The Tennessee-Tombigbee Waterway: Connecting Link for the I-65 Freight Corridor

TRB Joint Summer Meeting
Minneapolis, Minnesota

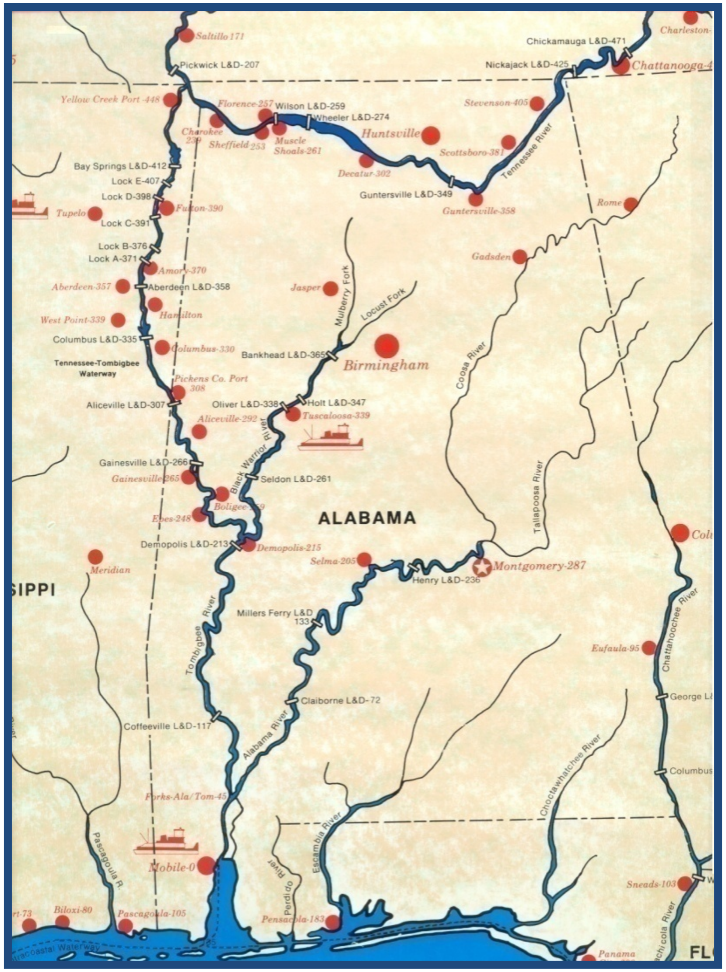
July 12, 2010

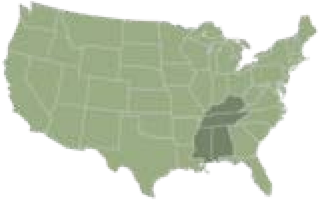
Jerry Sailors
Coalition of Alabama Waterway Associations

Coalition of Alabama Waterway Associations

(CAWA)

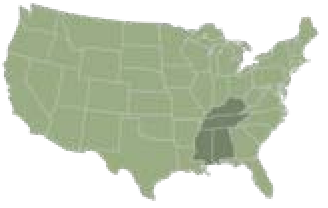
- Comprised of five waterway associations plus the Alabama State Port Authority
- Purposes
  - Promote and market the inland waterways in AL, MS, TN, and KY and increased use of the Port of Mobile
  - Educate and inform decision makers and general public on advantages of waterborne transportation
  - Conduct research, studies, and investigations on ways to expand and improve the inland waterway system through technology, cooperation, and partnerships





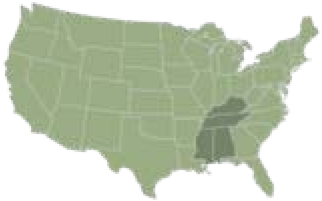
Overview

- Tennessee-Tombigbee Waterway
  - Description
  - Economic Impact (2009 Study)
- Port of Mobile – Economic Impact
- Proposed I-65 Freight Corridor
- Summary



