Rail Freight Trends at Selected U.S.-Canadian Border Crossings

> Chris Dingman Northern Border Transportation Specialist United States Department of Transportation Federal Highway Administration



Rail Peer Exchange/Workshop Burlington, Vermont May 25, 2011

Presentation Outline

- Detail the importance of freight movements to the economies of the United States and Canada.
- Discuss rail freight volumes in the United States, both current levels and future projections.
- Examine rail Freight trends among the Top 10 highest volume (in US\$) Northern border crossings focusing in particular on two groups: the Largest 3 and Next 7.

Why Focus on Freight along the U.S./Canadian Border?

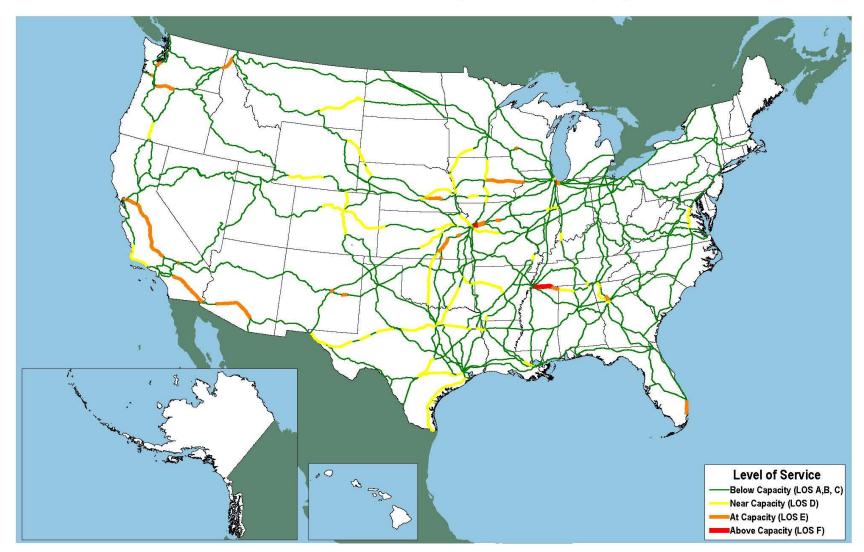
- Canada is the United States' largest trading partner and annually accounts for more than 20% of U.S. Exports.
- In 2009, the U.S. exported more (in US \$ value) to Canada than to Mexico and China combined.
- 35 U.S. States count Canada as their largest export market.
- In 2010, rail transportation trade (imports & exports) with Canada was over \$83 billion.

Sources: U.S. Department of Commerce, Brookings Institution, Bureau of Transportation Statistics-North American Transborder Freight Data

Rail Freight Trends United States



Current Train Volumes Compared to Current Capacity



Note: Level of Service (LOS) A through F approximates the conditions described in Transportation Research Board, *Highway Capacity Manual 2000* period Source: Association of American Railroa National Rail Infrastructure Capacity and Investment Study, Jdy prepared by Cambridge Systematics, Inc. (Washington, DC: September 2007), figure 4.4, page 4-10.

Level of Service 00 Es? -Below Capacity (LOS A,B, C) Near Capacity (LOS D) At Capacity (LOS E) Above Capacity (LOS F)

