# A Congestion Pricing Experiment for Portland, Oregon

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Presented to the International Society of City and Regional Planners (ISOCARP)
Bode, Norway
October, 2018

Known for its innovative system of land use planning, the Portland, Oregon metropolitan region is embarking on an experiment with congestion pricing. The 2017 Oregon legislature passed a transportation infrastructure bill that increases registration fees and fuel taxes and provides additional funding for roads, transit, and bicycle infrastructure. In addition, the legislation calls for the Oregon Department of Transportation (ODOT) to study the implementation of value pricing along the two most important north-south highways in the region I-5 and I-205. The ODOT task force is due to present its findings to the legislature at the end of the year. While the implementation of the congestion pricing system is likely to be years away, the eventual implementation of the system has the potential to allow more housing development and lower housing costs within the Portland region.

This paper will review the legislative history of the proposal to understand how a coalition of environmental, transit, and business interests came to support the legislation. The paper will review the process of the Task Force and its process for eliminating alternatives. The current leading position is that both highways would become fully tolled, which would require a federal waiver of Federal Highway Administration rules. And the paper will consider how congestion pricing will interact with the current land use planning system in Oregon. The region has a semi-permanent urban growth boundary and has been experiencing rapid appreciation of housing prices and rents. A system of congestion priced tollroads offers the potential that housing options outside of the highly priced Portland region may become accessible for local households.

**Oregon Land Use System**

For the past 40 years, the State of Oregon has implemented a system of statewide planning goals to rationalize and coordinate state and local policies. The system starts with a list of statewide planning goals, against which all local plans should conform. The system seek to allow local planning to control outcomes, provided the local government conforms to the statewide goals.

A key characteristic of the statewide planning system is a desire to protect the national landscape and rural agricultural, forestry and resource economy of rural Oregon. To implement this vision, all urban areas were required to establish urban growth boundaries, which would be assessed periodically to see if it contained 20 years of land for future development. Inside the urban growth boundary (UGB), property development would be streamlined, and outside the UGB, housing development was defined as one house per parcel, with limits on the subdivision of land that prevented the land conversion from rural to urban.

**Oregon Transportation Policy**

Oregon has been a leader in US transportation policy, being one of the first states to implement a gasoline tax to fund road construction and maintenance. In more recent years, the state has limited the increase in the gasoline tax and adopted a policy of spending money only on the maintenance of existing roads, rather than the construction of new roads. As part of the same change, the state and regional governments have emphasized funding for transit projects in the hope that drivers would switch from driving to mass transit.

**Regional Transportation Plan**

The Portland region coordinates transportation policy through its elected regional government, Metro, which takes the place of the unelected metropolitan planning organizations that existing

in most of the United States. Metro receives funds from the federal and state government and through various committees allocates those funds towards transportation projects in the region that support the regional transportation plan.

In recent years, the Regional Transportation Plan (RTP) has been modified to support a Social Equity policy to insure that transportation investment helps historically disadvantaged communities in the region. Most of the discussion on the social equity policy has emphasized transit and street investment in neighborhoods with high percentages of racial and ethnic minorities.

**Transit Industry**

Transit is served in most of the Portland area by the Tri-County Metropolitan Transportation District of Oregon, or Tri-Met. The District is governed by a board of directors nominated by the Governor of Oregon. Tri-Met operates 81 bus lines, 5 light rail lines, and 1 commuter rail line, providing a weekday daily ridership of 312,000 passengers. Tri-Met's network is largely a hub-and-spoke system, with most of the transit lines feeding into downtown Portland. However, as the light rail network has expanded, many of the suburban bus routes have been converted into feeder routes feeding into the light rail stations.

Transit service is also provided by two other agencies, C-Tran in Clark County, Washington, and SMART, operated by Wilsonville, Oregon, which elected not to join the Tri-Met District. C-Tran operates an extensive route system in Clark County as well as express buses to downtown Portland. SMART operates neighborhood bus routes in Wilsonville as well as routes to connect with Tri-Met's light rail network.

**Bicycle Community**

Oregon has one of the best organized bicycling communities in the United States, led by The Street Trust. Formerly known as the Bicycle Transportation Alliance, the Trust is a non-profit dedicated to promoting the bicycle commuting and safety.

**Environmentalists and Transportation**

Oregon has an active environmental community that promotes transit use and lobbies for more transit-friendly land use patterns, both to preserve the agricultural and scenic aspects of the state and to limit the amount of carbon emissions that the state produces.

**Business Community**

Oregon's business community advocates for economic growth and a transportation system that is amenable to goods shipment, including trucking, railways, and water transportation. The Portland area chamber of commerce, the Portland Business Alliance, has been staked positions to protect the "portal capacity" of downtown Portland and promote the preservation of truck routes within the city.

**2017 Legislative Compromise**

In 2017, the Oregon legislature passed a $5.3 billion package to improve the state's transportation system. The legislation had many components, balancing the interests of road users, business groups, transit advocates, bicycle advocates, and the environmental

community. The bipartisan legislative package was designed by a Task Force that met with interest groups around the state and found widespread preference for improving traffic bottlenecks in the Portland area, even among non-Portland residents, as well as support for more funding for bicycle infrastructure and transit capacity through the state.

