

**THE LOCAL AND REGIONAL  
ECONOMIC IMPACTS OF  
JACKSONVILLE PORT AUTHORITY  
FISCAL YEAR 2007/2008**

*Prepared for:*  
**JACKSONVILLE PORT AUTHORITY**

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## EXECUTIVE SUMMARY

Martin Associates was retained by the Jacksonville Port Authority to estimate the economic impacts generated by marine cargo activity at the public and private marine terminals located within the Jacksonville Port District. The public marine terminals are those owned by the Jacksonville Port Authority which include Talleyrand Marine Terminal, Blount Island Marine Terminal and Dames Point Marine Terminal and are leased to terminal operators and marine terminal tenants such as Crowley Maritime Corporation, American Port Services (AMPORTS), Wallenius Wilhelmsen Logistics, Coastal Maritime Stevedoring, LLC., Westway Trading, AP Moeller, Martin Marietta, and Trailer Bridge. Also included are private marine terminals such as the JEA Terminal, private ocean carrier terminals including Crowley, Lafarge and Lehigh Cement, BP Amoco, Amerada Hess and Chevron.

This study focuses on impacts generated by marine cargo handled at the public and private marine facilities in the Fiscal Year 2007/2008 (ending September 30, 2008). Impacts are estimated in terms of jobs, personal earnings, business revenue, and state and local taxes. In addition to the baseline impact estimates, computer models specific to each terminal operation have been prepared that can be used in evaluating the sensitivity of impacts to changes in tonnage, labor productivity, labor work rules, commodity mix, inland origins/destinations of commodities and vessel size.

Exhibit E-1 on the following page graphically demonstrates how seaport activity impacts the local and regional economies. As this exhibit indicates, the marine cargo and vessel activity initially generate business revenue to the firms supplying marine services. This revenue is used to purchase employment (direct jobs) to provide the services, to pay stockholders and for retained earnings, and to purchase goods and services from local firms, as well as national and international firms (creating indirect jobs with these firms). Businesses also pay taxes from the business revenue.

Exhibit E-1  
Flows of Economic Impacts through the Economy

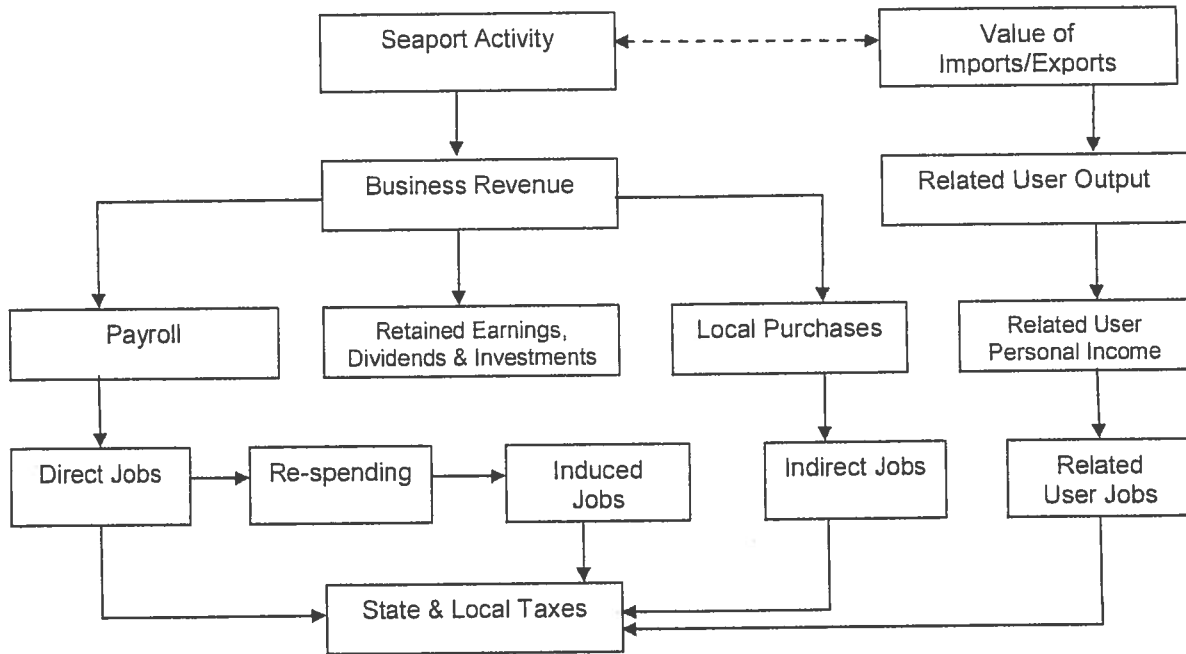


Exhibit E-1 graphically demonstrates how seaport activity impacts the local and regional economies. As this exhibit indicates, the marine cargo and vessel activity initially generate business revenue to the firms supplying marine services. This revenue is used to purchase employment (direct jobs) to provide the services, to pay stockholders and for retained earnings, and to purchase goods and services from local firms, as well as national and international firms (creating indirect jobs with these firms). Businesses also pay taxes from the business revenue.

The employees hired by the firms receive wages and salaries (personal income), a portion of which is saved, while another portion is used to buy goods and services such as food, housing, clothing, health care, etc. These purchases create a re-spending impact throughout the economy, known as the personal income multiplier. As a result of these local purchases, additional jobs (known as induced jobs) are created in the local economy. Finally, taxes are paid by individuals employed with the firms providing the services to the marine terminals.

As demonstrated by this chart, four types of impacts are measured:

- Jobs;
- Employee earnings;
- Business revenue; and
- State and local taxes.

With respect to jobs, four types of job impacts are measured. These are direct, induced, indirect and related jobs. The job impacts are defined as follows:

- Direct jobs are those jobs with local firms providing support services to the seaport. These jobs are dependent upon this activity and would suffer immediate dislocation if the seaport activity were to cease. Seaport direct jobs include jobs with railroads and trucking companies moving cargo to and from Jacksonville Port Authority's marine terminals and private terminals, members of the International Longshoremen's Association (ILA) and non-ILA dockworkers including the Seafarers' International Union (SIU) and Teamsters, steamship agents, freight forwarders, ship chandlers, warehouse operators, bankers, lawyers, terminal operators, stevedores, etc.
- Induced jobs are jobs created locally and throughout the regional economy due to purchases of goods and services by those directly employed. These jobs are with grocery stores, the local construction industry, retail stores, health care providers, local transportation services, etc., and would also be discontinued if seaport activity were to cease.
- Indirect jobs are those jobs generated in the local economy as the result of local purchases by the firms directly dependent upon seaport activity. These jobs include jobs in local office supply firms, equipment and parts suppliers, maintenance and repair services, etc.
- Related user jobs are held throughout the state with manufacturing and wholesale and retail distribution firms using the seaport terminals for the shipment and receipt of cargo. Related jobs are not dependent upon the seaport marine terminals to the same extent as are the direct, induced and indirect jobs. It is the demand for the final products, which creates the demand for the employment with these shippers/consignees, not the use of a particular seaport or maritime terminal, and therefore these firms can and do use other ports

The employee earnings consist of wages and salaries and include a re-spending effect (local purchases of goods and services by those directly employed), while business revenue consists of total business receipts by firms providing services in support of the marine activity. State and local taxes include taxes paid by individuals, as well as firms dependent upon the seaport activity.

