

A Regulatory Gap?
The Surge in Rail Transport of Crude Oil
in Great Lakes States and Provinces

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The Dramatic Surge in Crude Oil Transport By Rail is a Recent Phenomenon

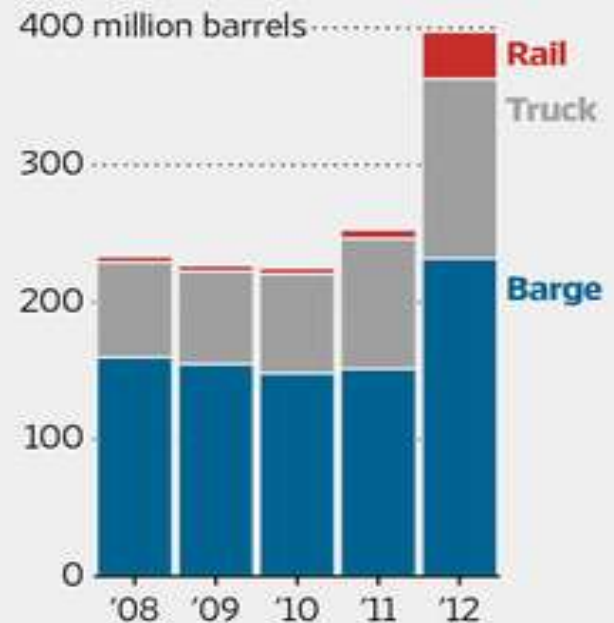
PETROLEUM RAIL TRAFFIC, CANADA*



*Data are weekly average shipments for each month, as an average of several weeks, which CP and DP track by the US customs, and other sources for other months.
Source: American Association of Railroads

On the Move

The amount of crude oil transported by rail, road and water skyrocketed in 2012.

