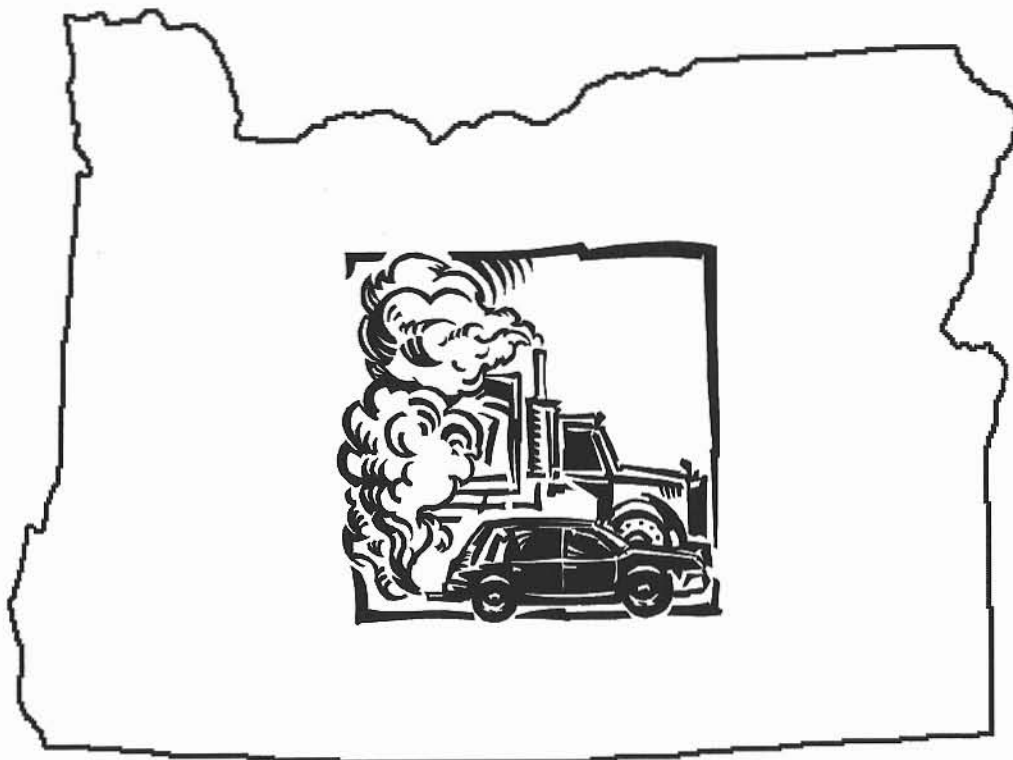


# GOODBYE GRIDLOCK:

## IMPROVING THE WAY OREGON FUNDS TRANSPORTATION



A Report by the Oregon Environmental Council  
April 2002

# GOODBYE GRIDLOCK:

## IMPROVING THE WAY OREGON FUNDS TRANSPORTATION

*Goodbye Gridlock* examines how our state, city and local governments raise and spend transportation dollars, and suggests how to make the transportation system more efficient, affordable and environmentally sound by changing how we pay for transportation. This report also recommends investing transportation dollars in cost-effective transportation solutions that provide Oregonians with affordable and convenient travel choices.

By Christine Hagerbaumer

We gratefully acknowledge the support of the Bullitt Foundation, which helped make this project possible, along with contributions from our members across Oregon.

The opinions expressed in this report do not necessarily reflect the view of the supporting foundations and individuals.

We also thank staff at the Oregon DOT, Tri-Met, and City of Portland who promptly responded to our information requests.



Oregon Environmental Council

*Clean air  
Clean water  
Clear thinking*

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## EXECUTIVE SUMMARY

### HOW WE RAISE AND SPEND TRANSPORTATION DOLLARS MATTERS

Oregon is struggling to adequately fund its transportation system, in large part due to rapid growth in driving during the 1980s and 1990s. Oregonians now drive an astounding 33 billion miles every year.<sup>1</sup> But revenues haven't kept pace with needs, and this mobility comes at a price: heavy wear and tear on our roads, congestion, and serious environmental impacts.

