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**Moving Feed, Food &
Fuel to Market:
*The Logistics and
Dynamics of
U.S. Barge
Transportation***

informa economics



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February 20, 2015

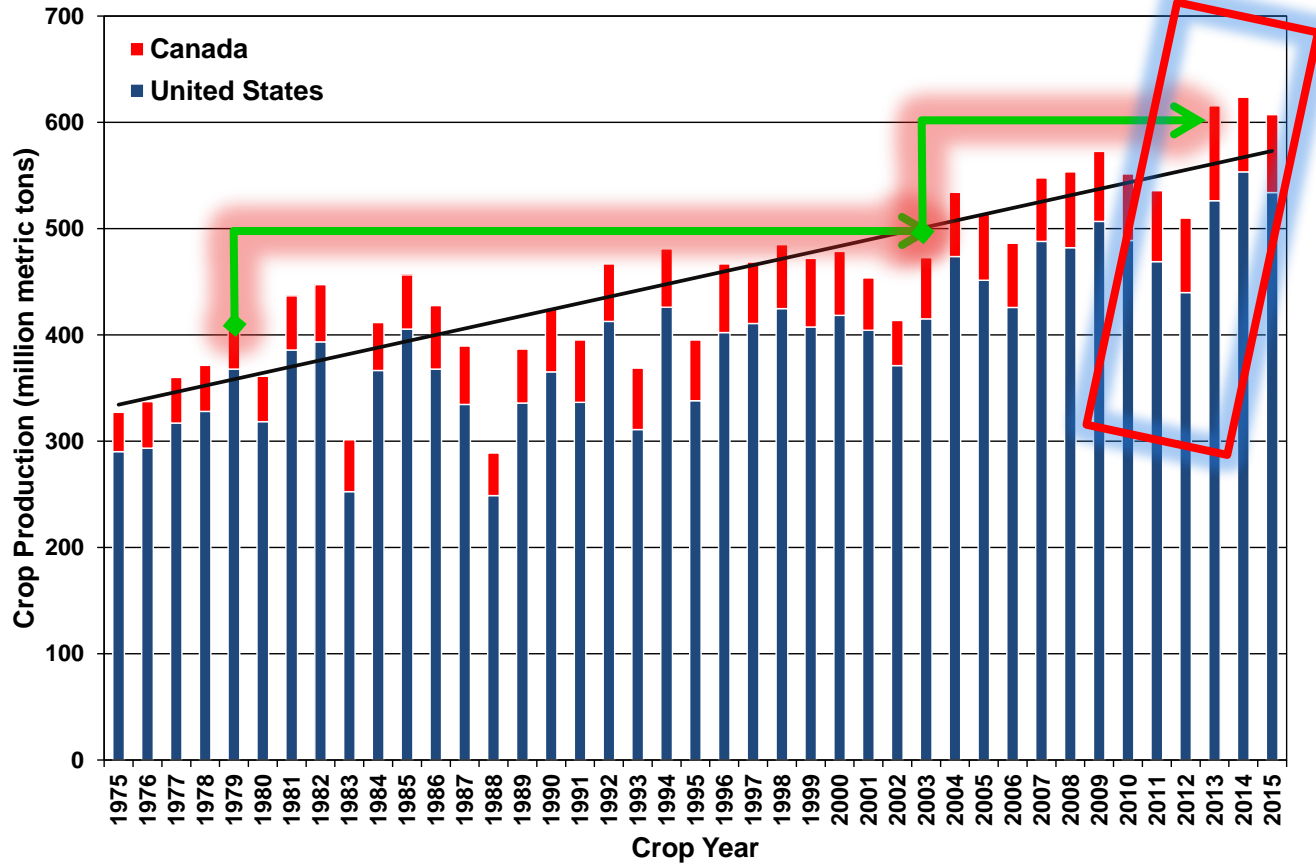
Charting the Course

- **Current Inland Navigation Situation**
- **Covered Barge Supply and Demand**
- **Inland Navigation Infrastructure Requirements**
- **Wrap-Up**