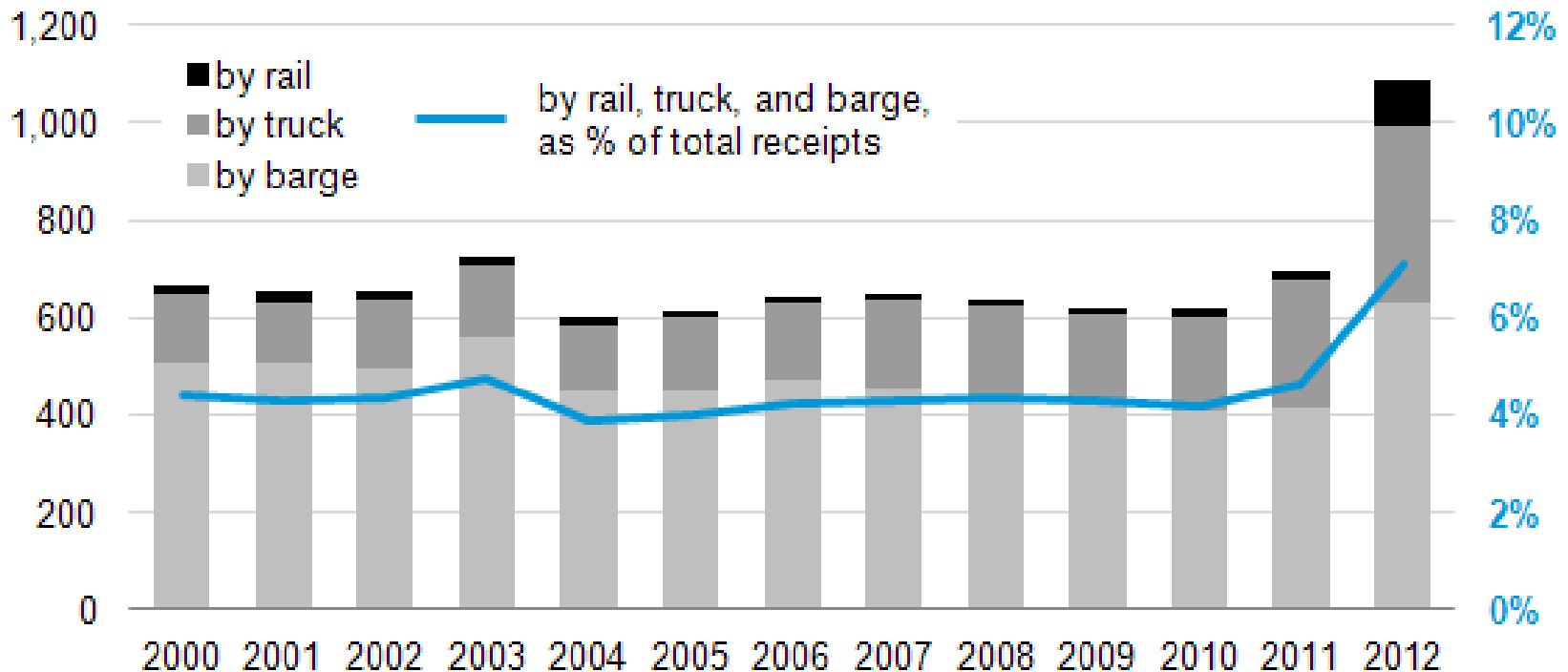


Source: Energy Information Administration
The Wall Street Journal



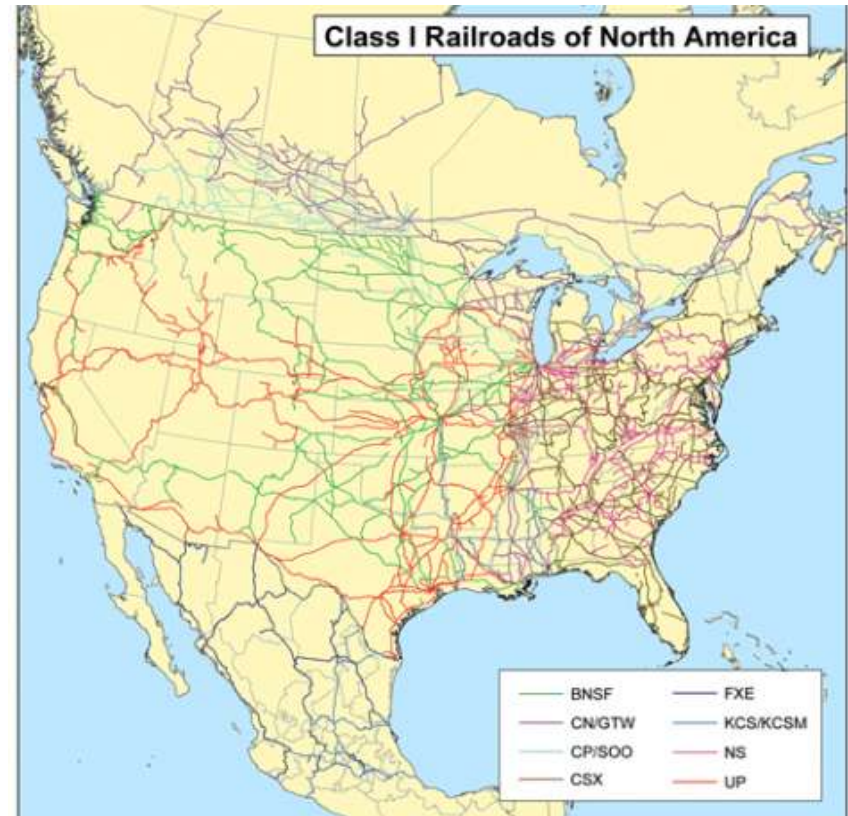
More Transport Modes Are Being Used

Refinery receipts of crude oil by rail, truck, and barge
thousand barrels per day