For many years, Oregon invested heavily in road infrastructure. These roads, highways and bridges are now crumbling while we try to keep up with congestion by building more roads that we can't afford to maintain. Urban Oregonians are stuck in traffic, and rural Oregonians are dodging potholes. And, while Oregon has fewer smoggy days than in decades past, air pollution remains a problem. Even rural Oregonians are breathing certain hazardous air pollutants, like benzene, at levels far exceeding health benchmarks.

Our transportation problems all stem from the same cause: the system of paying for roads is fundamentally broken. Simply adding money will not fix these problems. The system must move away from the gas tax to fees that more accurately reflect the costs of roads and driving. Such fees would give drivers more control over their costs, manage demand for roads in ways more creative than pouring concrete, and reduce environmental impacts.

The way things work today, we pay a tax on the amount of gasoline we consume each trip. We pay a bit more when our trip is longer or when we're stuck in traffic, but rarely does what we pay reflect the actual cost of our trip. A car trip on an uncongested road in a low polluting car should cost much less than a car trip during peak hours in a highly polluting car. But the gas tax does a poor job of reflecting these differences. This disconnect between the price we pay and the actual costs we incur results in more congestion and more air pollution than any of us want.

There's a better way to price auto travel – fair, individualized fees that accurately reflect the cost of

each trip. For example, instead of rationing limited road space like the former Soviet Union rationed bread (by making everyone stand in line), we should charge a toll that rises during traffic jams and falls during off-peak hours. Free-flowing traffic would result. There's nothing radical about this idea. Telephone companies, airlines, electric utilities, hotels, and theaters all adjust prices to match supply with demand. It's time for the road system to catch up.

We can maintain and strengthen our transportation investments *and* leverage important social goals by structuring the road finance system correctly. By adopting more accurate fees for transportation and ditching less accurate taxes, we will provide travelers with new opportunities to save money, encourage more efficient travel, ease the general tax burden, and increase equity. An improved road finance system will strengthen our economy and reduce congestion, pollution, and traffic fatalities. It will also make transportation more affordable for the average Oregonian and for our state, county and city governments.

**QUEUE OR PAY**

Imagine what would happen if a phone company was forced to charge the same amount for a long distance call whether it was made on Christmas morning, or at 10:00 AM on a weekday, or at midnight on a weekend. There are two possibilities: either you'd never be able to get through at popular times because the line would be busy, or the phone company would spend more and more money trying to build enough phone line capacity to carry all the peak period calls, driving up the cost of a call no matter when it's made. Our road system is no different. Because the cost of driving during peak periods is the same as the cost of driving off-peak, we get traffic jams and costs that keep spiraling upwards because of the need for ever more road capacity.

### RECOMMENDATIONS FOR FAIR, INDIVIDUALIZED FEES

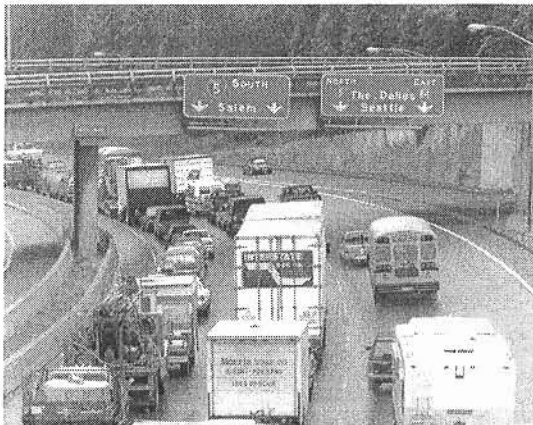
The Oregon Environmental Council (OEC) recommends that state, city and county governments convert some of the fixed costs of driving into variable costs and recoup all driving-related road and pollution costs from drivers.

✓ *Give drivers more control over costs:* We describe several policy options for converting the existing fixed costs of driving into variable costs,



giving drivers the ability to save money by driving less. The most effective of these policies is mileage-based auto insurance. Driving even one mile less is a sure way of reducing accident risk, and ought to be a sure way to reduce an insurance premium. The state should provide auto insurance companies with an incentive to offer drivers this option.

