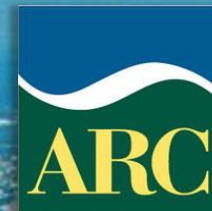


Presentation to

APPLACHIAN REGIONAL COMMISSION



MOBILE TRADE AND TRANSPORTATION CORRIDOR

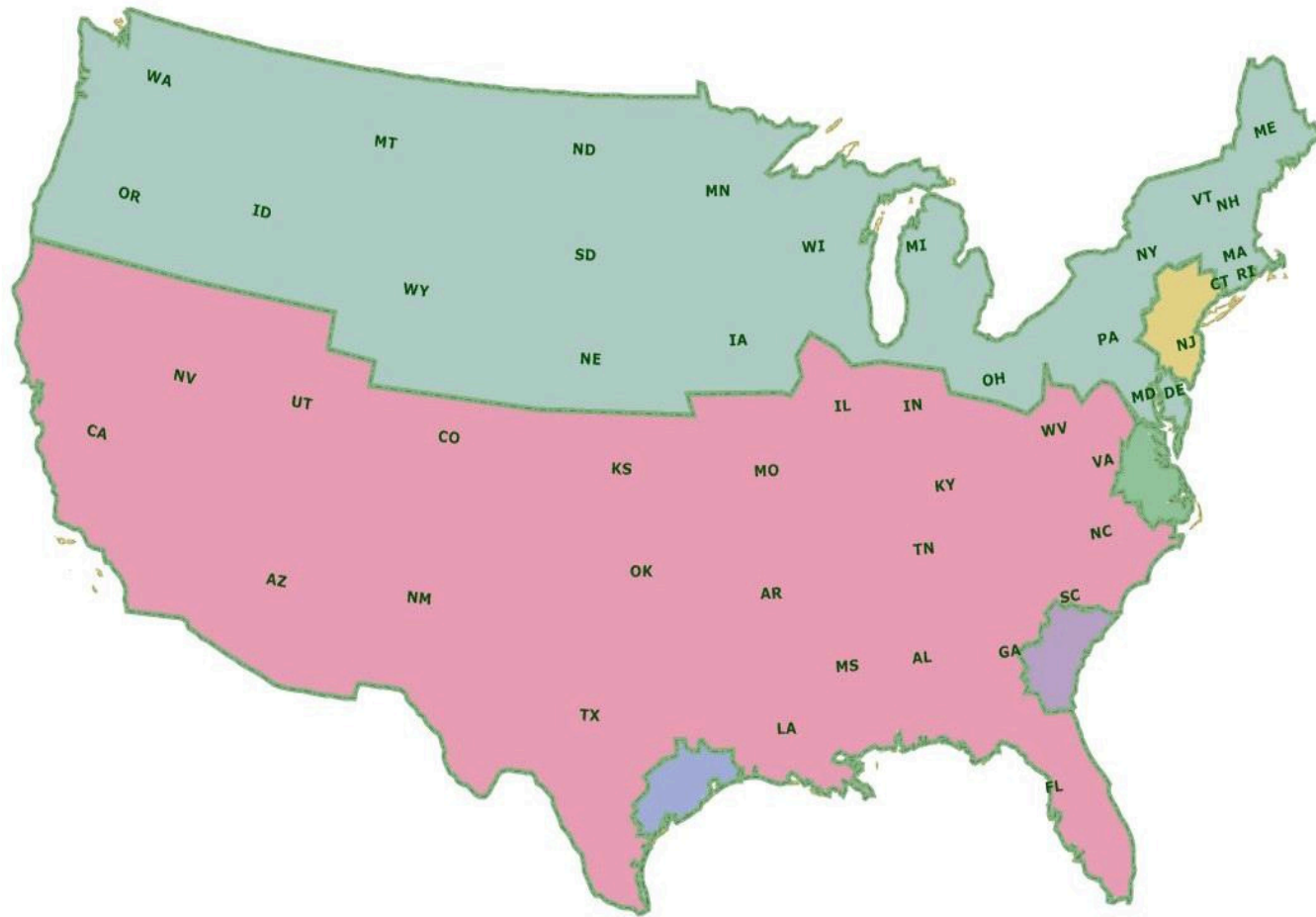
February 1, 2016

Prepared by

TEMS

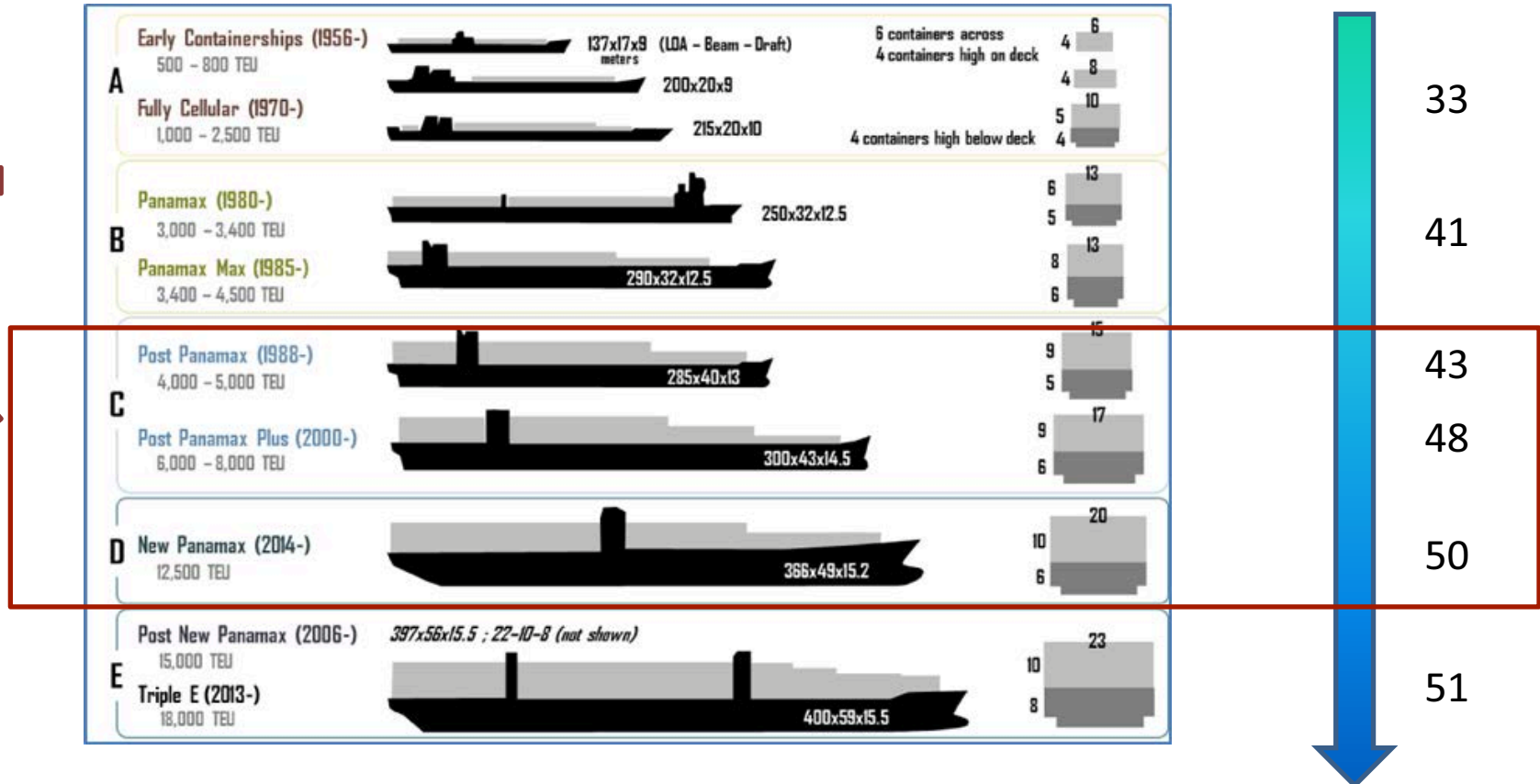
Transportation Economics & Management Systems, Inc.