Current Inland Navigation Situation

Bigger Crops . . . Something to Move

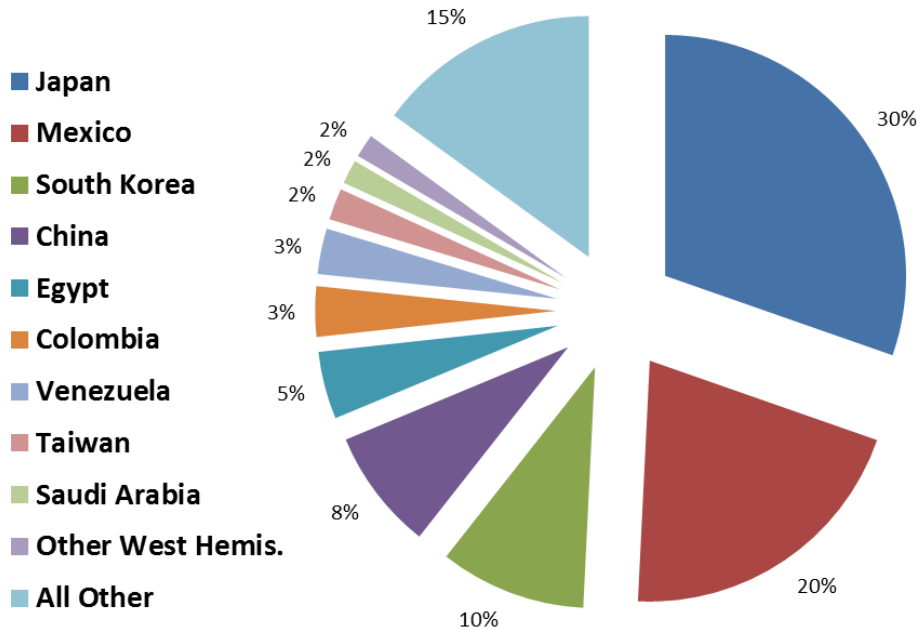
U.S. and Canada Crop Production



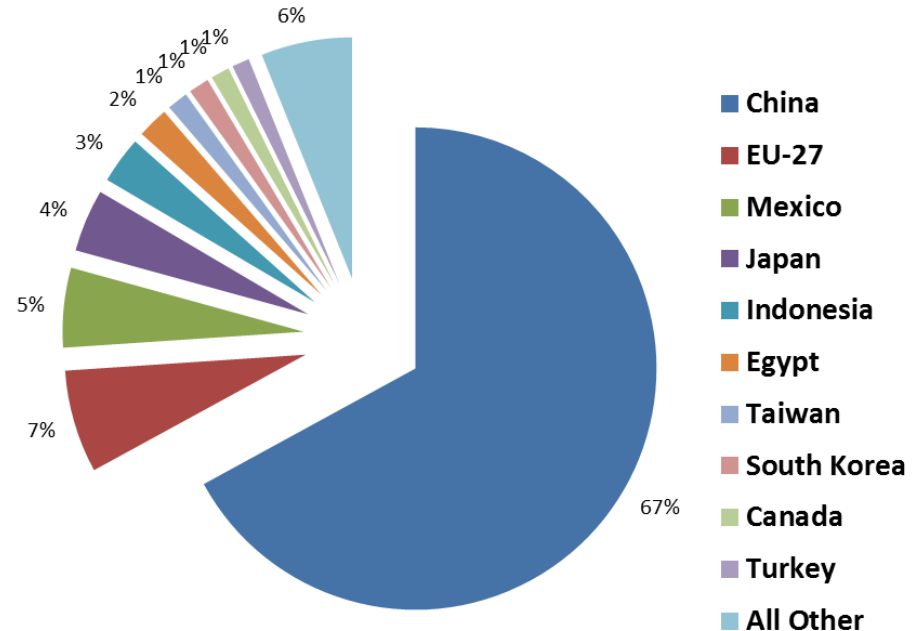
... Someplace to Go

Top U.S. Corn & Soybean Export Destinations

Corn Exports (Past 5 Years)

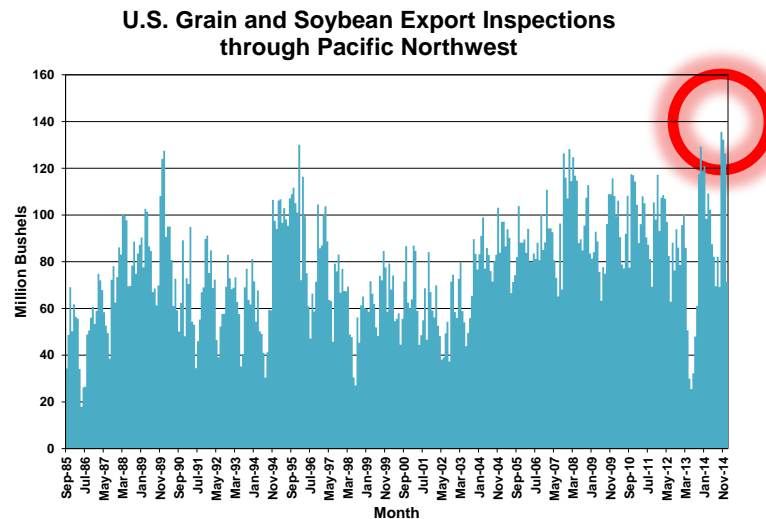
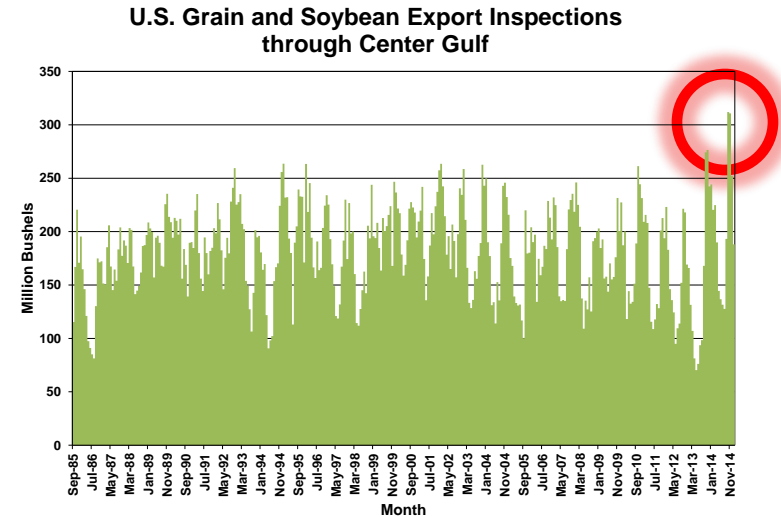
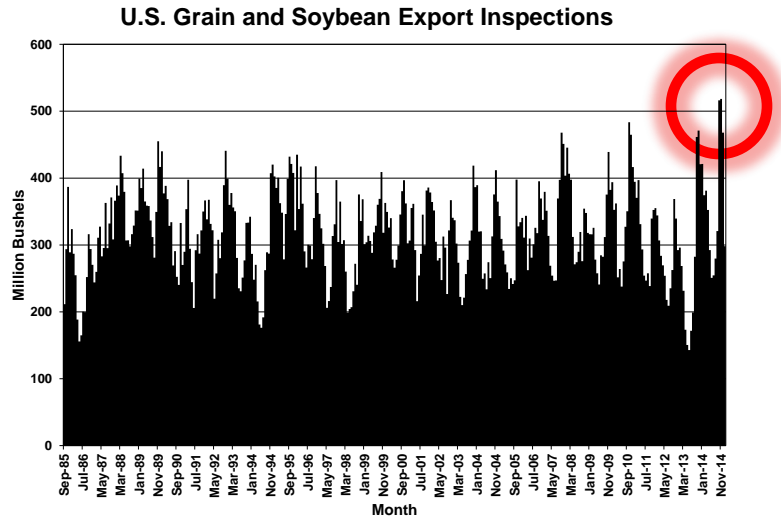


Soybean Exports (Past 5 Years)



