

# The Economic Impact of the Port of Jacksonville 2013



August 7, 2014

Martin Associates  
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[www.martinassoc.net](http://www.martinassoc.net)

# Martin Associates: 800 Plus Port Studies Since 1986

- Market analysis/cargo flow analysis
- Competitive transportation cost/logistics analysis
- Economic impact assessment of port projects:
  - Cargo
  - Recreational (marinas)
  - Cruise
  - Shipyards
  - Industrial/Real Estate Development
  - Airports
  - Distribution Center Development

# Martin Associates: 800 Plus Port Studies Since 1986

- Strategic planning
- Development of targeted marketing opportunities
- Financial feasibility assessment
- Identification of funding sources:
  - Bond justification
  - Grant application process
  - Development of public/private partnerships

# Martin Associates' Experience: Marine Cargo Impact

- Port of Jacksonville - Economic Impact Studies: 2004, 2009, 2014
- Other Florida Ports:
  - Miami
  - Port Everglades
  - Tampa
  - Palm Beach
  - Port Canaveral
  - Port Manatee
  - Panama City
  - Florida State-Wide Impacts
- Atlantic Coast Ports:
  - North Carolina State Ports
  - Virginia Port Authority
  - Baltimore
  - Diamond State Port Corp.
  - Philadelphia
  - South Jersey Port Corp.
  - Boston



# Martin Associates' Experience: Marine Cargo Impact

- Texas Ports:
  - Brownsville
  - Corpus Christi
  - Galveston
  - Houston
  - Texas City
  - Port Lavaca
  - Beaumont
  - Victoria
- Other Gulf Coast Ports:
  - New Orleans
  - Lake Charles
  - Gulfport
  - Mobile
  - Pascagoula
- 36 U.S./Canadian Ports on GL/SLS



# Martin Associates' Experience: Marine Cargo Impact

- Washington State Ports:
  - Seattle
  - Tacoma
  - Longview
  - Kalama
  - Grays Harbor
  - Vancouver
  - Olympia
  - Bellingham
  - Everett
- California Ports:
  - San Diego
  - Los Angeles
  - Long Beach
  - Sacramento
  - Hueneme
  - Oakland
  - San Francisco
- Portland, OR



# Marine Cargo Economic Impact Studies

- Economic Impact of all US Ports for AAPA
- Economic Impact of Hurricanes Katrina and Ike
- Economic Impact of Container Operations at all US Ports – World Shipping Council
- Economic Impact of West Coast Container Operations – PMA, 2000, 2007 and currently
- State of Florida Economic Impacts of Florida Seaports- 2007, 2009, 2012
- Economic Impacts of Texas Seaports -2012
- Economic Impact of West Coast Shutdown, 2002, currently
- Economic Impact of Section 201 Steel Import Quotas
- Economic Impact of Channel Deepening for numerous ports and USACE
- Economic impact studies have been reviewed and used by Federal Reserve Board, International Trade Commission, US Council of Economic Advisors, U.S. Department of Transportation, Transport Canada

# Cruise Impact Studies

- Seattle
- San Francisco
- Los Angeles
- Galveston
- Miami
- Port Everglades
- Jacksonville
- Port Canaveral
- Tampa
- Baltimore
- Philadelphia
- Boston
- Norfolk
- Hawaii



**Also provide economic impact consulting services for Disney Lines as well as for RCCL Oasis class cruise ships**



# Airport Impact Studies

- Sea-Tac
- Bellingham International
- Portland International
- Oakland International
- San Francisco International
- Miami International
- Hartsfield Atlanta International
- Washington Dulles/National
- Baltimore-Washington
- Nashville International



- Kahalui International
- Denver International
- Harrisburg International
- Van Nuys
- State-wide aviation impact for Maryland

# Impact Studies of Commercial Real Estate Tenants of Port Authorities

- Seattle
- Bellingham
- Longview
- Los Angeles
- Boston
- Vancouver, WA
- Olympia
- San Francisco
- Tampa
- Port Canaveral
- Oakland
- Portland



# Marina Impacts Studies

- Seattle
- Olympia
- Los Angeles
- San Francisco
- Everett, WA
- Bellingham, WA
- Tacoma
- Port Canaveral



# Commercial Fishing Impact Studies

- Seattle
- Los Angeles
- Bellingham
- San Francisco
- Boston
- Port Lavaca, TX
- New Bedford, MA
- Gloucester, MA
- Brownsville, TX



# Shipyard Impact Studies

- San Francisco
- Seattle
- Mobile
- Tampa
- Philadelphia
- Norfolk
- Galveston
- Brownsville
- Portland, OR



# Martin Associates

## Development of Public/Private Partnerships:

- **Ports:**
  - Wilmington, DE
  - Port of Baltimore
  - Port of Philadelphia
  - Port of Galveston
  - Port of Lake Charles
  - Port of San Diego
  - Port Everglades
  - Hawaii
- **Terminal Operators:**
  - Hutchison Port Holdings
  - Ports America
  - SSA
  - Ceres Terminals
  - Yusen Terminals
- **Infrastructure Investment Groups:**
  - ING/Carlyle
  - Och Ziff Group
  - Fortress Investments
  - Mid Ocean
  - Highstar Capital
  - Bank of Montreal
  - Goldman Sachs