✓ *Base road repair fees on actual damage to roads:* Road maintenance, operation and preservation costs should be covered through a Vehicle Miles Traveled (VMT) fee on light vehicles, a weight mile tax on heavy vehicles that do the most damage to roads, and a studded tire fee. The VMT fee should be set high enough to cover the costs of maintaining less-traveled roads in remote and rural areas of Oregon, as well as the cost of traffic-related law enforcement.



✓ *Relieve congestion and reduce unnecessary road building with value pricing:* An extensive highway and road system links all of Oregon's communities, but excess traffic on certain segments harms the economy and frustrates travelers. Value pricing (tolls that vary by time of day) is used successfully on highways around the world, including California, to discourage discretionary travel on the busiest roads at the busiest hours. Tolls can be raised to account for the cost of congestion during peak hours on congested routes and lowered at less congested times. Drivers who pay the higher toll experience a faster, easier, less stressful trip. Others shift their trips to off-peak to avoid the additional charge, switch to less congested roadways, take transit, or participate in carpools or vanpools. Because value pricing reduces congestion, it reduces the need to build expensive new capacity.

✓ *Make polluting vehicles pay:* Pollution from cars harms human health, contributes to global warming, and damages the environment. The VMT fee should reflect the air pollution characteristics and fuel economy of each vehicle. In other words, highly polluting, gas-guzzling vehicles should pay a higher per-mile rate, while clean, fuel-efficient vehicles should pay a lower per-mile rate. The fee should also be set high enough to cover the costs of water pollution from road and highway runoff. A hazardous substance tax on petroleum and a tire disposal fee would round out the picture.

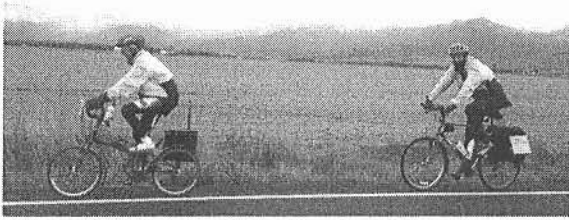
✓ *Reduce "one-size-fits-all" taxes:* By implementing fair, individualized fees on transportation, the state could reduce the registration fee; cities and counties could reduce property taxes; and general funds could be redirected from cleaning up car pollution to other important needs, like schools.

✓ *Don't wait till it's too late:* It will probably take at least a decade to implement the fees suggested above, and we have to begin today. The state should implement pilot projects and take other necessary steps to transition smoothly.

## RECOMMENDATIONS FOR EFFECTIVE INVESTMENTS

Transportation investments also matter. For years, Oregon focused almost exclusively on building additional road capacity to relieve congestion. But a package of solutions that focuses on reducing demand for road space can be less expensive and more long-lasting than road expansion – and much less environmentally damaging.

✓ *Allow vehicle-related fees to be spent on the best transportation solutions:* The current constitutional restriction on the use of the gas tax and other vehicle-related taxes (which requires these funds to be spent on roads alone) makes it difficult to fund the most effective transportation solutions. Congestion relief can often be achieved very cost-effectively through a package of solutions, including small road improvements, increased transit service, and programs that give travelers more transportation choices, reducing the need to drive alone.



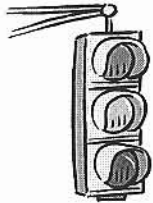
Brita Johnson

✓ *Fix roads before building new ones:* The state should have the discretion to spend dollars where the needs are greatest and should therefore repeal the law that requires the Oregon Department of Transportation (ODOT) to spend a certain amount each year on road expansion when existing roads are falling apart.

✓ *Give drivers incentives to purchase cleaner and more fuel-efficient vehicles:* We recommend a grant or rebate program coupled with incentives like preferential parking and access to high-occupancy vehicle lanes. As mentioned above, driver fees should also incorporate pollution-related costs; this will provide the strongest incentive to switch to cleaner cars.



