

KEY FINDINGS BRIEF

OREGON ECONOMIC & DEMOGRAPHIC REGIONS WHITE PAPER

OREGON DEPARTMENT OF TRANSPORTATION | JULY 2020

1 BRINGING A REGIONAL PERSPECTIVE TO OREGON'S TRANSPORTATION PLANNING

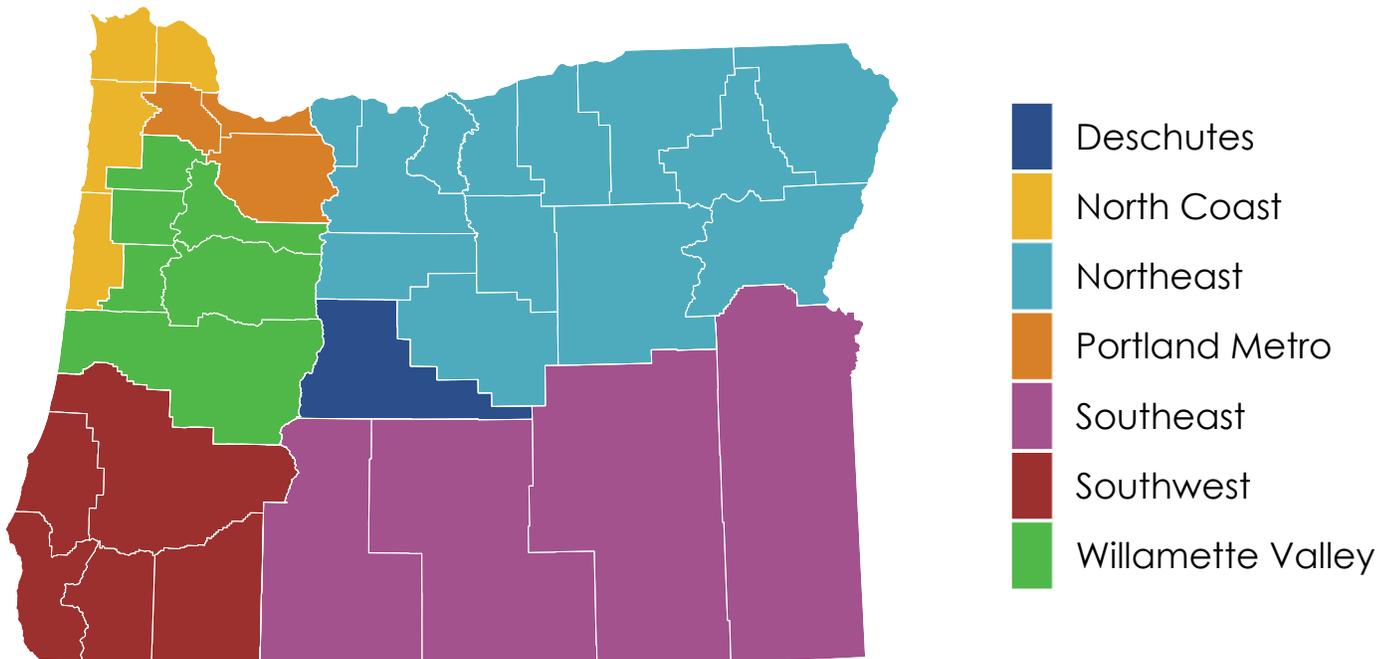
- How do demographics and economic regions influence transportation system use and needs in Oregon?
- What has influenced transportation demand in the past? What will influence it in the future?

Oregon is revising its Transportation and Highway plans (OTP/OHP), which are intended to guide the state's future transportation investments. The findings of this white paper are intended to answer the following questions:

1. Informing how statewide transportation plans, policies, and strategies may reflect or impact regional economic/demographic contexts.
2. Recommending potential study regions for specific policy consideration.
3. Identifying potential themes and scenarios to consider during the updates to the 2006 OTP and 1999 OHP.

Recommended Study Regions

Source: EcoNorthwest



2 | EMPHASIZING REGIONAL INDICATORS OF TRANSPORTATION DEMAND IN OREGON

Structural drivers

- It is critical for the OTP/OHP process to identify the relationship between transportation demand and economic growth

Transportation demand is related to the growth of a region's economy, but the relationship is complex. Investments in transportation infrastructure inform understanding of economic productivity.