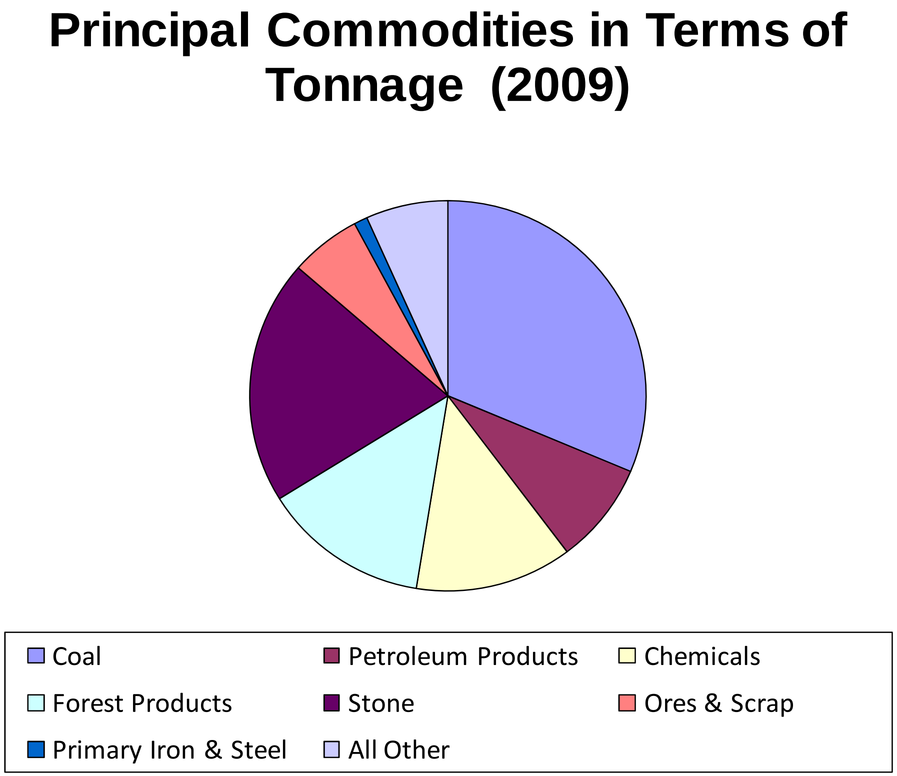
Tennessee-Tombigbee Waterway

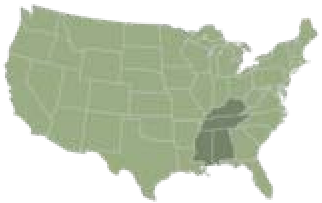
- Direct link between Gulf Coast and US Midwest
- Authorized in River & Harbor Act of 1946
  - Connect north-flowing Tennessee to south-flowing Tombigbee
  - 234 river miles with depths of 9 feet in rivers and 12 feet in canal and divide sections
  - 10 dams and locks (110x600): total lift of 341 ft
- Construction 1972-1985 ($1.9 bil)



The Tennessee-Tombigbee Waterway

- 7-8 million tons annually
- Approximately 30 established ports
- Significant regional economic impact

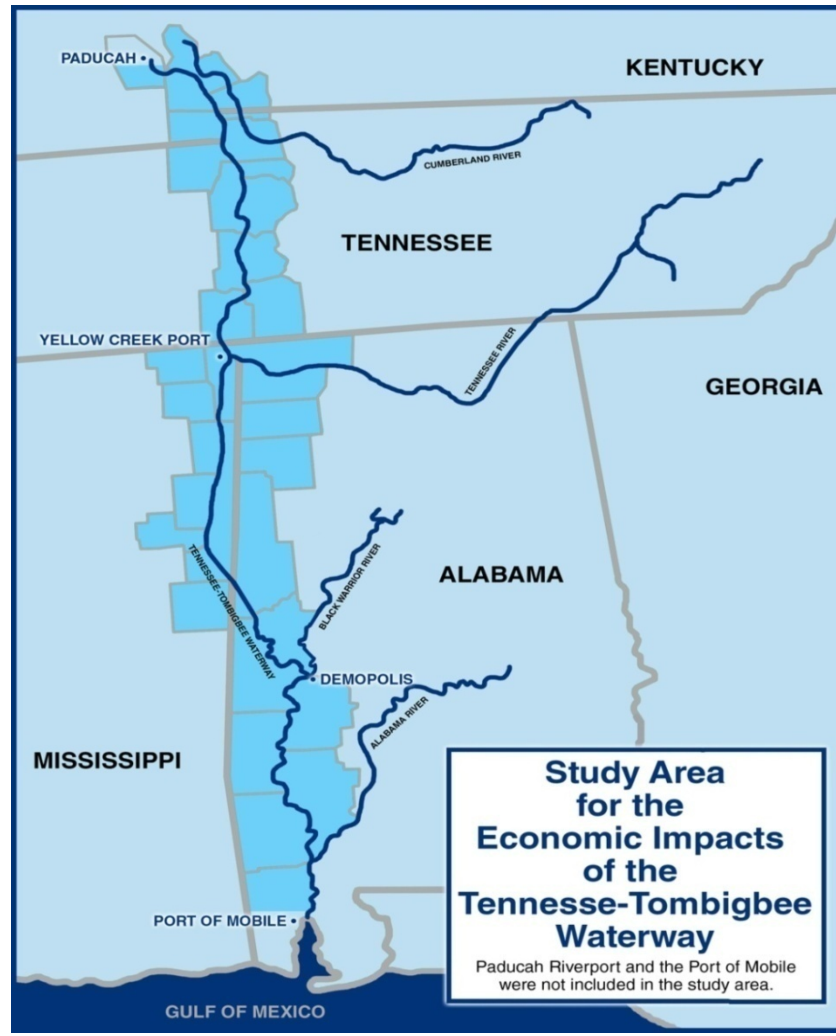


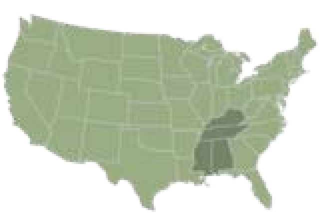


Tennessee-Tombigbee Waterway

Study “Economic Impacts of the Tennessee-Tombigbee Waterway” (Troy University and University of Tennessee, 2009)

- Does not include Port of Mobile or Paducah Riverport
- Does not include Recreation and Tourism
- Covers 1996-2008 only

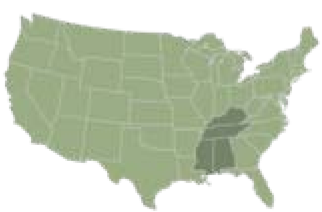




Tenn-Tom Study
Tax Revenue Generated 1996-2008
(Millions)

	Federal	State	Total
Alabama	$176.9	$101.6	$278.5
Kentucky	$100.3	$55.9	$156.2
Mississippi	$372.9	$285.3	$658.2
Tennessee	$13.8	$8.9	$22.7
Regional	$667.6	$454.1	$1,121.7
United States	$1,737.5	$1,130.0	$2,867.5

Tax revenues generated by Waterway investments and opportunities have provided state and federal governments with nearly $2.9 billion since 1996, as shown in this table.