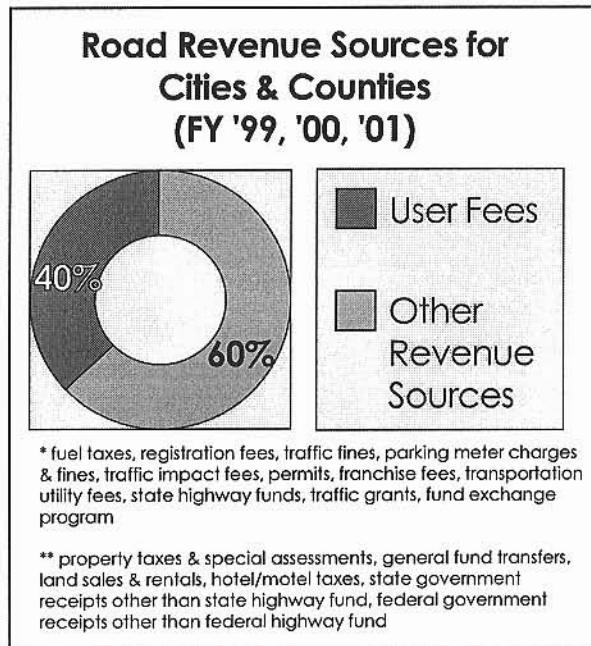
## THE CURRENT FUNDING SYSTEM: WHERE THE MONEY COMES FROM AND WHERE IT GOES



It's very expensive to place stop-lights at busy intersections; build and maintain the highways that cars, trucks and buses traverse; and pay bus drivers' wages. Governmental and quasi-governmental agencies rely on a variety of revenue sources to provide the infrastructure that keeps Oregon moving.

### HOW ROADS ARE FUNDED

By "roads" we mean the whole kit and kaboodle: construction of local streets, county roads, and state highways, and operation and maintenance of the same. Once concrete has been laid, governments must patch potholes, sweep streets, operate signals and do many other things to permit safe driving.



The bulk of funding for roads comes from the state gasoline tax and an equivalent "weight-mile" tax on heavy trucks. The registration fee also funds

roads. But cities and counties, in particular, must rely on a number of other sources to fund roads because of inadequate revenues from these statewide taxes. In fact, for every \$10 spent by cities and counties on roads, about \$4 is derived from taxes that don't relate to driving, such as property taxes.<sup>2</sup>

All told, the state of Oregon and its cities and counties spent more than \$1.4 billion on roads and highways in 2000.

### HOW TRAFFIC ENFORCEMENT IS FUNDED

We need law enforcement on the road because drivers break the law, but traffic tickets do not cover the full costs of highway patrol. Instead law enforcement and emergency services are funded in part by Oregon taxpayers out of their income tax payments to the state's general fund. State highway patrol is receiving \$37.2 million each year from the general fund during the 2001-2003 biennium. If one also considers the amount spent on traffic enforcement by city and county governments out of their general funds, the figure rises significantly. In fact, around \$85 million of non-traffic fine dollars are spent on traffic enforcement in Oregon each year.<sup>3</sup> In other words, each Oregon household pays about \$63 per year toward traffic enforcement, not counting traffic fines – whether the family owns a car or not.

### HOW TRANSIT IS FUNDED

Transit in Oregon can be divided into two categories: (1) transit that serves elderly and disabled populations specifically and (2) transit that provides mobility to the general population. Most larger communities provide local bus service. The Portland region also has light rail, streetcar and trolley service. Almost all of Oregon's communities provide some type of senior and disabled transit service, and most cities are connected by intercity bus or train.

Transit is funded through two main sources: capital funds and operating funds. Infrastructure and equipment (e.g., buses) are funded with capital funds. Operating costs (e.g., bus drivers) are funded with operating funds. Adding together the capital and operating expenses for Oregon's large and small transit systems (including special needs transit and certain intercity routes), total expenses in year 2000 were just over \$420 million.<sup>4</sup>





courtesy of ODOT

*The Valley Retriever is one of several bus companies serving Oregon's smaller communities.*

In urban areas, 15% of the costs were covered by farebox revenues, 14% by the federal government, 1% by the state government, and 70% by local sources. Local sources include payroll taxes, property taxes, local option taxes and bond measures. For rural area and special needs transit, 19% of the funds come from the federal government, 18% from the state government, and 63% from local sources (including local farebox revenues).<sup>5</sup>

Passenger rail is another important component of Oregon's transportation system. The Amtrak Cascades operates in the Pacific Northwest Rail Corridor (Eugene, Oregon to Vancouver, British Columbia), and Amtrak's Coast Starlight – a long-distance train between Los Angeles and Seattle – makes several stops in Oregon. Amtrak Thruway buses provide important connections to these trains. Studies are underway to determine the viability of launching several new commuter rail lines and reviving long-distance rail between Portland and Boise. The state government provided \$5 million to help cover the operating costs of passenger rail in Oregon in 2000.

