



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# **The Dynamics of the US Container Market and Shifting Trade Patterns – Implications for East Coast and Gulf Coast Ports**

**March 15, 2012**

**Jeff Sweeney**

**Martin Associates**

**941 Wheatland Avenue, Suite 203**

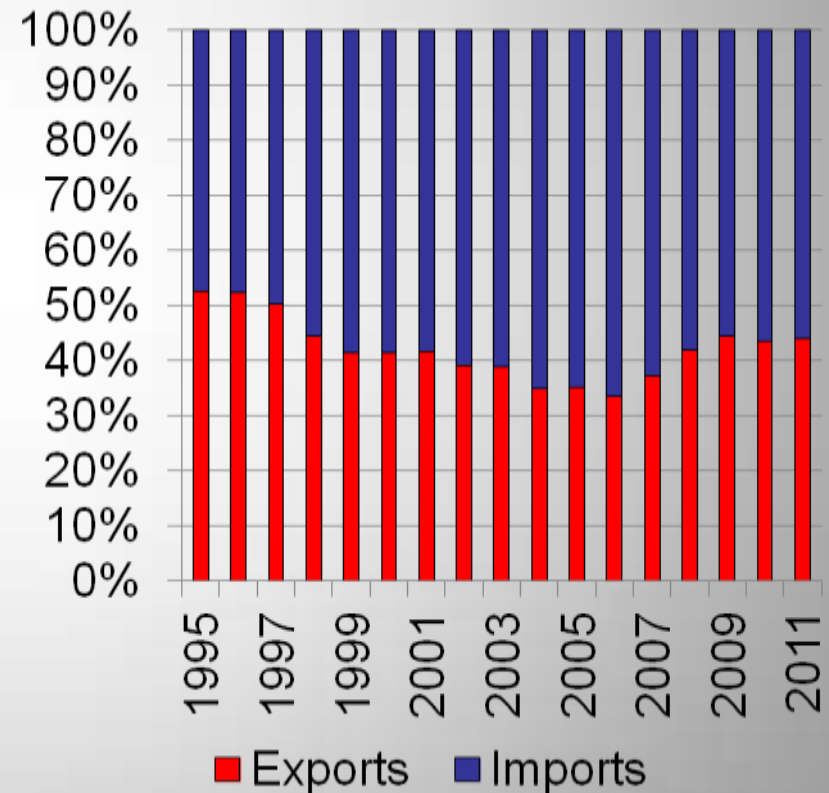
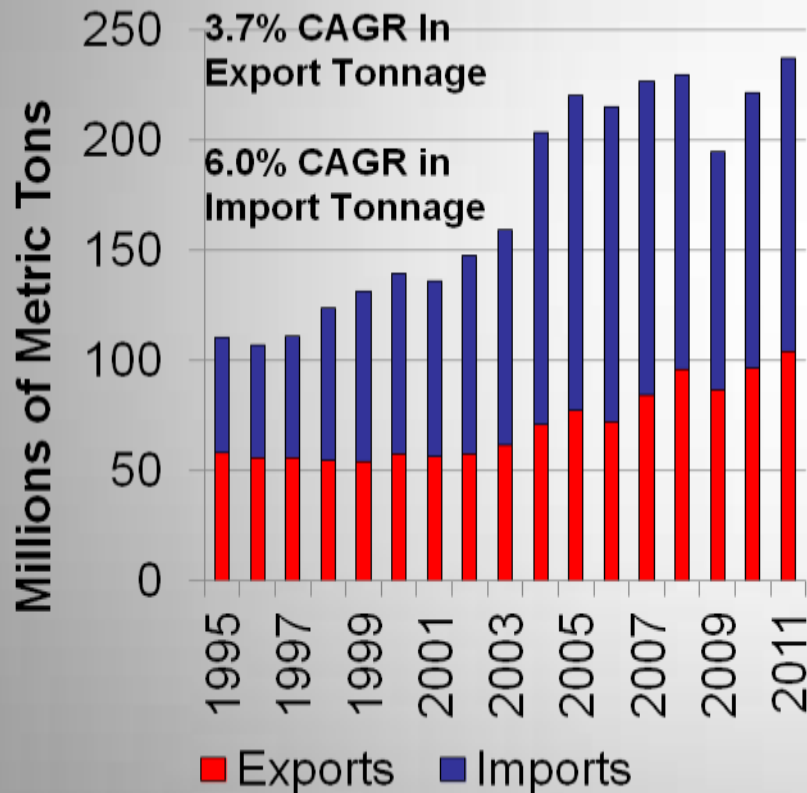
**Lancaster, PA 17603**

