near its lowest point in at least 25 years.¹² Transportation projects will be able to have the biggest economic development impact if they support industries that are both increasing their volume of goods produced and creating jobs. The Ohio Development Services Agency recognizes eleven target industries important for the state's economic future, including advanced manufacturing, automotive, food processing, logistics and polymers and chemicals, which all generate large freight volumes.¹³

NOACA and local communities should support projects that make all modes of freight movement remain viable. Doing so provides businesses with the widest variety of options to meet their shipping needs, helping them balance cost and speed of delivery in order to maximize profits. Supporting all modes of freight movement also helps keep regional roads uncongested and in a state of good repair and reduces the negative environmental impacts of shipping. Intermodal connector conditions and access should be a high priority based on feedback from the freight community.

Reducing the environmental impacts of shipping, particularly air pollution, is one aspect of increasing quality of life, and other issues must also be considered for livability. Freight vehicles and distribution centers may significantly increase noise, potentially discouraging people from living nearby. Further, the infrastructure that may be considered optimal for these vehicles and centers may be hard to harmonize with other desired uses or roadway design. Land use and zoning decisions will have to balance the desire for efficient freight movement with mobility and livability concerns. Several options of varying complexity are available to help with this balance, such as clustering freight activity in certain zones, implementing off-hour delivery programs, or designating low-noise zones.

Land use decisions are important for accommodating all residents and businesses, particularly in areas that have a mix of uses. For example, NOACA applied for federal funding in 2016 through the FASTLANE grant program to reconstruct roads in the west bank of the Flats in Cleveland. This area is home to multiple businesses reliant on access to Lake Erie shipping. At the same time, redevelopment is occurring that will bring a wide variety of users onto the transportation system. A \$450 million dollar apartment complex with ground floor businesses was announced this year, and bike lanes have been discussed on these roads. As redevelopment continues along the waterfront throughout the region, planners will have to

¹² <https://fredblog.stlouisfed.org/2016/05/manufacturing-up-down/>

¹³ http://development.ohio.gov/reports/reports_industry_series.htm

¹⁴ The Report *Why Goods Movement Matters* from the Regional Plan Association and Volvo Research and Educational Foundations discusses several possible choices: <http://www.vref.se/download/18.33c5115c15519a46ea8bd335/1465289680305/Why-Goods-Movement-Matters-Report-ENG+-+June+2016.pdf>