# Why Conduct Economic Impact Studies?

- Community - Public awareness
- City/County - Payment in lieu of taxes
- Legislature - Funding requests
- Commissioners - Project justification
- Directors - Allocation of resources
- Planners - Comparison of projects
- Government Officials – Policy implications
  - Navigational projects
  - Port closures

# Study Purposes

- Measure the baseline economic impacts of cargo activity at the Port of Jacksonville:
  - JAXPORT
  - Private marine terminals
- Develop Port-specific impact models:
  - Sensitivity analysis
  - Terminal/tenant impact analysis
  - New carriers
  - Comparison of alternative uses for port land
  - Channel deepening/maintenance
  - Justification of terminal and infrastructure investment



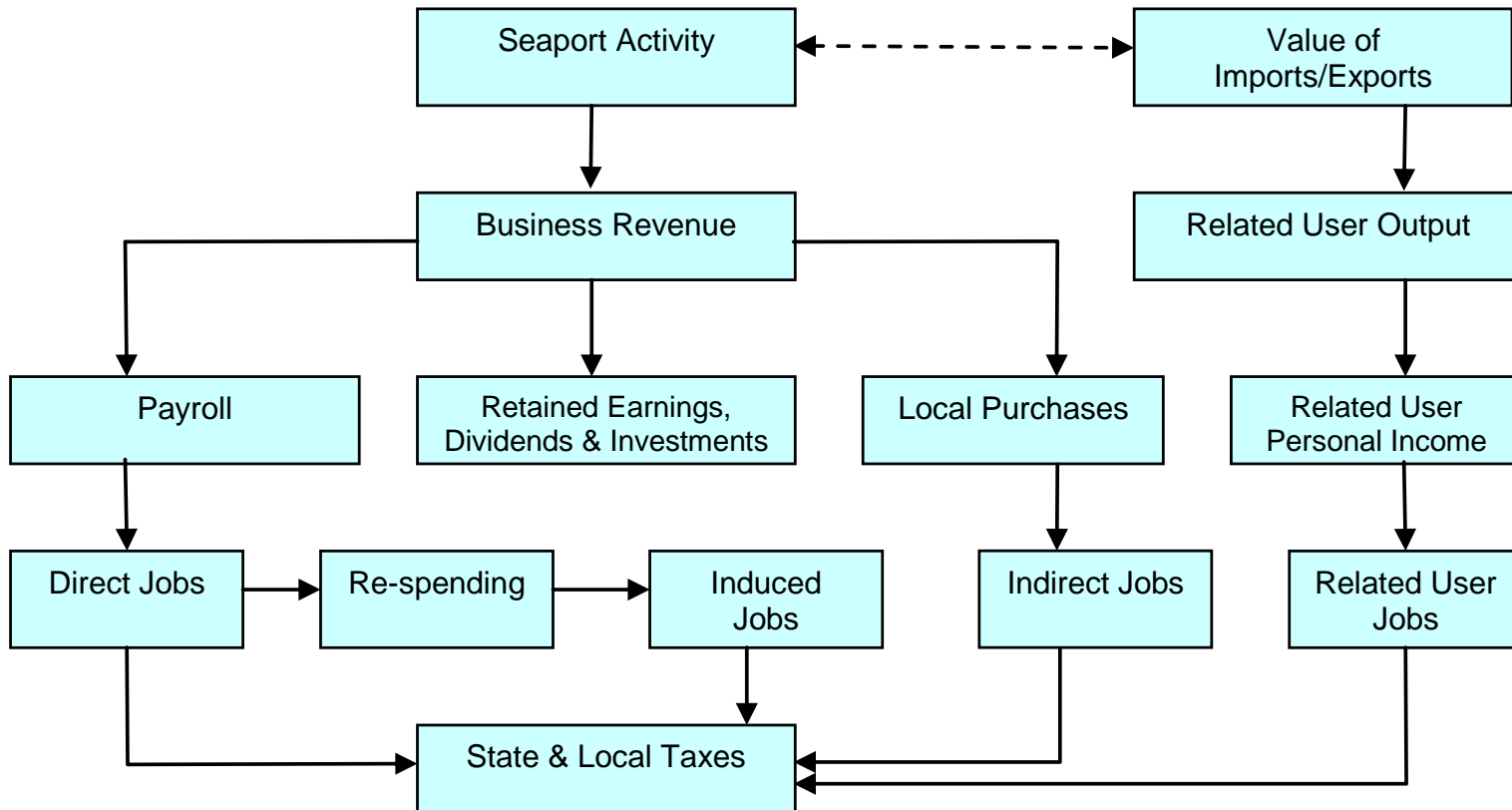
# Key Characteristics of the Martin Associates' Approach

- Induced and indirect impacts are tailored to reflect Jacksonville/Northeast Florida economy
- Induced impacts:
  - **Based on Consumer Expenditure Survey for Northeast Florida**
  - **Local re-spending multiplier derived from Bureau of Economic Analysis for Northeast Florida**
  - **Convert local purchases by direct employees into induced jobs**
- Indirect impacts based on local purchases by direct firms and converted into indirect impacts using BEA RIMS II
- Allocation to local jurisdictions is based on survey data for residency of direct employees, as well as location of employment