Our recommendation is that the appropriate framework for the OTP/OHP is to assume transportation demand (i.e., vehicles miles traveled) and economic growth are interrelated. Policy objectives can be nuanced: for example attempting to reduce transportation demand while benefiting a region's economy.

Oregon VMT and GDP growth, 2000 to 2018

Source: Federal Highway Administration, Bureau of Economic Analysis



Population and labor force changes

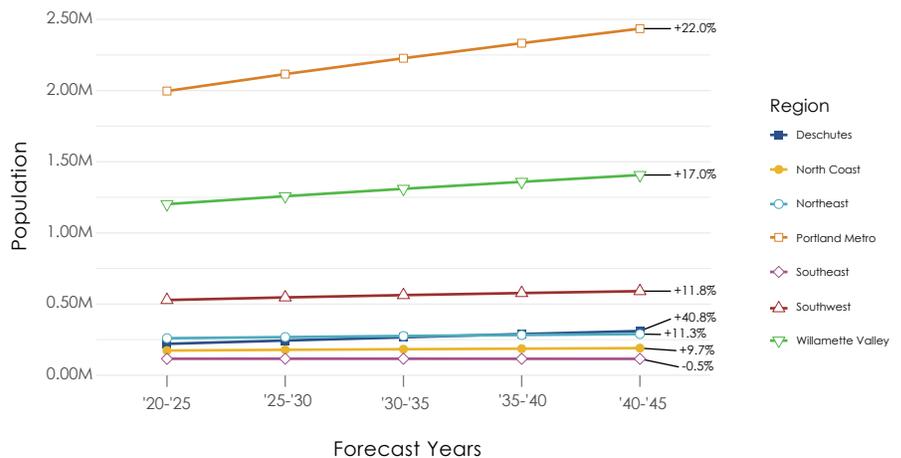
- Population growth, an aging population, and urbanization are important factors relevant to OTP/OHP planning and scenario development.

Several key findings are relevant to the upcoming OTP/OHP process:

1. The population has grown by 24% since 2000. ~8% additional growth is expected by 2030.
2. The population statewide is aging. This is particularly important in rural communities as they become more reliant on an efficient transportation network to access lifeline services.
3. As congestion rises with urbanization and the increasing remoteness of affordable housing, network reliability suffers.

Forecasted population growth by region 2020 to 2045

Source: Portland State University, Population Research Center.



Changes in Oregon's industrial composition

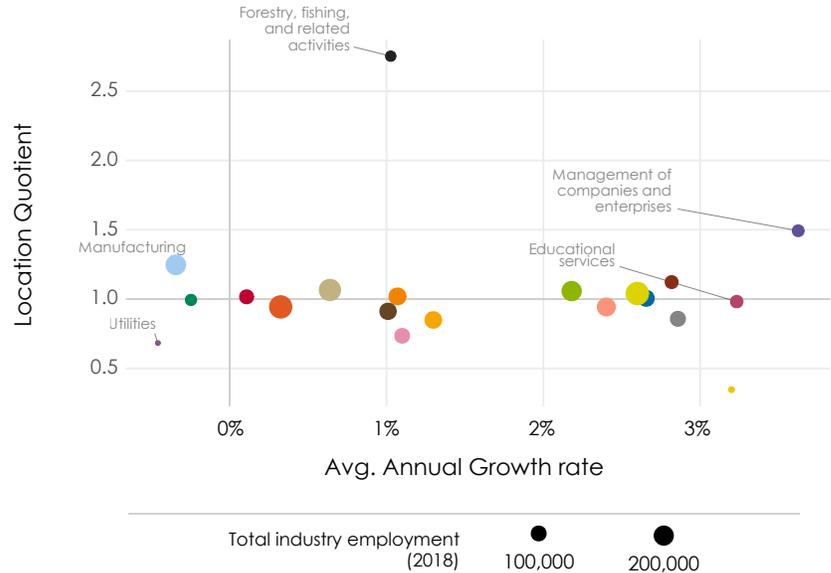
- Industrial composition affects how a region's economy responds to negative shocks or downward swings in the business cycle
- Industry mix impacts regional transportation demand

Several trends in industrial mix are relevant for the OTP/OHP:

1. Oregon's economy is becoming more diversified, growing more rapidly in services and technology.
2. Rural regions face challenges with changing economic conditions while diversifying economies in the Portland Metro and Central Oregon regions helps them withstand economic shocks.
3. The economic shock from COVID-19 reveals growing disparities in our regional economies. Oregon's economy is volatile, outperforming in periods of growth, but suffering more in periods of contraction.

