Background Brief on …

Freight and Passenger Rail

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History

Oregon's first north-south rail line required two decades to complete, beginning at Portland in 1869. Track reached Salem in 1870 and Roseburg in 1872, but did not extend to Ashland until 1884. Federal land grants financed this early track building. Construction continued over the Siskiyou Mountains into California and, by 1887, a continuous route between San Francisco and Portland was completed. Meanwhile, in 1883, completion of a railroad along the Columbia River gave Oregon a transcontinental connection across the northern tier states. Late in 1884, completion of a line from Umatilla over the Blue Mountains established a second transcontinental link through Idaho, Wyoming, and Nebraska. Rail mileage in Oregon peaked in the 1930s at nearly 4,350 miles. More than 90 percent of the rail infrastructure in 1927 hosted both passenger and freight service, including 11 daily passenger trains between Portland and Eugene. Passenger trains served the Rogue River Valley into the 1950s. Other milestones include the formation of Amtrak in 1971, national deregulation of freight rates and routes in 1980, and acquisition of Southern Pacific by Union Pacific in 1996.

Today's Freight System

Oregon currently has 2,377 route miles of track and 23 federally franchised freight railroads. Currently, Union Pacific **(UP)** and BNSF Railway Co. **(BNSF)**, dominate rail transportation west of the Mississippi River. UP has lines extending from Portland into Washington State and east through Pendleton, La Grande, and Ontario and north from Hermiston to Spokane and Canada. UP also has a line from Portland south through Eugene and over the Cascade Range to Klamath Falls and into California.

BNSF track connects Portland and Seattle to Canada, and another line along the north bank of the Columbia River links Portland to Spokane and beyond. A BNSF line to California diverges from the Columbia River line near Wishram, Washington and passes through Madras, Redmond, Bend, and Klamath Falls into California. Between the Columbia River and Klamath Falls, BNSF and UP share 75 miles of UP track and 218 miles of BNSF line. Altogether, UP operates over 1,066 miles of track in the state and BNSF operates 336 miles.

Oregon's 21 other freight railroads are regional and short line carriers. Collectively, Oregon's short lines operate more than half of the state's rail mileage, serving much of the Willamette Valley, all of the Oregon coast, and the major communities along Interstate 5 between Eugene and the California border. Short lines serve the lower Columbia River basin and rural locations in Hood River, Gilliam, Union, Wallowa, Crook, Malheur and Lake Counties. Most of today's short line network, derived from former branch lines of major carriers, was spared the fate of other lines that were abandoned following mill closures and rail deregulation in 1980. Oregon's longest short lines today are the Portland & Western, **(PNWR)** operating 555 miles, and Central Oregon & Pacific **(CORP)** with 255 miles of track in the state.

According to the Association of American Railroads **(AAR)**, total Oregon rail freight tonnage in 2009 was 49.7 million tons, down from 61.1 million tons in 2008. AAR indicated that railroads employed 1,996 Oregonians in 2009, and that those employees earned $193.1 million in wages and benefits that year. Principal commodities carried by trains are wood and paper products, farm-related products and chemicals (largely soda ash or potash). Transportation equipment, petroleum, metals products, stone, scrap materials, and varied wholesale and retail shipments also were hauled. For 2009, Oregon ranked first nationwide in originating lumber and wood shipments (14.2 percent of U.S. total), and 10th in pulp and paper (3.8 percent of total); for terminations Oregon ranked eighth in farm products (3.5 percent) and ninth in waste and scrap material (4 percent).

Condition of mainline track is generally good, but the number of trains that can be safely and efficiently carried depends on several factors, such as whether a signal system is present, the complexity of that system, and the length of and intervals between sidings. Sidings, where trains pull off to allow other trains to pass, are critical since the vast majority of Oregon's main lines are single track. Modernization of rail yards is also needed and some tunnels in Oregon won't allow passage of double stacked domestic containers.

Until onset of the economic recession in 2008, traffic on short lines had grown substantially in prior years as operators improved service, upgraded track and equipment, and attracted new customers. However, a significant portion of Oregon's short line network won't allow freight speed of 25 miles per hour, the state's minimum goal for secondary line operation, because of maintenance under previous ownership. Track conditions on some short line segments necessitate lighter loads in addition to slower speeds. Because new rail cars can weigh up to 286,000 pounds **(286K)** when fully loaded, track incapable of hosting heavier vehicles discourages customers if they must load cars below capacity. The Oregon Department of Transportation **(ODOT)** estimates that the cost of upgrading deficient lines in the state to accommodate 286K cars is $125 to $150 million.