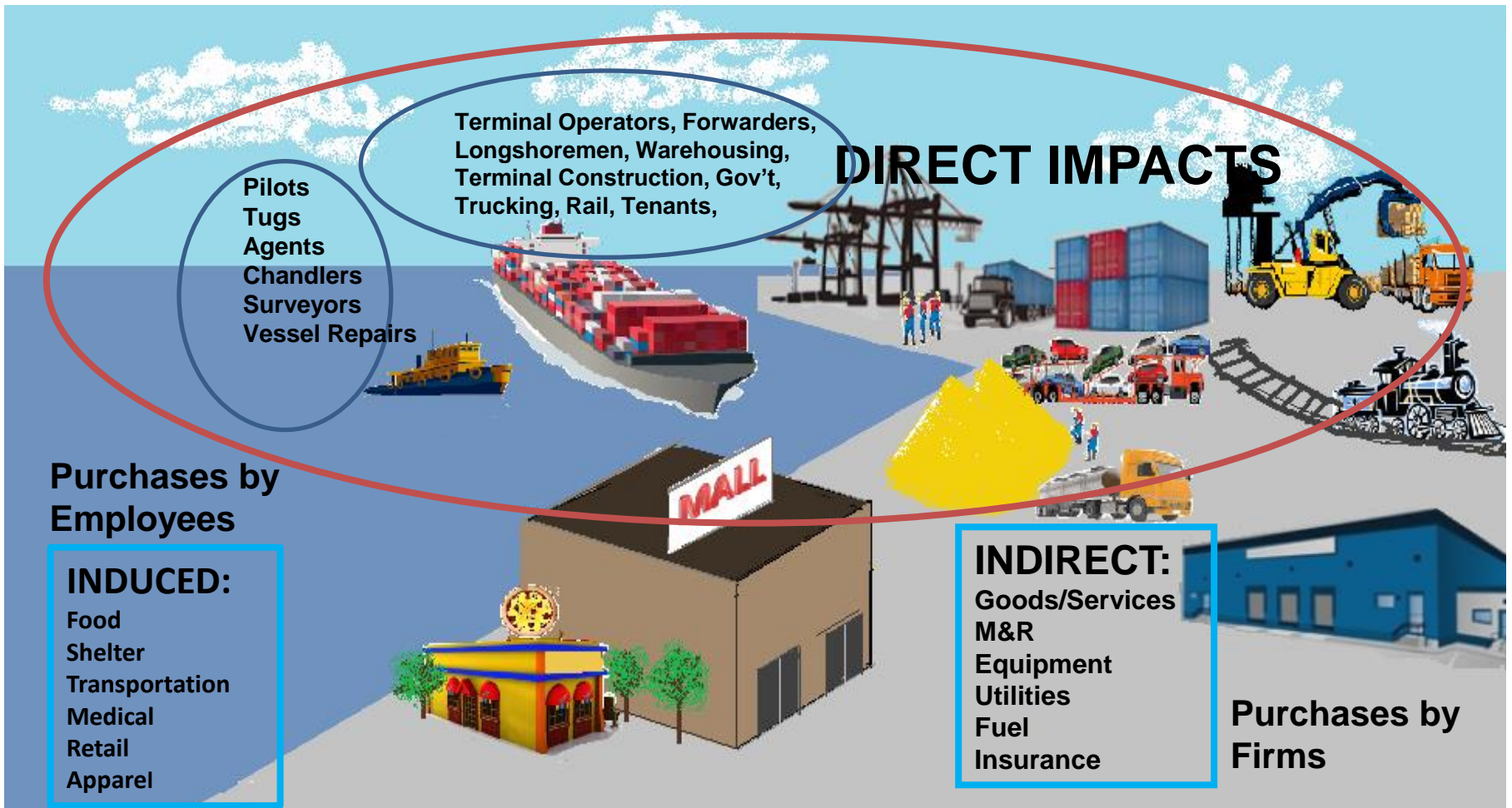
# Comparison with Other Approaches

- The Martin Associates' approach is based on a 100% confidential survey of all Port Tenants and Service Providers - defensibility is key:
  - **Other methods such as the IMPLAN and REMI models are based on extrapolation of samples of survey data, and “forced “ into standardized input-output modes**
  - **Sample sizes used for a REMI/IMPLAN fall into the range from 15-30% coverage – reducing defensibility of results accordingly**

# Flow of Economic Impacts



# Flow of Economic Impacts



# Methodology

- 472 firms identified and surveyed:
  - Terminals/tenants
  - Service providers
- Formulation of direct impact models from interviews
- Development of Jacksonville-specific induced model
- Development of indirect models for Northeast Florida
  - Survey based expenditures
  - Bureau of Economic Analysis, RIMSII

# Economic Impacts 2013

**24,340** jobs generated by Port activity

- Direct Jobs: 9,667
- Induced Jobs: 10,100
- Indirect Jobs: 4,573

**\$2.3 billion** of business revenue

- \$2.3 billion direct business revenue received by firms providing services to cargo and vessels

