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Background Brief on ...

Roads and Highways

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History

Overland travel in Oregon progressed from private wagon roads and ferries during settlement days to a network of stage roads by 1890. The state began investing in roads in the early part of the 20th Century, instituting a \$5 vehicle registration fee in 1905. The State Highway Commission was created in 1913. Oregon imposed the nation's first gas tax (one cent per gallon) in 1919. By 1920, Oregon had 620 miles of paved roads, 297 miles of plank roads, and a population of 783,000.

Today's most traveled routes were designed and built in the 1960s and 70s, a period known as the "Interstate Era." A 55 percent increase in travel over the past decade, including substantially more truck travel, has led to more areas of congestion and a backlog of preservation and maintenance needs. An anticipated population increase of nearly a million people over the next 20 years means these trends are likely to continue.

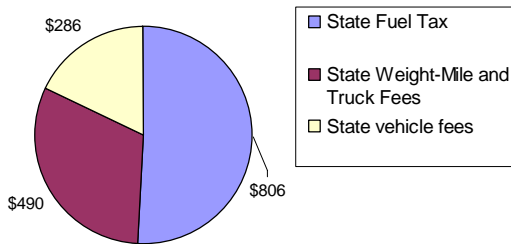
Existing Infrastructure

The Oregon Department of Transportation (ODOT) refers to the state highway system as a "90-year, \$60 billion investment by state taxpayers." In order to maintain and operate the system for commerce, commuters, and travelers, the department operates and maintains about 8,000 miles of road and 2,650 bridges. These numbers include interstates, U.S. highways, and state highways. State-maintained highways make up about 10 percent of road mileage in the state, but carry about 60 percent of the estimated 35 billion vehicle miles traveled in the state each year. The rest of the traffic is carried on the local road system, 27,000 miles of county roads and 10,300 miles of city streets. The combined system annually carries over two billion truck miles and 330 million tons of freight.

Sources of Highway Revenue

Oregon pays for the construction, maintenance, and operation of the state highway system primarily through user fees. Principal sources of revenue are federal funds, state fuel taxes, state weight-mile taxes on trucks, and state vehicle registration and title fees. The taxes and fees collected by the state are shared with Oregon cities and counties and are constitutionally dedicated to use on highways. The state does not use General Funds on highways. The chart below shows anticipated collections for this biennium after subtracting collection costs and transfers, but before distribution to cities and counties.

2005- 07 State Collections to Highway Fund
(Millions) Adjusted by June 2006 Forecast



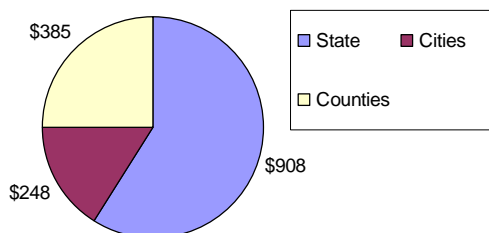
Other States

The chart above illustrates Oregon's policy of charging highway users based more on *use* of the system rather than on *vehicle ownership*. Most other states have sales taxes or other fees that apply to vehicles and some states base fees on the value of the vehicle. Such charges can substantially increase the cost of owning a vehicle. Oregon has relatively low registration fees and comparatively higher fuel and truck use taxes.

City and County Share of Fund

The next chart shows forecasted distribution to cities and counties based on statutory distribution formulas and special programs, including a recent bond program (see OTIA p. 4 below).

2005-07 State Highway Fund Distribution
(Millions) Adjusted by June 2006 Forecast



After this split, funds are distributed to individual cities by population and to counties based on the number of vehicles registered in each county.

Local Funding Variation

Roughly half of total local highway revenue comes from the distribution of the state Highway Fund shown above, but individual cities and counties vary significantly as to the proportion of their road revenue this represents. The remainder

of local road revenue is locally generated or of federal origin.

Local sources of road revenue include property taxes, system development charges, traffic impact fees, maintenance fees, parking fees and fines, lodging taxes, franchise fees, accrued interest, county fuel taxes (Multnomah and Washington counties), and city fuel taxes (Cottage Grove, Dundee, Eugene, Oakridge, Sandy, Springfield, Stanfield, The Dalles, Tillamook, Veneta, and Woodburn). Static state tax rates over the past ten years have increased pressure on local sources.