Tenn-Tom Study
Employment Impact 1996-2008

State	Direct	Indirect	Induced	Total
Alabama	8,384	3,879	7,567	19,830
Kentucky	8,046	1,201	5,850	15,097
Mississippi	12,145	7,858	13,440	33,443
Tennessee	507	271	493	1,271
Regional	29,191	13,292	27,806	70,289
United States	29,191	29,001	79,471	137,663

This table indicates the number of jobs that were directly and indirectly created based on industry-to-industry transactions, as well as the number of jobs that were created based on employee spending in the local economy.

Tenn-Tom Study
Labor Income Impacts 1996-2008
(Millions)

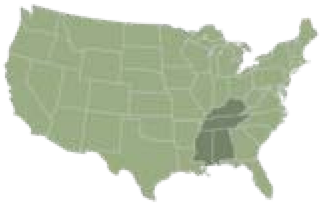
State	Direct	Indirect	Induced	Total
Alabama	$481.1	$166.6	$223.3	$871.0
Kentucky	$297.6	$55.9	$172.3	$525.8
Mississippi	$829.3	$357.6	$396.7	$1,583.6
Tennessee	$41.8	$11.7	$14.5	$68.0
Regional	$1,649.8	$594.8	$820.7	$3,065.3
United States	$1,749.9	$1,705.8	$3,544.3	$7,000.0

The direct payroll expenditure within the Tenn-Tom region creates industry-to-industry transactions and induced impact from employee spending as shown in this table.

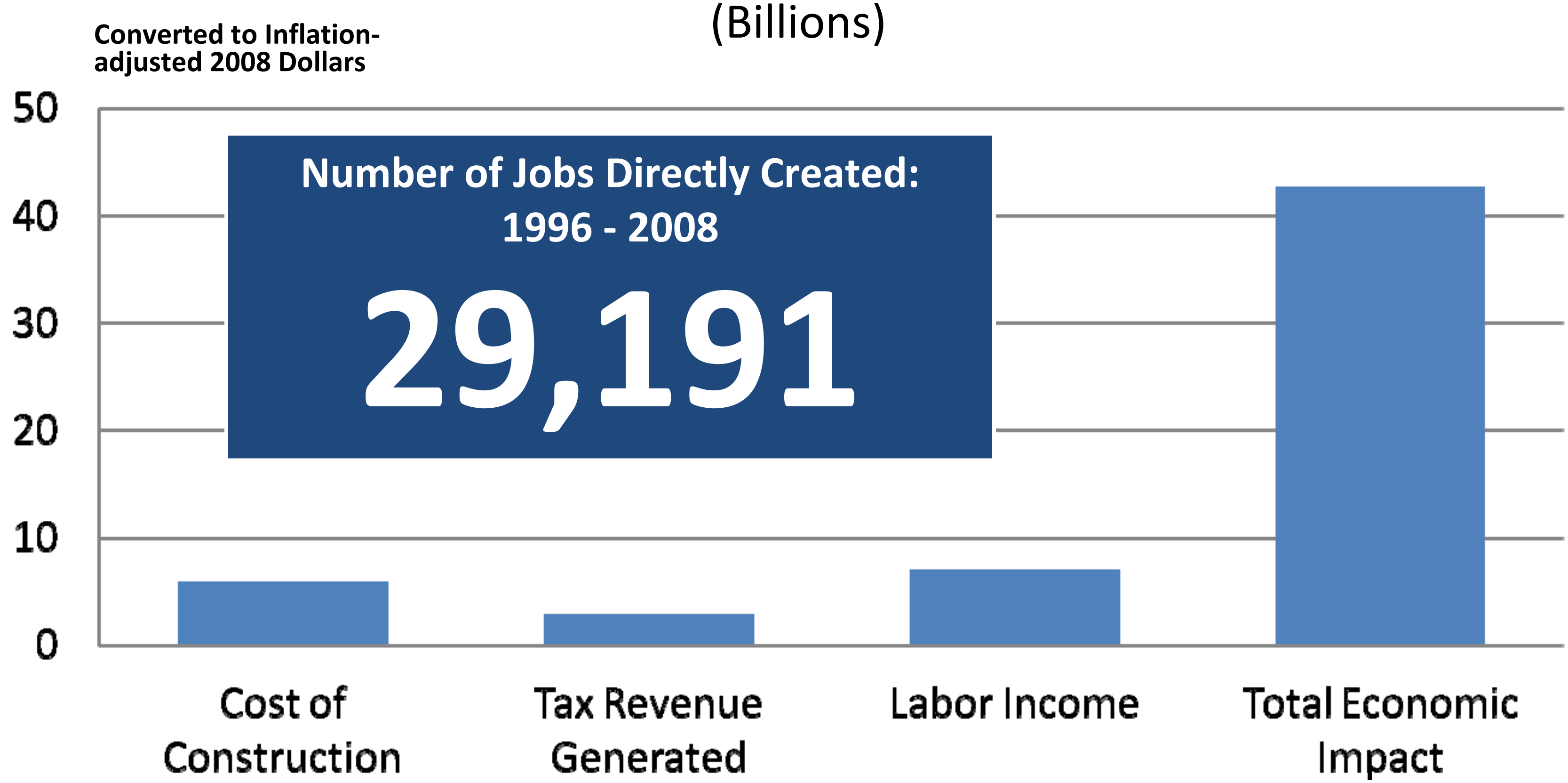
Tenn-Tom Study
Economic Impact 1996-2008
(Millions)