Additionally, a number of bridges and tunnels on the state's short line system are aging. Most short line bridges are timber trestles built between 1930 and 1950. Of 34 tunnels on the short rail system, all but one was dug between 1883 and 1916 and many contain significant portions of their original timber rib lining. Structural concerns within tunnels of Central Oregon & Pacific's Coquille-Eugene line were cited as the reason for the embargo of that line beginning in September 2007. The CORP embargo evolved into an abandonment application that was eventually resolved when the Surface Transportation Board ordered CORP to sell the line to the Oregon International Port of Coos Bay. Commercial freight train service resumed over the line in October 2011. Port of

Tillamook Bay's rail line was severely damaged by a storm in December 2007 and continues to remain closed due to high estimated cost of repairs.

Most Oregon businesses that ship by rail, whether on a major railroad or short line, have access to only one of the state's two interstate railroads. This lack of competition is of concern to shippers and the short lines.

A 2004 study commissioned by the Port of Portland, *Freight Rail and the Oregon Economy,* indicates that, although the rail industry is stable, productive, and competitive enough to increase business, railroads are not in the financial position to increase capacity quickly due to the industry's capital-intensive nature. On average, railroads reinvest 18 percent of revenues back into improvements. With reasonable economic growth, freight volume is expected to increase by 80 percent over the next 20 years. The study notes that if railroads are not able to maintain their current share of that increase, additional tonnage will travel by truck, increasing public-sector costs for highways and private-sector transportation costs.

Funding Improvements

Except for four publicly owned short lines, Oregon's railroads are private companies that pay federal, state, and local income taxes as well as property taxes assessed on their rights of way, buildings, and locomotives. All railroads, whether public or private, maintain their own equipment, track, and right of way. They pay an annual fee based on gross revenue for state track and equipment safety inspections and for rail crossing infrastructure. Both federal and state highway funds support rail crossing improvements, but very little federal money has been allocated to the states for other track improvements. The exception is a federal loan program, the Railroad Rehabilitation and Improvement Financing Program, and a capital grants Rail Line Relocation and Improvement Program. Both programs are administered by the Federal Railroad Administration.

Although federal rail programs are included in six-year transportation authorization bills, some significant Oregon rail projects have been accomplished in past years by Congressional earmarks. Earmarks stipulated in the 2004 federal appropriation included $8 million for continued rehabilitation of the railroad drawspan over the Coos Bay harbor entrance; $7.5 million for replacing the trestle on the north approach to the Willamette River rail bridge at Albany; $7.1 million for new rail yard capacity in Portland's Rivergate District; $1 million for enhancements at Eugene's rail passenger station; and $700,000 for upgrading a branch line serving Willamina. The Coos Bay drawbridge money later was redirected toward acquisition of the Eugene-Coquille rail line by the Port of Coos Bay.

In 2001, Oregon started a $2 million Short Line Credit Premium Account, with lottery bond proceeds to fund short line infrastructure improvements and to pay the credit risk premium required for federal loans. Nine projects were funded and the Mount Hood Railroad obtained a $2.6 million federal loan with state dollars paying the credit premium. The nine projects entailed replacement of ties and track, placement of ballast rock, and repair of bridges. The short lines provided an average 67 percent match for the improvements.

The 2003 Legislative Assembly authorized another $2 million for the short line rehabilitation program and funded a new $8 million Industrial Rail Spur program to create or improve rail access to industrial sites.

The Legislative Assembly created the multimodal *Connect*Oregon program in 2005, authorizing $100 million in lottery-backed bonds during each of the 2005, 2007 and 2009 sessions, and $40 million in the 2011 session. *Connect*Oregon provides grants and loans for non-highway transportation projects, including aviation, marine, rail passenger and rail freight, and public transportation projects. ODOT administers a competitive application process for *Connect*Oregon. The Oregon Transportation Commission selects projects for funding with input from modal and regional advisory committees and a Final Review Committee.