The revenue increases in the package include a 10 cent increase in the state's gasoline tax, a $16 increase in vehicle registration fees, a 0.1 percent payroll tax, and 0.5 percent tax on new car sales.

**Value Pricing Task Force**

Since the passage of the legislative compromise in 2017, ODOT organized a task force to make a recommendation to the Oregon Transportation Commission regarding congestion pricing. The Task Force has met several times and has made a two-part proposal. They have recommended a short-term proposal of implementing congestion pricing on the section of Interstate 5 near downtown Portland and a section of Interstate 205 near the Abernathy Bridge over the Willamette River. Those segments were chosen because they are associated with major bottlenecks in the highway system and the revenue from congestion pricing in those segments has the potential to pay for upgrades.

The long-term proposal by the Task Force is for ODOT to implement congestion pricing on both I-5 and I-205 from the I-5/I-205 interchange in Wilsonville to the Columbia River. In making this recommendation, the Task Force expressed its concern that transit alternatives be in place along those routes and attention to placed regarding traffic spillover.

**Seismic Protection and Transportation**

One of the issues facing transportation in the Portland region has been that estimates of the earthquake risk have been revised, and essentially all of the bridges in the region have been assessed to be vulnerable following a subduction zone earthquake. The cost of upgrading these bridges by ODOT and the counties will be enormous. Multnomah County, for example, is exploring the cost of upgrading or replacing the Burnside Bridge over the Willamette River. The latest estimates for the cost of repair is very similar to the cost of building a new bridge. However, regional officials are reluctant to add to the region's road capacity, given state and regional goals to reduce the amount of automobile travel in the region.

The effect of the reassessment of seismic risk is that the price tag for repairing the deferred maintenance of the road system in the Portland region has been raised. The region will need substantial investment in bridge and roads just to maintain the existing highway and road network, much less upgrade the network to meet growing population and travel demands.

**Congestion Pricing and a New Portland Paradigm**

The implementation of congestion pricing will likely have dramatic effects on travel patterns and land use patterns in the region. Currently, housing and land prices in the Portland metropolitan area are much higher than prices compared to other prices in the Willamette Valley. Land prices along Portland's urban growth boundary are at least 10 times higher inside the UGB than in the agricultural areas just outside the UGB. And housing prices are 39% higher in the Portland region than in the Salem area, which is the nearest large city to Portland. However, the lack of effective transportation between Portland and Salem and other towns in the Willamette Valley

prevent those communities from being effective bedroom communities for Portland area workers.

The implementation of road pricing along most of I-5 and I-205 within the Portland metropolitan region will make long distance commuting within the region more feasible. Transportation planners will have a goal to set the pricing at levels that will allow free-flowing travel on both highways. A more effective highway connection between Portland and Salem will allow Portland-based workers to arbitrage the difference in home prices in the two areas, reducing housing costs for Portland-based workers, reducing housing prices somewhat in the Portland area and raising prices somewhat in the Salem area. And the higher prices in Salem will likely allow for more housing development in Salem which is currently not economically feasible.

There is also the potential for the highways to be used by transit buses from Tri-Met and other transit agencies. Currently, only the transit agency from Clark County, Washington – C-Tran – uses the highway system. Tri-Met currently operates all of its bus fleet on surface streets and arterials, mostly due to the congestion on the highways, but also as part of its goal to promote its light rail network. Hence, buses are designed to be used for short trips in Portland's urban core and to serve as suburban collectors or "feeders" to the regional light rail lines.

Tri-Met's system of local bus routes and regional light rail lines is very costly, measured both by agency costs and user costs. From an agency point of view, light rail has very high capital costs which when apportioned correctly, cost upwards of $10-20 per rider trip. While those capital costs have been largely borne by the federal government in the early years of the system's development, future development of those lines will require major expenditures at the regional and local level in the future. Buses have the potential to reduce the cost disadvantage of a light rail-based system, but require either a dedicated right of way (or a free-flowing highway) in order to provide a competitive service. From the perspective, the main advantage of light rail is that unpriced highways don't allow the regional transit agency to provide reliable service.

From the user cost perspective, the cost of a transit system is both the fare and the time cost of the traveler. Travelers tend to value their commuting time at one-third to one-half of their wage rate, with highest cost associated with access time (walking to or from the vehicle) and waiting time. The light rail/bus feeder network tends to create high user costs since travelers need to wait for two or three vehicles to complete their journey. By contrast, bus networks that combine a high frequency commuting spine to high density work locations with less frequent branch lines that serve low density residential areas has the potential to reduce the time cost of travel, since travelers will only need one vehicle to get to their work destination.

Finally, the implementation of congestion pricing is likely to create opportunities for private investment in road infrastructure in the Portland region, including new highways, bridges, and interchanges. New investment will be needed to upgrade the seismically deficient bridges on the current system. Without congestion tolling being implemented, private road investments face competition from unpriced highways and bridges, subsidized by fuel taxes on all forms of road transportation. Potential users of private highways will be required to pay both fuel charges and user tolls. However, a system of congestion tolls on I-5 and I-205 will even the playing field for new investment. Also, the introduction of new payment collection systems for implementing congestion pricing will reduce implementation costs for new highway systems, which will likely adopted the same payment system.