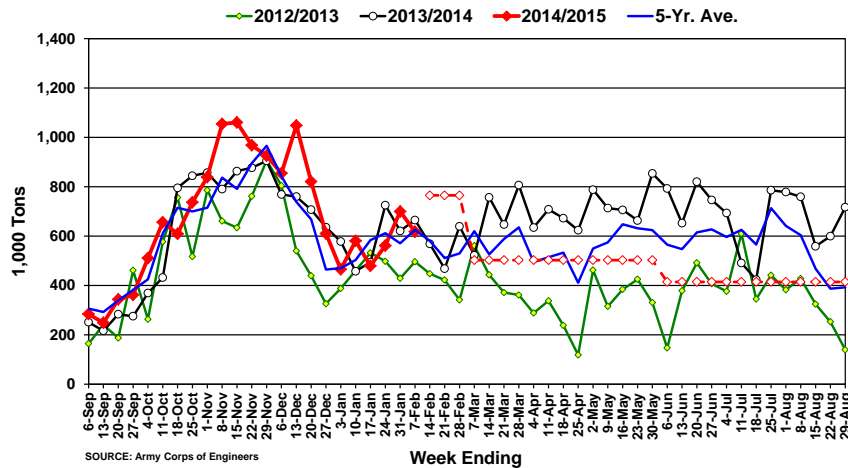
Bigger Crops . . . Someplace to Go

A ~~October~~ November to Remember – Record Grain and Soybean Exports

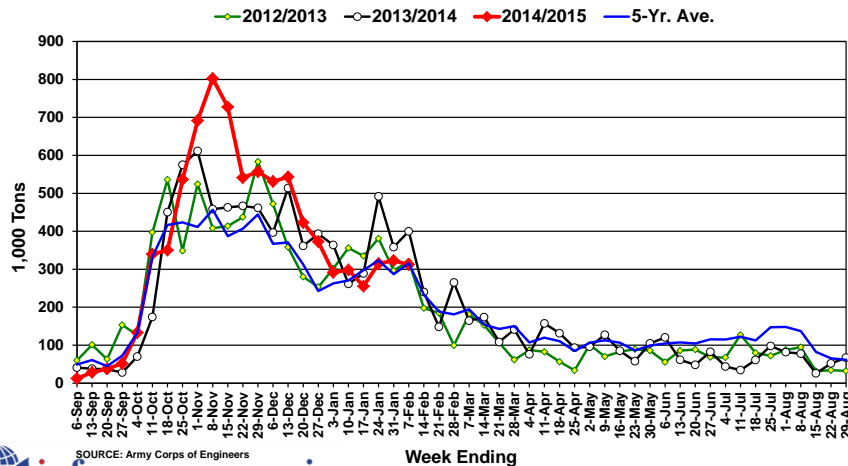


Strong Barge Freight Demand . . . Southbound or Downriver

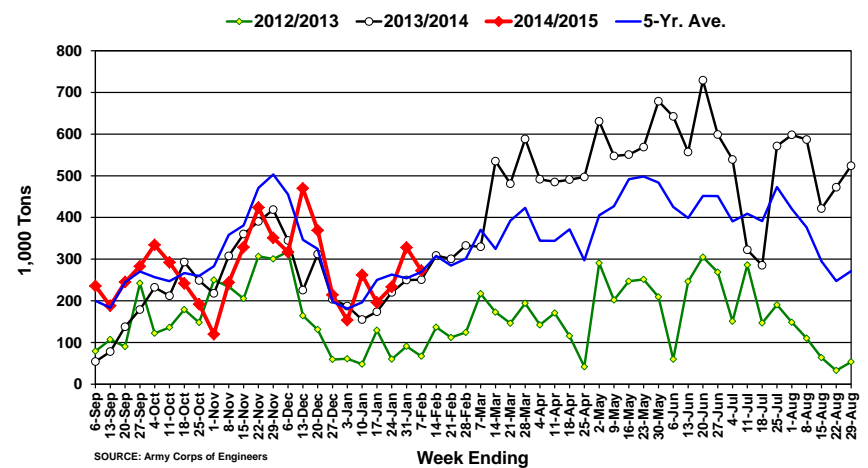
Weekly Grain Barge Movements through Key Locks and Dam



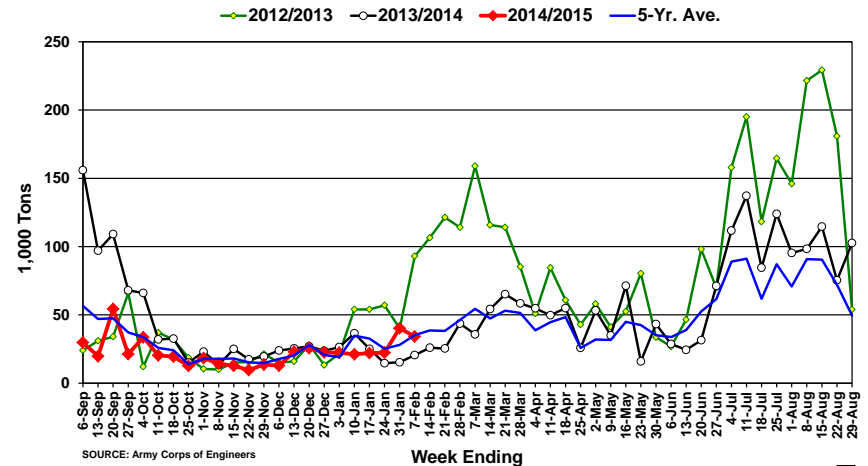
Weekly Soybean Barge Movements through Key Locks and Dam



