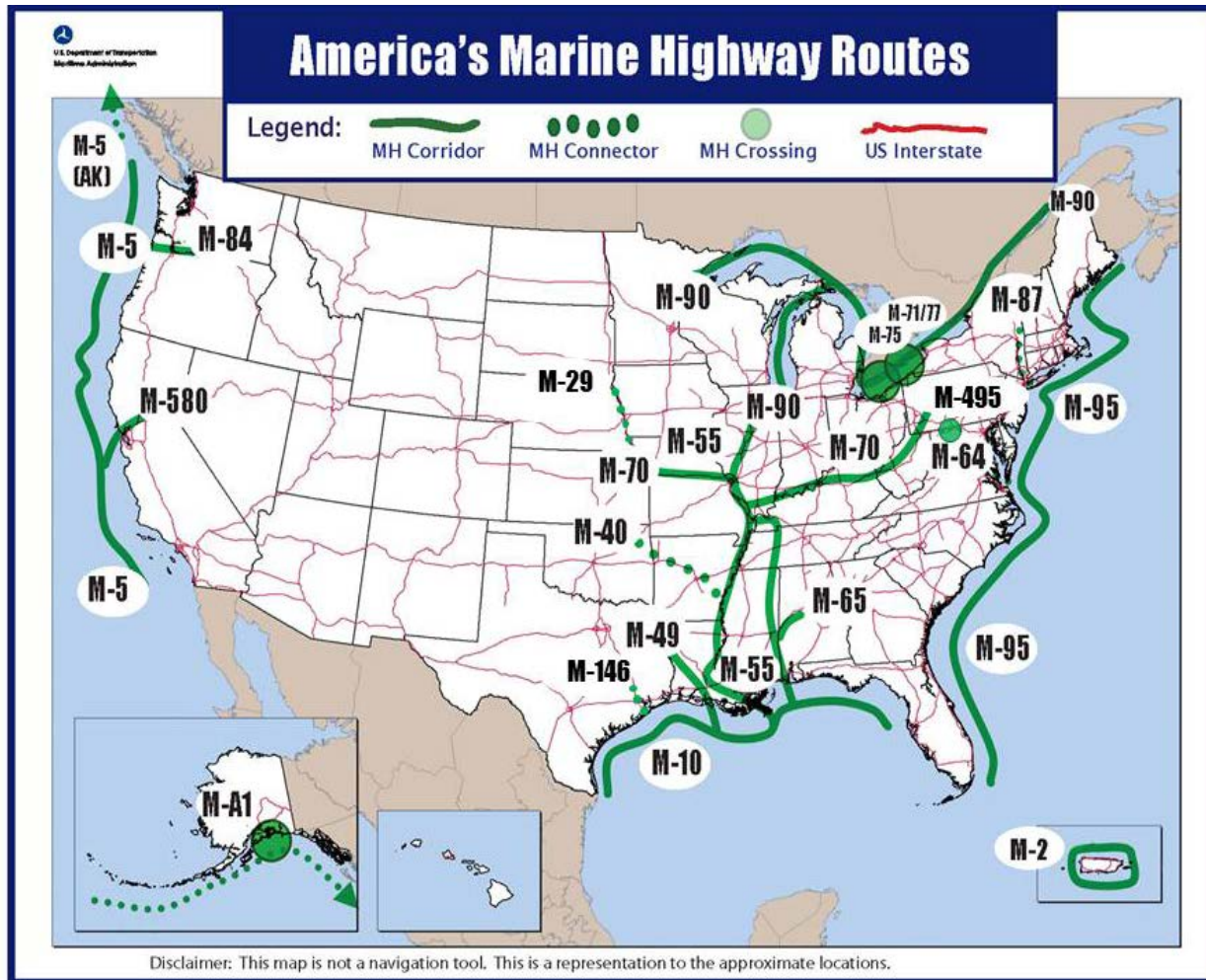


Marine Perspectives



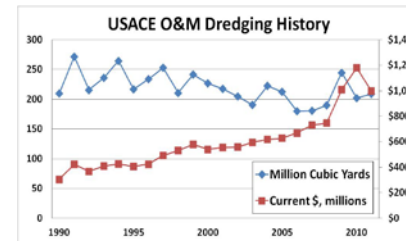
Waterborne freight directly and indirectly contributes to U.S. economic growth by contributing to economic value, earnings, and employment.