State	Direct	Indirect	Induced	Total
Alabama	$15,217.1	$550.3	$718.8	$16,486.2
Kentucky	$887.2	$163.1	$559.1	$1,609.4
Mississippi	$6,854.7	$1,333.0	$1,276.6	$9,464.3
Tennessee	$2,361.6	$38.1	$47.1	$2,446.8
Regional	$25,320.5	$2,093.3	$2,641.1	$30,054.9
United States	$25,320.5	$5,822.6	$11,380.6	$42,523.7

This table shows the impact from private investment and ports operating in the Tenn-Tom Waterway region.



Tenn-Tom Study
Economic Impact 1996-2008
(Billions)



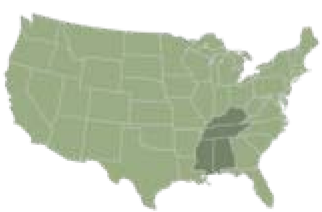
The original cost of waterway construction was approximately $2.0 billion. Converting this cost to today's inflation-adjusted values reveals a contemporary <u>benefit-to-cost ratio of greater than seven to one.</u> Numbers include recently located steel companies: Severcorr (MS) - $2.7 billion investment and Thyssen-Krupp (AL) - $4.7 billion investment.

Economic Impact of Port of Mobile On Alabama Only

- Alabama State Port Authority Generates:
  - 66,617 direct and indirect jobs
  - $263+ million in direct and indirect tax impact
  - Total Economic Impact $7,929,626,000

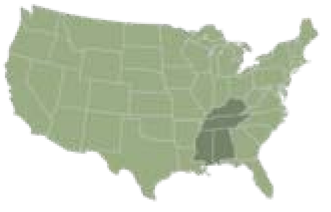
- Port of Mobile Private Terminals Generate:
  - 25,962 direct and indirect jobs
  - $93.6 million in direct and indirect tax impact
  - Total Economic Impact $2,405,692,000

Martin & Associates – 2006



Objectives of MHP

- Reduce congestion on highways and rail
- Make national transportation network safer, more efficient, and productive
  - Be more cost effective
  - Require less infrastructure
  - Provide significant energy savings
  - Reduce emissions
  - Where feasible, establish waterway freight corridors that parallel congested highway corridors
- Provide measurable public benefit



Congestion

(From AASHTO Rpt, Transportation Reboot: Restarting America's Most Essential Operating System
The Case for Capacity: To Unlock Gridlock, Generate Jobs, Deliver Freight, and Connect Communities, July 2010)

- 2010 - The U.S. population reached 308 million in 2010
  - Expected to reach 420 million by 2050
  - Larger population will consume more food, clothing, and other commodities.