Weekly Corn Barge Movements through Key Locks and Dam

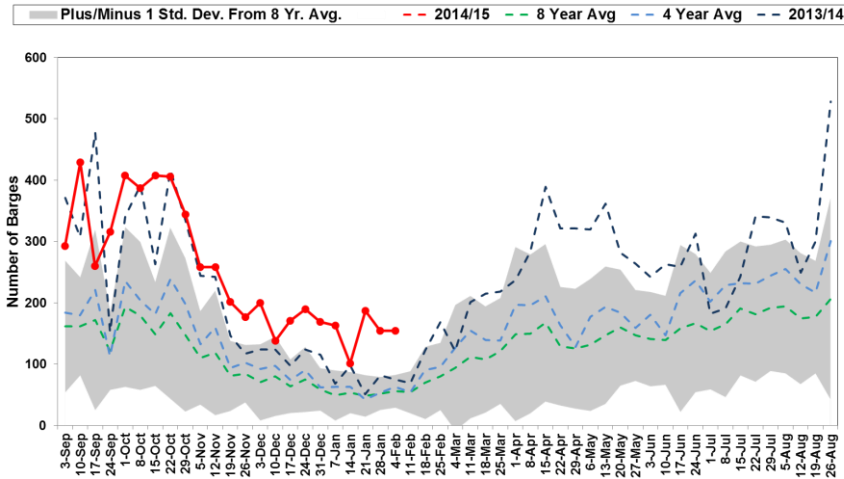


Weekly Wheat Barge Movements through Key Locks and Dam

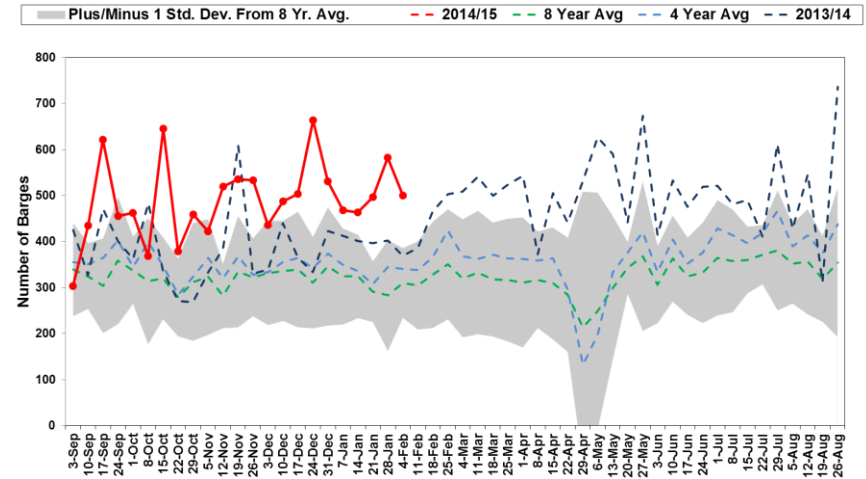


Very Strong Barge Freight Demand . . . Northbound or Upriver

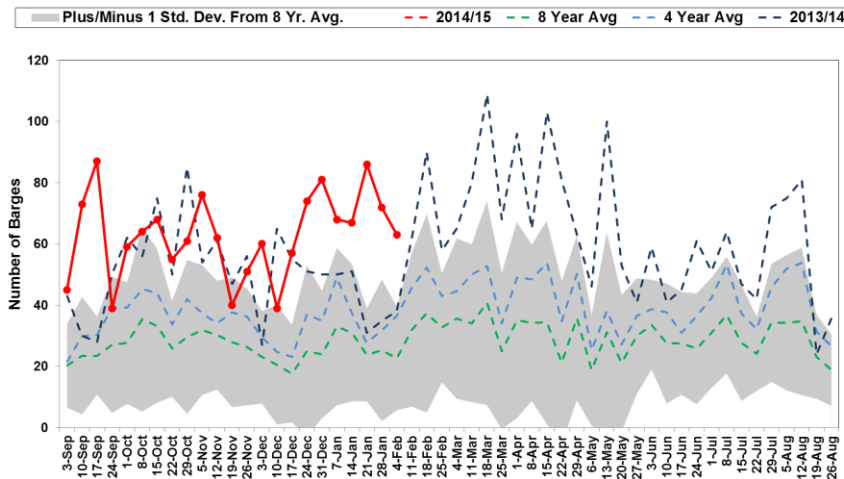
Weekly Upbound Loaded Barges
Mississippi River Lock 27



Weekly Upbound Loaded Barges
Ohio River Lock 52



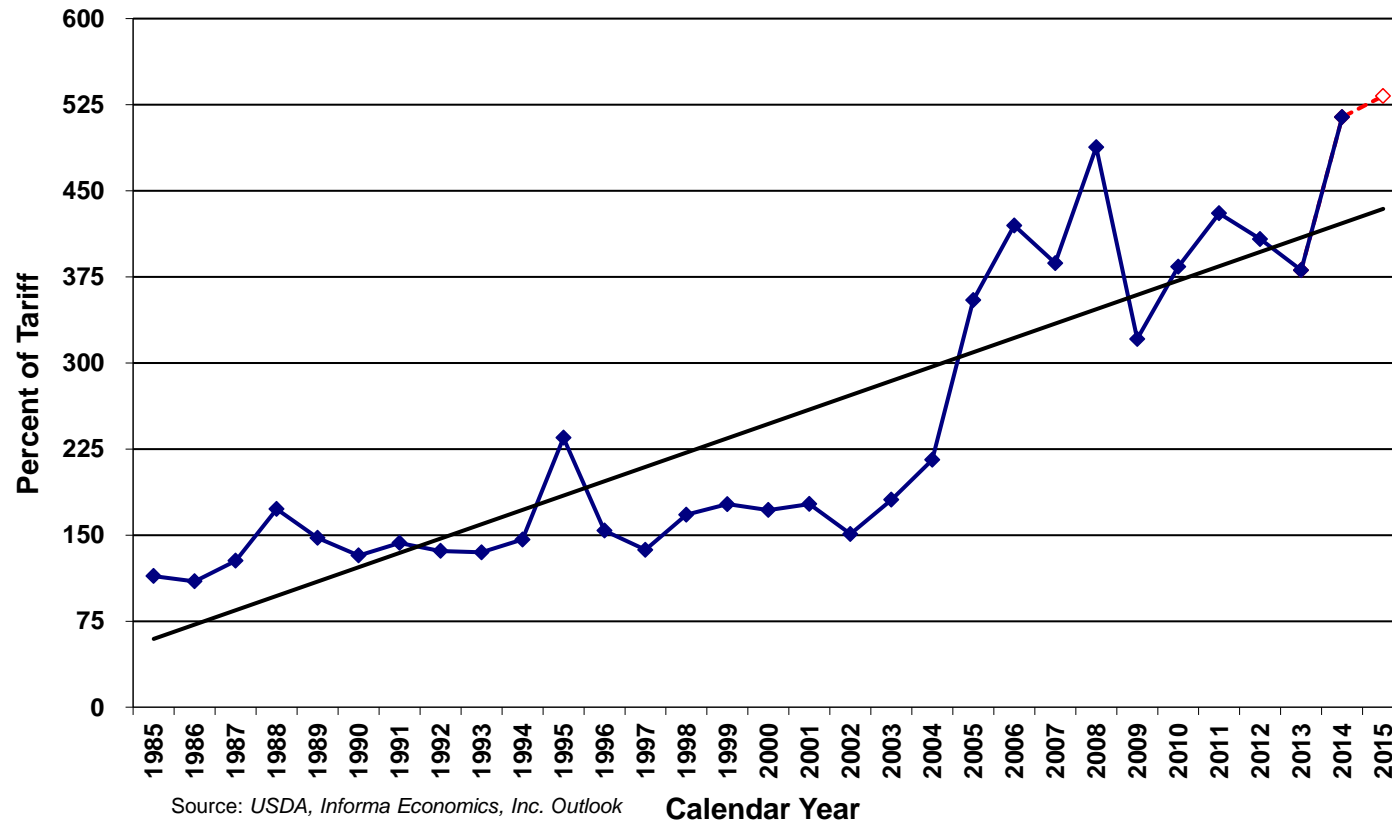
Weekly Upbound Loaded Barges
Arkansas River Lock 1