The study is based on interviews with 410 firms providing services to the cargo and vessels handled at the Port's marine terminals and the private terminals within Jacksonville's Port District. These 410 firms represent 99 percent of the firms in the Port Authority's seaport community, underscoring the defensibility of the study. Furthermore, the impacts can be traced back to the individual firm. The data collected from the interviews was then used to develop operational models of public and private marine terminals located at Port of Jacksonville.

***SUMMARY OF IMPACTS GENERATED BY THE JACKSONVILLE PORT AUTHORITY***

The economic impacts generated by the public and private marine terminals are summarized in Exhibit E-2.

Exhibit E-2  
Summary of the Local and Regional Economic Impacts Generated by  
Jacksonville Port District – FY2007/2008

	PUBLIC TERMINALS	PRIVATE TERMINALS	PUBLIC CRUISE	TOTAL
JOBS				
DIRECT	6,335	2,630	183	9,148
INDUCED	6,182	2,663	133	8,978
INDIRECT	3,413	986	144	4,543
TOTAL	15,930	6,279	460	22,669
PERSONAL INCOME (1,000)				
DIRECT	\$276,033	\$120,501	\$5,796	\$402,330
RE-SPENDING/CONSUMPTION	\$804,415	\$351,164	\$13,315	\$1,168,894
INDIRECT	\$142,838	\$43,727	\$4,544	\$191,109
TOTAL	\$1,223,286	\$515,392	\$23,656	\$1,762,334
BUSINESS REVENUE (1,000)	\$1,338,630	\$458,126	\$106,764	\$1,903,520
LOCAL PURCHASES (1,000)	\$280,754	\$97,294	\$7,117	\$385,165
STATE & LOCAL TAXES (1,000)	\$90,523	\$38,139	\$1,751	\$130,413
CUSTOMS RECEIPTS (1,000)	\$320,000	NA	NA	\$320,000
RELATED USER IMPACTS				
RELATED JOBS	32,433	10,214	NA	42,647
RELATED INCOME (1,000)	\$1,267,581	\$359,843	NA	\$1,627,424
RELATED OUTPUT (1,000)	\$12,979,310	\$3,103,638	NA	\$16,082,949
RELATED STATE AND LOCAL TAXES (1,000)	\$93,801	\$26,628	NA	\$120,429

*Totals may not add due to rounding*

Specifically, the vessel, cargo and cruise activity at the public and private marine cargo facilities generated the following impacts in the regional economy in FY 2007/2008:

- **65,316 jobs in Florida** are in some way related to the cargo moving via the public and private marine terminals.
- Of the 65,316 jobs, **9,148 direct jobs** are generated by the marine cargo, cruise and vessel activity. Seventy-nine percent of these direct jobs are held by residents of Jacksonville/Duval County. The cargo and cruise activity at the public port facilities creates

6,518 of the direct jobs. In addition, there are 2,630 direct jobs created by the movement of containers, auto/RORO, liquid bulk and dry bulk at the private terminals.

- As the result of local and regional purchases by those 9,148 individuals holding the direct jobs, an additional **8,978 induced jobs** are supported in the regional economy.
- **4,543 indirect jobs** were supported by \$385.2 million of local purchases by businesses supplying services at the marine terminals and by businesses dependent upon Port of Jacksonville for the shipment and receipt of cargo.
- The import and export cargo moving via the public and private terminals supports **42,647 related user jobs with** the state's manufacturing and retail and wholesale and distribution industries and the in-state industries supporting the movement and distribution of all commodities, primarily concentrated with containerized cargo imports and exports using the seaport terminals for shipment and receipt of cargo.
- **\$402.3 million of direct wages and salaries** were received by those 9,148 directly employed, representing an average salary of \$43,980. As the result of re-spending this income, an additional \$1.17 billion of income and consumption expenditures were created. The 4,543 indirect job holders received \$191.1 million of indirect wages and salaries. In total, about **\$1.8 billion of direct, induced and indirect personal wages and salaries** were generated by maritime activity at the public and private terminals located in the Jacksonville Port District. In addition, the 42,647 related user job holders generated **\$1.6 billion in personal income**.
- Businesses providing services at the marine terminals received **\$1.9 billion of revenue**, excluding the value of cargo shipped through the public and private marine terminals. Another **\$385.2 million of indirect revenue** was generated with local suppliers of goods and services as the result of the local purchases by firms directly dependent upon the public and private marine terminals. In addition, the cargo activity at the Port created an additional **\$16.1 billion of total economic output** in the state, the majority of which is created by the movement of containers and autos, and the in-state industries supporting these industries.
- **\$130.4 million of state and local taxes** were generated by activity at the marine terminals. In addition to taxes, the U.S. Government received **\$320 million of customs revenue** from cargo activity. Related users generated another **\$120.4 million** of state and local taxes throughout the state.

*trans services*

*add*

## I. OVERVIEW OF THE ANALYSIS AND SUMMARY OF METHODOLOGY

Martin Associates was retained by the Jacksonville Port Authority to estimate the economic impacts generated by marine cargo and cruise activity at the public and private marine terminals located within the Jacksonville Port District. The public marine terminals are those owned by the Jacksonville Port Authority – Talleyrand Marine Terminal, Blount Island Marine Terminal and Dames Point Marine Terminal and leased to terminal operators and marine terminal tenants such as Crowley Maritime Corporation, American Port Services, Wallenius Wilhelmsen Logistics, Coastal Maritime Stevedoring, Westway Trading, AP Moeller, Martin Marietta, and Trailer Bridge. Also included are private marine terminals such as the JEA Terminal, private ocean carrier terminals including Crowley Liner Service, LaFarge and Lehigh Cement, BP Amoco, Amerada Hess and Chevron.