WEST COAST PORTS DOMINATE US MARKET BECAUSE WEST COAST RECEIVES LARGE SHIPS



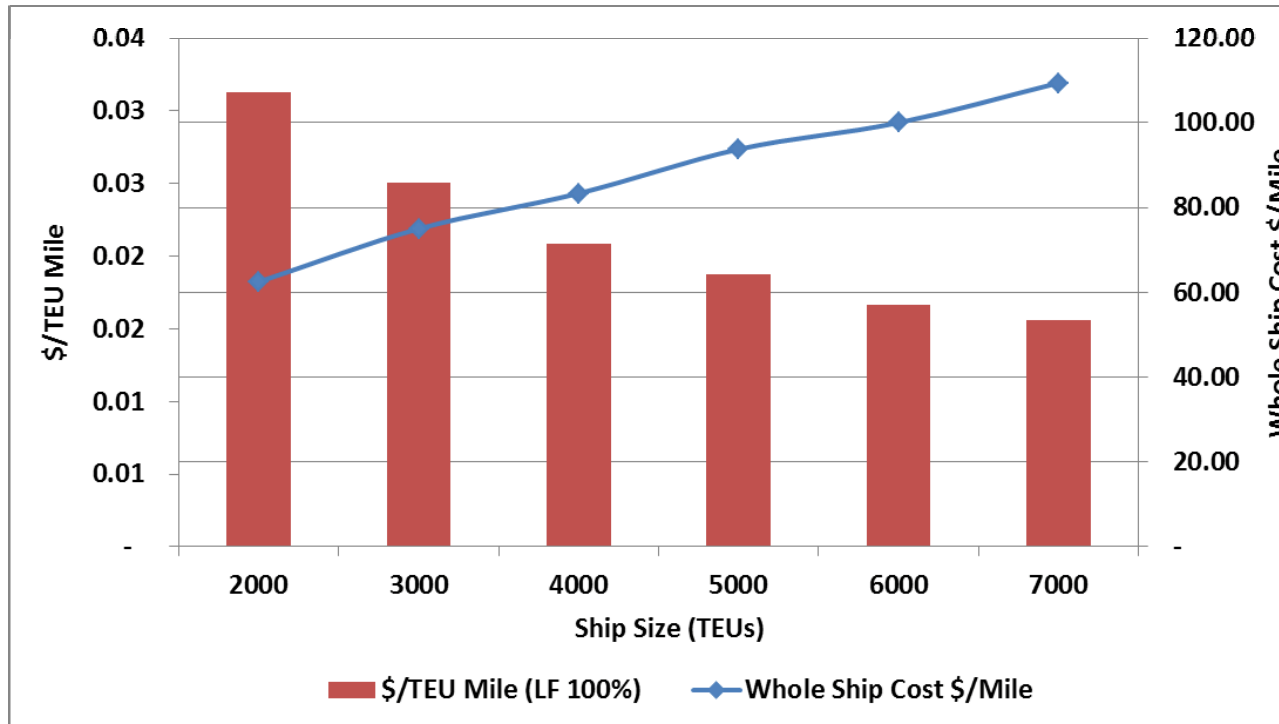
PANAMA CANAL WILL CHANGE THE SITUATION

Water Depth(ft)



**Capacity of New Panamax ship will increase 2-3 times, but requires 48-51 feet draft.
Only a few Gulf and East Coast ports can support this, but in the long term
Freeport will be able to accommodate these larger ships.**

