



# ***WATERWAYS: Working for America***

**First Last**  
Organization  
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Date



# ***WATERWAYS: Working for America***

*Waterways transportation keeps our nation's commerce on the move in the safest, most fuel-efficient, environmentally sound way.*

*Highlights of A Modal Comparison of Domestic Freight  
Transportation Effects on the General Public: 2001-2014  
Updated February 2017*

## A Study in Freight Transportation Solutions



### Highlights of “A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001-2014” Updated January 2017

Conducted by the Texas Transportation Institute,  
Center for Ports & Waterways

- The study compares barges, trucks and rail transportation in terms of safety, energy efficiency and environmental impacts

## An “Inland Marine Highway” for Freight Transportation



Our “inland marine highways” move commerce to and from 38 states throughout the nation’s heartland and Pacific Northwest, serve industrial and agricultural centers, and facilitate imports and exports at gateway ports on the Gulf Coast.

- 12,000 miles of commercially navigable channels
- 192 lock sites

## An “Inland Marine Highway” for Freight Transportation



### Moving the nation's commodities

Barges are ideal for hauling bulk commodities and oversized or overweight equipment:

- Coal
- Grain
- Petroleum
- Chemicals
- Iron & Steel
- Aggregates
- Project Cargoes
- Intermodal Containers

## An “Inland Marine Highway” for Freight Transportation



### Moving the nation's commodities

Waterways transport:

- more than 60% of the nation's grain exports
- about 22% of domestic petroleum products
- 15% of the coal used in electricity generation

## An “Inland Marine Highway” for Freight Transportation

### Strengthening the economy

In 2015, 575.5 million tons of waterborne cargo transited the inland waterways valued at more than **\$229 billion**.



## Easing Rail and Highway Congestion in Our Communities



Waterways provide great cargo capacity and move freight more safely than truck or rail. In fact, they carry the equivalent of 49 million truck trips per year, with room to spare.

If waterborne cargo were diverted to highway or rail there would be:

- Increased demand for railroad equipment and higher freight rates
- Slower, less reliable delivery times



## Easing Rail and Highway Congestion in Our Communities

Units to Carry  
1,750 Short Tons of Dry Cargo



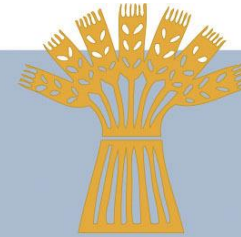
1 barge



16 rail cars



70 trucks



One loaded covered hopper barge carries 58,333 bushels of wheat, enough to make almost 2.5 million loaves of bread.

## Easing Rail and Highway Congestion in Our Communities



A loaded tank barge carries 27,500 barrels of gasoline, enough to keep about 2,500 automobiles running for an entire year.