Train Volumes in 2035 Compared to Current Capacity

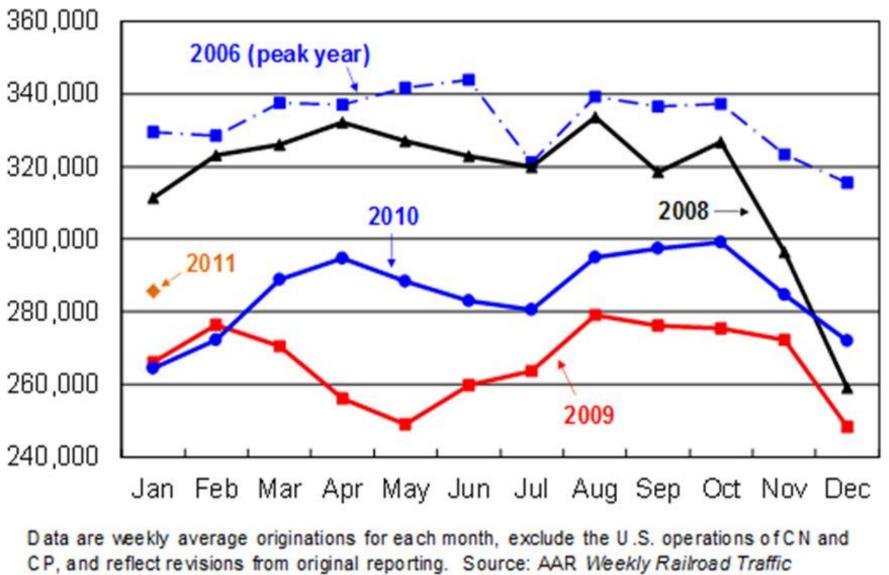
Note: Level of Service (LOS) A through F approximates the conditions described in Transportation Research Board, *Highway Capacity Manual 2000.* Source: Association of American Railroads, *National Rail Infrastructure Capacity and Investment Study,* prepared by Cambridge Systematics, Inc. (Washington, DC: September 2007), figure 5.4, page 5-5.

U.S. Nationwide Trends

- 2009 actual U.S. rail shipment volumes were 1.689 billion tons.
- 2040 projected U.S. rail shipment volumes are 2.408 billion tons.
- That's a projected 42.6% increase or about 720 million tons.
- Approximately 1.4% increase annually.

Source: Federal Highway Administration, Freight Analysis Framework, 2010

Average Weekly U.S. Rail Carloads: All Commodities (not seasonally adjusted)



Rail Freight Trends Selected Crossings



Source of all data in this section: Bureau of Transportation Statistics-North American Transborder Freight Data Base Maps Source: ESRI