Heather Nachtmann, Ph.D.
MarTREC Director
Associate Dean for Research, College of Engineering
Professor of Industrial Engineering, University of Arkansas

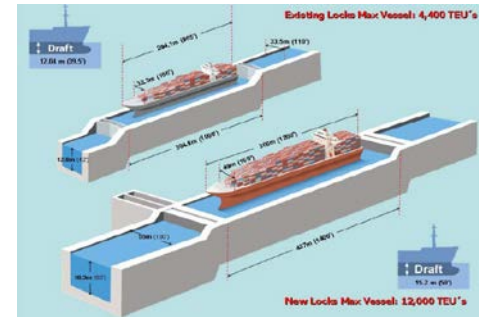
Maritime challenges impacting US competitiveness



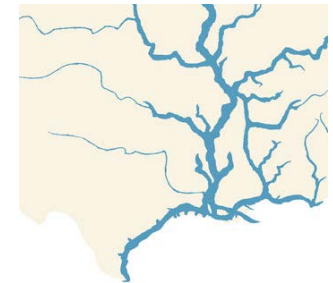
Policy, legislation and/or systems changes to enhance economic competitiveness



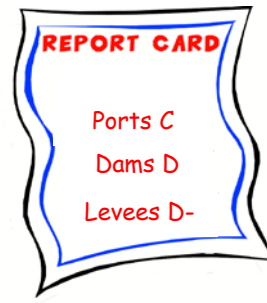
Future maritime challenges impacting economic competitiveness



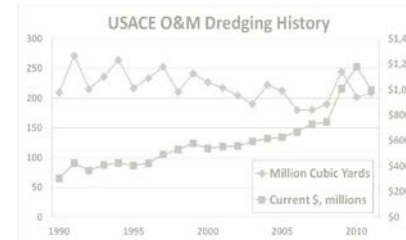
Rich research community engagement opportunities



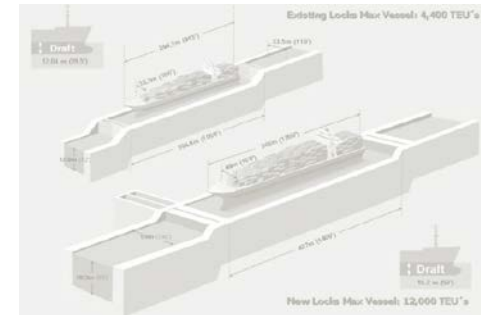
Maritime challenges impacting US competitiveness



Policy, legislation and/or systems changes to enhance economic competitiveness



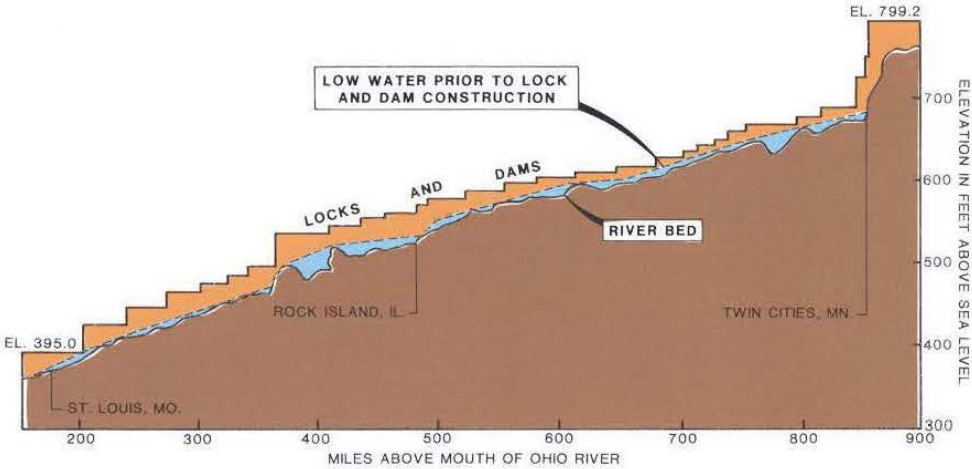
Future maritime challenges impacting economic competitiveness