Industry Concentration and Growth in Oregon, 2010–2018

Source: U.S. Bureau of Economic Analysis



Note: Location Quotient indicates how concentrated an industry is in Oregon compared to the national average. LQ's over 1 indicate more concentration in that industry than the national average.

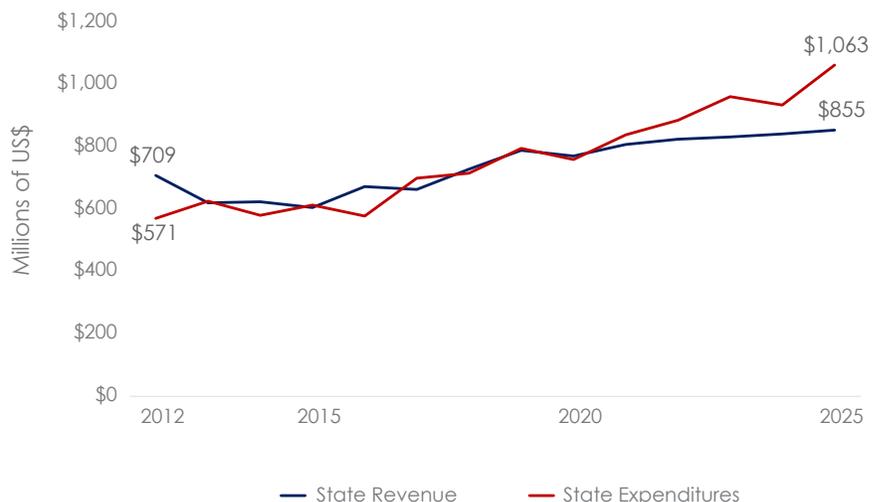
Aligning changing demand with transportation financing

- Oregon should consider new approaches to evaluate statewide and regional transportation demand while balancing costs and revenues to maintain existing public assets

1. Increasingly, existing tax revenue instruments will be inadequate for financing Oregon's transportation infrastructure.
2. We recommend that Oregon consider new approaches for evaluating statewide and regional transportation demand to prioritize investments.
3. Alternative financing mechanisms that serve multiple goals of efficiently raising revenues while moderating demand should be an important consideration for sustainability.

Forecast of State Highway Fund Balance (May 2020)

Source: Oregon Department of Transportation





Important themes to consider in scenario planning

External factors affect the drivers of transportation demand and supply. The following themes can be used to guide the process of exploring choices.

Land use and density. Changes in land use affect where people live and how they travel.

Changing nature of freight. Changes in purchasing modes and innovations in distribution systems are driving new services that rely heavily on the transportation network.

Structural economic changes. Changes in Oregon's industrial composition will impact the types of investments that will need to be made to support future economic growth.

Economic Resilience. Investing in resilient infrastructure will help the state's economy recover more rapidly after a major event, such as a Cascadia Subduction Zone earthquake.

3 | IMPLICATIONS FOR OTP/OHP

Transportation planning through a regional perspective

- Demographic and economic factors vary by region, resulting in different policy implications for long-term transportation planning.
- The State of Oregon should consider including a data-driven approach to incorporate regional analysis in the OTP/OHP process.
- Our recommendation is to use combined Public Use Microdata regions as a guide to aggregate regions to ensure reproducibility and harmony across all metrics used in the OTP/OHP process.

Drivers of transportation demand in Oregon

- Understanding the distribution of population growth is key to identifying the demographic changes that lead to effective regional policies and infrastructure investment.
- All regions in Oregon are facing diverse transportation challenges. The increasing demands on urban infrastructure, along with health and safety concerns for rural residents should be considered as part of the OTP/OHP process.

- The changing mix of industries around the state will also affect the type of transportation investment that will be needed. The OTP/OHP should account for these regional changes to understand how to build scenarios that can help prioritize investments.

Economic factors impacting the supply side

- Total lane miles have remained flat for the state's facilities, while population growth and environmental changes have placed increasing stresses on the state's aging roads and bridges.
- Changing system user needs will impact the efficacy of existing revenue instruments and will not be to be enough to maintain enough investment in the state's transportation infrastructure in the future.
- With declining revenues and increasing demand, increasing costs, and aging infrastructure, the OTP/OHP process should emphasize strategies that guide prioritization of transportation investments and demonstrate which investments result in the largest public benefits.