### HOW BICYCLE AND PEDESTRIAN INFRASTRUCTURE IS FUNDED

Oregon law says that bicycle and pedestrian infrastructure must be provided when roads are built or reconstructed. State Highway Fund dollars can be used for these improvements, as well as federal gas tax dollars. Grant sources include the federal government, the ODOT Bicycle and Pedestrian Program, and the Oregon Economic and Community Development Department. Local sources of funding include general funds (primarily property taxes), special bond levies, transportation impact fees, system develop-

ment charges, Local Improvement Districts, and charges to adjacent property owners.

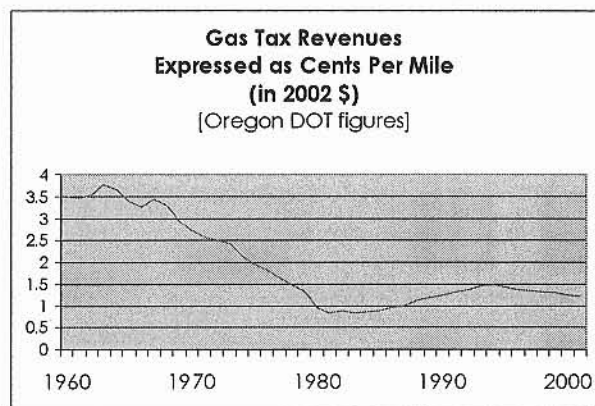
### THE FUNDING GAPS ARE HUGE

#### Road Funding Needs

ODOT estimates state highway and bridge needs of \$29.1 billion between 1998-2017, with anticipated revenues of \$13.9 billion.<sup>6</sup> Cities and counties are also falling behind.

Since the gas tax last increased in 1993 (to 24¢ per gallon), several trends have affected the revenues raised by this tax and the corresponding weight-mile tax on heavy-duty trucks:

- Our highway taxes have not kept up with inflation. We'd need to increase the gas tax by about one cent per year if we were to keep up with a modest inflation rate of 3-4%.<sup>7</sup>
- Because of improved fuel economy, the average vehicle pays 1.23¢ per mile today, as opposed to 1.28¢ per mile in 1993.<sup>8</sup>
- The weight-mile tax rates have been lowered due to studies that adjust what is paid by heavy vehicles compared to what is paid by light vehicles. An 80,000 tractor-trailer that once paid 14.5¢ per mile now pays 11.9¢ per mile to drive on Oregon's roads.<sup>9</sup> (While heavy trucks cause much more damage to our roads, passenger vehicles contribute more to congestion because of their sheer and ever-increasing number.)

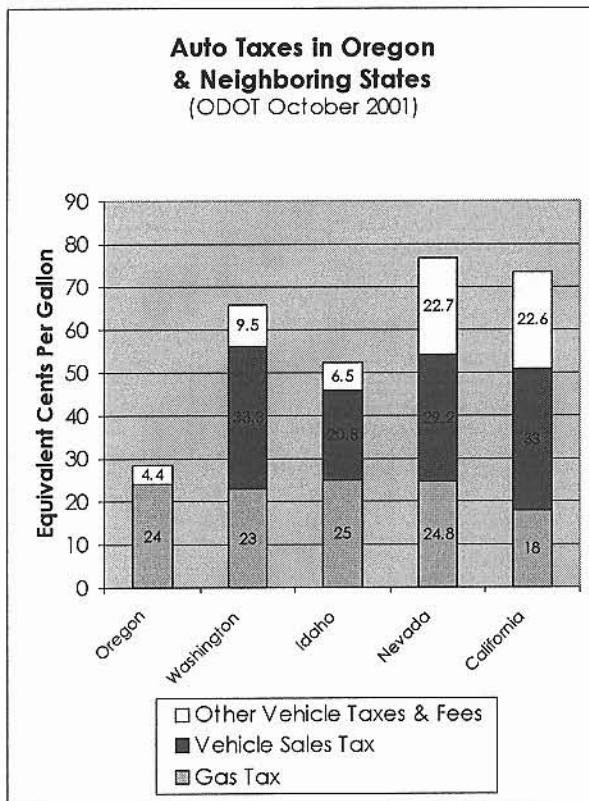




Road funding gaps are also driven by increased costs:

- The costs of road maintenance and construction have increased.
- Many bridges and some segments of the highway system are old and need replacement.
- We also need to improve bridges to withstand earthquakes and modify bridges and culverts so that endangered salmon can pass safely.