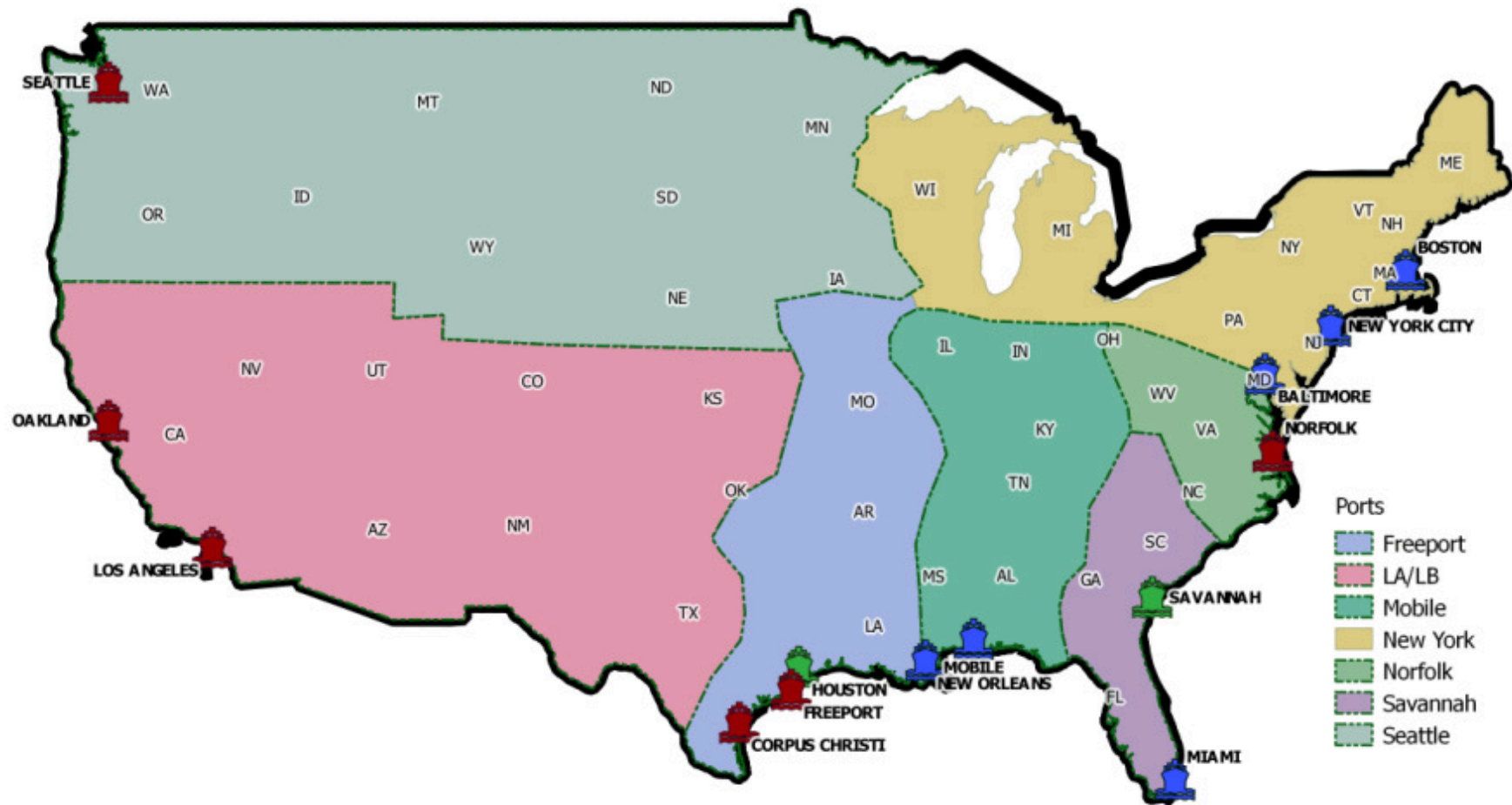
ECONOMIES OF SCALE FOR BIGGER SHIPS



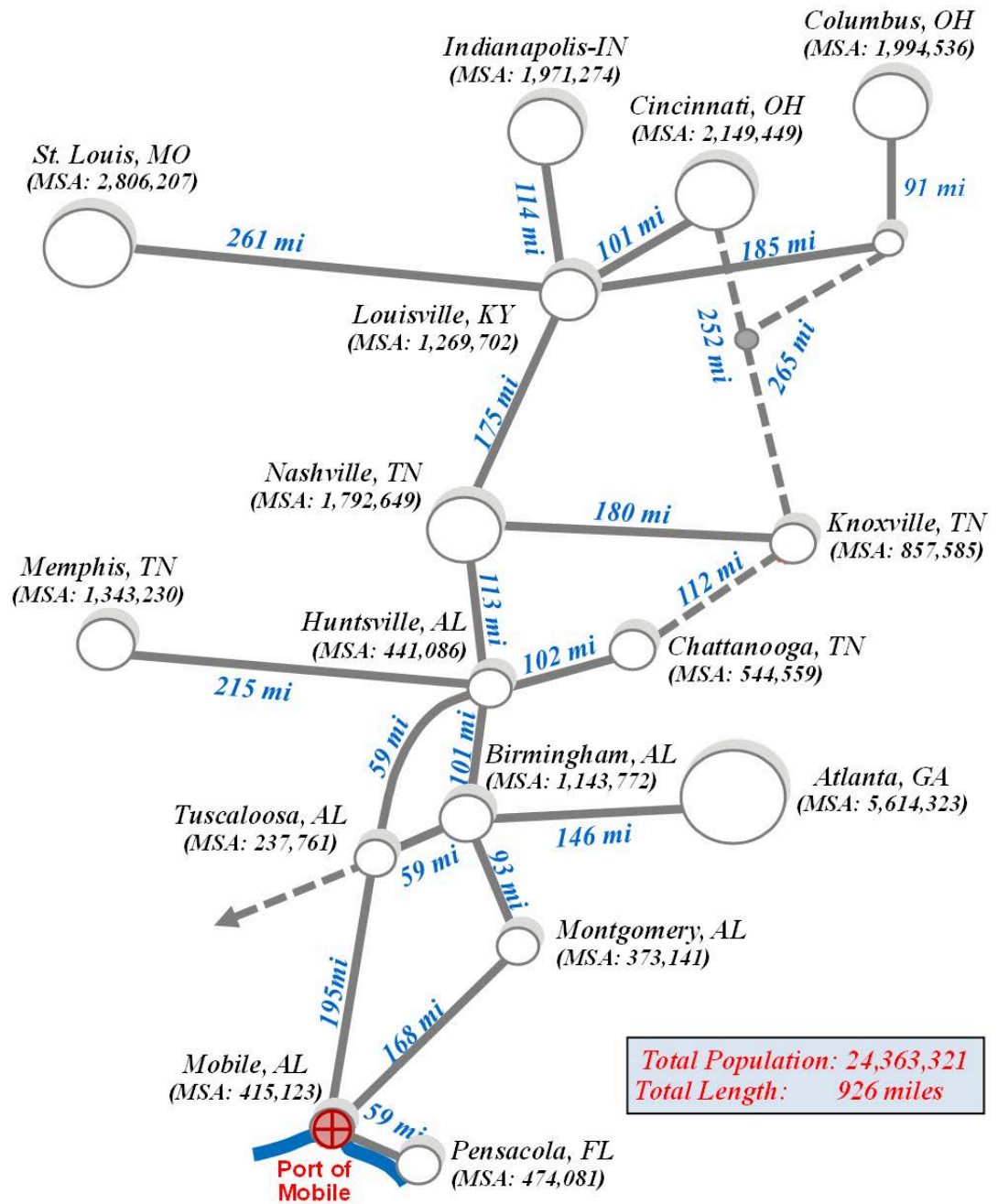
Source: Reproduced based on Figure 4.3 Impacts of Containership Size, Service Routes, and Demand On Texas Gulf Ports , TXDOT, 2001

- 2015 Shipping cost will decrease from \$0.04/TEU·Mile to \$0.02/TEU·Mile (70% loading factor and inflation since 2001).
- **This cuts shipping line-haul costs in half.**
- East Coast Ports are expanding their capabilities, so Big Ships will be used in both Pacific and Atlantic (e.g. Suez) trade lanes.