**\$1.8 billion** personal income and local consumption

- \$499.3 million direct wage and salary income - \$51,656 average salary
- \$1.1 billion re-spending and local consumption
- \$220.2 indirect income

**\$168.9 million** of state and local taxes

- Generated by activity at the marine terminals

# Sphere of Influence of Cargo Activity at the Port of Jacksonville, 2013

- **\$26.9 billion** total economic value
  - \$2.3 billion of direct business revenue
  - \$1.1 billion of direct, induced, indirect income and consumption
  - \$23.4 billion related economic output to the State
- **132,599 jobs** related to the cargo activity
  - 24,340 direct, induced and indirect jobs
  - 108,260 related user jobs
- **\$727.0 million** of state and local taxes
  - \$168.9 million direct, induced and indirect taxes
  - \$558.1 million paid from related activity

# Majority of the Impacts Supported by JAXPORT Facilities

	PUBLIC TERMINALS	PRIVATE TERMINALS	TOTAL
<b>JOBS</b>			
DIRECT	6,911	2,756	9,667
INDUCED	7,217	2,883	10,100
INDIRECT	<u>3,490</u>	<u>1,082</u>	<u>4,573</u>
<b>TOTAL</b>	17,618	6,721	24,340
<b>PERSONAL INCOME (1,000)</b>			
DIRECT	\$356,738	\$142,597	\$499,335
RE-SPENDING/CONSUMPTION	\$797,203	\$318,661	\$1,115,864
INDIRECT	<u>\$167,757</u>	<u>\$52,393</u>	<u>\$220,150</u>
<b>TOTAL</b>	\$1,321,699	\$513,650	\$1,835,349
<b>BUSINESS REVENUE (1,000)</b>	\$1,808,527	\$509,767	\$2,318,294
<b>LOCAL PURCHASES (1,000)</b>	\$403,216	\$103,692	\$506,907
<b>STATE &amp; LOCAL TAXES (1,000)</b>	\$121,596	\$47,256	\$168,852
<b>RELATED USER IMPACTS</b>			
RELATED JOBS	87,051	21,209	108,260
RELATED INCOME (1,000)	\$5,078,153	\$988,669	\$6,066,822
RELATED OUTPUT (1,000)	\$19,555,190	\$3,869,657	\$23,424,847
RELATED STATE AND LOCAL TAXES (1,000)	\$467,190	\$90,958	\$558,148



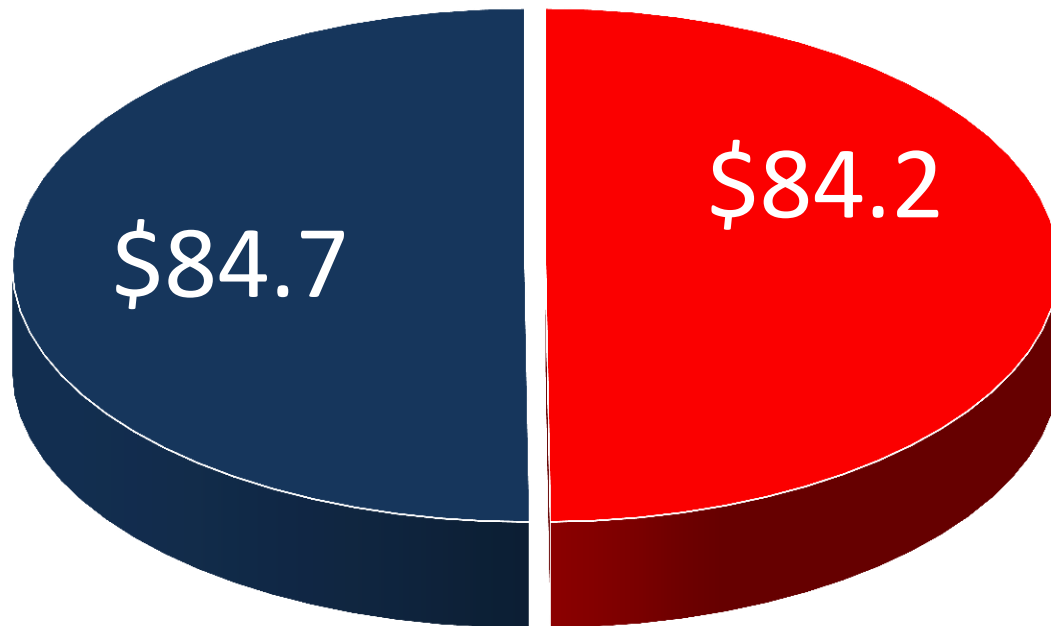
# Distribution of 9,667 Direct Jobs by Category

	DIRECT JOBS
<b>SURFACE TRANSPORTATION</b>	
RAIL	507
TRUCK	3,679
<b>MARITIME SERVICES</b>	
TERMINAL EMPLOYEES/LONGSHOREMEN	2,272
TOWING	85
PILOTS	31
STEAMSHIP LINES AND AGENTS	78
SURVEYORS/CHANDLERS/MISC. MARITIME SERVICES	303
FORWARDERS	363
WAREHOUSING	703
GOVERNMENT	341
MARINE CONSTRUCTION/ SHIPYARDS	899
BARGE/BUNKERS	252
<b>PORT AUTHORITY</b>	<u>153</u>
<b>TOTAL</b>	<b>9,667</b>

