



Part 1 in Our Series:

**Trade and
Transportation**

TRADE-DEPENDENT WASHINGTON RELIES ON RAIL

BRIEFLY

Rail is a critical part of Washington's transportation system, and the benefits of a healthy rail infrastructure accrue both privately and publicly.

Washington is highly trade dependent. A 2012 report found that 40 percent of Washington jobs are trade-related. (WCIT) That trade is facilitated by our transportation network. As the Washington State Department of Transportation (WSDOT) writes in a freight mobility report,

Washington's transportation system functions as an interconnected network of gateways and transportation corridors—inland barge, seaports, airports, borders, rail, and highway systems—that provide access to markets, create jobs and economic growth, and link business, government, and economic activities together locally, nationally, and internationally. (WSDOT 2012b)

The highway system tends to get the most focus in state transportation policy discussions, as it is the focus of the state's transportation budget. But the mainly privately-owned rail system is vitally important. As noted recently in the *Wall Street Journal*,

North America's major freight railroads are in the midst of a building boom unlike anything since the industry's Gilded Age heyday in the 19th century—this year pouring \$14 billion into rail yards, refueling stations, additional track. With enhanced speed and efficiency, rail is fast becoming a dominant player in the nation's commercial transport system and a vital cog in its economic recovery.

This time around, though, the expansion isn't so much geographic—it is about a race to make existing rail lines more efficient and able to haul more

and different types of freight. (Morris)

Given the amount of freight that moves through our state, the rail system is a critical part of our transportation network.

Rail System Funded Privately

The benefits of a healthy rail infrastructure accrue broadly. As WSDOT's 2010–2030 Freight Rail Plan explains,

Although predominantly privately owned, the freight rail system provides many public benefits that warrant taxpayer participation in improvements at both federal and state levels. The common public benefits associated with freight rail include stimulating the state's economy, supporting local communities and businesses with jobs and revenues, reducing congestion, improving public safety, offering a transportation choice for shippers, reducing environmental pollution, and saving energy. (WSDOT 2009)

Even so, the rail system is primarily funded privately. BNSF Railway spends at least \$100 million a year in capital expenditures in Washington. In 2012, BNSF planned to spend \$106 million “on maintenance and rail capacity improvement and expansion projects in Washington” (BNSF). Union Pacific's (UP) capital spending in Washington totaled \$15.8 million in 2012. (UP)

Public money does flow to the rail system, but mostly for passenger rail or mitigation projects. In 2011–13, state funds for rail operations totaled \$33.6 million (57 percent of which was for Amtrak subsidies). State capital funds for pas-

According to the Association of American Railroads, in 2010, 23 freight railroads operated in Washington on 3,215 miles of track. BNSF Railway operated 1,635 of those, and Union Pacific operated 531. BNSF and UP are the only two Class I railroads in the state, meaning that they have operating revenues of at least \$250 million per year. Also operating in Washington are one regional railroad, 14 local railroads, and six switching and terminal railroads. (AAR)

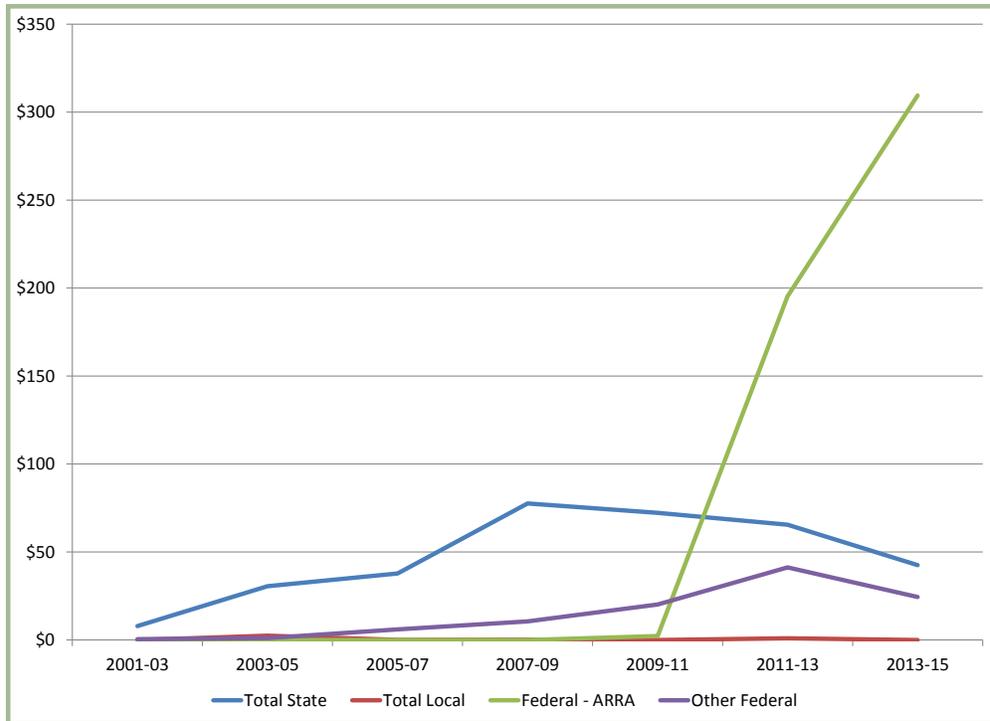


Chart: Public Capital Spending on Rail in Washington (Dollars in Millions)

senger rail totaled \$54.6 million. State capital funds totaled \$2.75 million for the Freight Rail Assistance Program (FRAP), \$4.57 million for the Freight Rail Investment Bank (FRIB), and \$2.64 million for other freight rail projects.