Rich research community engagement opportunities

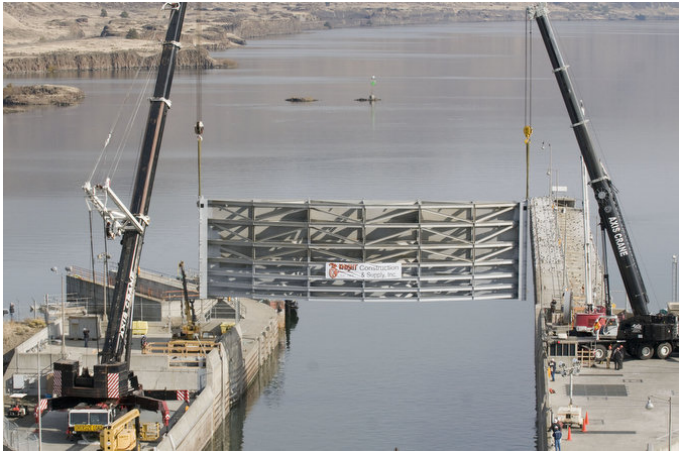


Our maritime infrastructure is in critical need of repair and maintenance resulting in the risk of an unreliable freight transportation mode.



REPORT CARD

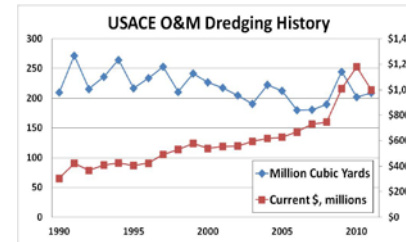
- Ports C
- Dams D
- Levees D-
- Inland Waterways D-



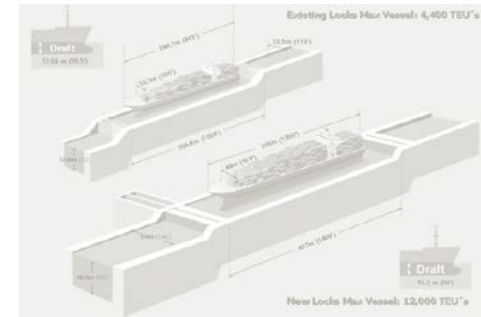
Maritime challenges impacting US competitiveness



Policy, legislation and/or systems changes to enhance economic competitiveness



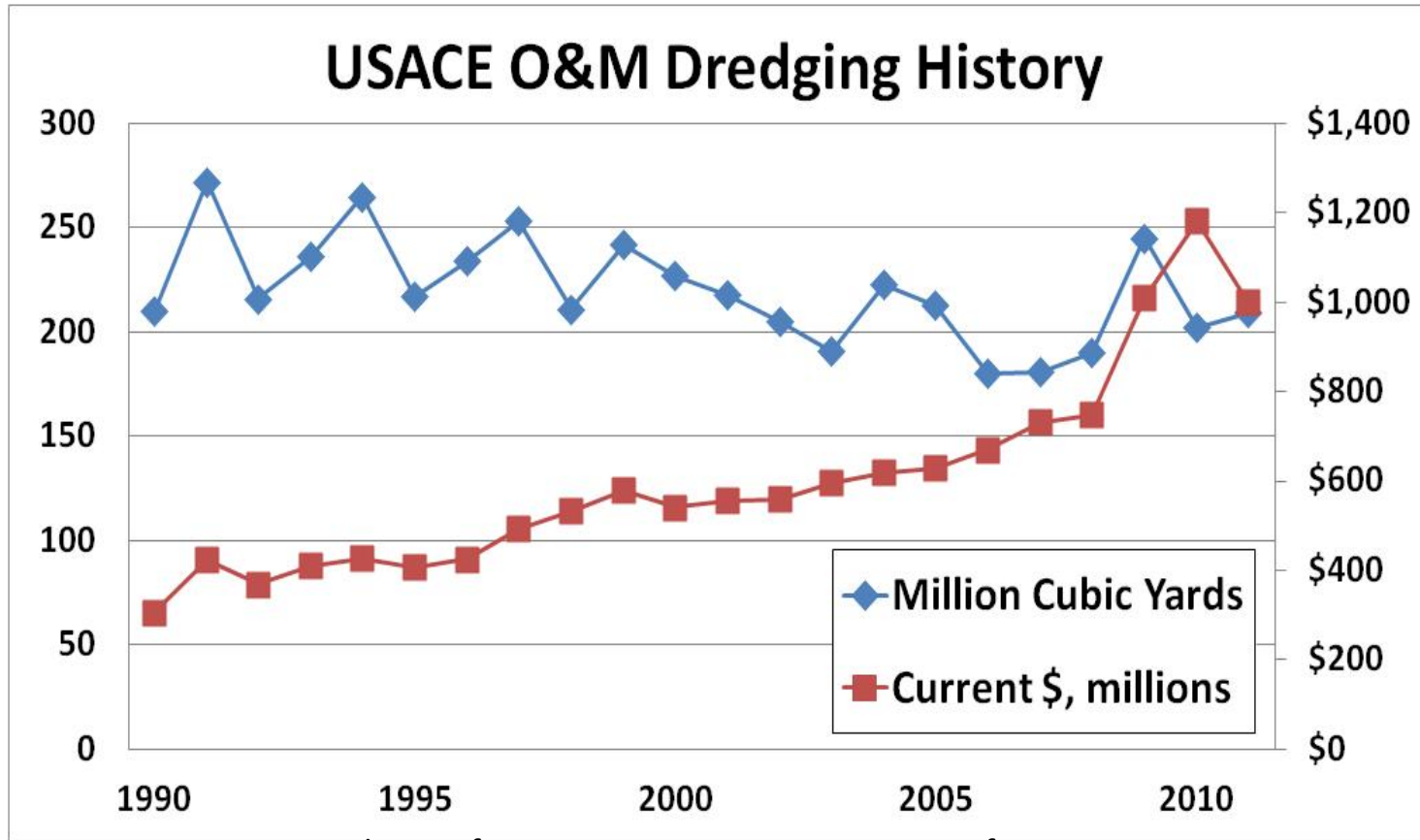
Future maritime challenges impacting economic competitiveness