Units to Carry  
27,500 Barrels of Liquid Cargo

1 barge



46 rail cars



144 trucks

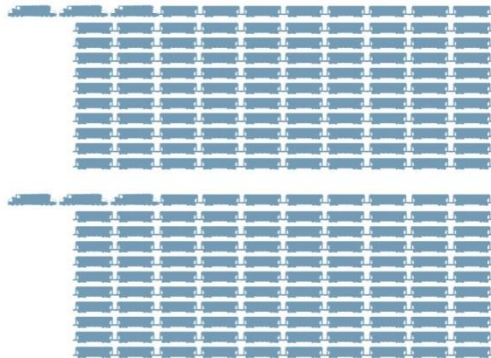


## One 15-Barge Tow Equals 216 Rail Cars or 1,050 Trucks

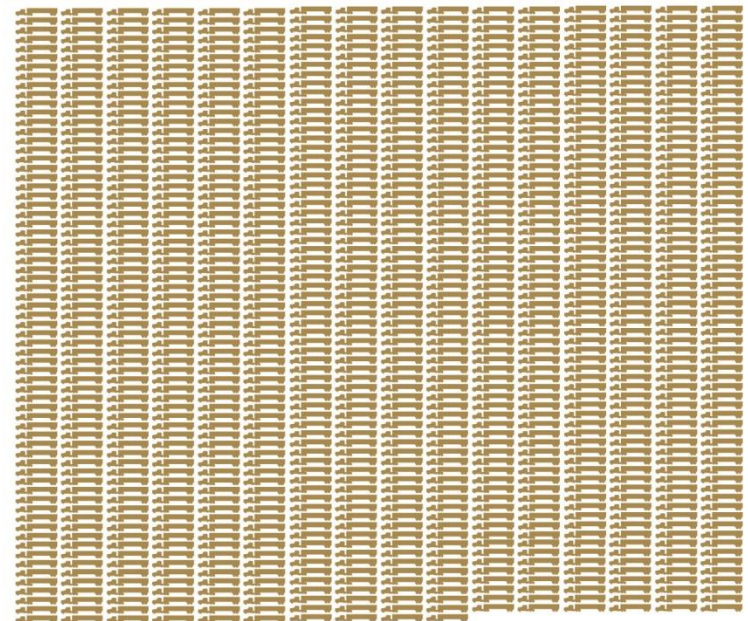
One 15-Barge Tow



216 Rail Cars + 6 Locomotives



1,050 Large Semi Tractor-Trailers

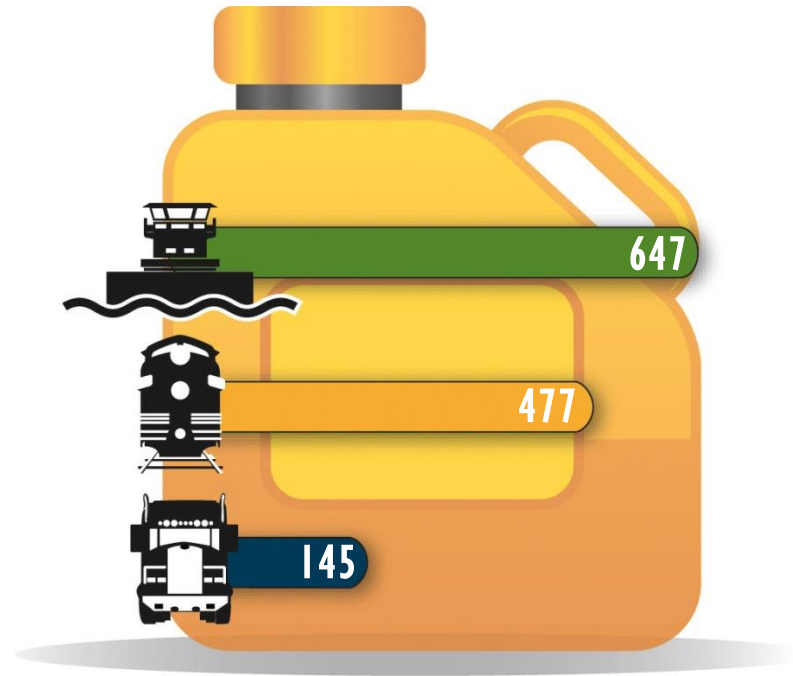


## Moving Freight Efficiently Throughout America

Transporting freight by water is also the most energy-efficient choice.

Barges can move one ton of

cargo **647** miles per gallon of fuel. A rail car would move the same ton of cargo 477 miles, and a truck only 145 miles.