As passed by the legislature, the 2013–15 transportation budget includes \$376.5 million in capital funds for rail. Of that, \$309.5 million is American Recovery and Reinvestment Act (ARRA) funding. \$42.6 million is state funds. Of the total, \$334.4 million is categorized as being for high speed [passenger] rail grant in-

vestments.

For 2013–15, the Freight Rail Assistance Program will receive \$2.75 million; grants are awarded by the legislature to public or private sector projects, and “projects must be shown to maintain or improve the freight rail system in the state and benefit the state’s interests” (WSDOT 2013). The Freight Rail Investment Bank makes loans to the public sector of up to \$250,000. \$5 million has been appropriated for the program for 2013–15. In 2011–13, the FRAP funded six projects and the FRIB funded 10 projects. (WSDOT 2013) For 2013, at least five FRAP projects and at least nine FRIB projects are planned. (LEAP)

Rail Traffic Growing

BNSF and UP operate on both north-south and east-west mainlines (primary tracks) in Washington. On segments of the mainlines, the number of average daily trains in 2011 ranged from 6 from Auburn to Pasco via Stampede Pass to 81 from Tacoma to Auburn and from Auburn to Seattle. (WSDOT 2012b) Rail volumes are variable, though, because they are dependent on changing customer needs, market demands, and economic conditions—factors that aren’t confined to Washington but that play out over the entire rail system. Consequently, the number of trains running in a community will ebb and flow, and one traffic seg-

Table 1: Current and Projected Number of Trains

	2011 Average	Moderate Growth Scenario				High Growth Scenario			
		2020		2030		2020		2030	
		Average	Peak	Average	Peak	Average	Peak	Average	Peak
Pasco to Wishram	45	51	56	61	67	57	62	72	80
Wishram to Vancouver	41	46	51	56	61	52	57	67	74
Hinkle, OR to Portland, OR	32	41	45	47	52	46	50	53	59
Pasco to Spokane	45	59	65	73	80	71	78	93	102
Spokane to Sand Point, ID	59	75	83	92	101	87	96	112	124
Hinkle, OR to Eastgate, ID	10	11	12	12	13	12	14	14	15
Vancouver to Kalama/Longview	63	74	81	98	108	83	92	112	123
Kalama/Longview to Tacoma	57	71	78	94	103	79	87	105	115
Tacoma to Auburn	81	93	102	114	125	99	108	122	134
Auburn to Seattle	81	94	103	119	131	102	112	131	144
Seattle to Everett	51	63	69	75	83	70	77	87	96
Everett to Blaine	17	26	28	35	38	34	37	47	51
Everett to Spokane (Stevens Pass)	18	21	23	24	26	21	23	24	26
Auburn to Pasco (Stampede Pass)	6	14	16	19	21	20	22	27	30

Source: Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment

	Originating in state	Terminating in state	Moving within/ through state	Total rail freight	% change
2005	27,870	51,862	29,308	109,040	
2006	26,228	56,860	29,290	112,378	3.06%
2007	22,615	55,860	37,868	116,343	3.53%
2008	19,477	59,761	36,561	115,799	-0.47%
2009	15,741	55,582	30,939	102,532	-11.46%
2010	18,504	58,291	39,032	115,827	12.97%

Source: WSDOT, The Gray Notebook

Table 2: Rail Freight (Thousands of Tons)

ment may be declining while another is growing. This demand variability makes the timing and volume of the future transportation of specific commodities uncertain. Additionally, the train counts in Table 1 include passenger rail. Indeed, freight is not the only driver of rail traffic increases. Passenger rail traffic has contributed significantly to rail traffic growth in Washington.