Federal Forest Revenues: Thirty of Oregon's 36 counties receive federal payments in lieu of property taxes. These revenues, dedicated to schools and roads, represent a substantial share of highway revenue in some counties. The roads portion for the thirty counties totaled nearly \$100 million in Fiscal Year 2005. Congress is considering legislation that would substantially reduce this subsidy, which currently represents about 25 percent of total county road revenues.

Federal Funds

Most states, including Oregon, depend on federal funds for a significant portion of their highway revenue. Oregon's legislatively adopted budget for the state highway system this biennium is 76 percent state revenue and 24 percent federal revenue. Federal highway funds derive mainly from an 18.4-cent federal gas tax, a 24.4-cent diesel tax, and other fees on trucks.

Federal transportation programs are adopted on a six-year cycle through "authorization" bills. These bills set anticipated funding levels over the six years, define categories of funding, and set formulas and program criteria under which states receive funds. The most recent authorizing bill passed in 2005, increasing federal highway funding by 30 percent. Actual funding depends on the annual appropriations process in Congress and is traditionally short of the authorized level.

Federal funding comes in one of three forms: formula grants; discretionary funds; or earmarked funds. Because most federal funding is distributed through formula grants, congressional delegates

attempt to negotiate formulas into authorization bills that favor their states. They also attempt to get funds earmarked for specific projects in their districts. Federal discretionary funds are controlled by the U.S. Department of Transportation under program categories. State and local highway agencies compete by submitting projects.

For the most part, federal funds are received as reimbursement after state funds are spent on a project. State or local match requirement for federally funded projects in Oregon is currently about eleven percent.

Weight-Mile Taxes

Oregon uses a weight-mile tax to assess trucks for use of state and local highways. Under this system, the tax rate for a truck increases with its weight and the rate is paid per mile of operation in the state. Most states levy a diesel tax on trucks operating on their roads, but Oregon assesses the weight-mile tax instead. The rationale is that a weight-mile tax more accurately assesses trucks for road wear than does a fuel tax.

Exemptions: Farm vehicles, unless they are used for hire, are exempt from weight-mile taxes and pay fuel taxes instead. For trucks carrying logs, wood chips, and rock products, owners have the option of paying “flat fees” instead of weight-mile taxes. These fees vary with weight but are “flat” because they do not vary with mileage. The flat fee option is available for these trucks because they are often operated seasonally, make shorter trips, and mixing taxable and non-taxable (non-highway) miles. These factors make mileage reporting and auditing more difficult. In 1999, the American Trucking Association sued the state over flat fees and the farm vehicle exemption, asserting that they benefit intrastate carriers and are anti-competitive. The case was recently resolved on appeal to the Oregon Supreme Court, which ruled in favor of the state.

Setting Tax Rates

Rates for state fuel taxes, registration fees, and weight-mile taxes are all set in statute. The

Oregon Constitution (Article 9 Section 3a) requires adjustment of tax rates to ensure fairness and proportionality between classes of vehicles. State economists perform periodic Highway Cost Allocation Studies to determine appropriate rates to recommend to lawmakers. They study how the burden of highway expenditures should be shared between cars and trucks, and between different types and weights of trucks. The studies determine proper rate adjustment between users; they do not attempt to determine appropriate levels of total revenue.

Highway Taxes - Recent History

Fuel Taxes: The state fuel tax was last increased by the 1991 Legislature. The increase was phased from 20 to 22 cents in 1992 and from 22 to 24 cents in 1993. Prior to that, the 1989 Legislature passed a two-cent increase and the 1987 Legislature passed a six-cent increase phased in over three years. Most recently, the 1999 Legislature passed a five-cent fuel tax increase, which was subsequently placed on the ballot through a citizen-initiated referendum. The measure also would have replaced truck weight-mile taxes with a diesel tax and truck registration fees. The measure was defeated at the polls by a nearly seven-to-one margin.

Registration fees: Registration fees, currently \$27 per year for cars, were increased (from \$15) in 2003. Truck registration fees vary by weight from \$169 to \$636 per year and were also increased in 2003.

Weight mile taxes: Weight-mile taxes were increased nearly ten percent by the 2003 Legislature.