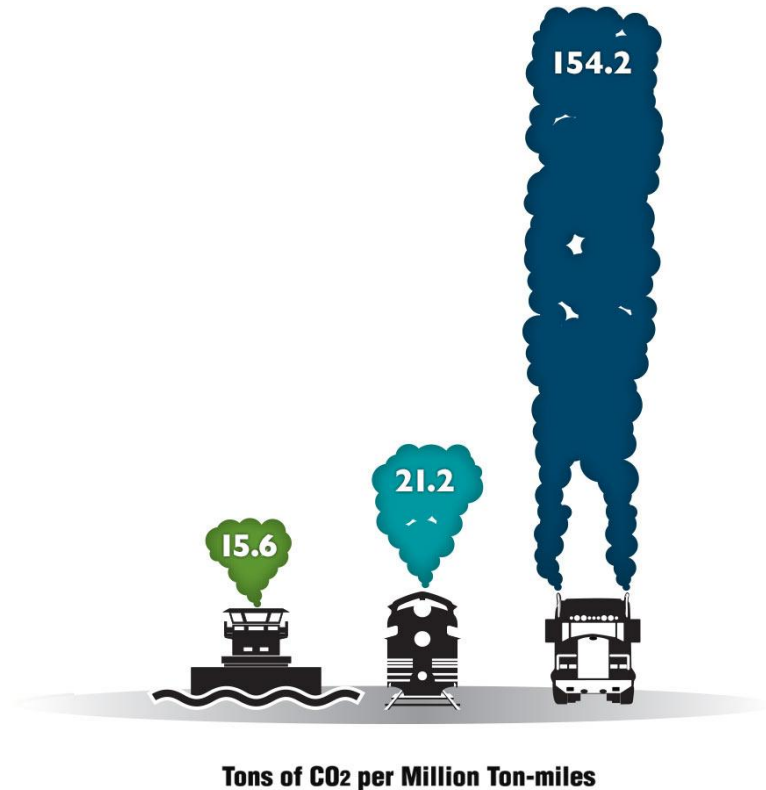


Ton-miles Traveled per Gallon of Fuel

## The Greener Way to Move America's Cargoes

**Barges have the smallest carbon footprint among other transportation modes.**

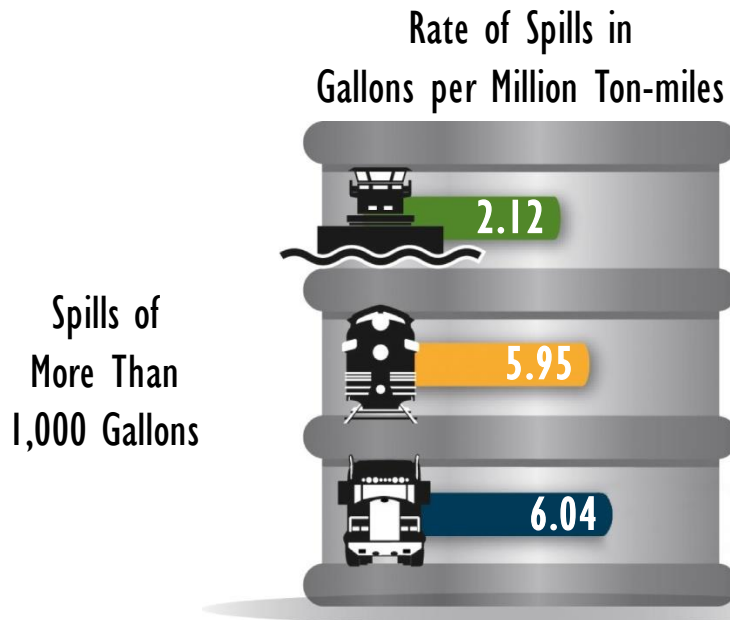
To move an identical amount of cargo by rail generates 30% more carbon dioxide than by barge, and 10 times more emissions by trucks than by barge.