The 2005 *Connect*Oregon I program funded 15 rail projects, totaling $39 million. Projects included short line improvements throughout the state, construction of new track, upgrades to passenger rail facilities, and equipment purchases. Thirteen rail projects received a total of about $56 million under the *Connect*Oregon II program. Projects included rail yard expansions, bridge upgrades, and building an intermodal truck/rail grain transfer and a storage facility. Under *Connect*Oregon III, 16 rail projects totaling $40 million were approved. These included construction of a new track, expansion of a truck/rail/marine intermodal terminal, repair of major bridges, and track upgrades. Of 70 applications currently being evaluated for the $40 million *Connect*Oregon IV program, 23 are railroad-related. Project selection is scheduled to occur by summer 2012.

Rail Funding Task Force

Oregon's lack of dedicated, sustainable funding for rail investments is one of the primary challenges to maintaining a viable rail system for both passenger and freight in Oregon. Oregon does not have a dedicated revenue stream available to provide the required match for federal funds to improve passenger rail service or to to maintain or operate the infrastructure once built.

In 2011, ODOT convened a Rail Funding Task Force made up of 14 diverse representatives of Oregon industries, passenger rail advocates, local governments and community leaders to identify a long-term sustainable funding source for passenger and freight rail in Oregon. The task force submitted its final report to the Oregon Transportation Commission in December 2011. The funding recommendation described in the report includes five components: the creation of a special district; allocation of lottery proceeds to rail; reallocation of railroad property taxes to rail; a telephone access fee; and a rail investment tax credit. These sources would generate an estimated $75 - $80 million annually for rail.

Today's Passenger System

Oregon is currently served with passenger train service by the daily Amtrak *Coast Starlight* that runs between Seattle and Los Angeles, and by Amtrak's daily *Empire Builder* between Portland and Chicago. In addition, there are four daily round-trip Amtrak *Cascades* trains between Seattle and Portland, two of which extend down the Willamette Valley to Eugene, all of which operate as part of a greater Eugene-Vancouver, B.C. *Cascades* corridor service. ODOT contracts with Amtrak for operation of the two Amtrak *Cascades* trains south of Portland while Washington State supports the operation north of Portland.

ODOT also contracts with Oregon bus companies to operate Amtrak *Thruway* buses supplementing train service. The program includes routes connecting points in south-western, central, eastern, and north coast Oregon with Amtrak train service at Portland, Eugene, Chemult and Klamath Falls. In 2011, the service offered three daily (four on Fridays and Sundays) *Thruway* round trips between Portland and Eugene via Salem and Albany, connecting with trains at Portland, and two round trips daily between Portland and Astoria via Seaside. The *Thruway* buses in the Willamette Valley are designed as extensions of more frequent train service available between Portland and Seattle, and to generally offer Oregonians more options when making travel plans.

The Vancouver, B.C.-to-Eugene rail corridor is one of 10 federally designated high-speed rail corridors. The Federal Railroad Administration defines "high-speed" as speeds reasonably expected to achieve 110 miles per hour or more, though top speeds on the line today are 79 miles per hour. The locomotives and Talgo cars in operation today are designed to run at higher speeds, but the current track and signal system is not. The strategy to reduce run time, increase daily round trips and improve on-time performance between Eugene and Portland on the current freight system is estimated to cost approximately $2 billion. The Pacific Northwest Rail Corridor received more than $800 million out of $8 billion allocated for "high-speed" rail as part of the federal American Recovery and

Reinvestment Act of 2009. Oregon's share was $10.5 million to replace the roof at Portland's Union Station and to conduct preliminary engineering for two rail projects in north Portland and another at Eugene. Another $8.9 million in federal high-speed rail funds were allocated to Oregon for further planning and environmental work at Union Station, to help fund an update of the Oregon State Rail Plan, and to assist creation of a Corridor Investment Plan (CIP) for Willamette Valley passenger service. The latter will incorporate a Tier 1 Environmental Impact Statement to analyze route options and produce a service development plan. The CIP is required to meet minimum federal planning requirements, and to be eligible to apply for future federal dollars.

Amtrak trains operate over the UP mainline between Portland Union Station and Eugene, and over BNSF Railway between Portland and Vancouver, B.C. Using federal funds, the state completed major track improvements north of Union Station in Portland. A project using federal, UP, and Amtrak funds paid for improvements in southeast Portland. These projects helped reduce schedule time and facilitated addition of a new Amtrak *Cascades* stop in Oregon City in April 2004. To mitigate impact on the freight system from the second round-trip Amtrak *Cascades* train, Oregon pledged $15 million to create new capacity between Eugene and Portland. In 2005, UP completed a new signalized running track through Portland's Albina yard to alleviate freight train interference at a key junction in East Portland. The remainder of the state's commitment, approximately $4.5 million, was spent in 2008 for a new 2.5-mile siding at Eugene Yard and upgrading 5.87 miles of automatic block signals at Eugene to a modern Centralized Traffic Control system.