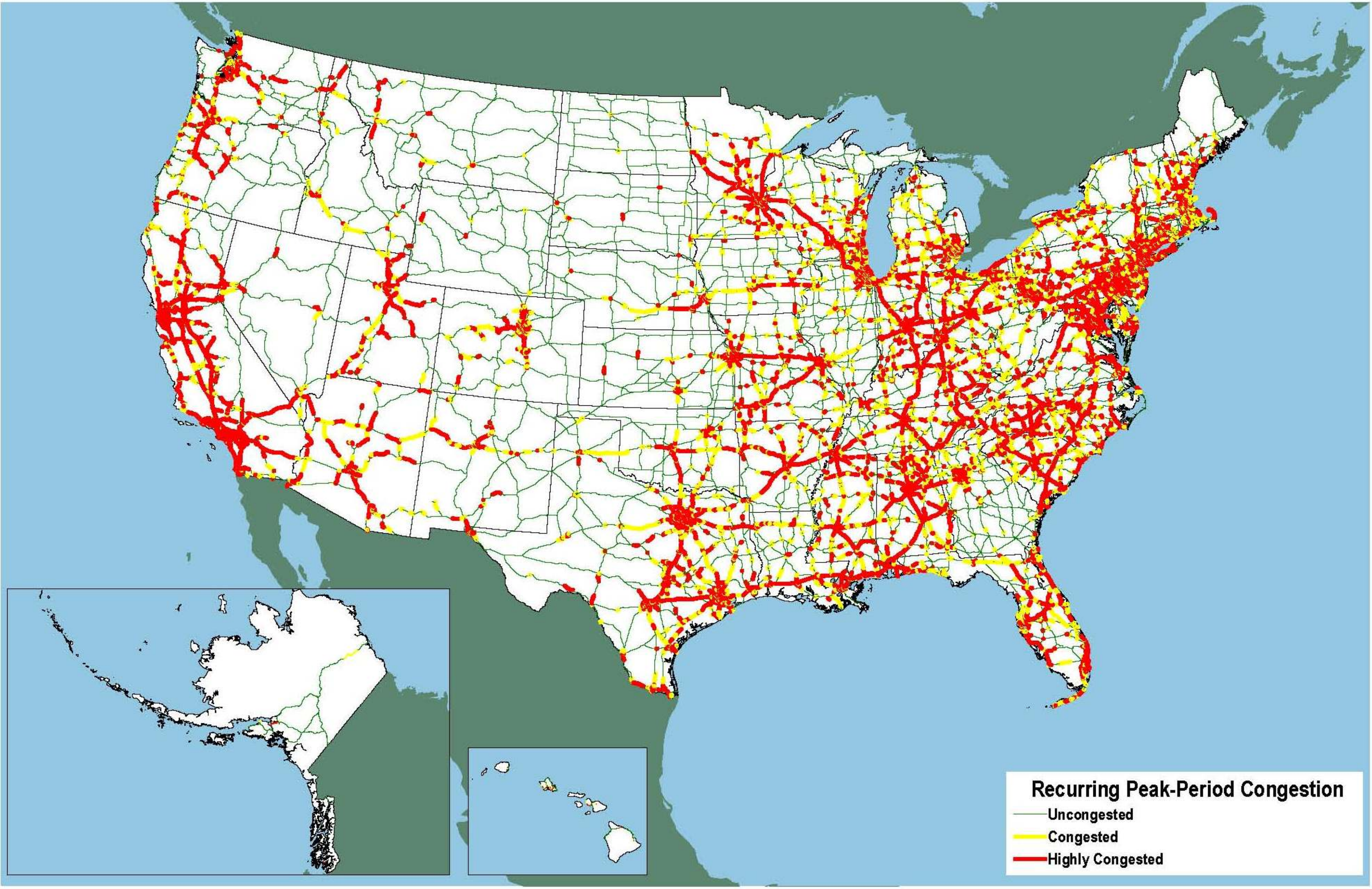
- 2015 – Panama Canal expansion may shift freight volume from West Coast to Gulf and Atlantic Coasts
  - USDOT to Congress (Apr 2010): Flow pattern will shift, increasing demands on roads and rail serving those ports with adverse effects on congestion and environmental sustainability

- 2020 - U.S. trucking industry will move three billion more tons of freight than is hauled today.
  - To meet this demand, the industry will put another 1.8 million trucks on the road.

- 2030 - For every two trucks now on the road, there will be an additional one right behind it, carrying the expected growth in food deliveries, goods, and manufacturing equipment.

- 2050 - Overall freight demand will double from 15 billion tons today to 30 billion tons
  - Freight carried by trucks will increase 41 percent
  - Freight carried by rail will increase 38 percent
  - Number of trucks on the road compared to today will also double.

Peak-Period Congestion on the National Highway System: 2035

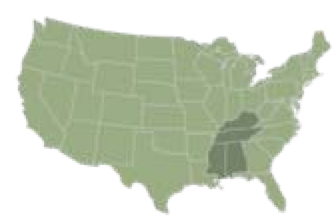


Note: Highly congested segments are stop-and-go conditions with volume/service flow ratios greater than 0.95. Congested segments have reduced traffic speeds with volume/service flow ratios between 0.75 and 0.95.

Source: U. S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Highway Performance Monitoring System, and Office of Freight Management and Operations, Freight Analysis Framework, version 2.2, 2007

The I-65 Corridor

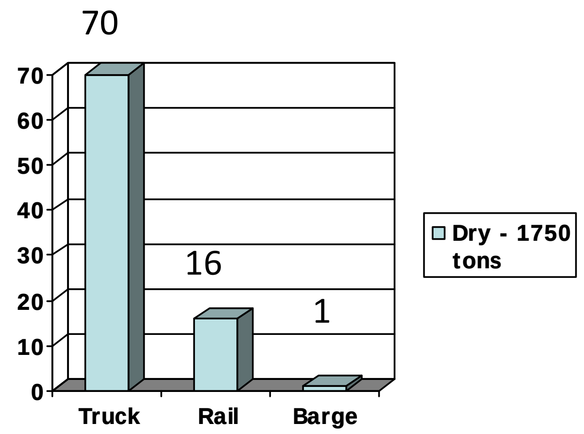
- Waterway route parallels I-65
  - Could be called I-65/24 Corridor
- Total length from Port of Mobile
  - Paducah - 665 river miles (581 road)
  - Louisville - 996 river miles (620 road)
- What kind of goods move on I-65 now that could be moved on waterway?
  - Any general cargo/bulk/breakbulk
  - Anything that moves in a container

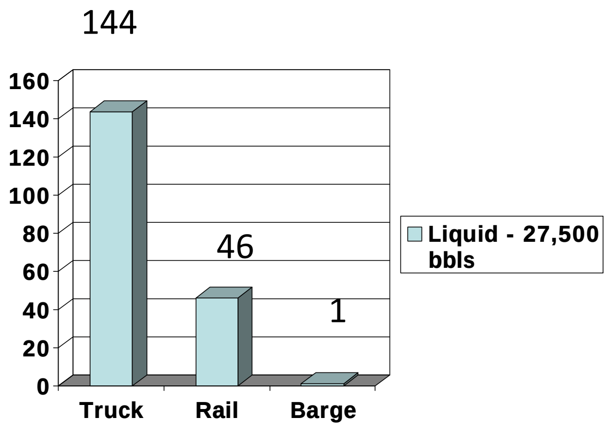


Benefits of Waterway Transportation

(Source: MARAD/TTI Study, November 2007)