The impacts are estimated in terms of jobs, personal earnings, business revenue, and state and local taxes. The impacts are estimated for marine cargo and vessel activity in FY 2007/2008 (ending September 30, 2008). In addition to quantifying the baseline impacts of the Jacksonville Port Authority's marine terminals and the impacts of the private marine terminals, an economic impact model has been developed. The model can be used in evaluating the sensitivity of impacts to changes in tonnage, labor productivity, labor work rules, commodity mix, inland origins/destinations of commodities and vessel size. The models can also be used to evaluate the impacts of new terminal development and specific capital development projects. The models can also be used for annual updates.

The study employs methodology and definitions that have been used by Martin Associates to measure the economic impacts of seaport activity at more than 250 ports in the United States and Canada, and at the leading airports in the United States. It is to be emphasized that only measurable impacts are included in this study. In order to ensure defensibility, the Martin Associates' approach to economic impact analysis is based on data developed through an extensive interview and telephone survey program of the Port's tenants and the firms providing cargo and cruise services at Jacksonville Port Authority and private terminals in the Jacksonville Port District. Specific re-sponding models have been developed for the Jacksonville area to reflect the unique economic and consumer profiles of the regional economy. To further underscore the defensibility of the study, standardized impact models, such as the MARAD Port Kit are not used. Instead, the resulting impacts reflect the uniqueness of the individual Port operations, as well as the surrounding regional economy.

### **1. IMPACT DEFINITIONS**

The impacts are measured separately for the Jacksonville Port District's cargo activity and cruise activity.

The impacts are measured in terms of:

- Jobs [direct, induced, indirect and related shipper/consignee (related users)];



- Personal income;
- Business revenue; and
- State and local taxes.

Each impact measurement is described below:

- **Direct, Induced and Indirect jobs - Direct jobs** are those that would not exist if activity at the Port's cargo and cruise facilities were to cease. Direct jobs created by maritime cargo activity at the Port's terminals are those jobs with the firms directly providing cargo handling and vessel services, including trucking companies, terminal operators and stevedores, members of the International Longshoremen's Association (ILA), Teamsters Union, Seafarers' International Union (SIU) and non-union dockworkers, freight forwarders and customhouse brokers, vessel agents, pilots and tug assist companies. Direct employees created by the cruise operations include the jobs with the firms providing the direct vessel services –chandlers, pilots, longshoremen, line handlers, local advertising firms, caterers, liquor wholesalers, linen companies, security firms, waste disposal firms, parking, local transportation -- as well as the firms providing services to the passengers on the vessels -- hotels, taxi cabs, restaurants and tour packages. Also included are impacts generated at the Jacksonville International Airport due to the cruise passengers arriving via air.

Induced jobs are jobs created in the Jacksonville area by the purchases of goods and services by those *individuals* directly employed by each of the Port's lines of business. These jobs are based on the local purchase patterns of Jacksonville area residents. The induced jobs are jobs with grocery stores, restaurants, health care providers, retail stores, local housing/construction industry, and transportation services, as well as with wholesalers providing the goods to the retailers.

Indirect jobs are created throughout the Jacksonville area as the result of purchases for goods and services by the *firms* directly impacted by Jacksonville Port Authority activity, including the tenants, terminal operators and the firms providing services to cargo – which includes containerized cargo, autos/RORO, breakbulk, petroleum, general cargo, and dry bulks and cruise passenger operations. The indirect jobs are measured based on actual local purchase patterns of the directly dependent firms, and occur with such industries as utilities, office supplies, contract service providers, maintenance and repair, and construction.

- **Related shipper/consignee (related user) jobs** are jobs with shippers and consignees (exporters and importers) including the state's retail and wholesale and distribution industries and the in-state industries supporting the movement and distribution of cargo imports and exports using the seaport terminals for shipment and receipt of cargo. While these impacts occur for all commodities, the majority of Jacksonville Port Authority shippers and consignees impacts involve the import and export of ocean containerized cargo and automobiles. Related jobs are not dependent upon the seaport marine terminals to the same extent as are the direct, induced and indirect jobs since it is the demand for the final products,

which creates the demand for the employment with these shippers/consignees, not the use of a particular seaport or maritime terminal, and therefore these firms can and do use other ports.

- **Personal income impact** consists of wages and salaries received by those directly employed by Port activity, and includes a respending impact which measures the personal consumption activity in the Jacksonville area of those directly employed as the result of Jacksonville Port District's cargo and cruise activity. Indirect personal income measures the wages and salaries received by those indirectly employed.
- **Business revenue** consists of total business receipts by firms providing services in support of the ocean cargo and cruise activity. **Local purchases for goods and services** made by the directly impacted firms are also measured. These local purchases by the dependent firms create the indirect impacts.
- **State and local taxes** include taxes paid by individuals as well as firms dependent upon Jacksonville Port Authority cargo, cruise, and ship repair activity.

## 2. SUMMARY OF METHODOLOGY

The purpose of this section is to provide a summary of the methodological approach used to estimate the economic impacts of the vessel and cargo activity at the public and private terminals located within Jacksonville Port District.

### 2.1. Data Collection

The cornerstone of the Martin Associates approach is the collection of detailed baseline impact data from firms providing services at the Port of Jacksonville marine terminals and the private terminals. To ensure accuracy and defensibility, the baseline impact data was collected from interviews with 410 firms in the Jacksonville maritime community. These firms represent the universe of firms providing services at Jacksonville Port Authority's public and private marine terminals located within the Port District, as identified by:

- Jacksonville Port Authority internal customer and tenant lists;
- Jacksonville Port Authority 2008 Directory;
- Martin Associates internal database from 2004 analysis.

These 410 firms represent 99 percent coverage of all firms identified in the seaport community. In some instances, multiple interviews were conducted with several persons in each firm.

## 2.2. Direct Jobs, Income, Revenue, and Tax Impacts

The results of these interviews were then used to develop the baseline direct job, revenue and income impacts for the economic sectors and job categories associated with Jacksonville Port Authority's marine terminals, as well as the private terminals.

The direct tax impacts are estimated at a state, county and local level based on state and local per capita tax burdens as developed by the Tax Foundation.

This baseline survey data was also used to develop operational models which can be used to update the impacts of the Jacksonville Port Authority's marine terminals and private terminals on an annual basis and to evaluate the impacts of changes in:

- Marine cargo tonnage, by commodity;
- Seaport labor productivity, and work rules;
- Modal distribution of seaport cargo (what percent of the inland transportation of a commodity is truck versus rail), as well as the geographical distribution of each commodity;
- Vessel calls and vessel size; and
- New carrier services.