# Containers Account for 46% of 9,667 Direct Jobs

	DIRECT JOBS
<b>CONTAINERS</b>	4,495
<b>STEEL</b>	21
<b>AUTOS</b>	1,060
<b>PAPER/PULP/LUMBER</b>	188
<b>REEFER BREAK BULK</b>	74
<b>OTHER BREAK BULK</b>	46
<b>DRY BULK</b>	739
<b>LIQUID BULK</b>	1,333
<b>NOT ALLOCATED</b>	<u>1,710</u>
<b>TOTALS</b>	9,667

# Distribution of \$168.9 Million Annual Tax Impact



■ State Taxes    ■ Local Taxes

# Changes Since 2008 – Cargo Activity

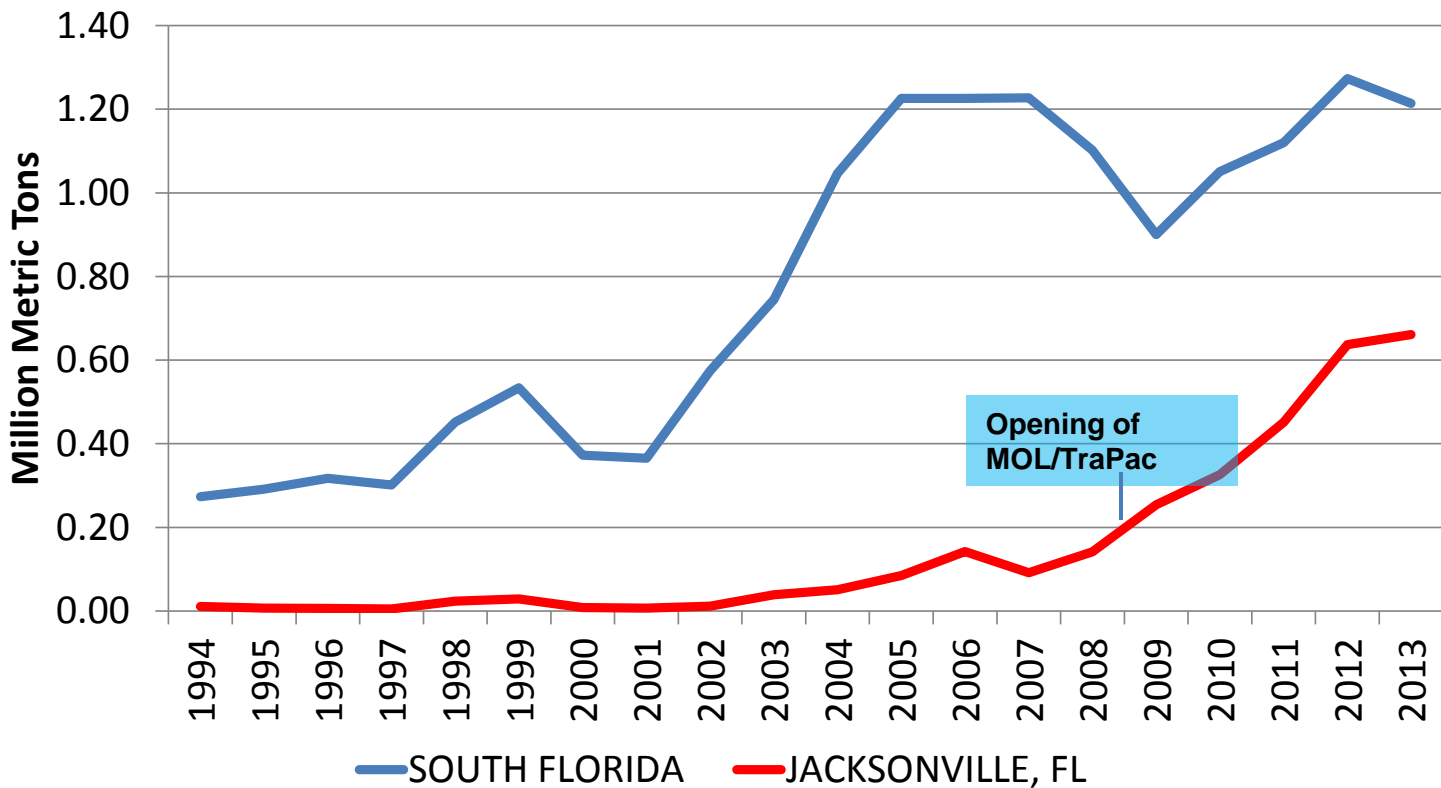
- Tonnage declined by 4.4 million tons, but containerized cargo increased by 1.3 million tons
  - 28% increase in tonnage
  - 35% increase in actual container moves