Strong Freight Rates for Covered Barge Fleet

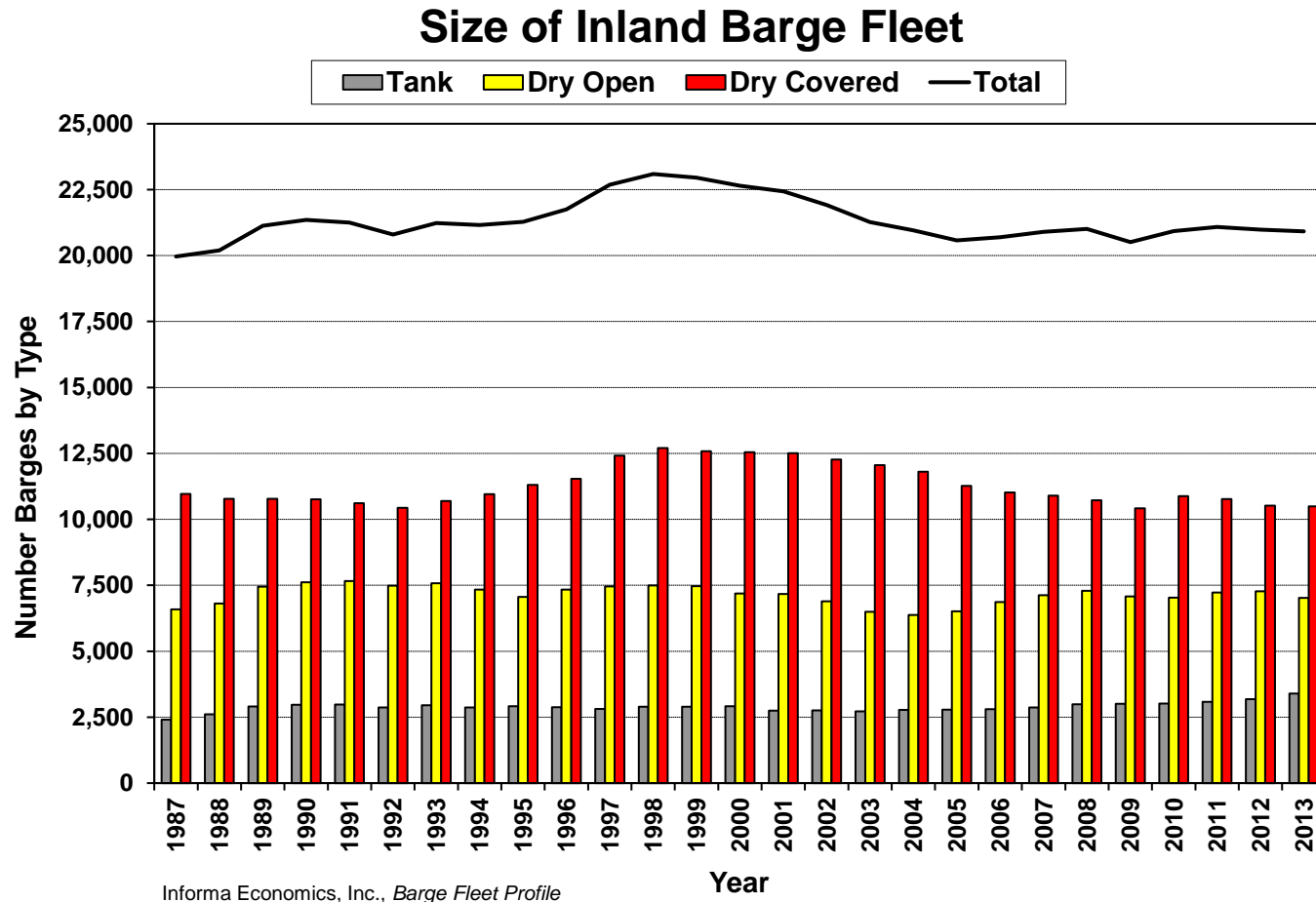
Annual Barge Freight Rate Outlook

(Average for Illinois River, Mid-Mississippi River, and St. Louis)



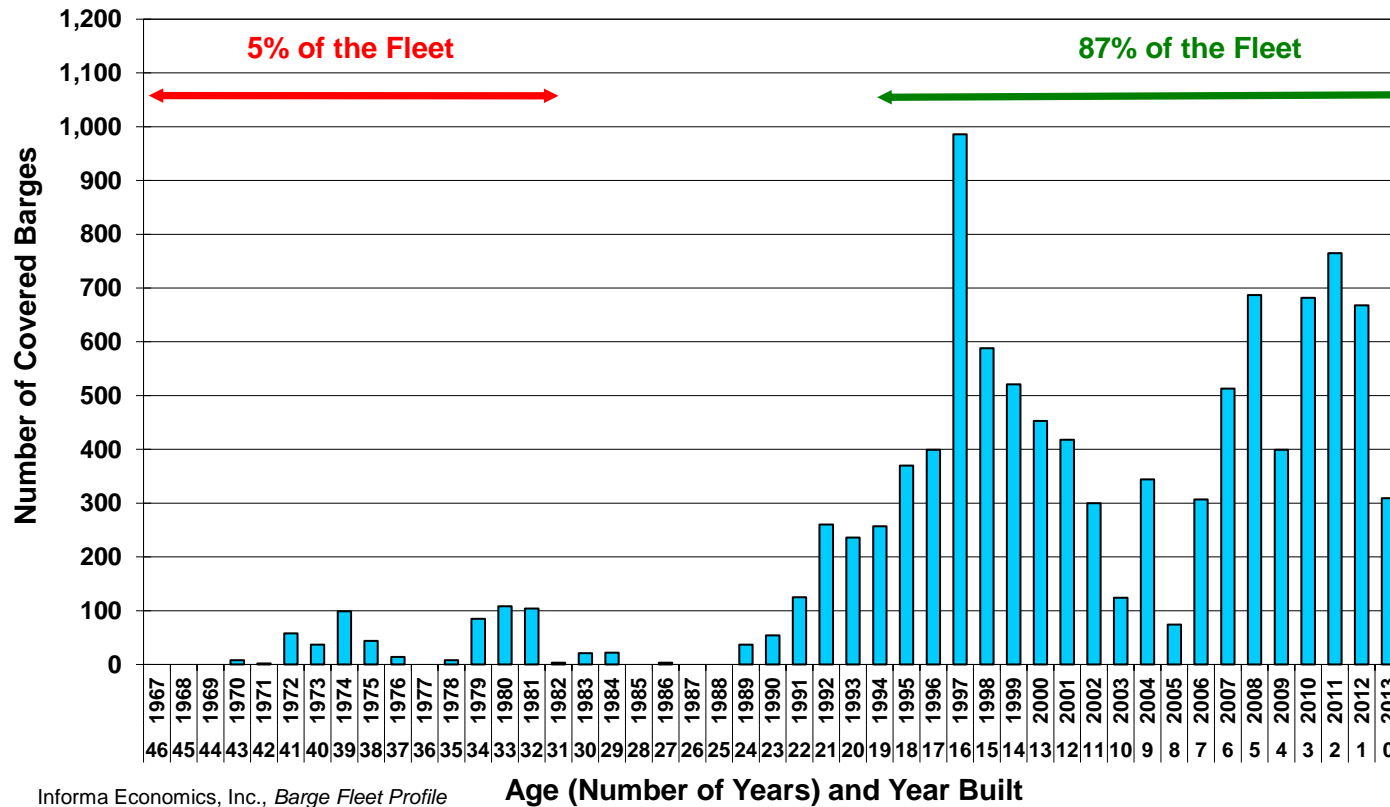
Covered Barge Supply and Demand

Total Fleet Stagnant: Covered about Smallest Fleet Two Decades; Tank Record Large