Project Selection

The Statewide Transportation Improvement Program (STIP) is a capital improvements program adopted by the Oregon Transportation Commission and approved by the U.S. Department of Transportation. The STIP, updated every two years, contains schedules and funding assignments for construction for an upcoming four-year period. Update of the the highway portion of a STIP is a nearly year-long process

beginning with project solicitation and prioritization at the ODOT-region and Area Commissions on Transportation level. The regions use technical ratings, traffic counts, and local knowledge and priorities to rank preservation projects. ODOT also uses a technical advisory committee for bridge project selection. Factors considered when ranking modernization projects include safety, benefits, land use impacts, modal integration, congestion, public support, environmental impact, and economic impact.

Unmet Needs

ODOT has worked with local governments over the 2005-06 Interim to produce a compilation of needs and resources across all modes. Estimates of unmet needs on the state portion of the highway system are in the tens of millions annually for maintenance and preservation and in the hundreds of millions for capacity-increasing modernization projects.

City and county circumstances vary, but most also report high levels of unmet need. High-growth areas and popular tourist areas are unable to fund capacity improvements to handle overwhelming increases in vehicle travel. At the same time, sparsely populated counties do not receive enough in state-shared highway revenues to cover basic maintenance costs on the many miles of road network that link communities.

Studded Tire Damage

Use of studded tires is currently legal in Oregon between November 1st and April 1st. Although improved winter tires are available, and some are certified by ODOT for use as traction tires, many drivers prefer to use studded tires. The ruts created by studded tires on high-use routes can become deep enough to adversely affect driving, and when the ruts fill with water, hydroplaning and splash/spray conditions worsen. In its most recent analysis (2000) ODOT estimated spending \$7.8 million a year to repair damage caused by studded tires without keeping up with the annual damage. An additional \$3 million was spent by cities and counties to repair studded tire damage.

Oregon Transportation Investment Act

The 2001 and 2003 Legislatures passed funding bills known collectively as Oregon Transportation Investment Act (OTIA). The 2001 measure authorized \$500 million in bonding authority for state and local highway improvement projects, and increased vehicle title fees to provide a means of bond repayment.

The 2003 measure raised title fees further and also increased registration fees and truck weight-mile taxes to help finance a ten-year \$2.5 billion highway improvement program. \$1.6 billion of the total was dedicated to bridge repair and replacement, including \$300 million for city and county-owned bridges (see Bridges Background Brief).

Oregon has traditionally been a “pay as you go” state, not bonding to the extent of many states. This policy is based on the reasoning that pledging future revenue to bond repayment leaves less money for future projects. The decision to bond OTIA projects was based on low interest rates, a source of new revenue dedicated to bond repayment, and a backlog of critical projects.

Project Contracting

All state highway construction and preservation projects are contracted to the private sector. The traditional state contracting model is known as design-bid-build. Under this model, state engineers design a project, and the agency solicits bids to meet their specifications, and select the lowest responsible bidder to construct the project. State staff then oversee and manage the project. ODOT has turned to more full-service contracting in cases where it might accelerate projects, save money, or minimize use of staff. For OTIA projects, the agency is also using more private-sector designers, consultants, and in the case of the bridge projects, a private sector project manager.

Columbia River Crossing

Unmet needs include several high-cost projects under discussion for the I-5 corridor between Portland and Vancouver, Washington. This small area has become a major bottleneck for the Northwest’s principal east-west *and* north-south

highway, rail, and shipping corridors. A bi-state committee has developed a strategic plan for adding highway, transit, light rail, and rail capacity, and has identified a range of options, but has not identified a source of funds for the larger projects.

Preservation First

Through policies and budget decisions, the Oregon Transportation Commission, the Governor, and recent legislatures, have made preservation of the existing system their highest priority for use of available funds. Because of tight funding, they also stress strategies of demand management and operational efficiency to extend the useful life of transportation facilities.

Maintenance Agreements

Agreements between governments for road maintenance and operation offer substantial savings in labor, equipment, and facilities. Existing agreements are widespread and varied, from joint purchasing and training, to sharing equipment, co-locating facilities, and contracting with one another for activities such as ditching, lane striping, mowing, snow removal, and vehicle maintenance. Current agreements involve city, county, and state maintenance operations.

Road User Fee Pilot

The 2001 Legislature passed legislation creating a Road User Fee Task Force. The measure directed the task force to study revenue options and to recommend a replacement for the current tax system. The task force was created out of concern that the gas tax is a declining revenue source, especially over the long term, given fuel efficiency improvements, hybrid-electric vehicle usage, and inflation. Inflation reduces buying power by approximately one cent of fuel tax a year. The legislation also gave ODOT authority to implement pilot programs. A Portland-area pilot, started in March 2006, collects a surcharge at the gas pump based on miles the vehicle has been driven on Oregon roads instead of gallons of fuel used. In the pilot, volunteer's vehicles are equipped with mileage counters and technology to transmit counts to readers at the gas pump.