## 1,000 Tons

	2013	2008	CHANGE
<b>CONTAINERS</b>	6,076	4,742	1,335
<b>STEEL</b>	91	51	40
<b>AUTOS</b>	1,296	1,366	-70
<b>PAPER/PULP/LUMBER</b>	742	670	72
<b>REEFER BREAK BULK</b>	50	134	-84
<b>OTHER BREAK BULK</b>	47	98	-51
<b>DRY BULK</b>	3,883	6,139	-2,256
<b>LIQUID BULK</b>	<u>5,781</u>	<u>9,144</u>	<u>-3,362</u>
<b>TOTAL</b>	17,967	22,344	-4,377

# All-Water Asian Cargo Was the Key Force Driving the Growth in Containerized Cargo

## Asian Containerized Cargo

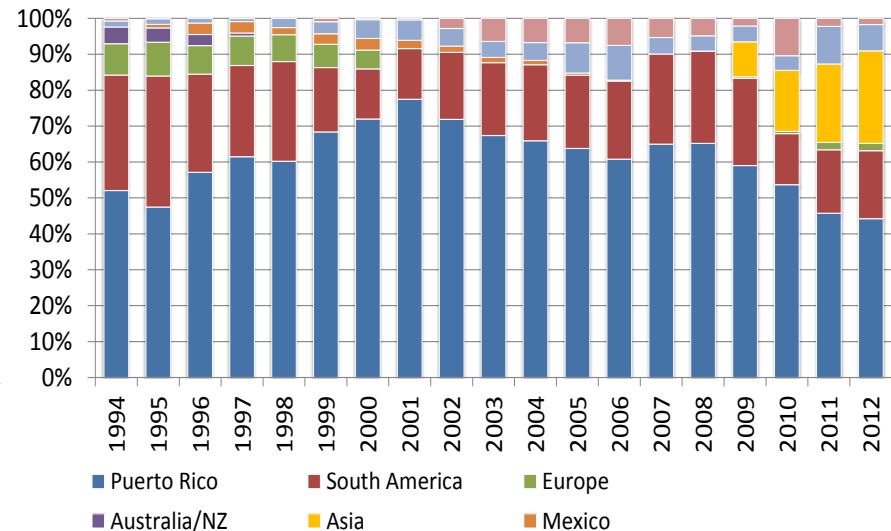


US Bureau of the Census, USA Trade On-Line

# Other Notable Changes

- Container market has become more diversified
- Rail share of containerized cargo doubled
- Geographic scope of liquid bulk distribution has increased
- Fuel base of local utilities has changed
- Increased share of auto exports
- Recession has had impact on bulk cargoes, particularly cement and aggregates
- Increased propensity to save has resulted in a smaller income multiplier in 2013

## Container Trading Partners with JAXPORT



# Changes Since 2008

1.3 million ton  
growth in containers

- Container moves
- 2008:345,000 container moves
- 2013:468,000 container moves

2,131 new jobs

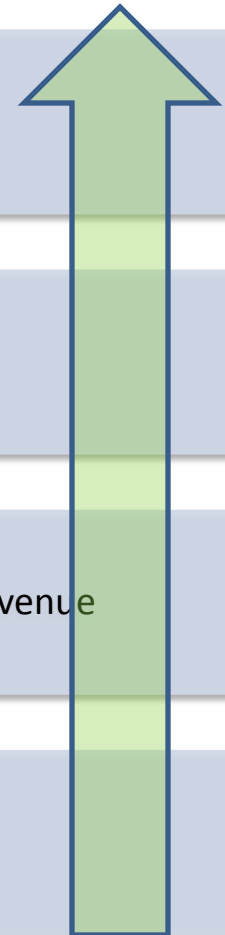
- 702 direct
- 1,255 induced
- 174 indirect

\$521.5 million  
revenue growth

- \$521.5 million of additional direct business revenue

\$40.2 million tax  
increase

- State and local tax increase



# Changes in Economic Impacts

- Direct, induced and indirect jobs grew by 2,131 jobs, 9.5% growth during recession – Duval County experienced a 2.7% decline in jobs
  - JAXPORT was responsible for 80% of growth in total jobs
  - Direct jobs grew by 702 jobs, 578 direct job growth at JAXPORT facilities
- Direct personal income grew by \$102.8 million; average salary increased from \$44,231 in 2008 to \$51,656 in 2013
- Direct business revenue grew by \$521.5 million; JAXPORT facilities accounted for 90% of this growth
- State and local taxes grew by \$40.2 million
- Total economic value to the State grew from \$19.0 billion to \$26.9 billion, largely due to growth in containerized cargo
- Related jobs grew from 42,647 to 108,260 jobs, due to container growth and changing composition of containerized cargo – import tonnage more than doubled



# Jobs Generated by Containerized Cargo Grew by 57%

## Direct Jobs by Commodity

	2013	2008	CHANGE
<b>CONTAINERS</b>	4,495	2,861	1,634
<b>STEEL</b>	21	20	2
<b>AUTOS</b>	1,060	1,489	-429
<b>PAPER/PULP/LUMBER</b>	188	412	-224
<b>REEFER BREAK BULK</b>	74	77	-3
<b>OTHER BREAK BULK</b>	46	148	-102
<b>DRY BULK</b>	739	705	34
<b>LIQUID BULK</b>	1,333	1,195	139
<b>NOT ALLOCATED</b>	<u>1,710</u>	<u>2,059</u>	<u>-349</u>
<b>TOTALS</b>	9,667	8,965	702