In 2020, under a moderate growth scenario, it is estimated that the number of average daily trains will increase to 93 from Tacoma to Auburn and to 94 from Auburn to Seattle. (WSDOT 2012b) (See Table 1.) Such long term forecasts make assumptions about growth, but the economy and marketplace are the key drivers of freight volumes. As discussed below, no capacity constraints are anticipated until 2020 (and then only under a

Table 3: Estimated Year of Capacity Constraint

	Moderate Growth Scenario		High Growth Scenario	
	Average	Peak	Average	Peak
Pasco to Wishram	2030	2025	2025	2020
Wishram to Vancouver	--	2030	2025	2024
Hinkle, OR to Portland, OR	--	--	--	--
Pasco to Spokane	--	--	2030	2025
Spokane to Sand Point, ID	--	--	--	--
Hinkle, OR to Eastgate, ID	--	--	--	--
Vancouver to Kalama/Longview	--	--	--	2030
Kalama/Longview to Tacoma	--	--	--	--
Tacoma to Auburn	--	--	--	--
Auburn to Seattle	--	--	--	--
Seattle to Everett	--	--	2023	2020
Everett to Vancouver, BC	--	2030	2025	2020
Everett to Spokane (Stevens Pass)	--	--	--	--
Auburn to Pasco (Stampede Pass)	--	--	--	--

Source: Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment

high growth scenario which includes growth in export bulk trains).

According to the Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment, “In the past two decades an increasing percentage of the commerce moving through Pacific Northwest ports has been carried by rail” (BST 2011). The 2010–2030 Freight Rail Plan estimated that rail freight will grow at a 2.2 percent annual rate until 2015, and then at a 2.3 percent annual rate from 2015 to 2025.

The 2010–2030 Freight Rail Plan also estimated that “about 40 percent of the state’s rail traffic is related to port activity” (WSDOT 2009). In 2007, rail accounted for 72 percent of freight traffic flows via the ports of Longview, Kalama and Vancouver and 34 percent via Puget Sound ports. (BST 2009)

Of waterborne commerce through Washington’s ports, in 2011, containers shipped by rail accounted for the transportation of 9.0 percent of the tonnage and other rail accounted for 32.5 percent. Containers shipped by truck accounted for 12.5 percent and other truck accounted for 8.7 percent. (The transportation of goods to and from industrial facilities—primarily refineries—accounted for 34.5 percent.) (BST 2009)

According to the Joint Transportation Committee, about 9 percent of freight tonnage in Washington was moved by rail in 2010. Over 115.8 million tons of freight was transported by rail in Washington in 2010. Of that, 40.9 million tons were farm products (35 percent of total tonnage). The second most shipped by rail commodity was coal (17.9 million tons, 15 percent of total tonnage). (WSDOT 2012a)

The Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment notes that

... rail volumes fell markedly during the recent recession, but they recovered strongly in 2010, reaching pre-recession levels. Coupled with this rapid pace of recovery, there are significant opportunities for growth in

rail traffic, particularly in bulk train exports of minerals, ores and grain. (BST 2011)

Keeping Up With the Traffic

The Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment estimates that line segments won't become capacity constrained until 2020 at the earliest, and then only for a few segments on peak days and under a high growth scenario. For example, the segments from Tacoma to Seattle face no constraints under the moderate or high growth scenarios, while the Seattle to Everett segment faces constraints on average days under the high growth scenario in 2023. (See Table 3.)

This is manageable, as the report determines:

Growth in the volume of export bulk trains is expected to increase the demand on existing rail capacity in the region. Even moderate growth will require BNSF and UP to assess the capacity requirements necessary to meet the growing demand. Both railroads have the ability to increase capacity through a combination of physical and operational improvements, and should be able to meet growing demand well into the future. (BST 2011)

Comment

Our state's ability to maintain its nation-leading position as a hub for domestic and international trade depends on speedy, safe, and reliable transportation connections. Privately-owned freight rail is a critical component of that network. Increased trade activity has led to a post-recession rail renaissance that has seen substantial growth in investment and freight volumes. This activity directly and positively supports Washington's leadership position in global trade.

References

- Association of American Railroads (AAR). 2012. "[Freight Railroads in Washington](#)." May.
- BNSF. 2012. "[BNSF plans \\$106 million capital program in Washington to maintain and expand rail capacity](#)." August 2.
- BST Associates. 2009. "[2009 Marine Cargo Forecast: Technical Report](#)." Washington Public Ports Association and Washington State Department of Transportation. March 23.
- . 2011. "[Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment](#)." Pacific Northwest Rail Coalition. December.
- Joint Transportation Committee (JTC). 2013. "[Transportation Resource Manual](#)." Washington Legislature. January.
- Legislative Evaluation and Accountability Program (LEAP). 2013. "[LEAP Transportation Document 2013-2](#)." April 23.
- Morris, Betsy. 2013. "[Boom Time on the Tracks: Rail Capacity, Spending Soar](#)." *Wall Street Journal*. March 26.
- Union Pacific (UP). 2013. "[Union Pacific in Washington](#)." April.
- Washington Council on International Trade (WCIT) and Trade Development Alliance of Greater Seattle. 2012. "[An International Competitiveness Strategy for Washington State](#)." October 2.
- Washington State Department of Transportation (WSDOT). 2009. "[2010-2030 Freight Rail Plan](#)." December.
- . 2012a. "[The Gray Notebook Edition 45](#)." May 22.
- . 2012b. "[Washington State Freight Mobility Plan Task 2: Interim Data Report](#)." Freight Systems Division. June.
- . 2013. "[State Rail Grant and Loan Programs](#)." Accessed May 21.