- Capacity
- Fuel Efficiency
- Environmental
- Safety





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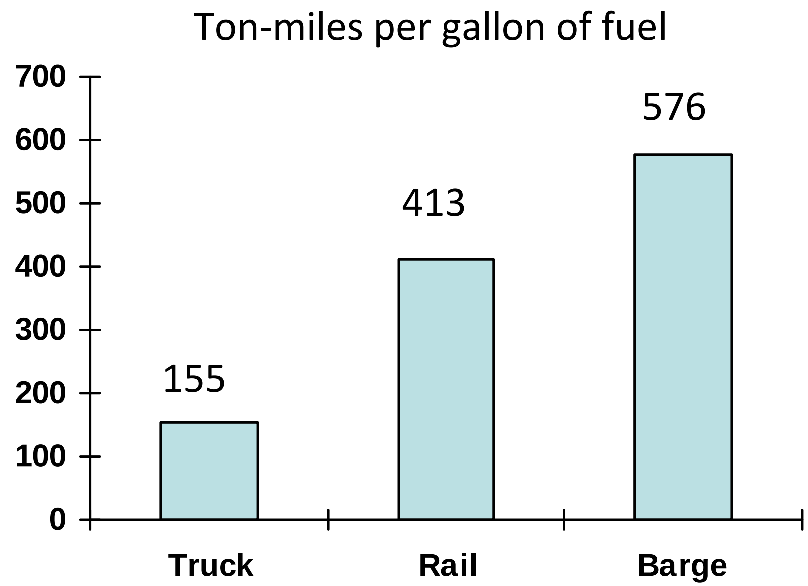

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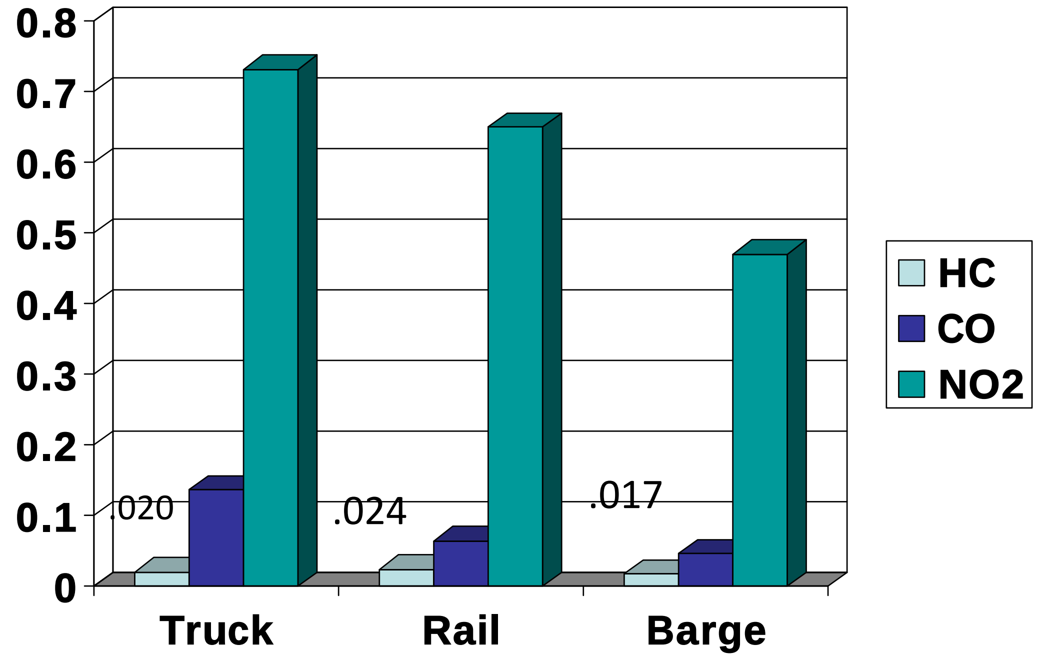
Grams emitted per ton-mile