Retirements Slowing Newbuilds not Replacing, but Adding to Fleet

Covered Barge Fleet in 2013 by Age

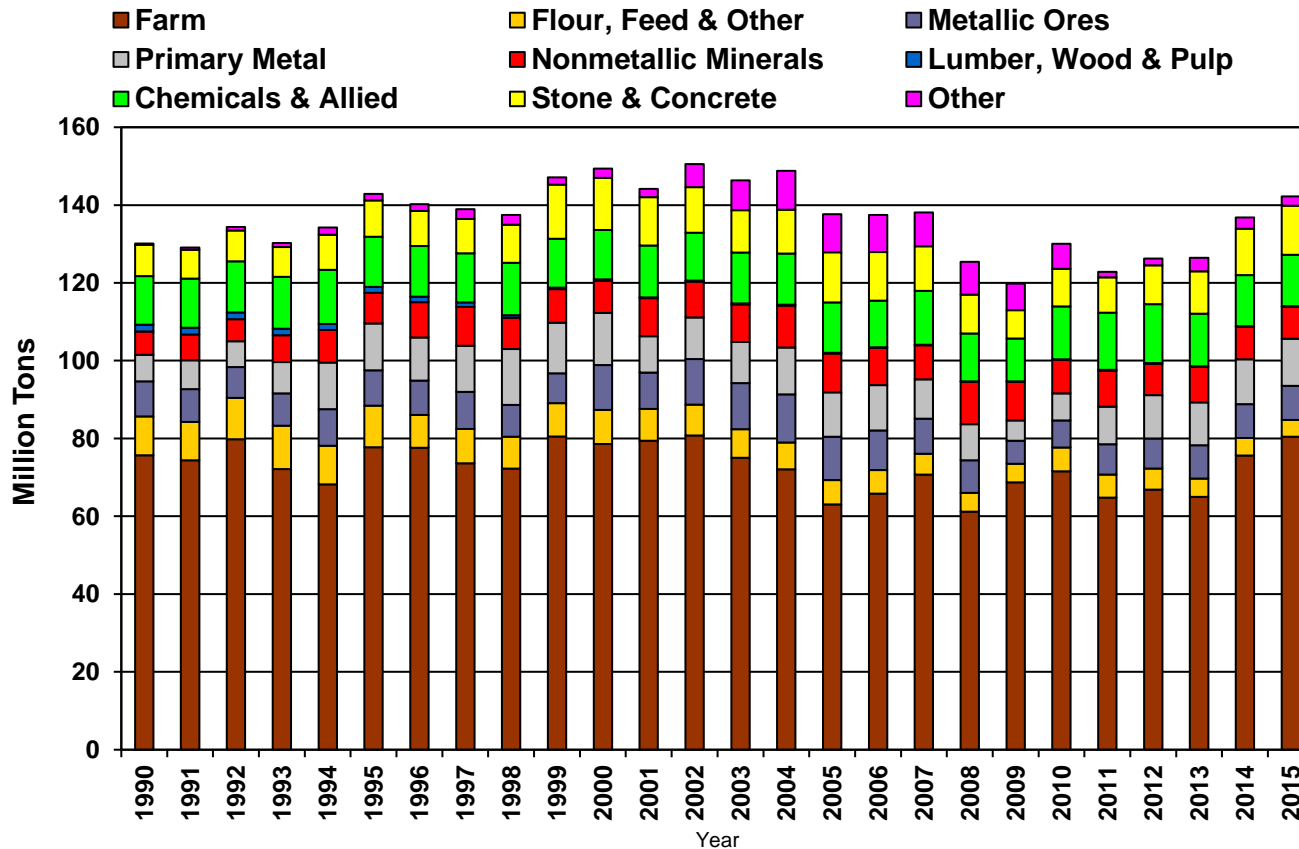


Informa Economics, Inc., *Barge Fleet Profile*

Age (Number of Years) and Year Built

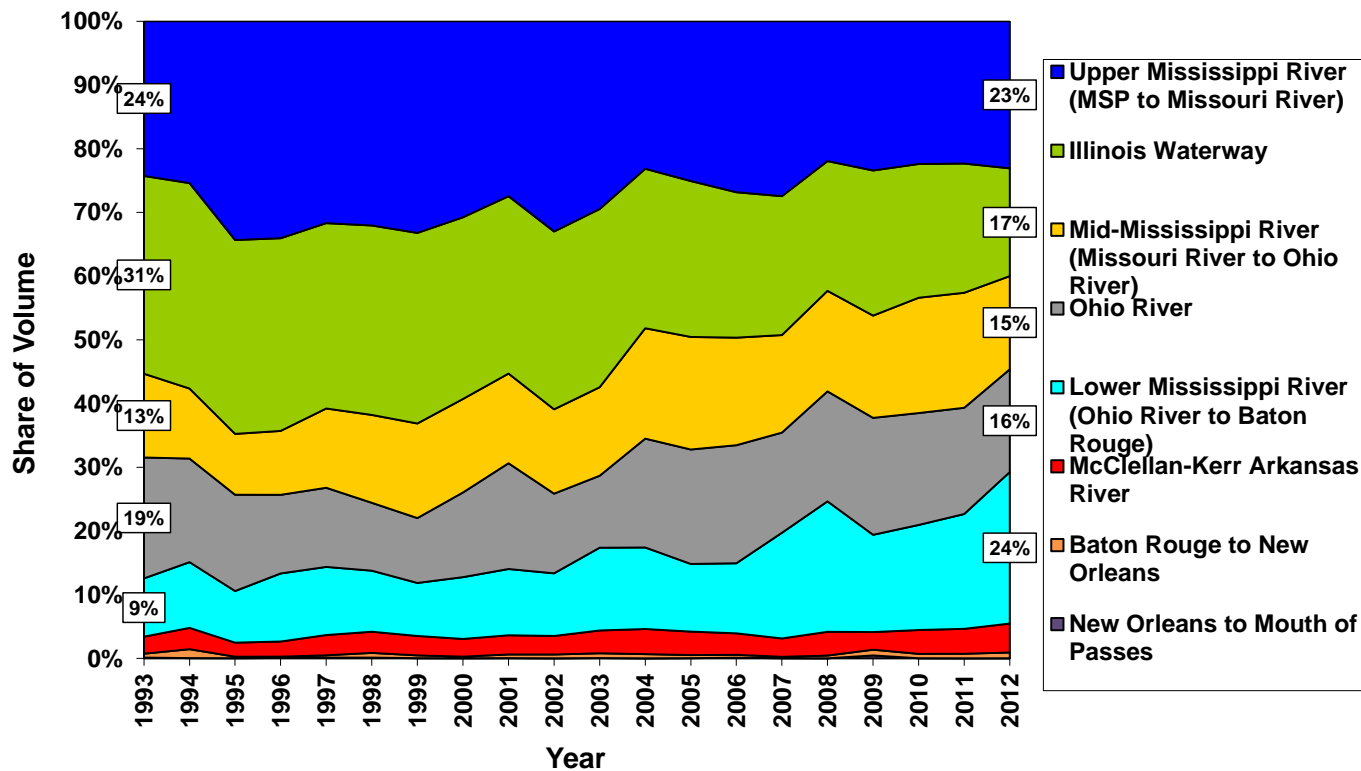
Covered Barge Volumes Climbing out of Sunken Period