This project is being financed principally through a six-year, \$2.1 million federal grant.

Innovative Finance

The Oregon Innovative Partnerships Program was formed at ODOT to foster the development of public-private transportation projects both through solicitation of projects and response to project proposals developed by the private sector or other units of government. Senate Bill 772, passed in 2003, gave ODOT specific authority to solicit proposals and to enter into agreements with private and public entities. The measure also outlined rights and restrictions under such agreements. Consultants and the agency are currently working on the financial and technical feasibility of three large public-private projects, the Newberg-Dundee Bypass, the Sunrise Corridor, and major improvements to the south I-205 corridor. The consultants may help ODOT evaluate proposals, negotiate agreements, and manage such initiatives.

Continuing Issues and Challenges

Congestion: Over 50 percent of urban freeways in Oregon are considered congested. Traffic congestion causes millions of dollars worth of delays for motorists and trucks annually, and contributes substantially to fuel consumption and air pollution.

Freight: All modes of freight transportation have seen tremendous growth in the past 20 years, straining the capacity of port, highway, rail, and airport facilities. Moderate economic growth over the next 20 years is expected to double tonnage of import/exports nationwide and to increase domestic freight tonnage by 70 percent. Transportation delays affect the competitiveness of state and regional companies.

Traffic Safety: Oregon traffic safety laws are relatively strict, including special restrictions on teen drivers. When many states raised speed limits and relaxed motorcycle helmet requirements, Oregon retained them. A combination of laws, safer cars, better engineered roads, education, enforcement, and citizen behavior helped reduce annual traffic fatalities

from highs between 500 and 700 to 480 fatalities in 2005. Though this progress is notable, the death toll is tragic and preventable; the top three causes of fatal crashes are speeding, impairment from alcohol, and failure to wear a seat belt. The economic impact of traffic crashes in Oregon for 2000 was estimated at \$1.9 billion.

Highway Patrol: Law enforcement is one of the keys to reducing loss of life and preventing the delays and costs attributed to traffic crashes. Patrol officers serve multiple roles: sanctioning violators, responding to crash and crime scenes, and deterring law breakers by raising the perceived chance of being ticketed. Of continuing concern is the reduction in numbers of State Police highway troopers due to increasing demands on the state General Fund. Trooper levels declined from 665 in 1980 to 512 in 1990 and to 332 in 2006.

Planning, Environment, Public Involvement: Passage of environmental and land use laws in the 1970s, and growth pressures over two decades, have added new dimensions to highway planning. Additional time and resources are directed to environmental safeguards and decision-making, including planning, public involvement, and interagency coordination. Transportation agencies are required to balance numerous opposing interests and priorities.

Traffic Management & Demand Management: Transportation planning requires strategies that increase highway capacity as well as those that increase efficiency and reduce demand, especially peak-period demand. Traffic management strategies include incident clearance, ramp metering, traveler information, and high-occupancy vehicle lanes. Demand management activities include promoting other modes of travel, ride-sharing, telecommuting, flex-hours, transit-oriented development, and efficient, inter-modal connections.

Access Management: Controlling the number of points of access to a highway is a proven way to

move high volumes of traffic safely and efficiently. Interstate highways are examples of access controlled facilities. Many state highways, however, function simultaneously as principal through-ways and as streets handling local traffic on local trips. In many cases, efforts to increase flow through a city have reduced local livability. In other cases, local development approvals have attracted traffic that overwhelms an existing state highway or interchange and seriously impairs its function. Access management includes a range of activities aimed at balancing the need for access to properties adjacent to a highway with efficient and safe traffic movement on the highway

Deferred maintenance: ODOT periodically surveys pavement conditions on state controlled highways. The 2004 survey results continued a trend of improvement since the late 1990's:

16%	Very Good
53%	Good
16%	Fair
15%	Poor
0.1%	Very Poor

Deferring maintenance on any type of facility creates higher costs in the long run. This is especially true for road pavements, because the surface layer protects underlying layers from water and freeze damage. ODOT estimates that if a section of pavement falls to a rating of "poor," it is four to five times more costly to bring it to a "good" rating than it is to bring pavement in "fair" condition to a "good" rating.

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