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-
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.

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

<table>
<thead>
<tr>
<th>Route</th>
<th>2011 Average</th>
<th>2020 Moderate Growth Scenario</th>
<th>2030 Moderate Growth Scenario</th>
<th>2011 Average</th>
<th>2020 High Growth Scenario</th>
<th>2030 High Growth Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasco to Wishram</td>
<td>45</td>
<td>51</td>
<td>56</td>
<td>61</td>
<td>67</td>
<td>67</td>
</tr>
<tr>
<td>Wishram to Vancouver</td>
<td>41</td>
<td>46</td>
<td>51</td>
<td>56</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Hinkle, OR to Portland, OR</td>
<td>32</td>
<td>41</td>
<td>45</td>
<td>47</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Pasco to Spokane</td>
<td>45</td>
<td>59</td>
<td>65</td>
<td>73</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Spokane to Sand Point, ID</td>
<td>59</td>
<td>75</td>
<td>83</td>
<td>92</td>
<td>101</td>
<td>101</td>
</tr>
<tr>
<td>Hinkle, OR to Eastgate, ID</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Vancouver to Kalama/Longview</td>
<td>63</td>
<td>74</td>
<td>81</td>
<td>98</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Kalama/Longview to Tacoma</td>
<td>57</td>
<td>71</td>
<td>78</td>
<td>94</td>
<td>103</td>
<td>103</td>
</tr>
<tr>
<td>Tacoma to Auburn</td>
<td>81</td>
<td>93</td>
<td>102</td>
<td>114</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>Auburn to Seattle</td>
<td>81</td>
<td>94</td>
<td>103</td>
<td>119</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>Seattle to Everett</td>
<td>51</td>
<td>63</td>
<td>69</td>
<td>75</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Everett to Blaine</td>
<td>17</td>
<td>26</td>
<td>28</td>
<td>35</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Everett to Spokane (Stevens Pass)</td>
<td>18</td>
<td>21</td>
<td>23</td>
<td>24</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Auburn to Pasco (Stapled Pass)</td>
<td>6</td>
<td>14</td>
<td>16</td>
<td>19</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment
Table 2: Rail Freight (Thousands of Tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>Originating in state</th>
<th>Terminating in state</th>
<th>Moving within/through state</th>
<th>Total rail freight</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>27,870</td>
<td>51,182</td>
<td>29,308</td>
<td>109,040</td>
<td>3.06%</td>
</tr>
<tr>
<td>2006</td>
<td>26,228</td>
<td>56,860</td>
<td>29,290</td>
<td>112,378</td>
<td>3.53%</td>
</tr>
<tr>
<td>2007</td>
<td>22,615</td>
<td>55,860</td>
<td>37,868</td>
<td>116,343</td>
<td>-0.47%</td>
</tr>
<tr>
<td>2008</td>
<td>19,477</td>
<td>59,761</td>
<td>36,561</td>
<td>115,799</td>
<td>-11.46%</td>
</tr>
<tr>
<td>2009</td>
<td>15,741</td>
<td>55,582</td>
<td>30,939</td>
<td>102,532</td>
<td>-11.46%</td>
</tr>
<tr>
<td>2010</td>
<td>18,504</td>
<td>58,291</td>
<td>39,032</td>
<td>115,827</td>
<td>12.97%</td>
</tr>
</tbody>
</table>

Source: WSDOT, The Gray Notebook

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) 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 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

Table 3: Estimated Year of Capacity Constraint

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Average</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasco to Wishram</td>
<td>2030</td>
<td>2025</td>
</tr>
<tr>
<td>Wishram to Vancouver</td>
<td>--</td>
<td>2030</td>
</tr>
<tr>
<td>Hinkle, OR to Portland, OR</td>
<td>--</td>
<td>2030</td>
</tr>
<tr>
<td>Pasco to Spokane</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Spokane to Sand Point, ID</td>
<td>--</td>
<td>2030</td>
</tr>
<tr>
<td>Hinkle, OR to Eastgate, ID</td>
<td>--</td>
<td>2030</td>
</tr>
<tr>
<td>Vancouver to Kalama/Longview</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Kalama/Longview to Tacoma</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Tacoma to Auburn</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Auburn to Seattle</td>
<td>--</td>
<td>--</td>
</tr>
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<td>--</td>
<td>2023</td>
</tr>
<tr>
<td>Everett to Vancouver, BC</td>
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</tr>
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<td>--</td>
</tr>
</tbody>
</table>

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