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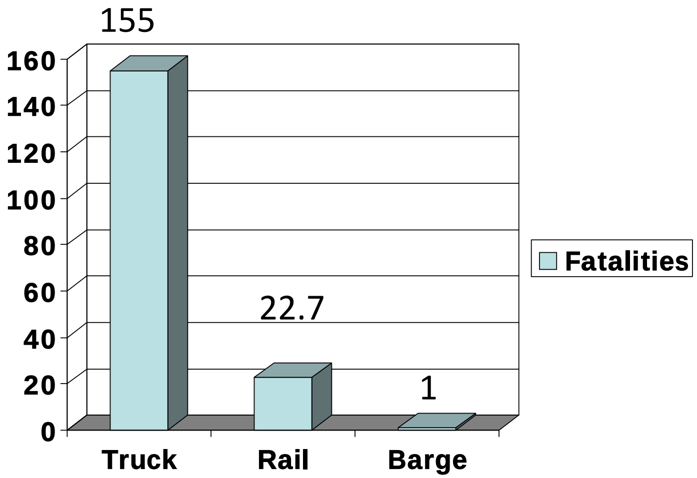
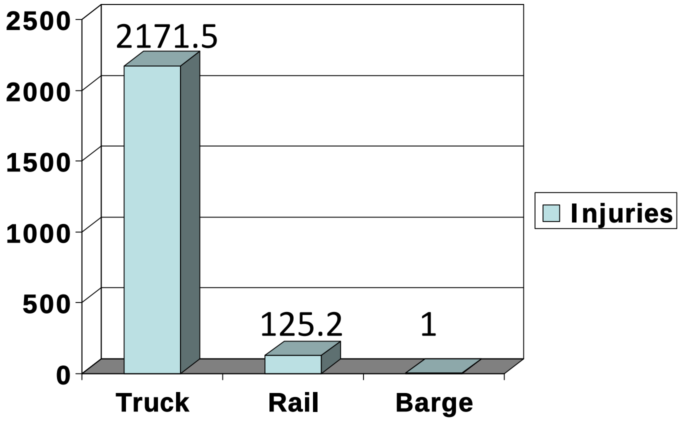


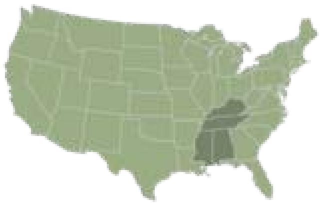


Per billion ton-miles

Coalition of Alabama Waterway Associations

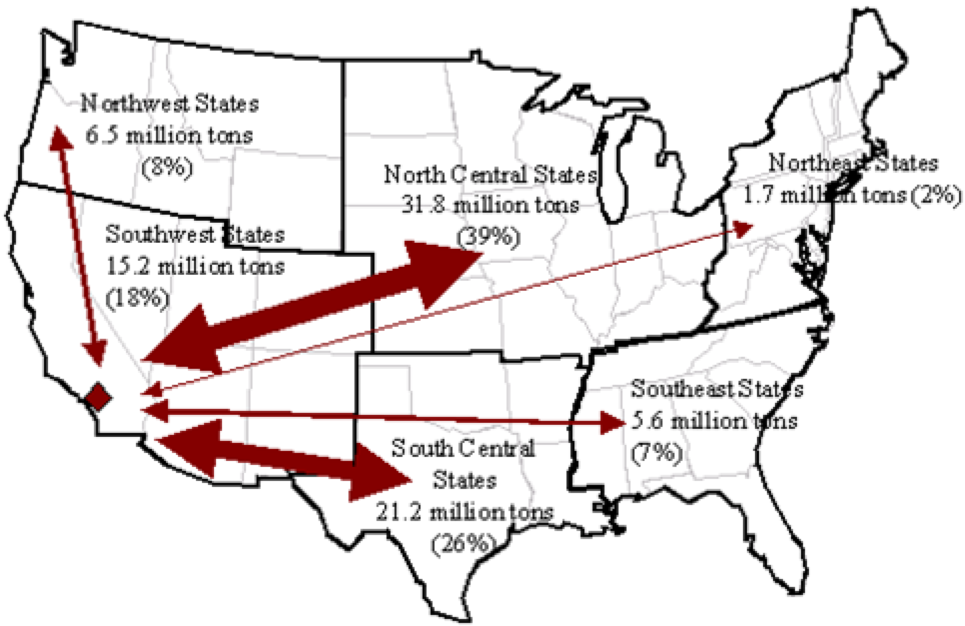
Benefits of Using a Designated Corridor

- Reduced congestion
  - I-65 in Birmingham 11,600 commercial trucks per day
  - 7,500 3-axle or more:1 truck every 12 seconds (2008 – ALDOT Traffic Data)
- Reduced road maintenance costs
  - 22 million tons move by barge between Mobile and Birmingham area annually
  - If moved to roadway, would require an additional 880,000 trucks and add $24.3 million in road maintenance costs annually (AFMS, Phase 1, 2007)
  - One semi does as much damage to a roadway as 9,600 passenger cars
- Potential industrial users
  - Furniture – largest manufacturing base in US in northeast MS
  - Biomass – southeast US regarded as “wood basket of the world”
  - Automobile – numerous manufacturers in corridor region
- Geographic
  - Panama Canal Expansion
  - Post Panamax container ships – 13,000 TEUs
  - Take pressure off west coast to east rail system