## Safeguarding Our Health and the Environment

**Inland waterways transport moves hazardous materials safely.**

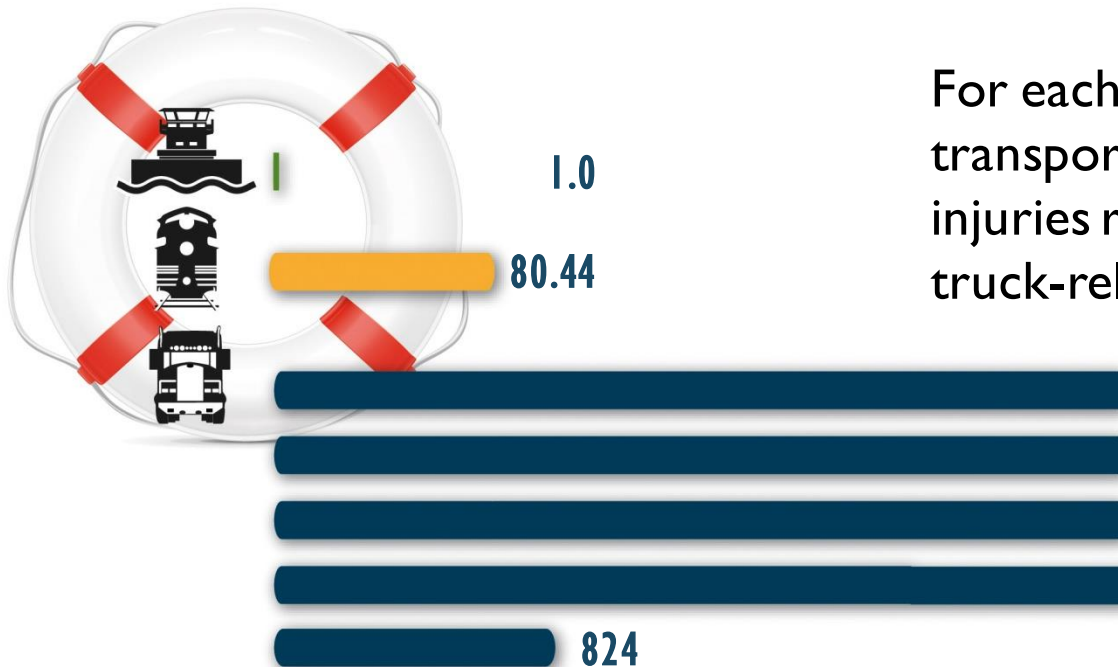
Overall, spill rates remain low. Trucks lose 6.04 gallons per one million ton-miles, rail cars 5.95 gallons and barges 2.12 gallons per one million ton-miles.



## Safeguarding Our Health and the Environment

**Inland waterways transport has a low injury record compared to rail or truck.**

Ratio of *Injuries* in Freight Transportation

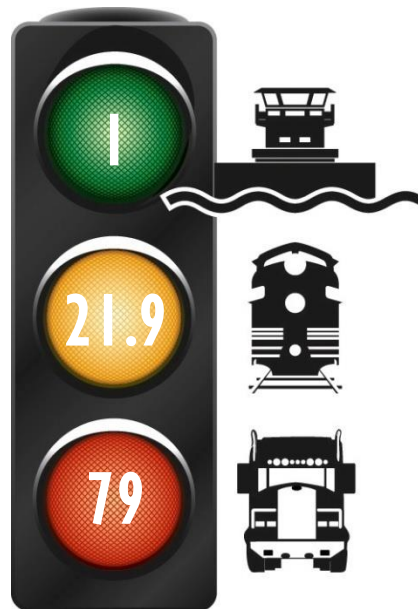


For each *injury* involving barge transportation, there are 80.44 injuries related to rail and 824 truck-related injuries.

## Safeguarding Our Health and the Environment

Inland waterways transport has a low *fatality* record compared to rail or truck.

Ratio of *Fatalities* in Freight Transportation



For each barge transportation *fatality*, there are 21.9 fatalities related to rail and 79 truck-related fatalities.