**[www.martinassoc.net](http://www.martinassoc.net)**

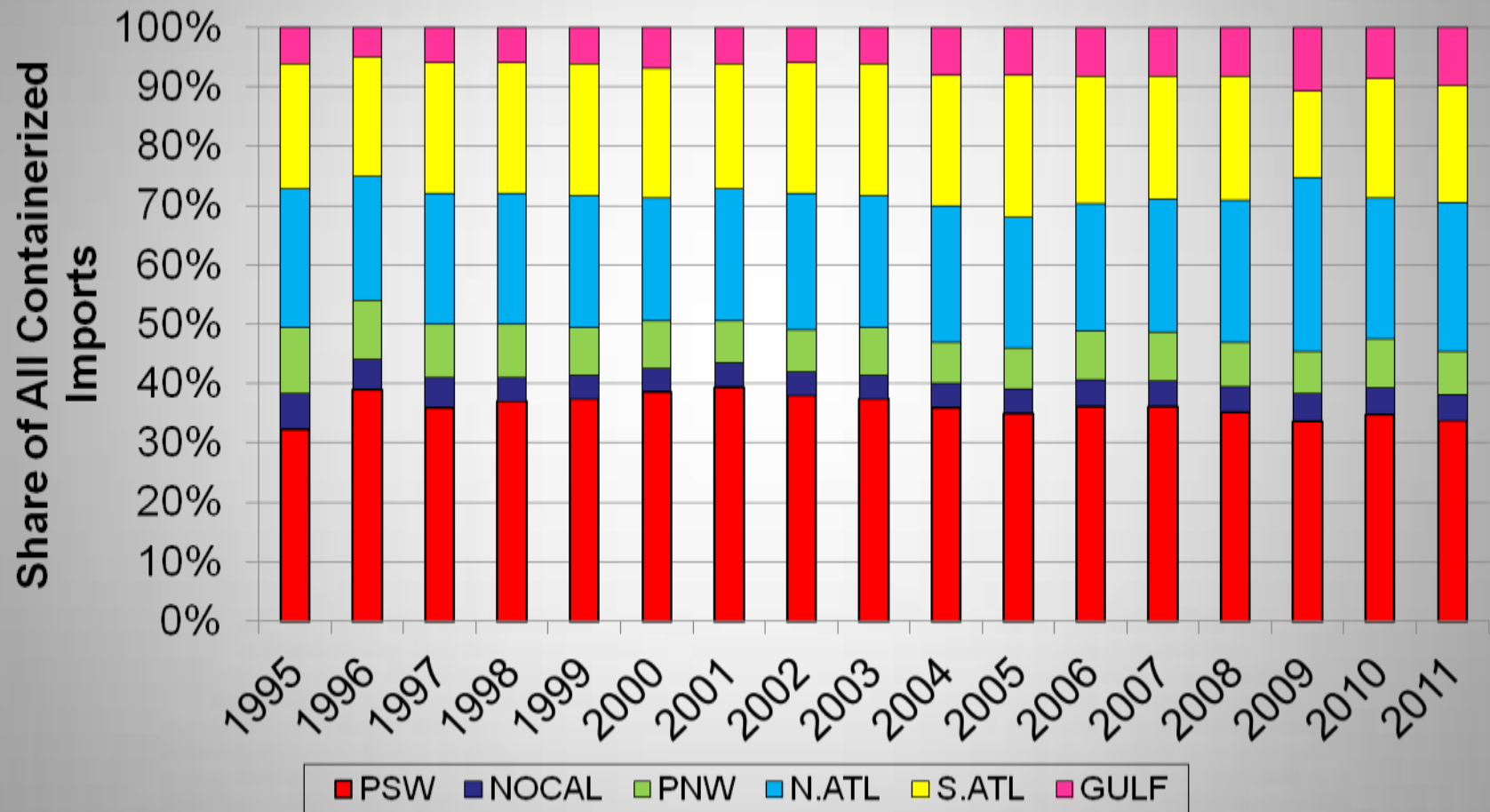
**(717) 295-2428**

# **Overview of Historical and Current Conditions**

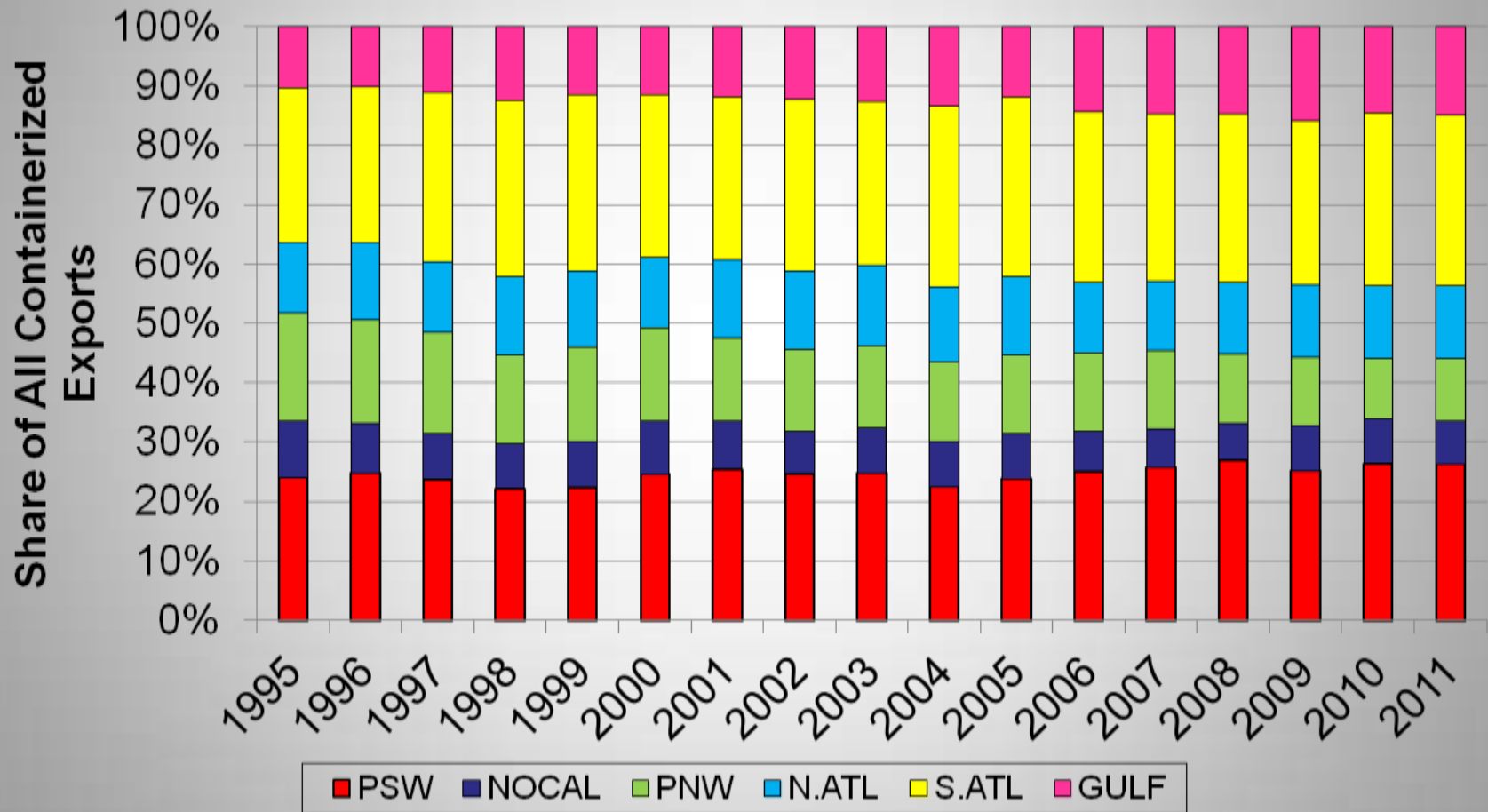
**In terms of tonnage, containerized cargo has reached a record year in 2011; Imported containerized cargo dominates, but exports have been increasing since 2006**



**West Coast ports handle about 45% of containerized imports; 35% moves via the PSW ports, however this share has been declining since 2001**



# About 55% of containerized exports move over East and Gulf coast ports, primarily the South Atlantic; About 45% move via the West Coast Ports



# **Shocks have occurred in the existing logistics patterns of importers/BCOs and these changes primarily occurred between 2002 and 2007**

- Consolidation of imports via San Pedro Bay (Los Angeles and Long Beach) Ports - mid 1990's
  - Distribution Center growth
  - Cross-dock operations
  - Rail investments in Southern Cal to Midwest routings
- But then...
  - 9/11
  - West Coast Shutdown
  - Capacity issues – land and labor shortages
  - Rail and truck shortages
  - High intermodal rates
  - Search for alternatives
- And more recently...
  - Shifting production centers
  - Economic crisis

# All-water services are growing...

Significant growth in distribution centers in  
Gulf and Atlantic Port Ranges:

- Norfolk
- Savannah
- Houston

Proximity to Southern Asia/India is a  
positive for Suez Canal routings:

- Growth in Indian port infrastructure
- Growth in production centers and port  
infrastructure in Vietnam and SE Asia

With direct services to East and Gulf  
Coast, transit time differentials are  
narrowing

Port infrastructure investment on East and  
Gulf Coasts has responded:

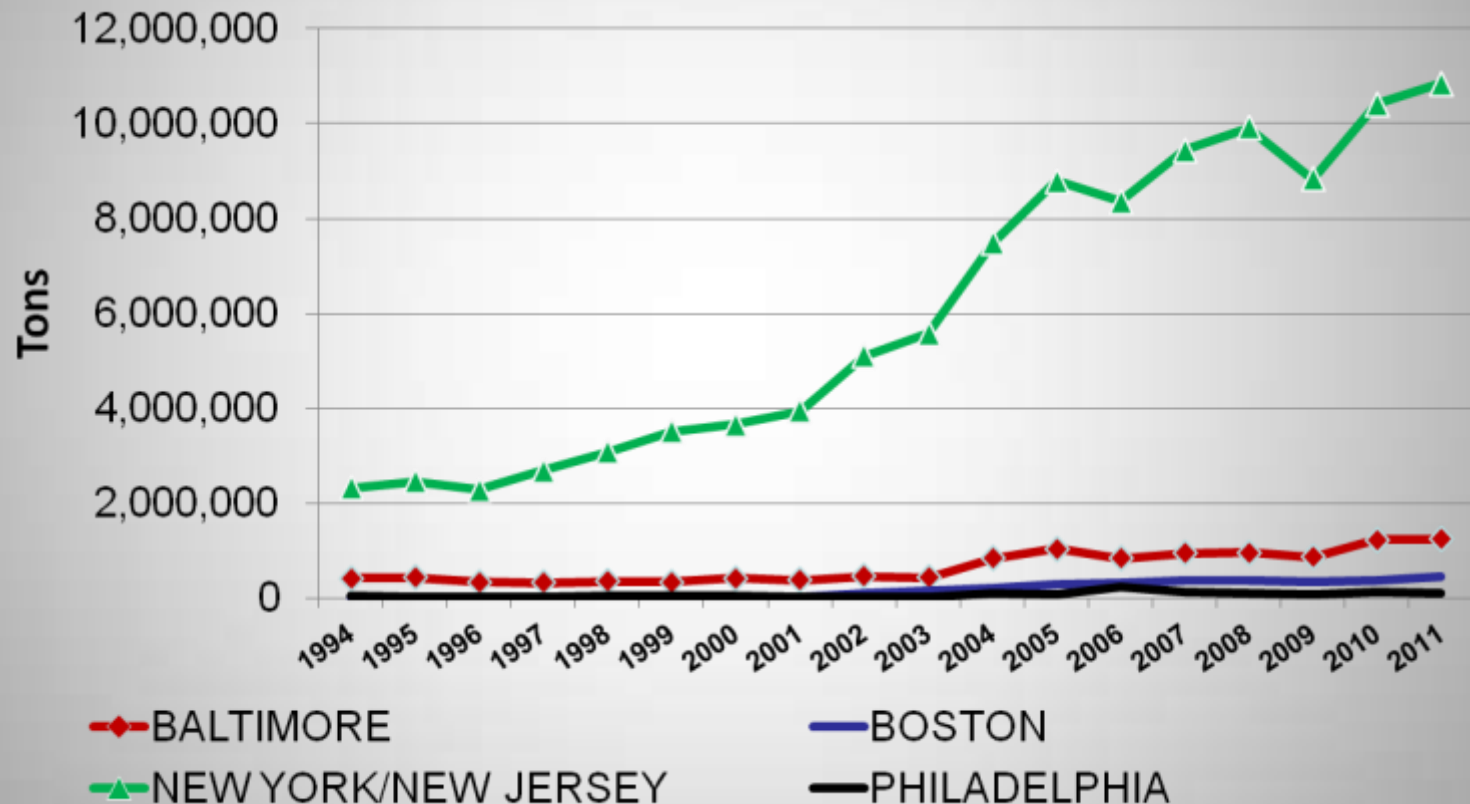
- Terminal development
- Rail infrastructure



