

The Cost of Highway Limitations and Traffic Delay to Oregon's Economy

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Conclusion

The state's economy is transportation-dependent. Despite Oregon's excellent rail, marine, highway and air connections to national and international destinations, projected growth in freight and general traffic cannot be accommodated on the current system. Increasing congestion and travel time delay -- even with currently planned improvements -- will significantly impact the state's ability to maintain and grow business, as well as our quality of life.

Action is needed to remain competitive with other states that are planning large investments in their transportation infrastructure. This report finds that:

- Being a trade hub, Oregon's competitiveness is largely dependent on efficient transportation, and system deficiencies threaten the state's economic vitality.
- Businesses are reporting that traffic congestion and travel delay is already costing them money, forcing changes in business operations and impacting location decisions.
- Failure to invest adequately in transportation improvements will lead to additional travel delay and associated reductions in market access, and **will result in a potential income loss valued at of \$1.7 billion annually in Value Added generated in Oregon by 2025, with a loss of 16,000 ongoing jobs.**

The Role of Transportation in the State's Economy

The state's economy and job base are transportation-dependent, especially on its roads and highways, for the movement of freight.

Due to its geographic location, Oregon benefits from a diverse set of industries that depend on all modes of transportation. The state's international air and sea gateways, and location along major transcontinental highways and rail routes, make Oregon a center of activity for trucking, railroads, warehousing and distribution of products. The transportation network allows industries in all parts of the state to benefit from highway network connectivity and

access to labor, supplier and customer markets. These industries provide jobs to thousands of Oregonians – 1 in 5 jobs in the state is transportation reliant or transportation related.

- **"Traded" industries, which bring new money into the state and enable the rest of the economy to prosper, require an efficient transportation system.**

Oregon's economy depends on industries that ship goods to outside customers and bring money flowing into the state. Those industries include computer and electronic products, metal products, fisheries, lumber and wood paper products, paper and publishing, agriculture and food products. Many of them have been attracted to the state because of its advantageous trading position.

Because traded industries depend on the movement of freight, reasonably good transportation access must be maintained if those industries are to remain and grow in Oregon in the years to come.

- **All modes -- roads, air, marine, and freight rail -- are important to an efficient transportation system, but trucking is the workhorse of the system linking businesses throughout the state to the global marketplace and providing the "last mile" connections to inter-modal facilities.**

Oregon is served by 23 port districts including nine with inter-modal freight terminals, 23 railroads including high capacity transcontinental main lines of both western Class 1 railroads, and 97 public use airports including seven with commercial airline service. However, these modes commonly require a road system to get to and from a terminal or parking lot. While alternatives such as rail and public transit, where they exist, provide alternatives for some commuters, these services do not meet the specialized needs of business travel for delivery of freight and other services. As many business-related trips are subject to schedule requirements, their truck movements become "prisoners" of highway congestion and highway vehicle limitations," which can significantly increase their cost of doing business.

- **In addition to road and highway deficiencies, there are limitations with rail, air, and marine service and connections, which are critical to business needs as well.**

Businesses throughout the state are increasingly relying on trucks to move goods due to limitations with other modes of delivery. Some are now finding that they must increase inventories due to unforeseen delivery delays and uncertainties. While all modes are critical for businesses, the various modes are not interchangeable for business logistics and supply chain management.

The Transportation System's Impact on Business Competitiveness

Congestion and travel delay due to deficiencies in the transportation system are already impacting businesses throughout the state, hurting their competitiveness.

Interviews with statewide business leaders reveal how inadequate transportation infrastructure is affecting their operations. Some businesses have already made route and schedule changes to mitigate losses. However, businesses have expressed a growing concern that their ability to continue to offset the deficiencies in the transportation system through productivity increases or operational changes is shrinking.

The issues facing businesses throughout the state can be classified into four key categories:

1. Congestion caused by traffic levels exceeding road capacity, causing both slowdown and traffic incident delays;
2. Deficiencies in inter-modal connections between the road system and rail, air and marine terminals;
3. Limitations of the existing road infrastructure that cause network access limitations; and
4. Shifting location and shipping requirements of businesses that cannot be met due to existing transportation network limitations.

Businesses reported the following impacts due to transportation system deficiencies:

- Decreasing “windows of opportunity” for deliveries;
- Costs for additional drivers and trucks due to longer travel times;
- Shifting production schedules and operations;
- Interactions between large trucks and passenger vehicles;
- Loss of productivity due to missed deliveries;
- Limited and unreliable inter-modal operations;
- Insufficient and limited capacity east-west shipping options;
- Technology outpacing the capacity of existing infrastructure;
- Reduced market areas; and
- Increased inventories.