Also, the operational models can be used to evaluate alternative facilities expansion projects and new marine terminal construction, as well as the impacts associated with channel dredging and widening.

## 2.3. Induced Impacts

Induced impacts are those generated by the purchases of the individuals employed as a result of seaport activity. For example, a portion of the personal earnings received by those directly employed due to activity at the marine terminals is used for purchases of goods and services, both regionally, as well as out-of-the region. These purchases, in turn, create additional jobs in the region which are classified as induced. To estimate these induced jobs, a regional personal earnings multiplier was developed from data provided by the Bureau of Economic Analysis, Regional Income Division. This personal earnings multiplier is used to estimate the total personal earnings generated in the region as a result of the activity at the Jacksonville Port Authority's marine terminals and at private marine terminals within the Port District. A portion of this total personal earnings impact is next allocated to specific local purchases (as determined from consumption data for Jacksonville residents, as developed from the U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2002). These purchases are next converted into retail and wholesale induced jobs in the regional economy.

*Induced jobs are not estimated at lower levels of purchasing rounds (after the wholesale round) since it is not possible to trace with a sufficient degree of accuracy, geographically, where purchases at the remaining levels occur. However, about 80 percent of the consumption will likely*

*occur at the first two rounds of purchases, which are most likely local retail and wholesale purchases.*

## **2.4. Indirect Jobs**

Indirect jobs are generated in the local economy as the result of purchases by firms that are directly dependent upon cargo and vessel activity at the marine terminals, including the dependent shippers/consignees. These purchases are for goods and services such as office supplies and equipment, maintenance and repair services, communications and utilities, transportation services and other professional services. To estimate the indirect economic impact, local purchases, by type of purchase, were collected from each of the 410 firms interviewed. These local purchases were then combined with employment to sales ratios in local supplying industries, developed from the U.S. Bureau of Economic Analysis Regional Input-Output Modeling System (2005) for the state of Florida. The indirect job ratios also account for the in-state spin-off effects from multiple rounds of supply chains that are required to provide the locally purchased goods and services.

## **2.5. Related Impacts**

Related impacts measure the jobs with shippers and consignees located in Florida moving containerized cargo and breakbulk cargo through the Port's marine terminals and private terminals. These jobs are classified as related jobs, since the exporters and importers using the marine terminals for the movement of cargo can and do use other seaports and marine terminals. Because of the proximity of other ports and the associated steamship service at these ports, such as Savannah Brunswick, Port Everglades, and Miami, the importers and exporters have some flexibility in port choice. As a result, jobs with these port users cannot be counted as dependent upon the marine terminals.

These related jobs are estimated based on the value per ton of the containerized, and breakbulk cargo, including autos/RORO imported/exported via the Port and the associated weighted job to value of output ratio for retail and wholesale sectors, as well as relevant manufacturing industries in the state of Florida, as developed from the Bureau of Economic Analysis Regional Input-Output Modeling System (RIMS II).

## **3. ECONOMIC IMPACT MODELS**

The impacts are measured for FY2008, and computer models for both cargo and cruise operations have been developed to test the sensitivity of the impacts to changes in economic conditions and facility utilization. It is to be emphasized that this study is designed to provide a framework which the Jacksonville Port Authority can use in formulating and guiding the future development of Port facilities.

### **3.1. Maritime Cargo Sensitivity**

The cargo impact model is designed to test the sensitivity of impacts to changes in such factors as maritime tonnage levels, seaport productivity and work rules, new seaport facilities development, inland distribution patterns of ocean cargo, number of vessel calls and the introduction of new ocean carrier service. The cargo impact model can also be used to assess the impact of developing a parcel of land as a maritime terminal versus other non-cargo land uses. Finally, the maritime cargo impact model can be used to assess the economic benefits of increased maritime activity due to infrastructure development and the opportunity cost of not undertaking specific maritime investments such as dredging, new terminal development or warehouse development.

### **3.2. Cruise Activity**

The cruise service impact model provides a tool by which the Port can evaluate changes in the types of cruises being offered, the size of vessels deployed, the number of passengers per cruise, the share of passengers staying overnight in Jacksonville area hotels prior to or after the cruise, and the number of one day, overnight and multi-day (conventional) cruises. The cruise model can also be used to quantify the potential impact of new services, by size of vessel and type of cruise.

Finally, the cruise impact model along with the maritime cargo model can be used to evaluate the economic impact of a maritime terminal for use as a cruise terminal versus a cargo terminal.

## **4. SUMMARY OF RESULTS**

Exhibit I-1 provides a breakdown by cargo and cruise results for the economic impact analysis of public and private terminals located within the Jacksonville Port District.

Exhibit I-1- Summary of the Local and Regional Economic Impacts Generated by  
Jacksonville Port District – FY2007/2008

	PUBLIC TERMINALS	PRIVATE TERMINALS	PUBLIC CRUISE	TOTAL
<b>JOBS</b>				
DIRECT	6,335	2,630	183	9,148
INDUCED	6,182	2,663	133	8,978
INDIRECT	3,413	986	144	4,543
TOTAL	15,930	6,279	460	22,669
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TOTAL	\$1,223,286	\$515,392	\$23,656	\$1,762,334
<b>BUSINESS REVENUE (1,000)</b>				
	\$1,338,630	\$458,126	\$106,764	\$1,903,520
<b>LOCAL PURCHASES (1,000)</b>				
	\$280,754	\$97,294	\$7,117	\$385,165
<b>STATE &amp; LOCAL TAXES (1,000)</b>				
	\$90,523	\$38,139	\$1,751	\$130,413
<b>CUSTOMS RECEIPTS (1,000)</b>				
	\$320,000	NA	NA	\$320,000
<b>RELATED USER IMPACTS</b>				
RELATED JOBS	32,433	10,214	NA	42,647
RELATED INCOME (1,000)	\$1,267,581	\$359,843	NA	\$1,627,424
RELATED OUTPUT (1,000)	\$12,979,310	\$3,103,638	NA	\$16,082,949
RELATED STATE AND LOCAL TAXES (1,000)	\$93,801	\$26,628	NA	\$120,429

*Totals may not add due to rounding*

Specifically, the vessel, cargo and cruise activity at the public and private marine cargo facilities generated the following impacts in the regional economy in FY 2007/2008:

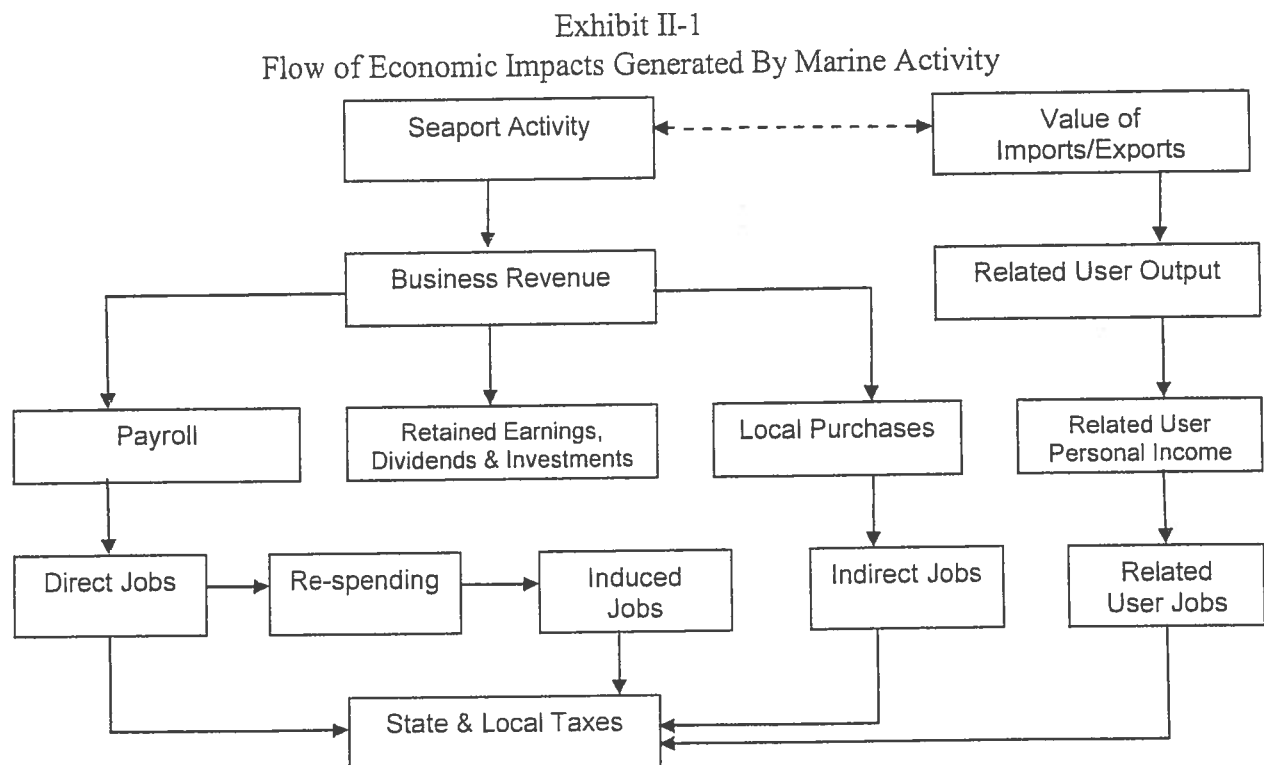
- **65,316 jobs in Florida** are in some way related to the cargo moving via the public and private marine terminals.
- Of the 65,316 jobs, **9,148 direct jobs** are generated by the marine cargo, cruise and vessel activity. Seventy-nine percent of these direct jobs are held by residents of Jacksonville/Duval County. The cargo and cruise activity at the public port facilities creates 6,518 of the direct jobs. In addition, there are 2,630 direct jobs created by the movement of containers, auto/RORO, liquid bulk and dry bulk at the private terminals.
- As the result of local and regional purchases by those 9,148 individuals holding the direct jobs, an additional **8,978 induced jobs** are supported in the regional economy.

- **4,543 indirect jobs** were supported by \$385.2 million of local purchases by businesses supplying services at the marine terminals and by businesses dependent upon Port of Jacksonville for the shipment and receipt of cargo.
- The import and export cargo moving via the public and private terminals supports **42,647 related user jobs with** the state's manufacturing and retail and wholesale and distribution industries and the in-state industries supporting the movement and distribution of all commodities, primarily concentrated with containerized cargo imports and exports using the seaport terminals for shipment and receipt of cargo.
- **\$402.3 million of direct wages and salaries** were received by those 9,148 directly employed, representing an average salary of \$43,980. As the result of re-spending this income, an additional \$1.17 billion of income and consumption expenditures were created. The 4,543 indirect job holders received \$191.1 million of indirect wages and salaries. In total, about **\$1.8 billion of direct, induced and indirect personal wages and salaries** were generated by maritime activity at the public and private terminals located in the Jacksonville Port District. In addition, the 42,647 related user job holders generated **\$1.6 billion in personal income**.
- Businesses providing services at the marine terminals received **\$1.9 billion of revenue**, excluding the value of cargo shipped through the public and private marine terminals. Another **\$385.2 million of indirect revenue** was generated with local suppliers of goods and services as the result of the local purchases by firms directly dependent upon the public and private marine terminals. In addition, the cargo activity at the Port created an additional **\$16.1 billion of total economic output** in the state, the majority of which is created by the movement of containers and autos, and the in-state industries supporting these industries.
- **\$130.4 million of state and local taxes** were generated by activity at the marine terminals. In addition to taxes, the U.S. Government received **\$320 million of customs revenue** from cargo activity. Related users generated another **\$120.4 million** of state and local taxes throughout the state.

## II. ECONOMIC IMPACTS OF MARITIME CARGO ACTIVITY

### 1. FLOW OF IMPACTS

Waterborne activity at a seaport contributes to the local and regional economy by generating business revenue to local and national firms providing vessel and cargo handling services at the marine terminals. These firms, in turn, provide employment and income to individuals, and pay taxes to state and local governments. Exhibit II-1, shows how activity at marine terminals generate impacts throughout the local, state and national economies. As this exhibit indicates, the impact of a seaport on a local, state or national economy cannot be reduced to a single number, but instead, the seaport activity creates several impacts. These are the revenue impact, employment impact, personal income impact, and tax impact. These impacts are non-additive. For example, the income impact is a part of the revenue impact, and adding these impacts together would result in double counting. Exhibit I-1 shows graphically how activity at Jacksonville Port District's public and private marine terminals generate the four impacts.





exports using the seaport terminals for shipment and receipt of cargo.