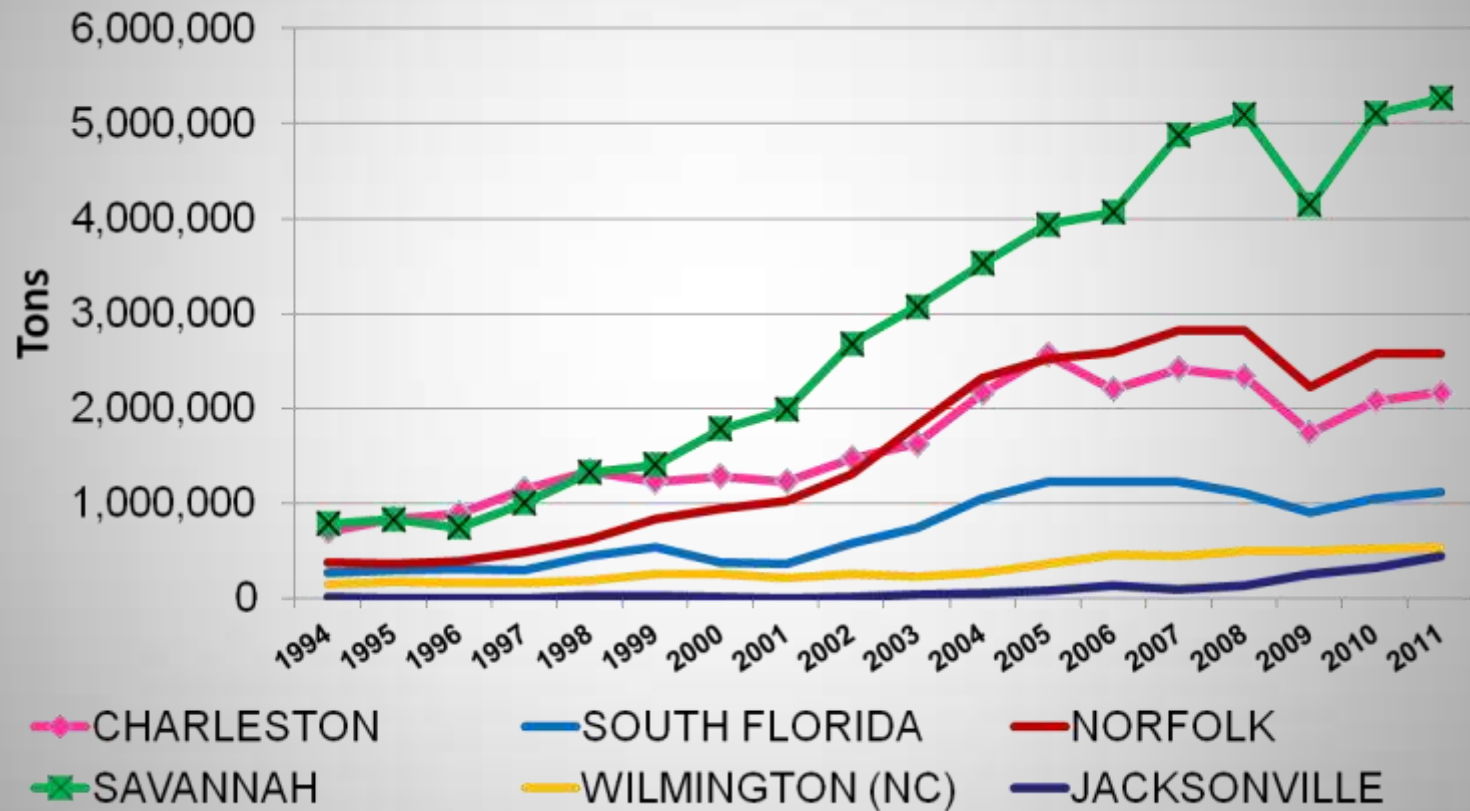


# **Impact of Development of All-Water Service**

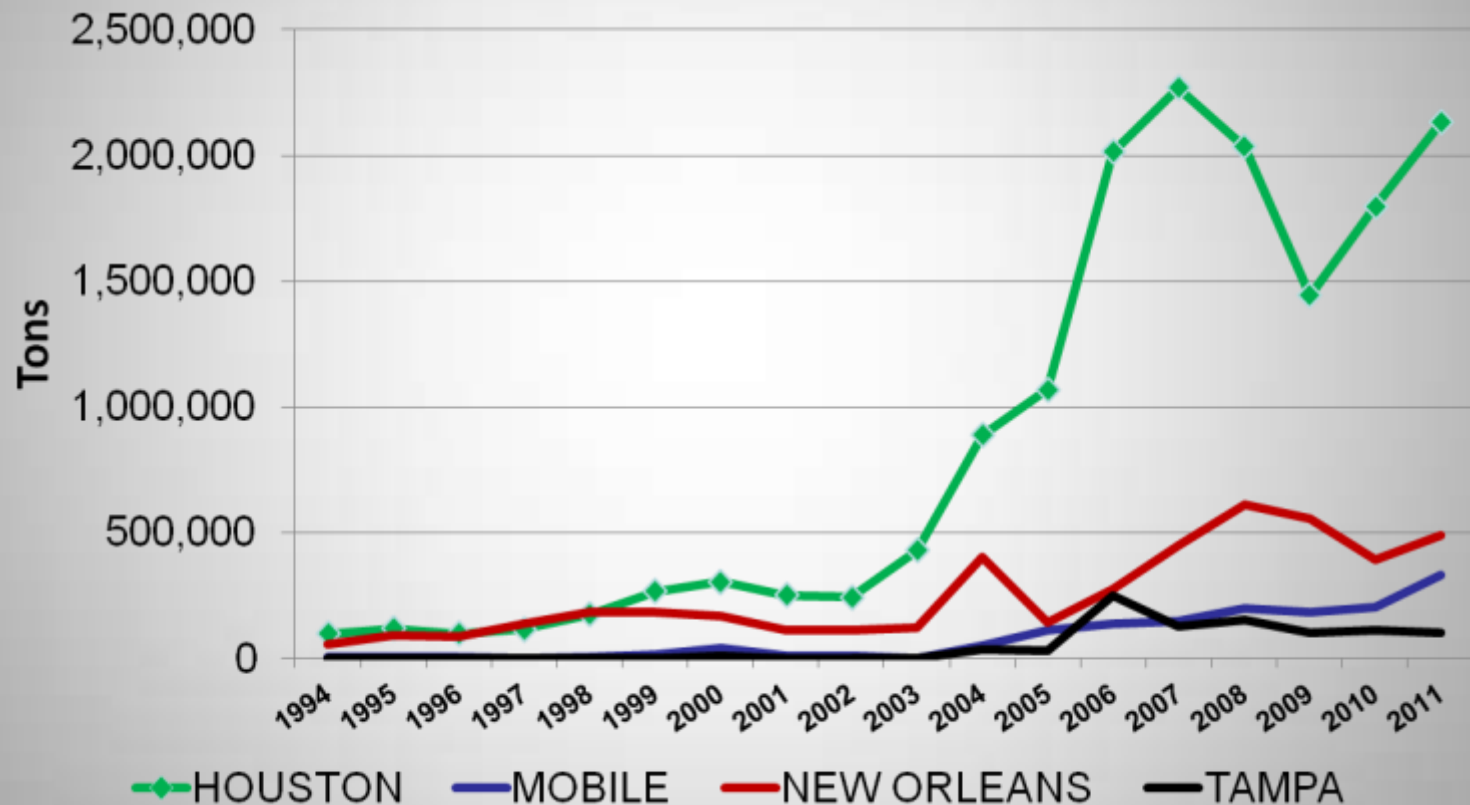
# Imported Asian container tonnage in the North Atlantic port range is