POTENTIAL BIG SHIP MARKET AREAS WITH ENLARGED PANAMA CANAL



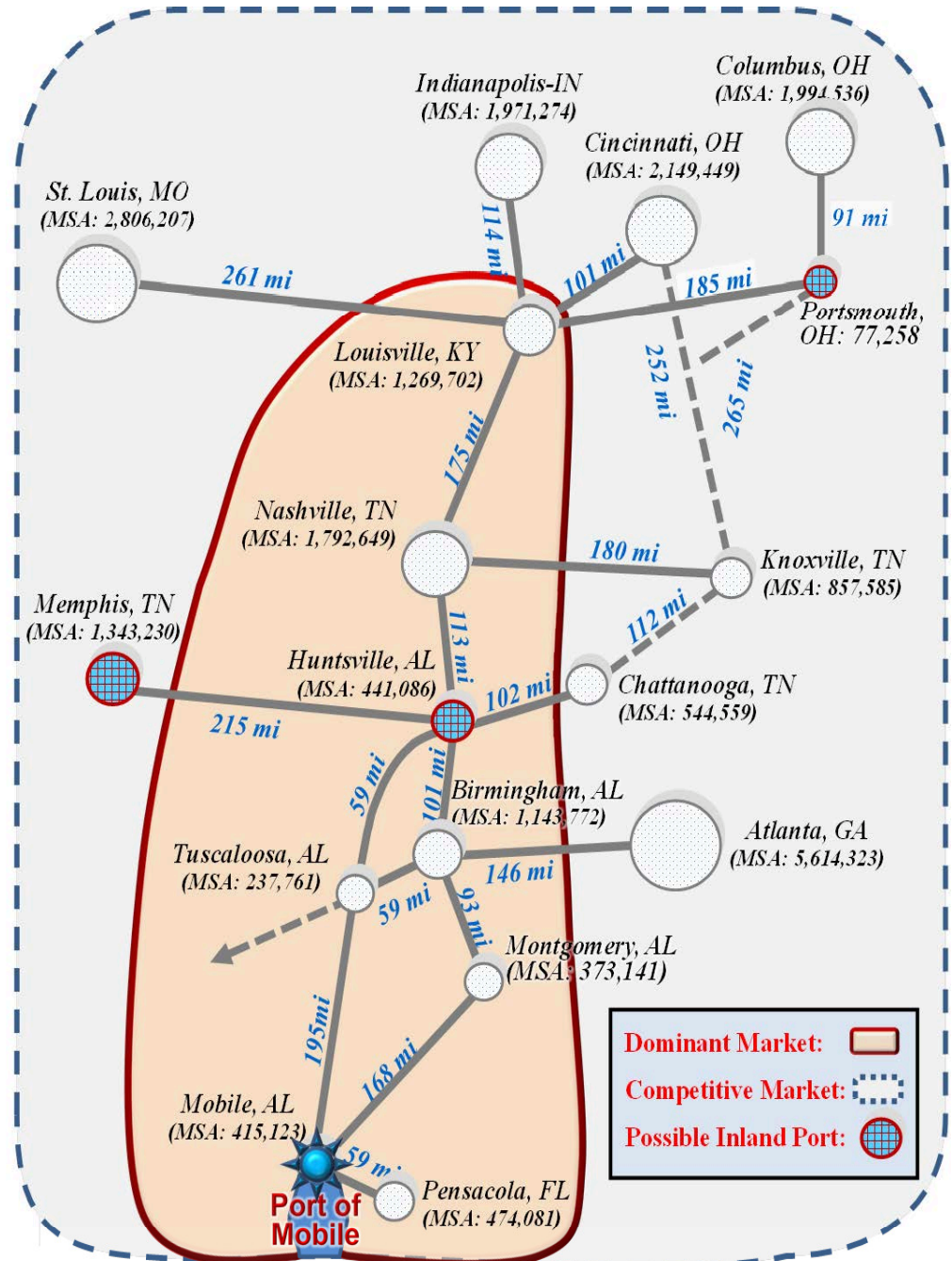
MOBILE TRADE AREA



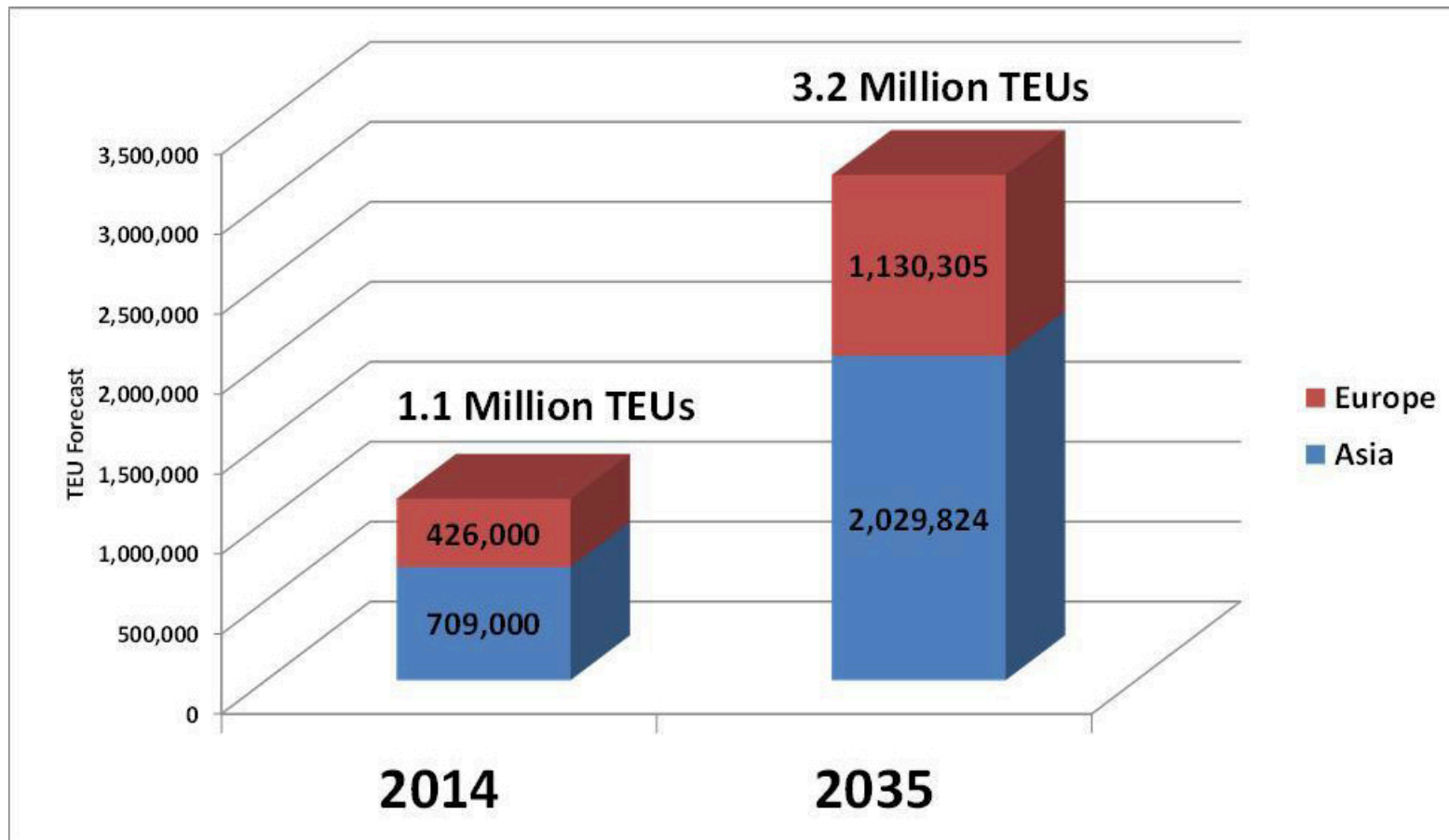
TEMS

MOBILE TRADE AREA COMPETITIVENESS

- ▶ Port of Mobile – 50 ft depth
- ▶ On Dock Rail Facility
- ▶ Inland Rail Network
- ▶ Inland Port System



POTENTIAL MOBILE CONTAINER MARKET



ECONOMIC IMPACT



EXAMPLE: CSX WINTER HAVEN FACILITY



- ***318 Acres rail facility, surrounded by 930 acres reserved for development of up to 7.9 million square feet of warehouse distribution centers***