Rich research community engagement opportunities



Multi-agency engagement, individualized budgeting, low profile, and dredging restrictions present opportunities for legislative improvements.

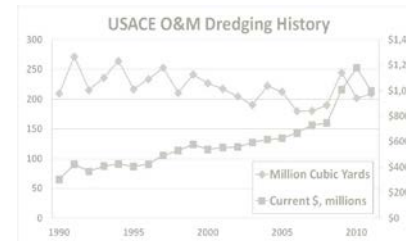


Source: Dredging Information System, USACE Institute for Water Resources

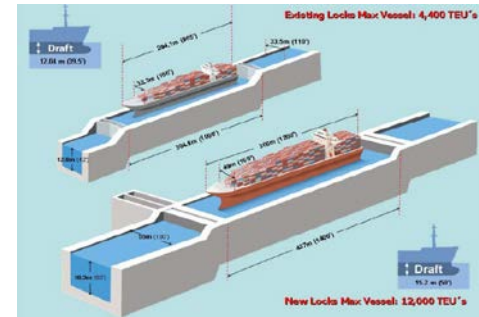
Maritime challenges impacting US competitiveness



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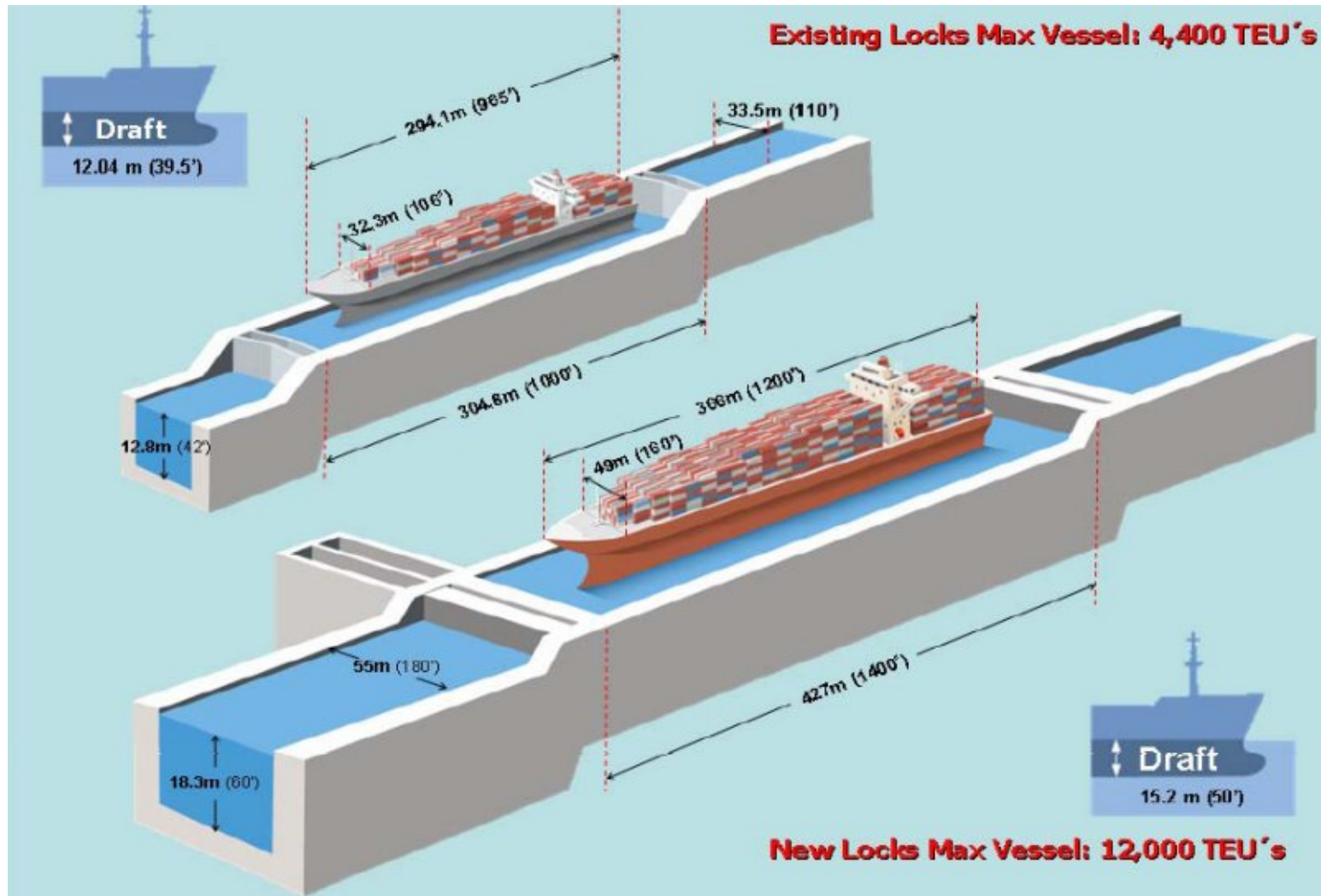
Future maritime challenges impacting economic competitiveness



Rich research community engagement opportunities

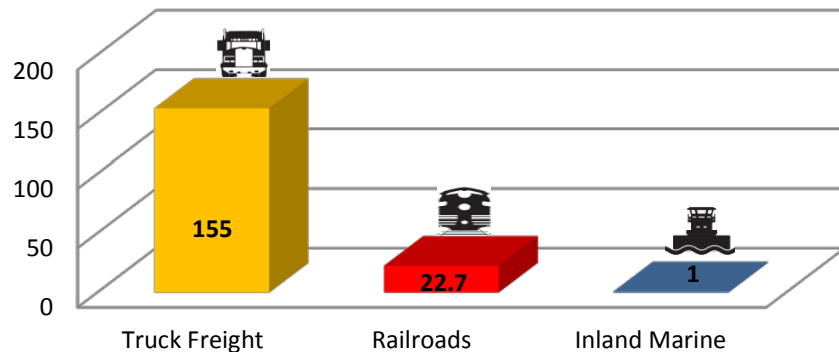


The Panama Canal expansion presents tremendous opportunity for coastal and inland ports.

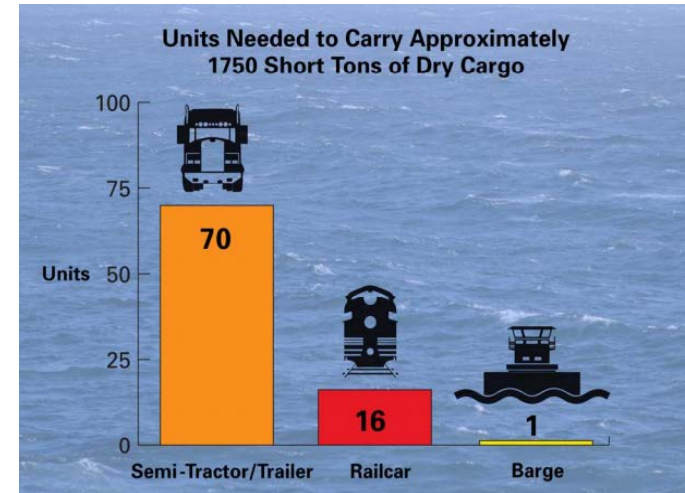


Inland navigation offers a cost-effective, sustainable, safe, and under-capacity freight transportation mode.