dominated by PONYNJ



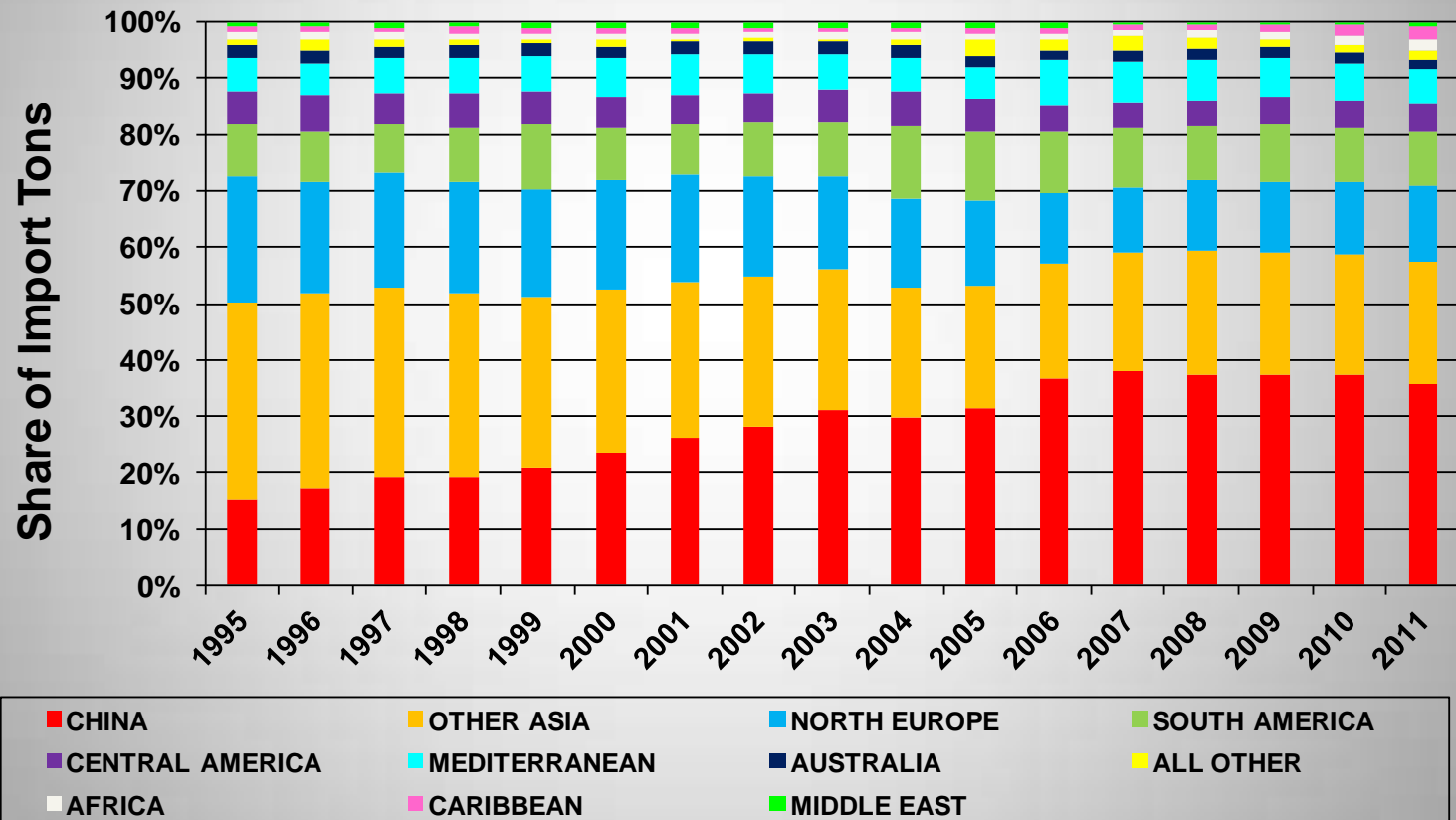
# Savannah has been dominant in terms of imported Asian container tonnage in the South Atlantic, Charleston and Norfolk are also relatively strong