## Anticipating Future Demands



Our inland waterways have capacity:

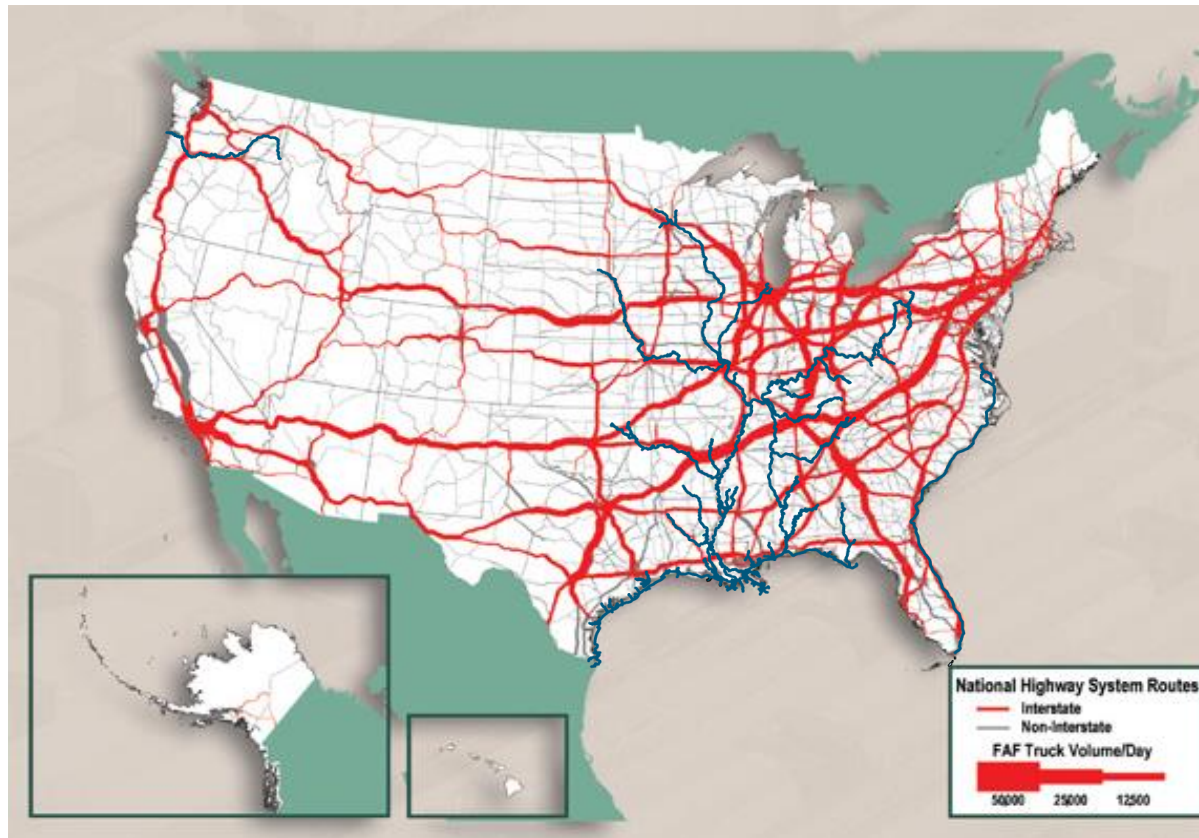
- to transport today's bulk commodities and intermodal cargo,
- to accommodate tomorrow's growth in those cargoes, and
- to accept cargo diverted from overcrowded highways and railways.

## Anticipating Future Demands



Average Daily  
Long-Haul  
Truck Traffic  
2011 on U.S.  
Highways  
(Federal Highway  
Administration)

## Anticipating Future Demands



Rivers run through it... waterways are where the congestion is!

## A Freight Transportation Solution for the Future



With the least impact of any surface mode on air quality, the environment, and public safety, as well as capacity to spare, our inland waterways are a transportation solution for the nation's future.



## A Study in Freight Transportation Solutions

The full study, “A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001-2014,” updated January 2017, can be downloaded from [www.nationalwaterwaysfoundation.org](http://www.nationalwaterwaysfoundation.org).



## Factual and Intellectual Support for Waterways



The mission of the National Waterways Foundation is to develop the intellectual and factual arguments for an efficient, well-funded and secure inland waterways system.

Learn more about the Foundation:

- Visit [www.nationalwaterwaysfoundation.org](http://www.nationalwaterwaysfoundation.org)
- Call 202/765-2153



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