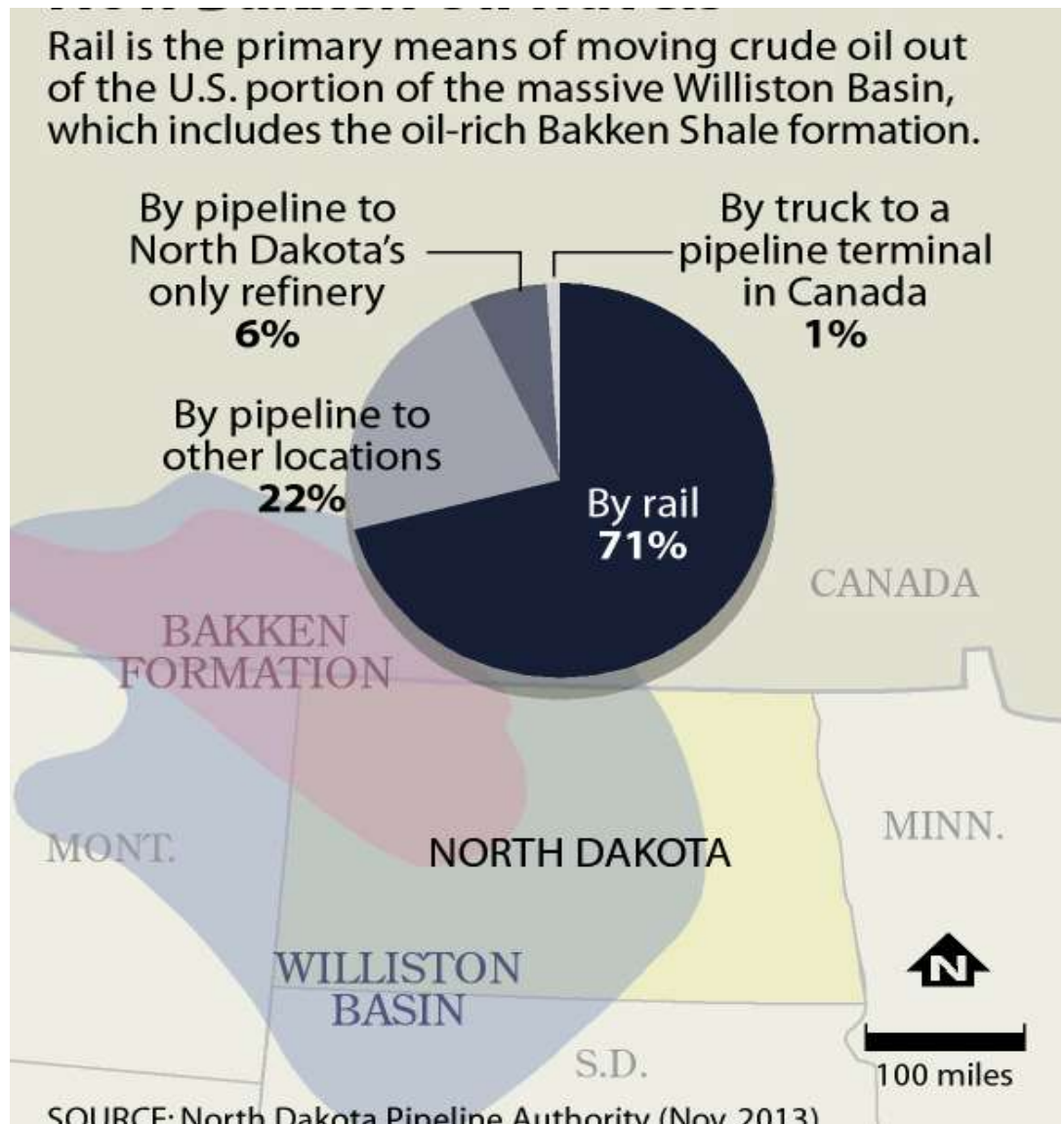
Rail is Being Used to Increase Capacity and Flexibility

Canadian and U.S. Crude Oil Pipelines

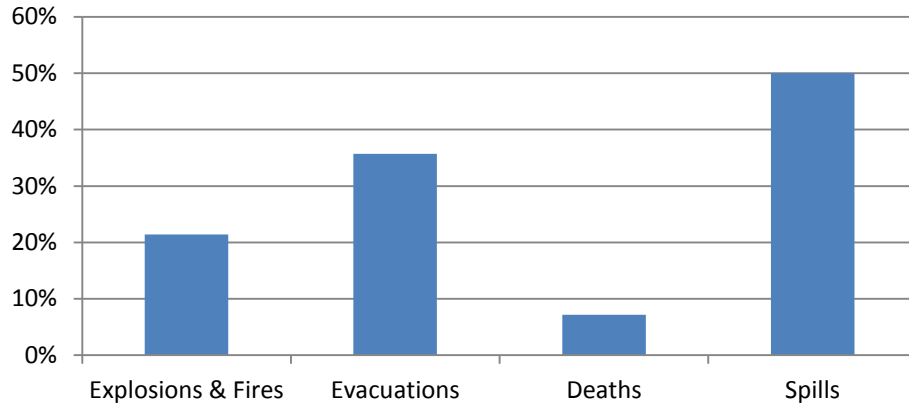


This Is Not A Choice Between Pipelines And Rail

Shippers favor rail because it provides flexibility as shale plays change in profitability and to increase shipping capacity beyond that provided by pipelines.

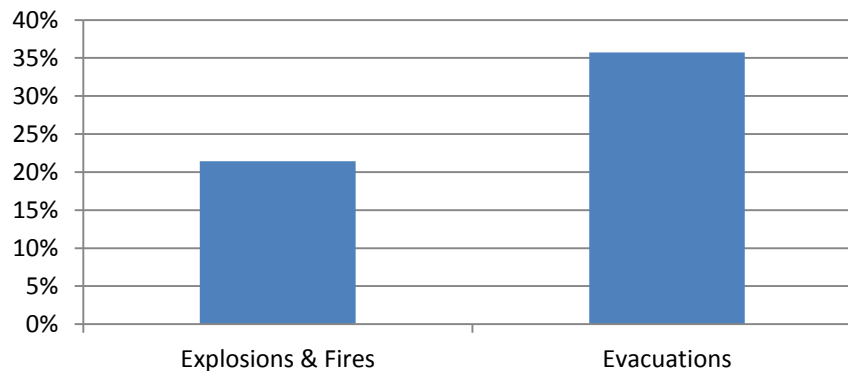


Types of Incidents Involved in Oil Train Derailments (2013-14 non-exclusive categories)