Specific examples of how businesses are being harmed by traffic delays:

- Intel has moved their last shipment departure time up two hours for outbound shipments through PDX because of increased pm peak congestion. A missed flight affects production across the globe and can result in costly operational changes.
- Roseburg Forest Products recently made a decision to purchase addition particle mills in the eastern United States, rather than expanding in Oregon. Road capacity issues and limited options for east-bound shipments were significant issues in this decision.
- Anderson Hay receives supplies throughout the day for processing; delays can result in “rolling a booking” (i.e., not making a cut date for shipping the products overseas). This can delays a shipment for up to a one week, resulting in extra costs and poor customer relations.
- Georgia Pacific reports increased costs due to longer, modern trucks that are banned or cannot be accommodated on some existing road infrastructure. These

shipments must be rerouted, adding approximately 100 extra miles and a substantial economic burden.

- Other businesses have managed to restructure their operations to deal with congestion and travel time delay, but many have reached the point at which further operational changes are resulting in increasingly high costs.

As travel times and costs continue to grow, businesses in the state will increasingly find themselves at a competitive disadvantage. Businesses that serve local needs either absorb the added costs and reduce their profits, or pass these costs on to the state's consumers through higher prices. Traded industries, however, can respond by moving their operations, and the jobs they provide, to locations outside the state.

Failure to address the negative impacts of deficiencies in the transportation system is likely to result in the loss of jobs as existing businesses expand elsewhere or relocate and the state attracts fewer new businesses. This also has a ripple effect on other businesses and suppliers throughout the state.

Overall Impacts of Congestion and Travel Delay on the Economy

Failure to adequately invest in the transportation system results in significant losses to Oregon's economy, job base and quality of life.

Transportation forecasting models show that currently planned transportation investments will not keep up with traffic growth and system needs, resulting in severe delays that impact the state's quality of life and ability to compete for new jobs. Simply put, congestion and travel time delay reduce the advantage of location, which is particularly troubling for Oregon because its traded industries are dependent on transportation.

The study compares a Future Base Case, anticipated to be funded over the next twenty years, to an Improved System Scenario, which requires additional transportation investment over the next 20 years.

- **Maintaining current transportation spending (with inflation adjustment) will result in significant increases in congestion and travel time delays, impacting Oregon's quality of life and restricting market access for Oregon businesses.**

Under the Future Base Case, total vehicles hours of travel for the state are projected to increase by over 1 million for per weekday by 2025, or 338 million more vehicle hours of travel annually than exists today. In many areas, the forecasts of increasing traffic delays result from growing traffic volumes in combination with limited road options, geographically constrained land use patterns, rising tourism and recreational activity and congestion bottlenecks. In other areas, a combination of high truck volumes, difficult grades for heavy vehicles, lack of passing lanes and congested interchanges all contribute to traffic delays that are projected to become worse in the future.

- **Additional investments in the transportation system will result in less congestion growth and travel time delay than would otherwise be expected under current forecasts.**

The Improved System Scenario would also save 157,000 hours of travel time per day by 2025. Over the course of a year, that totals over 53 million vehicle-hours of time saved under the Improved System Scenario that would be time lost under the Future Base Case. In addition, average speeds for both cars and trucks are notably improved with the Improved System Scenario. These numbers reflect forecasts of differences in *average* travel times and speeds and therefore understate the full benefits that come with the reduction in the *variability* in travel times and improved market access.

- **Economic benefit: The total value of benefit from such an investment is over \$1.7 billion annually by 2025. It also supports 16,000 additional jobs as of 2025, as well as thousands of short-term construction jobs annually.**

This total combines the value-added income generated in the region and the value of time savings to individuals. Under a higher investment scenario, businesses are able to convert travel time savings into additional sales, resulting in \$896 million a year of value-added benefit and 16,000 ongoing jobs. The benefit to businesses would also be complemented by significant time savings and higher quality of life for residents, valued at \$813 million a year. This scenario, while not eliminating congestion and travel time delays, will improve reliability, which is also critical to business travel.

Next Steps

The stakes are high for the economy and quality of life in Oregon, representing thousands of jobs and billions of dollars.

Many other states, including Washington and California, are taking action to address their transportation infrastructure, demonstrating the need for Oregon to act now to reduce the impacts of congestion and travel time delay to preserve our continued economic competitiveness.

This study is intended to provide useful information to the public, the business community and government decision-makers as they work to formulate transportation policy, projects and funding decisions. The study should be used as a springboard for future discussions about planning for and investing in the state's transportation system.

Business, civic and government leaders should immediately have a discussion about the impacts of transportation system deficiencies and solutions in order to protect and enhance the state's economy and quality of life.