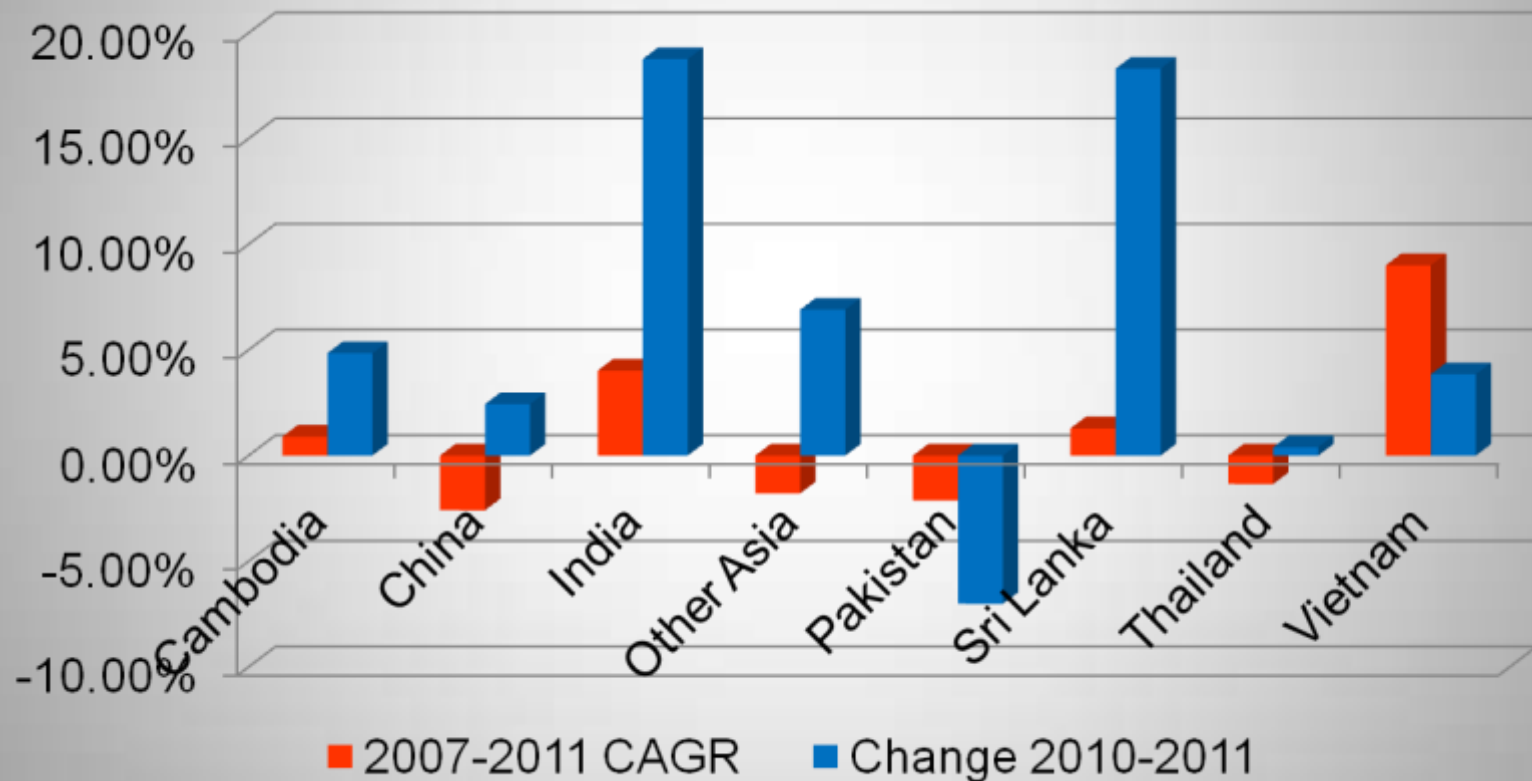
# The majority of imported Asian container tonnage in the Gulf Coast port range is handled by Houston