### **1.3. Personal Earnings Impact**

The personal earnings impact is the measure of employee wages and salaries (excluding benefits) received by individuals directly employed due to seaport activity. Re-spending of these earnings throughout the regional economy for purchases of goods and services is also estimated. This, in turn, generates additional jobs -- the induced employment impact. This re-spending throughout the region is estimated using a regional personal earnings multiplier, which reflects the percentage of purchases by individuals that are made within the Jacksonville region. The re-spending effect varies by region -- a larger re-spending effect occurs in regions that produce a relatively large proportion of the goods and services consumed by residents, while lower re-spending effects are associated with regions that import a relatively large share of consumer goods and services (since personal earnings "leak out" of the region for these out-of-regional purchases). The direct earnings are a measure of the local impact since they are received by those directly employed by seaport activity.

### **1.4. Tax Impact**

Tax impacts are payments to the state and local governments by firms and by individuals whose jobs are directly dependent upon and supported (induced jobs) by activity at the marine terminals.

## **2. IMPACT STRUCTURE**

The four types of economic impacts are created throughout various business sectors of the state and local economies. Specifically, four distinct economic sectors are impacted as a result of activity at the marine terminals. These are the:

- Surface Transportation Sector;
- Maritime Services Sector;
- Jacksonville Port Authority (governing body); and
- Related Users (Shippers/Consignees).

Within each sector, various participants are involved. Separate impacts are estimated for each of the participants. A discussion of each of the economic impact sectors is provided below, including a description of the major participants in each sector.

### **2.1. The Surface Transportation Sector**

The surface transportation sector consists of both the railroad and trucking industries. The trucking firms and railroads are responsible for moving the various cargoes between the marine

terminals and the inland origins and destinations.

## 2.2. The Maritime Services Sector

This sector consists of numerous firms and participants performing functions related to the following maritime services:

- Cargo Marine Transportation;
- Vessel Operations;
- Cargo Handling; and
- Federal, State and Local Government Agencies.

A brief description of the major participants in each of these four categories is provided below:

- Cargo Marine Transportation

Participants in this category are involved in arranging for inland and water transportation for export or import freight. The freight forwarder/customhouse broker is the major participant in this category. The freight forwarder/customhouse broker arranges for the freight to be delivered between the terminals and inland destinations, as well as the ocean transportation. This function performed by freight forwarders and customhouse brokers is most prevalent for containerized and general cargo commodities.

- Vessel Operations

This category consists of several participants. The steamship agents provide a number of services for the vessel as soon as it enters the port; the agents arrange for pilot services and towing, for medical and dental care of the crew, and for ship supplies. The agents are also responsible for vessel documentation. In addition to the steamship agents arranging for vessel services, those providing the services include:

- Chandlers - supply the vessels with ship supplies (food, clothing, nautical equipment, etc.);
- Towing firms - provide the tug service to guide the vessel to and from port;
- Pilots - assist in navigating the vessels to and from the Jacksonville Port Authority marine terminals and private marine terminals located within the Port District;

- Bunkering firms - provide fuel to the vessels;
  - Marine surveyors - inspect the vessels and the cargo;
  - Shipyards/marine construction firms - provide repairs (either emergency or scheduled) as well as marine pier construction and dredging.
- Cargo Handling

This category involves the physical handling of the cargo at the terminals between the land and the vessel. Included in this category are the following participants:

- Longshoremen - include members of the International Longshoremen's Association (ILA), as well as non-ILA dockworkers such as Teamsters and Seafarers' International Union (SIU) that are involved in the loading and unloading of cargo from the vessels, as well as handling the cargo prior to loading and after unloading;
  - Stevedoring firms - manage the longshoremen and cargo-handling activities. Stevedoring services at the Jacksonville Port Authorities terminals are provided by private stevedoring companies;
  - Terminal operators - are often stevedoring firms who operate the maritime terminals where cargo is loaded and off-loaded;
  - Warehouse/Consolidation operators - store cargo after discharge or prior to loading and consolidate cargo units into shipment lots.
- Government Agencies

This service sector involves federal, state and local government agencies that perform services related to cargo handling and vessel operations at the Port. U.S. Customs, Bureau of Immigration, U.S. Department of Agriculture, U.S. Coast Guard and the Army Corps of Engineers employees are involved. These services are provided by the government offices located in the Jacksonville area.

### **2.3. Related Shippers/Consignees Using the Marine Terminals**

Related jobs consist of jobs with exporters and importers shipping and receiving cargo through the public and private marine terminals. The key export commodities include consumer goods, food and grocery products, auto parts and beverages. Key imports include medical

It should be emphasized that commodity-specific impacts are not estimated for each of the economic sectors described in the last section. Specific impacts by commodity could not be allocated to individual commodities with any degree of accuracy for marine construction, ship repair, or the state and federal government. In addition, taxes have not been displayed by specific commodity since these tax impacts will reflect the same distribution over commodities as the employment impact.

#### **4. MARITIME CARGO EMPLOYMENT IMPACTS**

In this chapter, the employment generated by maritime cargo activity at the public and private marine terminals within the Jacksonville Port District is estimated. The chapter is organized as follows:

- First, the total employment that is in some way related to the activities at the public and private marine terminals is estimated.
- Second, the subset of total employment that is judged to be totally dependent (i.e., direct jobs) on port activity is analyzed as follows:
  - The direct job impact is estimated by detailed job category, i.e., trucking, ILA/dockworkers, freight forwarders/customhouse brokers, steamship agents, chandlers, surveyors, etc.
  - The direct job impact is estimated for each of the key commodities/commodity groups.
  - The direct job impact is estimated based on the residency of those directly employed.
- Induced and indirect jobs are estimated.
- Finally, jobs related to the marine activity at the public and private marine terminals are described.
- For each impact category, the impacts generated by activity at public marine terminals and the private terminals are displayed individually.

##### **4.1. Total Marine Cargo Employment Impact**

It is estimated that about 65,000 jobs are directly or indirectly generated by port activities at the public and private marine terminals within the Port of Jacksonville Port District. Of the 64,856 jobs:

- 8,965 jobs are directly generated by activities at the public and private marine terminals and if such activities should cease, these jobs would be discontinued over the short term.
- 8,845 jobs (induced jobs) are supported by the local purchases of the 8,965 individuals directly generated by port activity at the marine terminals. An additional 4,399 indirect jobs were supported by \$378.0 million of purchases in the local and regional economy by firms providing direct cargo handling and vessel services, as well as the dependent shippers/consignees using the private terminals.
- 42,647 jobs are related to containerized cargo and breakbulk cargo imported and exported and via the public and private marine terminals. These jobs with Florida importers and exporters are considered to be related to activities at the public and private marine terminals, but the degree of dependence on these terminals is difficult to estimate. It is to be emphasized that the level of employment with the Florida exporters and importers is based on the demand for the specific products – consumer goods, auto parts, grocery products, beverages, steel, medical equipment, pharmaceuticals, etc., not by the use of the marine terminals at the Jacksonville Port Authority. However, if other ports were used, it is likely that the costs of exporting/importing would increase.