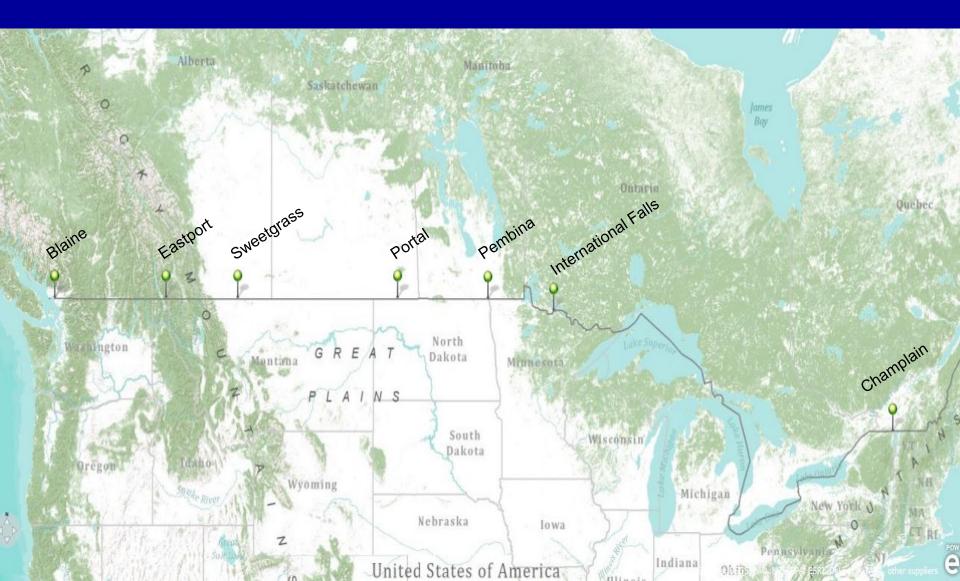
Largest 3 and Next 7

- The three highest volume (US\$) Northern Border Rail Freight crossings are:
 - Detroit, MI/Windsor, ON
 - Buffalo-Niagara Falls, NY/Fort Erie-Niagara Falls, ON
 - Port Huron, MI/Sarnia, ON
- The next seven highest volume crossings (US\$) are:
 - International Falls, MN/Fort Frances, ON
 - Portal, ND/North Portal, SK
 - Blaine, WA/Douglas, BC
 - Champlain-Rouses Point, NY/Lacolle, QC
 - Pembina, ND/Emerson, MB
 - Eastport, ID/Kingsgate, BC
 - Sweetgrass, MT/Coutts, AB

Largest 3 Rail Crossings



Next 7 Rail Crossings



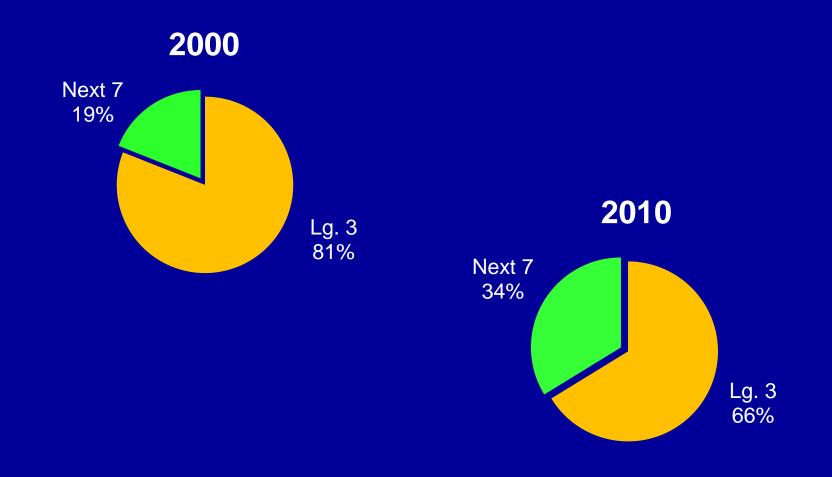
Total Rail Freight Volume of Top 10 Northern Border Crossings 2010 (US \$)

Port of Entry	2010 (US \$)
Port Huron, Michigan	23,405,014,471
Detroit, Michigan	19,085,031,554
Buffalo-Niagara Falls, New York	10,061,096,434
International Falls/Rainer, Minnesota	7,743,119,760
Portal, North Dakota	6,872,212,311
Pembina, North Dakota	3,018,330,147
Blaine, Washington	2,864,649,358
Champlain-Rouses Point, New York	2,752,822,682
Eastport, Idaho	2,237,631,159
Sweetgrass, Montana	1,295,953,855

Top 10 Rail Freight Volume Growth (in US\$) by Percentage 2000-2010

Port of Entry	2000-2010 Growth
Port Huron, Michigan	-5.0%
Detroit, Michigan	122.0%
Buffalo-Niagara Falls, New York	-30.5%
International Falls/Rainer, Minnesota	95.7%
Portal, North Dakota	213.4%
Blaine, Washington	96.5%
Champlain/Rouses Point, New York	175.1%
Pembina, North Dakota	1427.7%
Eastport, Idaho	146.7%
Sweetgrass, Montana	175.6%

Detroit: 2000-2006: 158% 2006-2010: -13% Percentage of 3 Largest Freight Rail Crossings and Next 7 Crossings Total Volume of Top 10 Crossings in US\$ for 2000 and 2010



Summary

- Northern Border has significant economic impact on the U.S. and Canada.
- Rail freight volumes projected to grow significantly in the United States over the next 25 years.
- Recent trends show rail freight volumes spreading out along the entire Northern Border.

Thank you!

Christopher Dingman Northern Border Transportation Specialist FHWA-Michigan Division (517) 702-1830 christopher.dingman@fhwa.dot.gov