Fourteen Derailment Incidents Occurred in North America in the Past Year

Types of Incidents Involved in Oil Train Derailments (2013-2014 non-exclusive categories)



Infrastructural Risks

- The safety and reliability of the equipment
- The scale of the trains and effect on track condition
- Unsafe crossings



Contextual Risks

- Routing through highly populated areas – over 40 identified
- Disparate impacts – risks are borne by vulnerable populations in some cities
- Train routes proximate to critical waterways and environments
- Unclear best practice and financial accountability for accident follow-up
- Security risks



The Regulatory Gap

The US National Transportation Safety Board acknowledges that existing regulatory policy and capacity are not sufficient to address the risks to the public, property or the environment from the dramatic surge in rail transport of crude.

National-level pre-emption of railroads creates significant barriers to action and creates local costs and unfunded mandates.



What is “The State of Play”?

- Some local, state and provincial officials are insisting on a risk assessment and funds to pay for emergency preparedness.
- Some DOT 111 tank cars are being replaced by safer models.
- Government officials are becoming aware of significant governmental costs – public safety, monitoring, and emergency preparedness - as well as other public costs – wait times at urban crossings.



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Oil Train Derailments 2013-14

| Number | Date | Location | Rail operator | Total train cars | Train cars involved | Origin | Details | News Report |
|--------|-----------|---|---|------------------|--------------------------|---|--|----------------------|
| 1 | 7-Mar-13 | Mattawamkeag Maine near the Penobscot River | Pan Am Railways | 96 | 15 | North Dakota to New Brunswick | Derailment, 3 gallons of oil spilled | Link |
| 2 | 27-Mar-13 | Parkers Prairie, Minnesota | CP Rail | 94 | 14 | Alberta, Canada to USA | 24 barrels of oil spilled, but the ground was frozen, so oil did not enter the soil; no injuries | Link |
| 3 | 1-Apr-13 | Near White River, Ontario | CP Rail | | 22 | | 400 barrels of oil spilled, no injuries | Link |
| 4 | 21-May-13 | Jansen, Saskatchewan, Canada | CP Rail | 64 | 5 | | Derailment, spilled 575 barrels of oil, no injuries | Link |
| 5 | 6-Jul-13 | Lac-Megantic, Quebec | Montreal, Maine and Atlantic Railway | 74 | 63 | Bakken Formation to Saint John, New Brunswick | Derailment, fire and explosions, 47 people died | Link |
| 6 | 26-Jul-13 | Lloydminster, Alberta, Canada | CP Rail | | 1 locomotive + 7 cars | | Derailment, only locomotive diesel fuel leaked, no injuries | Link |
| 7 | 19-Oct-13 | Gainford, Alberta | Canadian National | 130 | 13 | Edmonton to Vancouver, British Columbia | Derailment, fire and explosions, evacuation, no injuries | Link |



Oil Train Derailments 2013-2014 (cont.)

| Number | Date | Location | Rail operator | Total train cars | Train cars involved | Origin | Details | News Report |
|--------|-----------|--|--------------------------|------------------|-------------------------|-----------------------------------|--|----------------------|
| 8 | 8-Nov-13 | Pickens Co, Alabama | Genesee & Wyoming | 90 | 20 | Amory, MS, to Walnut Hill, FL | Derailment, fire, explosions, spill into wetlands, no injuries | Link |
| 9 | 10-Dec-13 | Cheektowaga, New York | CSX | | 5 | Chicago, IL to Philadelphia, PA | Derailment, no spill, no injuries | Link |
| 10 | 30-Dec-13 | Casselton, North Dakota | BNSF | 106 | 2 locomotives + 21 cars | | Train collided with an oncoming train carrying grain that had derailed; fire and explosion, 400,000 gallons of crude oil spilled, evacuation | Link |
| 11 | 7-Jan-14 | northern New Brunswick, Canada | Canadian National | 122 | 17 | Toronto to Moncton, New Brunswick | Derailment, fire, evacuation, no injuries | Link |
| 12 | 20-Jan-14 | bridge over Schuylkill River, Pennsylvania | CSX | 101 | 7 | Chicago, IL to Philadelphia, PA | Derailment, no spill, no injuries | Link |
| 13 | 31-Jan-14 | New Augusta, Mississippi | Canadian National | 85 | 21 | Jackson, MS to Mobile, AL | Derailment, spill, evacuation, no injuries | Link |
| 14 | 13-Feb-14 | Vandergrift, Pennsylvania | Norfolk Southern Railway | 120 | 21 | Chicago, IL to Paulsboro, NJ | Derailment, spill, no injuries | Link |