## **4.2. Direct Marine Cargo Job Impacts**

In FY2007/2008, nearly 24.5 million tons of waterborne cargo moved via the public and private marine terminals considered in the analysis. As a result of this activity, 8,965 full-time jobs were directly created<sup>1</sup>. In this section the jobs are analyzed in terms of:

- Distribution by job category;
- Distribution by commodity group;
- Distribution by county and state of residency.

These distributions are developed in more detail below.

### **4.2.1. Job Impacts by Sector**

Exhibit II-1 presents the distribution of the 8,965 direct jobs among the following economic sectors:

- Maritime service sector;
- Surface transportation sector;

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<sup>1</sup> Jobs are measured in terms of full-time worker equivalents. If a worker is employed only 50 percent of the time by activity at Port of Jacksonville's public and private marine terminals, then this worker is counted as .5 jobs.

- Jacksonville Port Authority (governing body);

Exhibit II-2 shows the job impacts by detailed job category within the sectors. For the public and private terminals, the 31 percent of the direct jobs are created with local trucking operations, while about 26 percent of the direct jobs created by activity at the public and private terminals are created with terminal employees and dockworkers including members of the International Longshoremen’s Association, Members of the International Brotherhood of Teamsters, Seafarers’ International Union as well as other dockworkers. More than 1,400 workers are employed with shipyards and local marine construction firms including employees generated by the MOL/TRAPAC terminal construction at Dames Point Marine Terminal.

Exhibit II-2  
Employment Impacts by Sector and Job Category\*

CATEGORY	PUBLIC	PRIVATE	TOTALS
<b>SURFACE TRANSPORTATION</b>			
RAIL	160	52	211
TRUCK	1,495	1,301	2,795
<b>MARITIME SERVICES</b>			
TERMINAL EMPLOYEES/CONSIGNEES	886	850	1,736
ILA/DOCKWORKERS	572	17	589
TOWING	12	5	17
PILOTS	19	9	28
AGENTS OK	239	6	245
SURVEYORS/CHANDLERS	194	33	227
FORWARDERS	126	30	155
WAREHOUSING/CONSOLIDATION/FTZ	728	63	791
GOVERNMENT	121	117	238
MARINE CONSTRUCTION/ SHIPYARDS	1,344	91	1,435
BARGE/BUNKERING	283	54	337
BANKING/INSURANCE/LAW	10	2	12
JACKSONVILLE PORT AUTHORITY	149		149
<b>TOTAL</b>	<b>6,335</b>	<b>2,630</b>	<b>8,965</b>

\*Majority of private terminal dockworkers are included in terminal employees.

#### 4.2.2. Direct Job Impacts by Commodity

Most of the 8,965 jobs considered to be generated by port activity can be associated with the handling of specific commodities or commodity groups. Certain employment categories such as government employees and employees with marine construction and ship repair cannot be identified with a specific commodity. As a result, employment in these three groups (which totaled 2,059) was not allocated to commodity groups.

Exhibit II-3 presents the relative employment impacts in terms of commodity groups.

Exhibit II-3  
Distribution of Direct Job Impact by Commodity

COMMODITY	PUBLIC	PRIVATE	TOTAL
CONTAINERS	2,172	690	2,861
STEEL	20		20
LUMBER	7		7
AUTOS	1,228	261	1,489
PAPER/PULP	405		405
REEFER BREAKBULK	77		77
OTHER BREAKBULK	148		148
DRY BULK	266	439	705
LIQUID BULK	198	996	1,195
NOT ALLOCATED	1,815	244	2,059
TOTALS	6,335	2,630	8,965

Containerized cargo generated the largest number of direct jobs, followed by jobs supported by the import and export of automobiles/RoRo cargo.

#### 4.2.3. Job Impacts Per Ton

The assessment of the job impacts on a per 1,000 ton basis provides a tool for port planners to use in evaluating the relative importance of different commodities as economic generators. Exhibit II-4 presents the job impacts per 1,000 tons for each commodity moving via the public and private marine terminals.

Exhibit II-4  
Job Impacts per 1,000 Tons

COMMODITY	TOTAL
CONTAINERS	0.60
STEEL	0.38
AUTOS	1.09
PAPER/PULP/LUMBER	0.62
REEFER BREAKBULK	0.57
OTHER BREAKBULK	1.52
DRY BULK	0.11
LIQUID BULK	0.13

As this exhibit indicates, the movement of miscellaneous breakbulk creates the largest number of direct jobs per 1,000 tons, followed by automobiles, paper/pulp and containerized cargo. Liquid bulk and dry bulk cargoes, generate relatively small numbers of jobs per 1,000 tons. The finding that the dry bulk and liquid bulk cargoes generate relatively small direct jobs per 1,000 tons of throughput reflects the fact that the handling of liquid bulk and dry bulk cargoes is much less labor intensive than handling automobiles, containers and breakbulk cargoes and further, the

supporting infrastructure of agents, freight forwarders and customhouse brokers, warehousing and terminal operators is greater for the general cargo commodities (autos, containers, paper) than for the dry and liquid bulk cargoes. The high job impact per 1,000 tons for automobiles and RoRo cargo also reflects the labor intensive processing operations.

#### 4.3. Distribution of Direct Jobs by Place of Residence

To underscore the geographic scope of the impacts generated by the public and private marine terminals, Exhibit II-5 presents the distribution of the 8,965 direct jobs by place of residency. The residency analysis is based on the results of the interviews with 410 firms. As this exhibit indicates, the majority, 79.4 percent, of the direct jobs are held by residents of Jacksonville/Duval County.

Exhibit II-5  
Distribution of Direct Jobs by Place of Residency

JURISDICTION	PERCENTAGE	DIRECT JOBS
JACKSONVILLE/DUVAL	79.38%	7,116
CLAY	5.22%	468
NASSAU	8.93%	801
ST. JOHN'S	3.78%	338
OTHER FLORIDA	1.50%	134
OTHER USA	1.20%	107
TOTAL	100.00%	8,965

#### 4.4. Induced Jobs

The 8,965 directly employed individuals due to activity at the public and private marine terminals received wages and salaries, a part of which was used to purchase local goods and services such as food, housing, clothing, transportation services, etc. As a result of these local purchases, 8,845 jobs in the regional economy were supported. The majority of the induced jobs are with local and regional private sector social services, business services and educational services, followed by jobs in the food and restaurant sector, and then jobs in the construction and home furnishings sector.