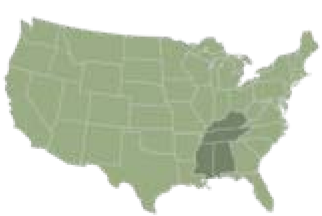
Geographic Benefits

Rail Flow from LA/LB



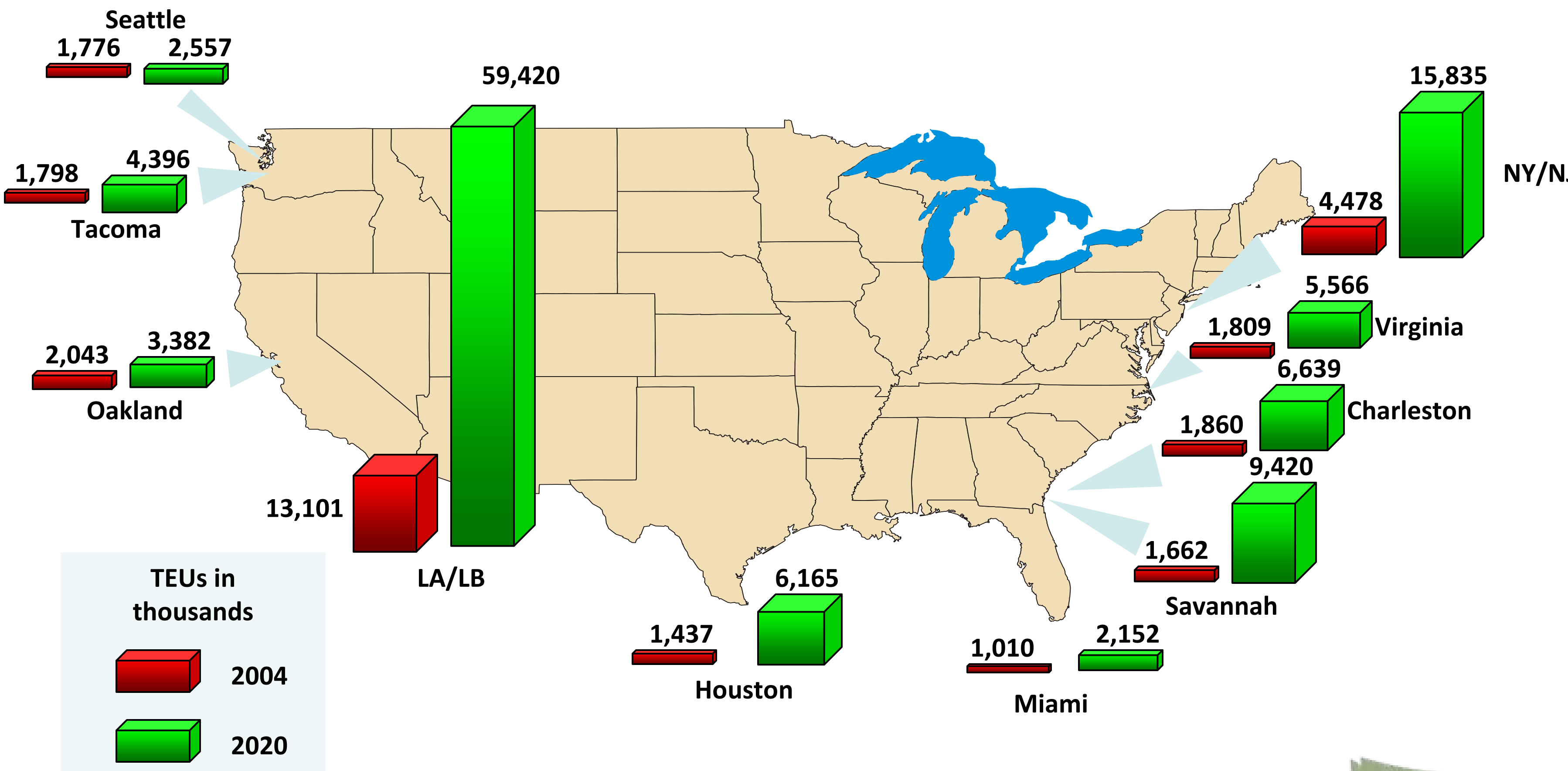
Rail Tonnage from LA/LB – 2003

75% of rail traffic through LA/LB is with US midwest and east coast

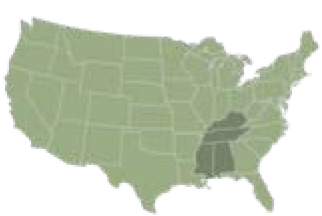


U.S. Maritime Container Trade Growth

Current and Future

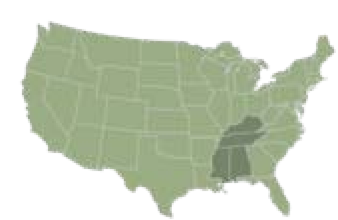


Source: USDOT (Forecast figures based on 6 year linear regression)



Summary

- Marine Highway Program
  - Cites national need to improve transportation safety, environment, and efficiency by using unused capacity of inland waterways that parallel major highway freight corridors
  - Establishes mechanism to assist public and private investors to establish freight corridors
- Tenn-Tom meets all MHP criteria
  - Parallels I-65 & I-24 to/from Mobile to Paducah and Louisville
  - Has unused capacity
  - Has a significant regional economic impact



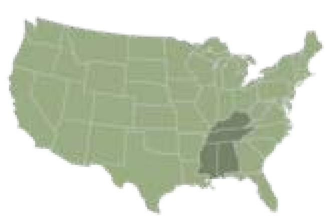
Conclusion

The I-65 Freight Corridor can

- Help alleviate TODAY’s problems
- Assist with FUTURE capacity growth and freight needs

Expanding use of the Marine Highways "is good for economic recovery and jobs. It helps us conserve energy, especially our use of foreign oil, and it can help us reduce greenhouse gas emissions. This is one of the few programs that contribute to all these objectives without having a downside." (Emphasis Added)

U.S. Secretary of Transportation Ray LaHood
Inland Port Magazine, March/April 2010



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