# Changes in Total Economic Impact

	2013	2008	CHANGE
<b>JOBS</b>			
<b>DIRECT</b>	9,667	8,965	702
<b>INDUCED</b>	10,100	8,845	1,255
<b>INDIRECT</b>	<u>4,573</u>	<u>4,399</u>	<u>174</u>
<b>TOTAL</b>	24,340	22,209	2,131
<b>PERSONAL INCOME (1,000)</b>			
<b>DIRECT</b>	\$499,335	\$396,534	\$102,801
<b>RE-SPENDING/CONSUMPTION</b>	\$1,115,864	\$1,155,579	-\$39,715
<b>INDIRECT</b>	<u>\$220,150</u>	<u>\$186,565</u>	<u>\$33,585</u>
<b>TOTAL</b>	\$1,835,349	\$1,738,678	\$96,671
<b>BUSINESS REVENUE (1,000)</b>	\$2,318,294	\$1,796,756	\$521,538
<b>LOCAL PURCHASES (1,000)</b>	\$506,907	\$378,048	\$128,859
<b>STATE &amp; LOCAL TAXES (1,000)</b>	\$168,852	\$128,662	\$40,190

# Changes in Economic Impacts at JAXPORT Facilities

	2013	2008	CHANGE
<b>JOBS</b>			
<b>DIRECT</b>	6,911	6,335	576
<b>INDUCED</b>	7,217	6,182	1,035
<b>INDIRECT</b>	<u>3,490</u>	<u>3,413</u>	<u>77</u>
<b>TOTAL</b>	17,618	15,930	1,688
<b>PERSONAL INCOME (1,000)</b>			
<b>DIRECT</b>	\$356,738	\$276,033	\$80,705
<b>RE-SPENDING/CONSUMPTION</b>	\$797,203	\$804,415	-\$7,212
<b>INDIRECT</b>	<u>\$167,757</u>	<u>\$142,838</u>	<u>\$24,919</u>
<b>TOTAL</b>	\$1,321,699	\$1,223,286	\$98,413
<b>BUSINESS REVENUE (1,000)</b>	\$1,808,527	\$1,338,630	\$469,897
<b>LOCAL PURCHASES (1,000)</b>	\$403,216	\$280,754	\$122,462
<b>STATE &amp; LOCAL TAXES (1,000)</b>	\$121,596	\$90,523	\$31,073

# Conclusion

- Investment in port infrastructure at JAXPORT has resulted in:
  - Significant job growth during a recessionary period despite a 2.7% decline in County employment
  - Diversification of cargo markets that yield high paying jobs
  - Demonstrated return to state and local government in terms of taxes

# Conclusion

*Given this demonstrated importance of the cargo activity at the Port of Jacksonville, it is critical that the Port continue to invest in infrastructure projects that return job growth to the region and tax revenue to the State of Florida and the local communities.*

# OPPORTUNITY COST OF NOT DEEPENING THE ST. JOHNS RIVER – AN UPDATE

# Container Forecasts for JAXPORT

- Baseline- relationships with GDP and Container throughput:
  - Puerto Rico: Low and High growth – Flat
  - Latin America/Caribbean: Low growth - 2% CAGR; High growth - 4% CAGR
  - Asian: Low growth - 3%; High growth - 6% through 2020, 4.5% 2021-2025, 3% 2025 and thereafter

# Container Projections for JAXPORT

- Capture of Florida containers moving via non-Florida ports – 3.1 million TEUs of potential:
  - 1 million TEUs of warehoused cargo now trucked into Florida from Atlanta, Savannah, and West Coast DC's (transloaded cargo)
  - 160,000 TEUs of Asian imports directly from West Coast and South Atlantic ports now consumed in Florida
  - 107,300 TEUs of non-Asian Cargo now moving via other non-Florida ports and consumed in Florida
  - Plus 1.8 million empty and loaded TEUs from Florida using other ports
- 25% of the potential captured by Florida ports and 1/3 of that moves via JAXPORT – with 47 ft. and moderate marketing
- 50% of potential captured by Florida ports and 1/3 moves via JAXPORT – with 47 ft. and aggressive marketing



# Container Projections for JAXPORT

- With 47 ft. of water and development of ICTF, JAXPORT has potential to capture 25% share of TEUs moving intermodally via other South Atlantic ports - about 126,000 TEUs
- Without 47 ft. of water, JAXPORT will be handicapped to compete for this intermodal market

# Opportunity Cost Under Status Quo (40 ft.)

- Asian market will likely disappear at JAXPORT
- No additional all-water Asian service will come to JAXPORT
- JAXPORT will not capture the non-Florida ports' share of Florida containers
- JAXPORT will not capture share of South Atlantic intermodal market

# Key Assumptions in New Model

- 2025
  - 25% increase in ILA productivity over base
  - Intermodal share grows to 20%
  - Vessel load factor grows by 25%
- 2030 and 2035
  - 50% increase in ILA productivity over base
  - Intermodal share grows to 25%
  - Vessel load factor doubles