Inland Covered Barge Commodity Movements



Shifting Barge Loading Patterns North to South; Upper to Lower

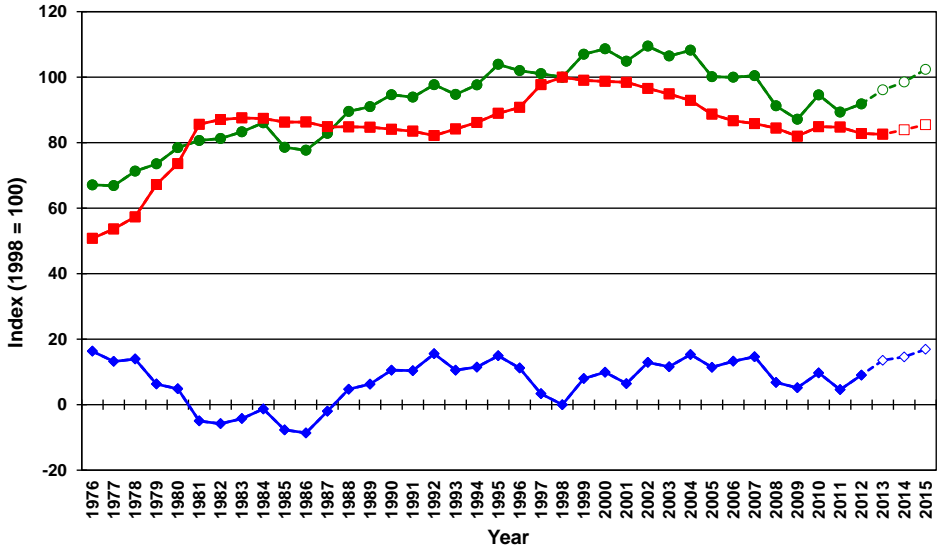
Total Grain and Soybean Barge Movements by River Segment