# China has been the source of nearly 40% of imported containerized tonnage into the US, but the growth in share has stabilized since 2006



# Asian supply sources are shifting, favoring a Suez all-water routing; However, China remains the major trade source



# **Implications on Changing Trade Patterns**

# Expansion of the Panama Canal and Growth in Suez Canal – Implications on Changing Trade Patterns

- After 2014, the composition of the fleet will likely change, as 6,500+ TEU vessels will be deployed
- Actual volume increases through the Panama Canal into the US Atlantic and Gulf Coast may be less than anticipated:
  - Factors that have impacted growth in all water services are now in place
  - Growth in trade with areas that are more efficiently served via Suez Canal
  - Caribbean transshipment centers will likely compete with mainland for import distribution center locations



# Expansion of the Panama Canal and Growth in Suez Canal – Implications on Changing Trade Patterns

- East and Gulf Coasts will have to compete to handle the larger sized vessels that will be deployed:
  - Channel depth to accommodate larger vessels
  - Berth capacity to handle 1,000+ LOA vessels
  - Crane outreach capability
  - *All require capital investment*
- East and Gulf Coast ports will also need to compete for:
  - Local market
  - Access to discretionary cargo for both truck and rail
- Investment in port infrastructure becomes critical to compete with Caribbean transshipment hubs for development of logistics centers and off-shore distribution

# Federal funding is required for deepening projects at East and Gulf Coast ports

State	Port	Current Depth	Planned Depth
Alabama	Mobile	45	45
Delaware River	DE, PA NJ Ports	40	45
Florida	Jacksonville	40	45+
Florida	Manatee	40	40
Florida	Miami (Authorized)	42	50
Florida	Port Everglades	42	50
Florida	Tampa	43	43
Georgia	Savannah	42	48
Louisiana	New Orleans	40	40
Maryland	Baltimore	50	50
Massachusetts	Boston	40	48
New York	New York	45-50	50
South Carolina	Charleston	45	45+
Texas	Corpus Christi	45	52
Texas	Freeport	45	55
Texas	Galveston/Houston	40	45
Texas	Sabine Naches	40-42	42-48
Virginia	Norfolk/Hampton Roads	50	55

Once Miami is dredged, they will join New York, Baltimore and Norfolk as the only ports on the USEC to have 50 feet of water

# Infrastructure funding is the critical issue

- Ports have lost funding for system preservation projects, let alone major infrastructure projects:
  - After 9/11 - security investments competing with system preservation investments
  - Downturn of trade drastically reducing port revenues
  - Economic crisis reduced state/municipal public funding
  - US Army Corps of Engineers/Federal Government cannot fund the dredging/deepening projects and infrastructure projects
  - *Private sector participation becomes necessary*

# Summary

## Implications for Trade Lane Shifts

- The factors that have resulted in shifts to all-water services have been occurring since 2002 – significant growth in all-water service depends on logistics costs and production/consumption centers – not simply on the Canal expansion
  - West Coast Shutdown
  - Changes in Logistics Patterns
  - Increased development of DC's on East and Gulf Coast
- New factors:
  - Growth in trade with India and Vietnam - Suez routing
  - Expansion of the Panama Canal
    - Containers
    - Bulk
      - Grain and Coal from the Gulf
      - Coal from East Coast
  - Implications on ship size – infrastructure needs
  - Growth in transshipment centers

# Summary

## Implications for Port Ranges

- West Coast Ports experiencing strong rebound
  - Aggressive marketing to Asia – West Coast Port Coalition
  - Stabilization of intermodal rates
  - Potential improvement in terminal productivity and stabilization of environmental charges
  - Rebirth of bulk exports
    - PRB Coal, Grain, Fertilizer, Ore
- East Coast/Gulf Coast ports experiencing aggressive competition for the larger vessels likely to move via the expanded Panama Canal and the Suez Canal
  - Water depth
  - Terminal infrastructure
  - Local and discretionary markets
  - Capital access
  - Public Private Partnerships will increase