# Summary of Opportunity Costs

TEU Projections Scenarios	2020	2025	2030	2035
Low and No Deepening	732,816	762,889	796,093	832,752
Moderate Penetration with 47ft.	1,379,800	1,566,364	1,769,642	2,010,604
Aggressive Penetration with Deepening to 47ft.	1,713,294	1,952,976	2,217,831	2,530,178
Aggressive with 47ft. + Intermodal Penetration	1,877,695	2,143,562	2,438,772	2,786,309
<b>Maximum Opportunity Cost of No Deepening (TEUS)</b>	<b>1,144,879</b>	<b>1,380,672</b>	<b>1,642,680</b>	<b>1,953,557</b>
Opportunity Cost in Terms of Lost Economic Impacts	2020	2025	2030	2035
<b>Jobs</b>				
Direct	3,877	4,494	5,210	6,167
Induced	3,942	4,503	5,167	6,114
Indirect	<u>1,958</u>	<u>2,270</u>	<u>2,632</u>	<u>3,115</u>
<b>Total</b>	<b>9,776</b>	<b>11,266</b>	<b>13,009</b>	<b>15,396</b>
<b>Personal Income (1,000)</b>				
Direct	\$193,362	\$219,930	\$251,631	\$297,673
Re-spending/Local Consumption	\$432,105	\$491,477	\$562,319	\$665,210
Indirect	<u>\$94,104</u>	<u>\$109,081</u>	<u>\$126,475</u>	<u>\$149,704</u>
<b>Total</b>	<b>\$719,570</b>	<b>\$820,488</b>	<b>\$940,424</b>	<b>\$1,112,586</b>
<b>Business Revenue (1,000)</b>	<b>\$800,580</b>	<b>\$964,933</b>	<b>\$1,149,780</b>	<b>\$1,367,361</b>
<b>Local Purchases (1,000)</b>	<b>\$226,184</b>	<b>\$262,184</b>	<b>\$303,991</b>	<b>\$359,824</b>
<b>State/Local Taxes (1,000)</b>	<b>\$66,200</b>	<b>\$75,485</b>	<b>\$86,519</b>	<b>\$102,358</b>

# Present Value of Opportunity Cost of State/Local Taxes

- Cost of Project – \$684 million
- Present value of foregone state and local tax revenue through 2035
  - ***\$785.7 million @ 5% discount rate***
  - ***\$918.1 million @ 3.75% discount rate***

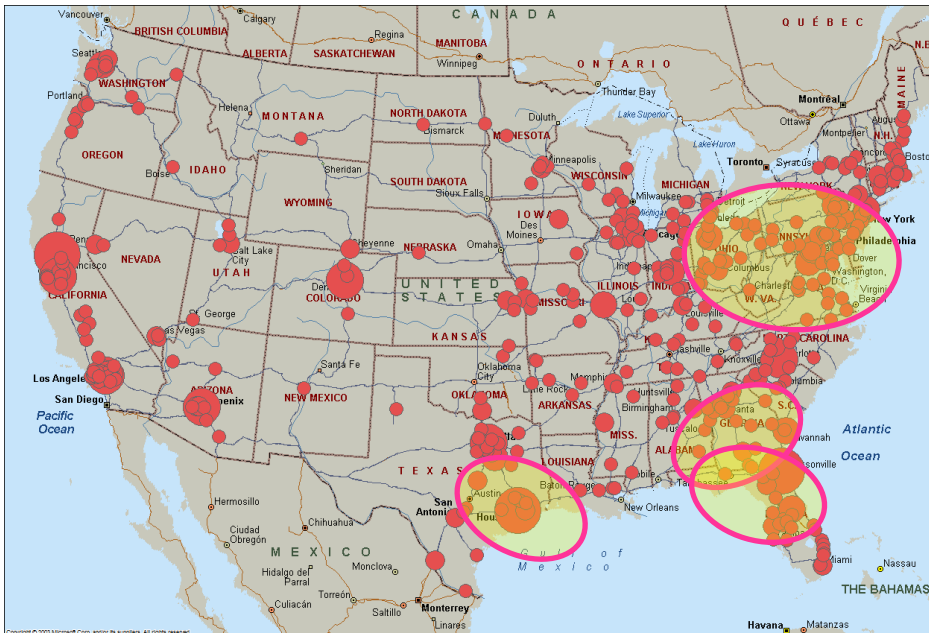
# Opportunity Cost of Not Deepening to Minimum 47 ft.

- Loss of first inbound port call:
  - Distribution center development
  - Discretionary regional market penetration
  - Compete with off-shore transshipment centers
  - Manufacturing complex development
- Loss of last outbound port call:
  - Ability to handle heavy weight exports
  - Attract export manufacturing companies by providing longer cut-off times
- Loss of opportunity for development of import distribution centers/logistics centers and light manufacturing

# Significant Growth in Distribution Centers in Gulf and Atlantic Port Ranges Has Driven and Accompanied Growth in All-Water Services

## Top 25 Retailers

## 26-50 Retailers



Source: Chain Store Guide, National Retail Federation

# 1 Million SF Distribution Center Impact

- 1,235 direct, induced, and indirect jobs
- \$66.4 million re-spending and local consumption impact
- \$69.1 million local purchases
- \$6.1 million of state and local taxes



**THANK YOU!**