Many may be surprised to know that the average Oregonian spends less than \$150 per year in gas taxes.<sup>10</sup> Considering what we pay for electricity and water, roads are cheap. Are we really paying our fair share?



Oregonians pay much less in automobile-related taxes than our neighbors. We pay an average of 28.4¢ per gallon, which includes the gas tax, registration fee, and car titling fees. In Washington, drivers pay an

average of 65.8¢, in Idaho 52.3¢, in Nevada 76.7¢, and in California 73.6¢.<sup>11</sup> This is due in large part to the fact that our neighbors charge a sales tax on automobiles.

**Transit Funding Needs**

The 1997 ODOT Oregon Public Transportation Plan projects that, to simply keep pace with growth, Oregon needs to spend \$10.6 billion on public transit between 1997 and 2015. Anticipated revenue will cover only 70% of that cost.

The cost to operate a transit system that meets Oregon's goals will cost nearly \$16.7 billion over the same period time, but anticipated revenues will cover less than half that cost.

**Sidewalk and Bike Path Funding Needs**

No one has determined how much it would cost to provide bikeways and walkways along *all* of Oregon's streets and roads. It is relatively inexpensive to add these features when streets and roads are being built, but retrofitting facilities that were built without bike paths and sidewalks is a large task. ODOT has estimated that the overall cost to retrofit the sections of urban highways needing sidewalks and/or bike lanes is somewhere between \$120 and \$150 million.<sup>12</sup> Retrofitting local arterials and collectors adds significantly to that bill.



## GUIDING PRINCIPLES FOR A TRANSPORTATION FUNDING SYSTEM

✓ *Raise adequate revenue:* We should raise enough money to meet transportation needs.

✓ *Charge fair, individualized fees:* The funding system should reflect the full costs and benefits of using the transportation system and reinforce the relationship between user fees and the uses of revenues. Only when we've made an explicit choice to subsidize a certain mode or certain population should we do so.

✓ *Manage demand:* Transportation demand management increases the capacity of existing transportation infrastructure. Fair, individualized fees are the most effective way to manage demand.

✓ *Make efficient and effective investments:* We should fund the most effective and efficient improvements in a given situation, regardless of mode or jurisdiction. The funding system must be flexible enough to fund the most appropriate technical solutions, including transportation demand management projects.

✓ *Preserve transportation assets:* Just as a homeowner fixes his or her roof before building a new addition on the house, we should maintain and preserve our existing transportation assets.

✓ *Support common social goals:* Our transportation system should support a sustainable economy and environment. How we raise funds and what we invest in are integral to meeting these goals. We should meet the transportation needs not only of those with physical and financial resources, but also the needs of our youth, our elderly, our disabled, and our low-income populations.

## OEC'S VISION FOR A SUSTAINABLE TRANSPORTATION FUTURE



courtesy of the Bicycle Transportation Alliance

*The entire state benefits from sustainable transportation options.*

The ideal transportation system offers people a choice of ways to get around. No one should be forced to drive a two-ton vehicle to a neighborhood park or convenience store because sidewalks and bicycle lanes do not exist. A "multi-modal" transportation system is much more reliable and resilient than a system that relies on one mode (e.g., cars) alone.

Transportation is about getting where we need to go – whether it be our job, the grocery store, or our place of worship. If most of the places we need to go are located near us, a large part of the problem has been solved. That's why it is so important to plan new development and transportation simultaneously.

The ideal transportation system moves people and goods in a timely manner. It is cost-effective for the traveler (i.e., affordable to everyone) and cost-effective for the government (i.e., requiring minimal societal resources). The ideal transportation system minimizes negative consequences, such as air and water pollution, traffic accidents, and neighborhood blight. The ideal transportation system is responsive to community needs and supports a vibrant economy.