Ratio of Highway and Rail to Inland Marine Fatalities

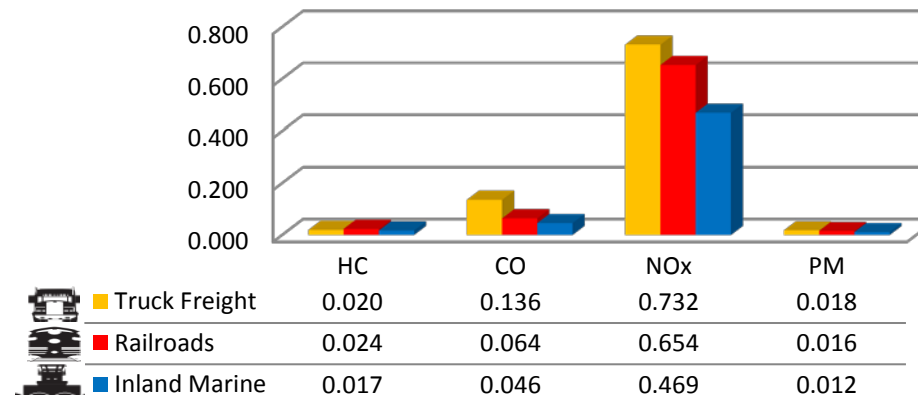


Source: <http://www.marad.dot.gov/>



Source: www.americanwaterways.com

Emissions (Grams/Ton-mile)

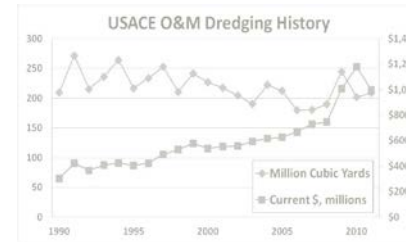


Source: <http://www.marad.dot.gov/>

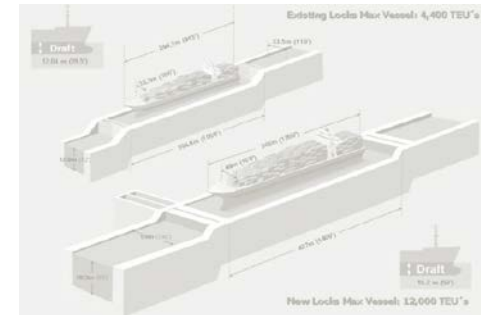
Maritime challenges impacting US competitiveness