- ***Projected at full build-out, the Winter Haven ILC will create 8,500 annual jobs with a total annual payroll of \$282.2 million.***

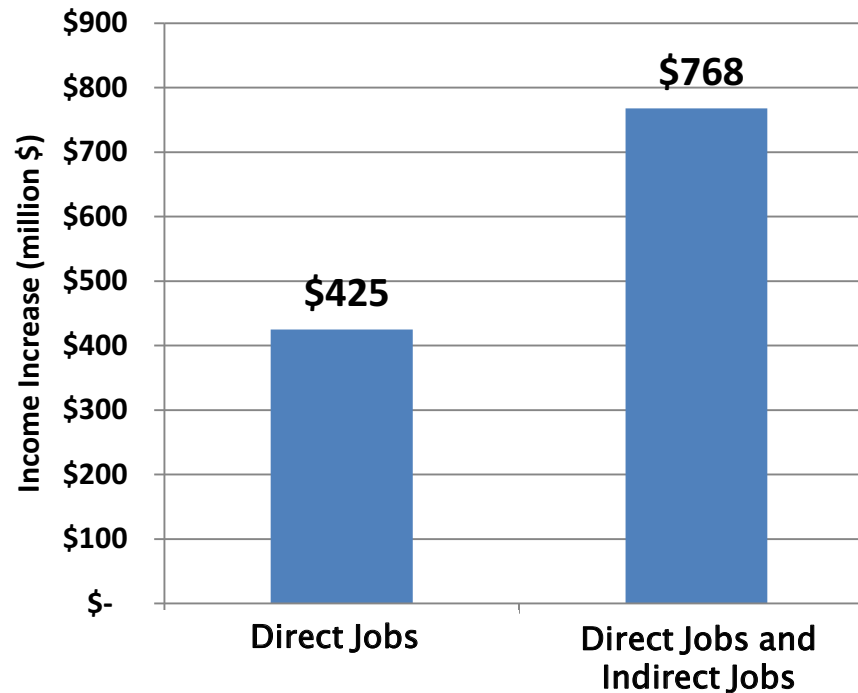


References:

- http://railtec.illinois.edu/RREC/presentations/A/04/19_Brinker.pdf
- <http://www.bizjournals.com/tampabay/news/2014/07/29/csx-intermodal-facility-in-winter-haven-getting.html>
- <http://www.myfoxtampabay.com/story/26807665/2014/10/16/csx-hub-in-winter-haven-expected-to-boost-local-economy>
- <http://www.flgov.com/2012/11/08/governor-scott-breaks-ground-on-winter-haven-intermodal-rail-terminal/>
- <http://www.railwayage.com/index.php/intermodal/csx-winter-haven-intermodal-terminal-up-and-running.html>
- http://www.tbrta.com/tbaq-issues/tbaq-2008-10_csx-winter-haven.pdf

ECONOMIC IMPACT INCREASED INCOME

Total Income Increase
(million \$ per Year)





THANK YOU

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