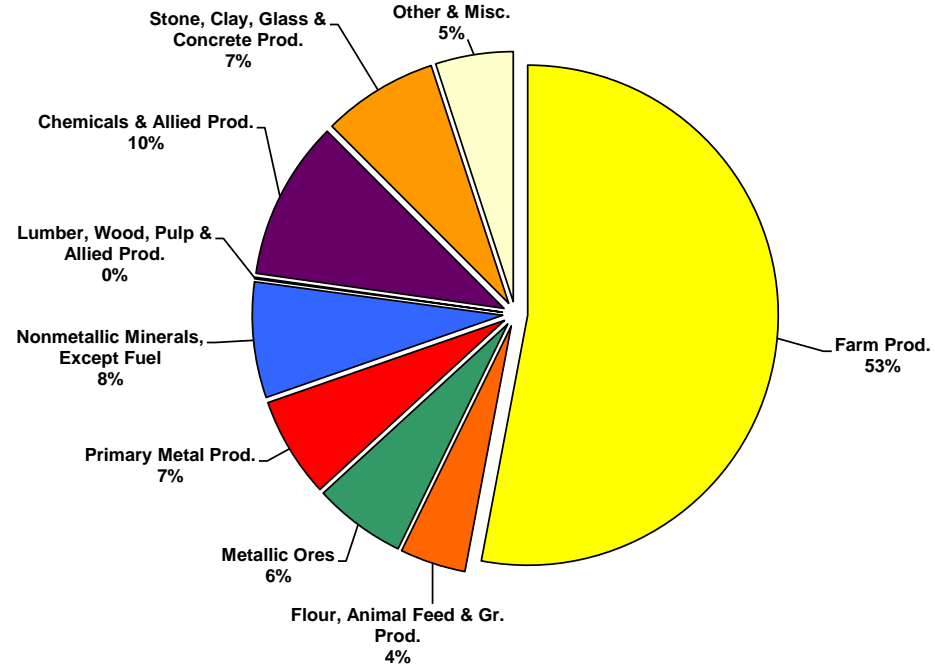
Covered Barge Market Grain Reigns

Covered Barge Utilization

● Tonnage ■ Covered Barge ◆ Informa's Covered BPI

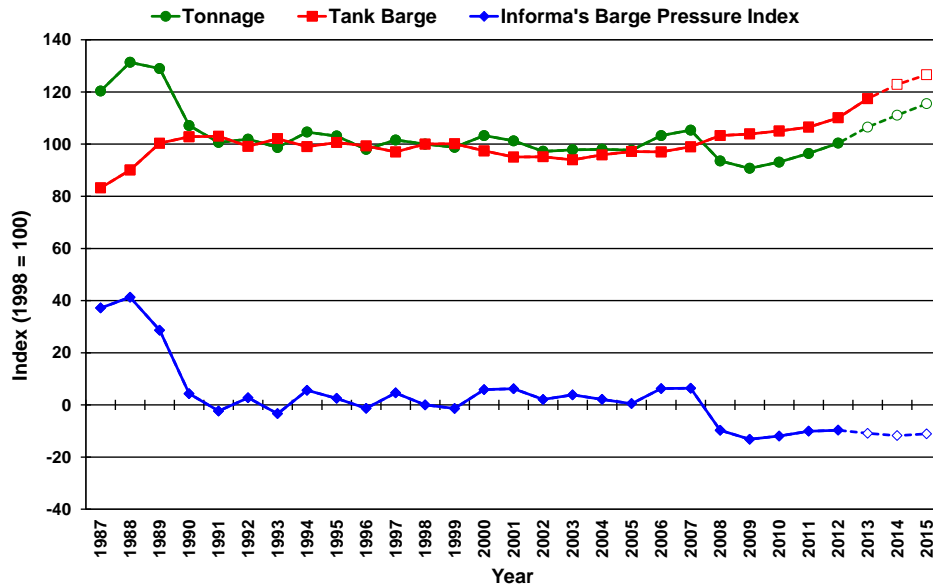


Covered Barge Tonnage Composition

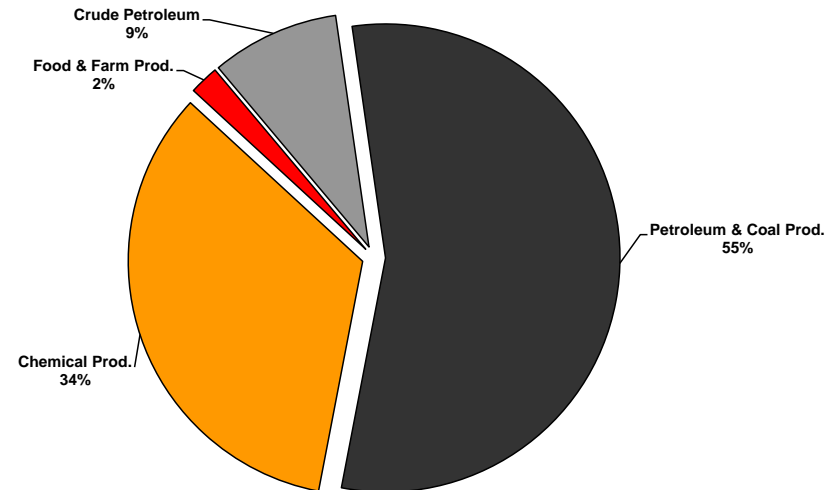


Tank Barge Fleet *Distance Matters!*

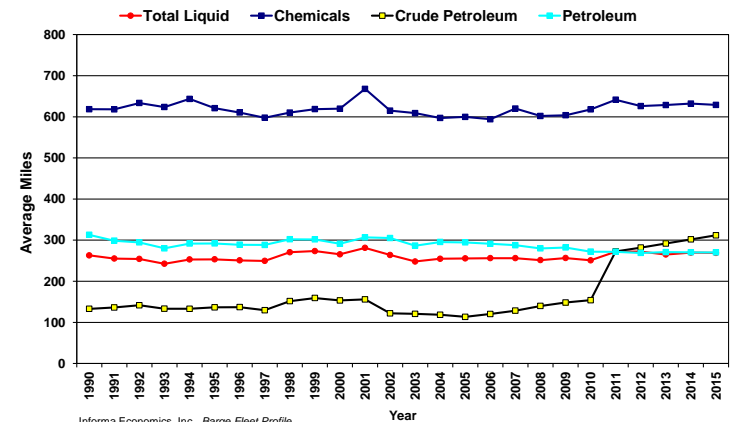
Tank Barge Utilization on Tonmile Basis



Tank Barge Tonmile Composition



Domestic Barge Traffic Average Miles Liquid Products



Informa Economics, Inc., Barge Fleet Profile

Inland Navigation Infrastructure Requirements

Infrastructure Framework

- **Infrastructure Problems = Inefficiencies**
- **Inefficiencies = Lower Effective Transport Capacity**
- **Lower Effective Transport Capacity = Higher Rates**
- **Higher Rates = Lower Farmer Returns**

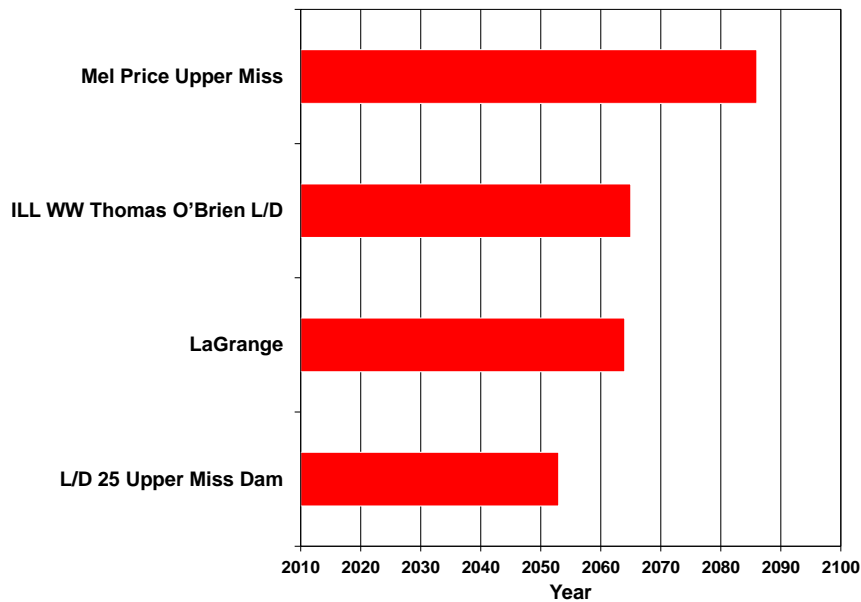
Funding Inland Navigation

- **Inland river navigation represents 12,000 miles, 200 locks**
- **566 million tons of freight annually, \$152 billion in value**
- **Inland Waterways Trust Fund:**
 - ◇ **Generates about \$85 million per year (20 cent fuel tax on barge operators)**
 - ◇ **Estimated total capital investment needs over next 20 years: \$18 billion or \$900 million per year**
 - ◇ **If Federal funding continues at existing levels, the 22 planned major construction and rehab projects won't be completed until 2090**

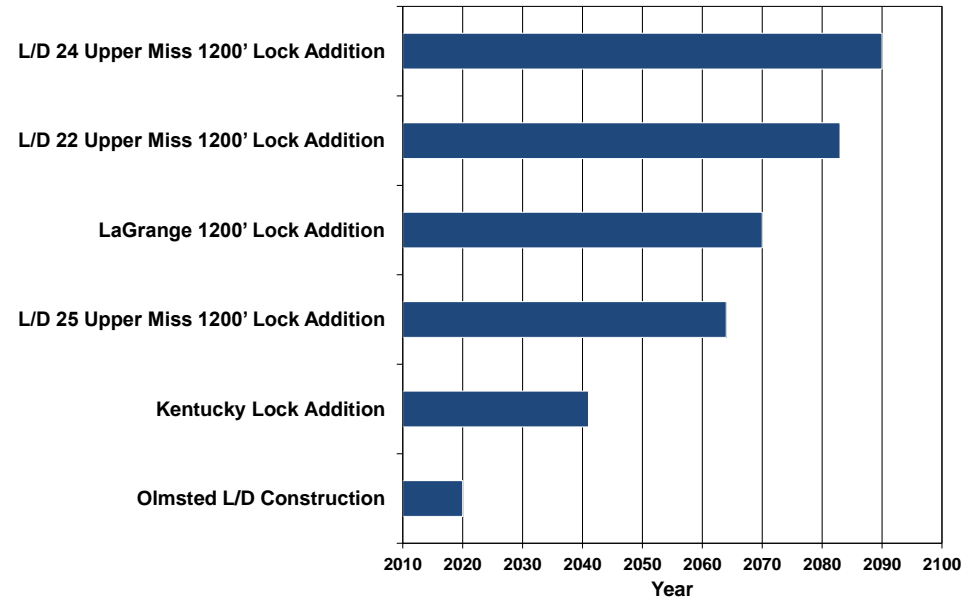
Long-Term Problem on the Rivers

Army Corps of Engineers Project Completion Schedule for Select Locks

Army Corps of Engineers Project Completion Schedule
Major Rehabilitation



Army Corps of Engineers Project Completion Schedule
New Construction



Wrap-Up

Key Inland Barge Takeaways

- **Commodity Volumes Rising**
- **Covered Barge Fleet**
 - ◇ Fewest in decades
 - ◇ Relatively young
 - ◇ Facing pressure
 - ◇ Positioned for expansion
- **Challenges from Tank Fleet**
- **Infrastructure Quickly Aging**
- **Key Drivers to Require More of Inland Industry**
 - ◇ Strengthening exports
 - ◇ Panama Canal Expansion
 - ◇ Low ocean freight rates
 - ◇ Option origin Center Gulf or northern Brazil?

Multi-Client Study

North America's Commodity Constraints

NORTH AMERICA'S COMMODITY CONSTRAINTS STUDY



THIS STUDY COVERS:

- Grains, oilseeds and products
- Fertilizer (N,P,K and S)
- Coal

THIS STUDY WILL ADDRESS:

The scope, scale and requirements of moving expected higher volumes of North American commodities and product

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