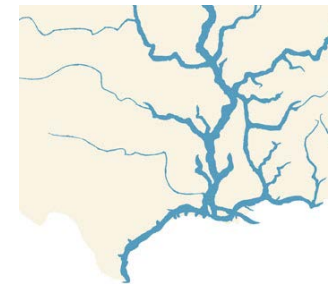
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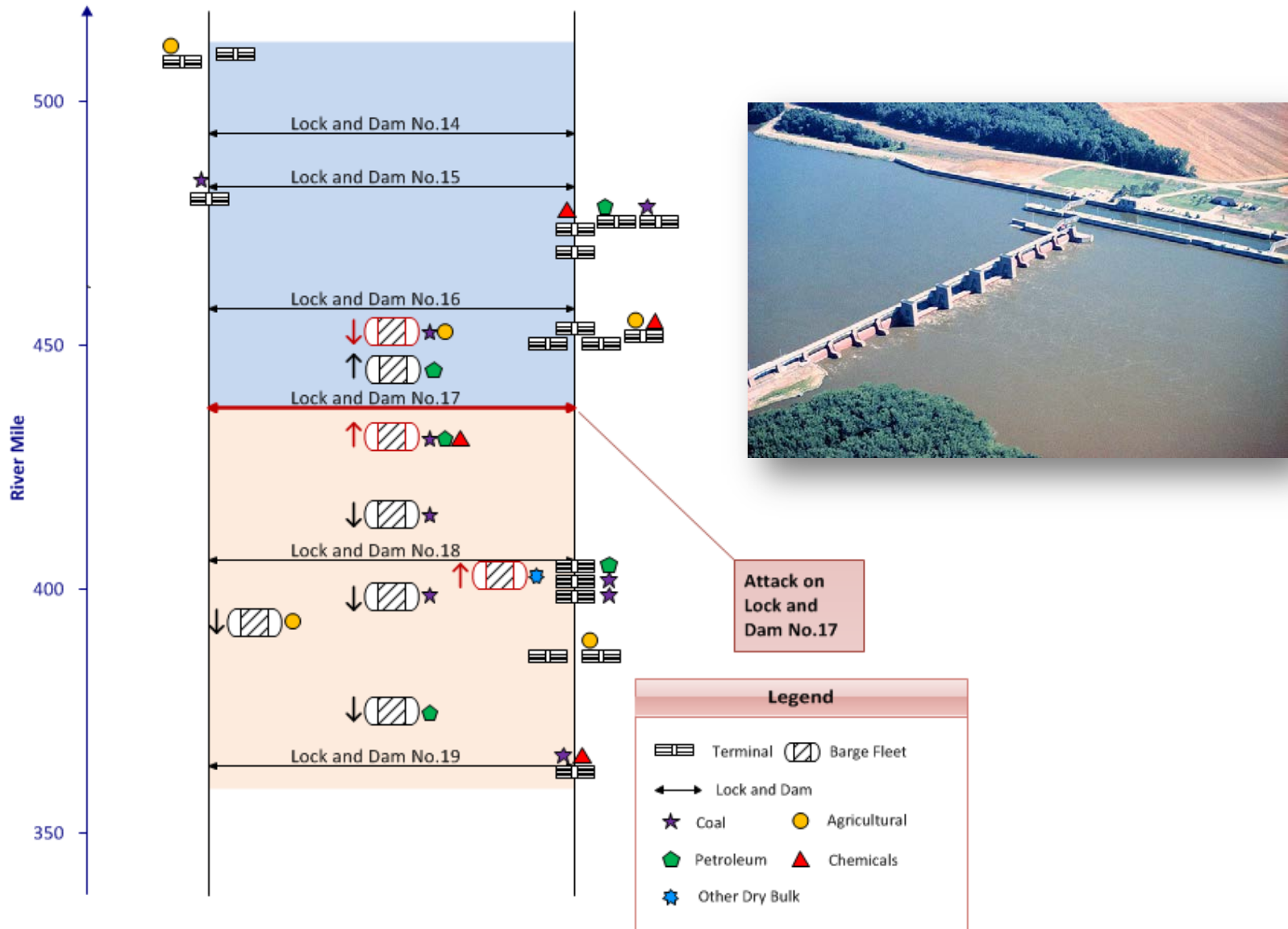
Future maritime challenges impacting economic competitiveness