Congress enacted the Passenger Rail Investment and Improvement Act of 2008, which passenger rail proponents hope will eventually evolve into a major federal/state funding partnership for meeting capital needs for state-supported passenger services such as the *Cascades*.

The 2007 Legislative Assembly approved a measure directing Oregon customized license plate fees be used to support the passenger rail program. The funds were expected to generate sufficient revenue to pay for the annual operation of one of the two state-supported Amtrak *Cascades* trains. The 2009 Legislative Assembly increased the motor vehicle custom registration plate fee to $50/year to generate more revenue to help fund the second *Cascades* passenger train. However, custom plate revenue is now forecast to be less than the full amount needed to support the *Cascades* train service.

In Fiscal Year 2011, ridership on the Oregon-funded *Cascades* trains and the Portland-Eugene segment of the *Coast Starlight* was 168,600 passengers. Another 70,952 persons traveled the Portland-Eugene corridor in 2011 aboard Amtrak *Thruway* buses. Since 1996, the Oregon passenger rail system and its allied bus network have shown sustained ridership growth with the exception of 2009, a year hard-hit by the severe economic recession.

Excursion Trains

Excursion trains are important to the financial survival of some Oregon short lines and to the economies of the regions in which they operate. Two small freight carriers that rely heavily on excursion revenue include Mount Hood Railroad and Wallowa Union Railroad. Two other operators, Sumpter Valley Railroad and the Oregon Coast Scenic Railroad, run exclusively for tourists.

Amtrak

Passenger rail funding discussions in Congress are tied to the discussion of Amtrak's future. In 2002, Amtrak was on the brink of closing lines. Missing Congressional deadlines to be operationally self-sufficient, Amtrak reorganized and, in 2011, overhauled its accounting processes. With the exception of the Northeast Corridor, Amtrak's ticket revenue does not cover operating costs. The company's cross-country trains show the highest losses. Affected communities and states are urging Congress to more fully support the system in order to provide alternatives to crowded highways and

airports. While California, Oregon and Washington are financing their share of state-supported trains, some states on the East Coast are not, and some states don't currently contribute at all. Provisions of the Passenger Rail and Investment and Improvement Act of 2008 set a deadline of October 2013 for states to begin paying fully-allocated costs of state-supported passenger service run by Amtrak. During 2010 and 2011, representatives of the states and Amtrak worked to devise a fair method for apportioning costs between parties. At the same time, Oregon and Washington have been reevaluating how to equitably share the cost of the *Cascades* service. The net result of these simultaneous negotiations will likely be to increase annual costs for both Oregon and Washington in the years ahead.

Commuter Rail

In February 2009, the Tri-County Metropolitan Transportation District **(TriMet)** began commuter rail service between Beaverton and Wilsonville, with three intermediate stations in Tigard and Tualatin. The service operates over upgraded freight rail tracks belonging to PNWR. The Westside Express Service **(WES)** uses three self-propelled diesel multiple unit vehicles (**DMUs**) plus one non-powered trailer car. Early in 2010, TriMet acquired two used self-propelled rail diesel cars from the Alaska Railroad to be overhauled as standbys for the newer DMUs. WES trains average 37 miles per hour over the route and travel up to a maximum speed of 60 miles per hour. WES trains run every 30 minutes during the morning and afternoon rush hour on week days only. Ridership in the fall of 2011 was averaging more than 1,600 daily boardings and more than 8,000 weekly trips.

Oregon Rail Division

The Rail Division within ODOT carries out programs in Rail Safety, Rail Employee Safety, Crossing Safety, Planning, and Operations. Most division staff is involved in regulatory activities focusing on safety. They ensure compliance with federal and state regulations related to track, equipment, operating practices, railroad employee safety, highway-railroad crossings, and hazardous materials handling. The division directly manages 155 miles of state-owned railroad right-of-way in six counties as well as federal and state-funded crossing improvement projects. Finally, the division helps manage and market the Amtrak *Cascades* passenger service and connecting *Thruway* bus network.

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