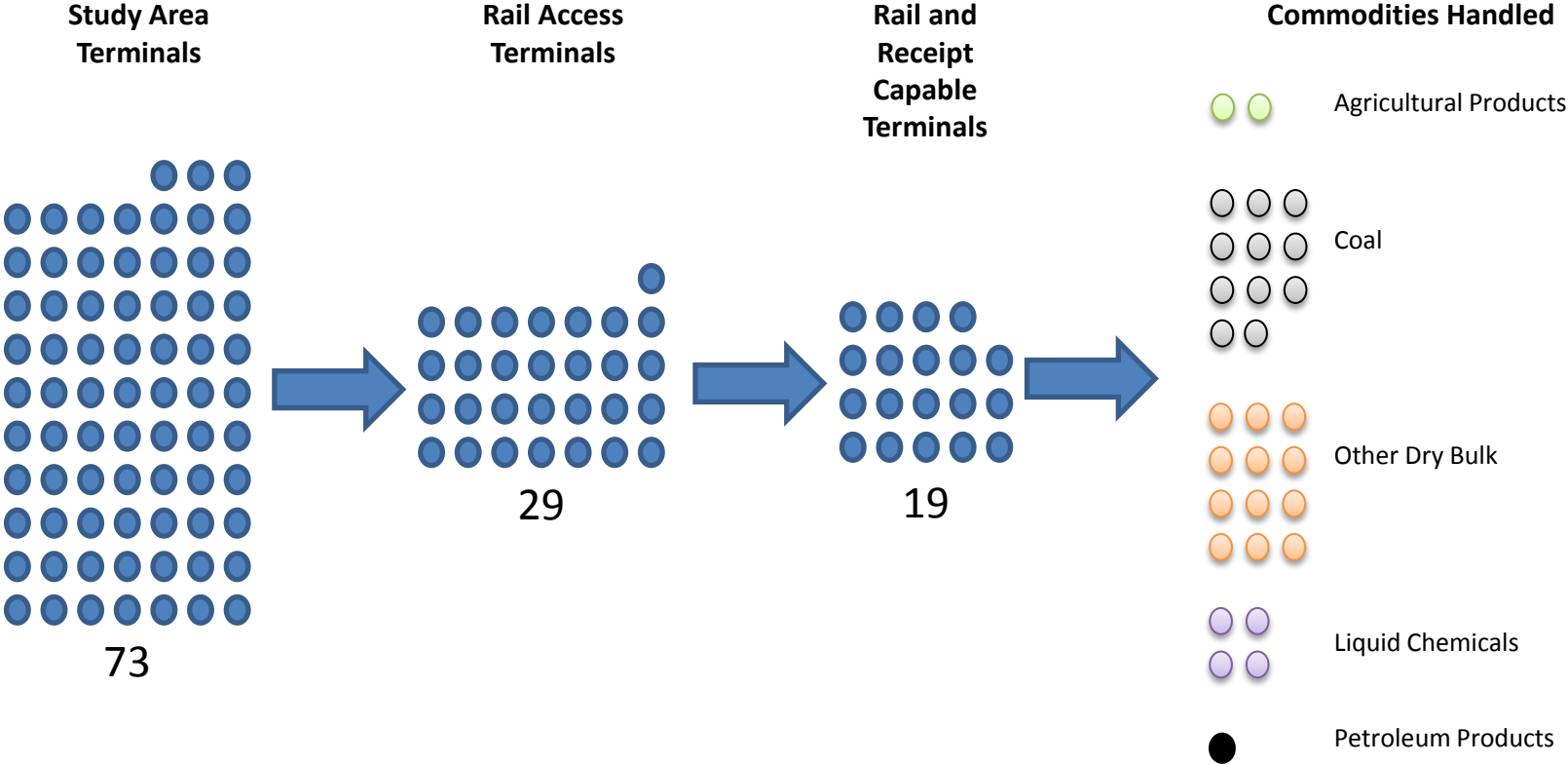
Rich research community engagement opportunities



Researchers should fully recognize the maritime mode in freight analyses.



Researchers need to understand the intricacies of the maritime transportation system.



Researchers should recognize “if you’ve seen one port, you’ve seen one port” reality.

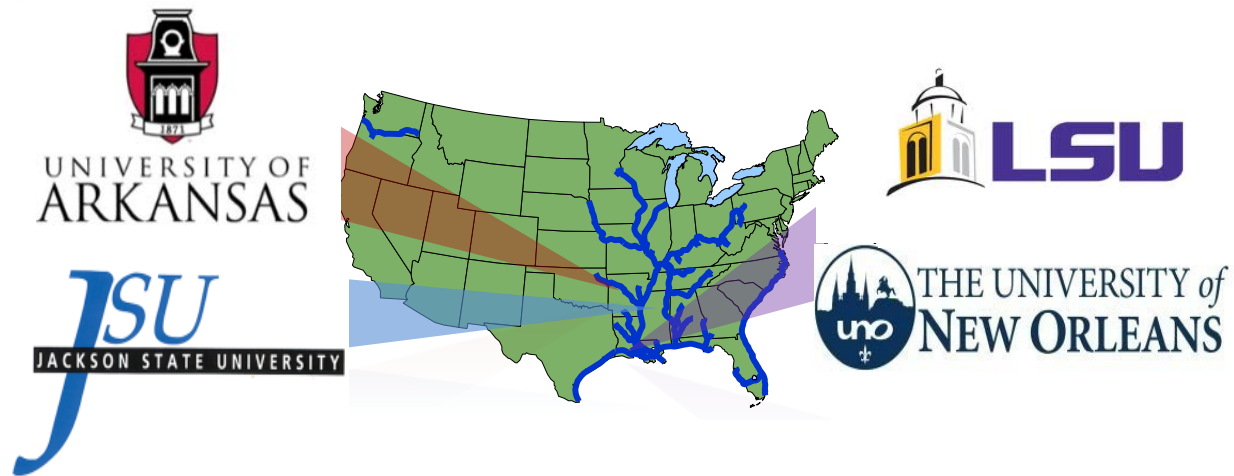


The inland navigation system can benefit from research in state-of-good repair practices, system-level performance measurement, operations analysis, and strategic planning.



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