#### 4.5. Indirect Jobs

In addition to the induced jobs generated by the purchases by directly employed individuals, the firms providing the direct services and employing the 8,965 direct jobs make local purchases for goods and services. These local purchases by the firms dependent upon the public and private marine facilities generate additional local jobs -- indirect jobs. Based on interviews with the 347 firms, these firms made \$378.0 million of local and in-state purchases in FY 2007/2008. These direct local purchases created an additional 4,399 indirect jobs in the local economy.



#### 4.6. Related Jobs

It is estimated that about 42,647 jobs with Florida exporters and importers are related to the containerized cargo and breakbulk cargo moving via the Jacksonville Port District public and private marine terminals. These related jobs are estimated based on the value per ton of the containerized cargo and breakbulk cargo exported via the Port and the associated weighted job to value of output ratio for retail and wholesale sectors, as well as relevant manufacturing industries in the state of Florida, as developed from the Bureau of Economic Analysis Regional Input-Output Modeling System (RIMS II). These jobs-per-shipment values for the imports and exports were multiplied by value of the cargo moving via the public and private marine terminals, to estimate the related user jobs.

It is to be emphasized that these are related jobs, and would not likely disappear if the marine terminals were rendered inoperable or closed to marine cargo and vessel/barge activity. Given a level of demand for the rice, the cargo would be shipped through another Florida or South Atlantic port.

*It is to be further emphasized that when the impact models are used for planning purposes, related jobs should not be used to judge the economic benefits of a particular project. Related jobs are not estimated with the same degree of defensibility as are the direct, induced and indirect jobs. Therefore, only these three types of job impacts should be used in evaluating port investments. The purpose of the related jobs estimates is to provide a proxy for the magnitude of the more general economic development impact of the private and public port facilities.*

#### 5. MARINE CARGO REVENUE, INCOME AND TAX IMPACTS

The 24.5 million tons of cargo handled at the public and private marine terminals included in the study generated revenue for firms in each of the economic sectors. For example, revenue is received by the railroads, the trucking companies and pipelines within the surface transportation sector as a result of moving export cargo to the marine terminals and distributing the imported commodities inland after receipt at the marine terminals. The firms in the maritime services sector receive revenue from arranging for transportation services, cargo handling, providing services to vessels in port and repairs to vessels calling the port facilities. Jacksonville Port Authority receives revenue from terminal leases and port charges such as wharfage and dockage assessed on cargo and vessels. In addition, revenue is received by shippers/consignees from the sales of cargo shipped or received via the marine cargo terminals and from the sales of products made with raw materials received through the terminals. Since this chapter is concerned with the revenue generated from providing maritime services, the shipper/consignee revenue (i.e., the value of the cargo shipped or received through the marine terminals, as well as the value of the products produced by the port-dependent shippers/consignees) will be excluded from the remaining discussion.

The revenue generated by port activity consists of many components. For example, gross

revenue is used to pay employee salaries and taxes, it is distributed to stockholders of the companies providing the vessel and cargo handling services, and it is used for the purchases of equipment and maintenance services. Of these components, only three can be isolated geographically with any degree of accuracy. These are the personal income component of revenue, which can be traced to geographic locations based on the residence of those receiving the income, the payment of state and local taxes, and the local purchases made by firms dependent upon the maritime activity. The balance of the revenue is distributed in the form of payments to firms located outside the Jacksonville region providing goods and services to the five sectors and for the distribution of company profits to shareholders.

Since it is difficult to trace all the components of the revenue beneficiaries, an estimate of revenue is developed, but no conclusions are formulated as to how the revenue (other than personal income, taxes and local purchases) is distributed, geographically. It is more accurate to trace the distribution of personal income (which is a subset of revenue) through the geographic locations of individuals receiving the income, as well as the local purchases by port-dependent firms.

### **5.1. Revenue Impact**

The revenue impact is a measure of the *total economic activity* in the state that is generated by the cargo moving via the Jacksonville Port District. In FY2008, maritime cargo activity at the Port generated a total of \$17.9 billion of total economic activity in the state. Of the \$17.9 billion, \$1.8 billion is the direct business revenue received by the firms directly dependent upon the Port and providing maritime services and inland transportation services to the cargo handled at the maritime terminals and the vessels calling the port. The remaining \$16.1 billion represents the value of the output to the State of Florida that is created due to the cargo moving via the Jacksonville Port Authority and District private terminals. This includes the value added at each stage of producing an export cargo, as well as the value added at each stage of production for the firms using imported raw materials and intermediate products that flow via the Port terminals and are consumed by industries within the State of Florida. The balance of the discussion focuses on the \$1.8 billion of direct business revenue generated from the provision of services to the cargo and vessels handled within the Jacksonville Port District.

In FY 2007/2008, the cargo and vessel activity at Jacksonville Port District's public and private marine terminals generated \$1.8 billion of business revenue to the firms providing cargo handling and vessel services. Included in the \$1.8 billion revenue impact are \$396.5 million of direct personal earnings, \$378 million of local purchases by firms providing maritime services, and \$128.7 million of state and local taxes.

#### **5.1.1. Revenue Impacts by Economic Sector**

Exhibit II-6 presents the total revenue estimated to have been generated by port activity in FY2007/2008. This revenue includes the revenue received by firms providing services to the

commodity and vessel activity at the public and private terminals, and includes revenue received by trucking firms, stevedores, Jacksonville Port Authority, chandlers, agents, pilots, towing companies, etc. Not included is the revenue from the use/value of the cargo moving via the marine terminals.

About one-third of the \$1.8 billion revenue impact is received by barge and bunkering operators, the trucking firms and railroads receive about 22%. The majority of the surface transportation revenue is received by the trucking firms. Marine construction accounts for 14% of the total.

Exhibit II-6  
Total Revenue Generated By Port Activity

SECTOR	PUBLIC	PRIVATE	TOTAL
<b>SURFACE TRANSPORTATION</b>			
RAIL	\$44.9	\$27.1	\$72.0
TRUCK	\$188.8	\$203.6	\$392.4
<b>MARITIME SERVICES</b>			
TERMINAL OPERATIONS	\$100.3	\$27.4	\$127.7
TOWING	\$17.3	\$8.9	\$26.2
PILOTS	\$8.2	\$3.5	\$11.7
AGENTS OK	\$3.4	\$1.5	\$4.9
SURVEYORS/CHANDLERS/MA	\$61.9	\$10.5	\$72.4
FORWARDERS	\$42.4	\$11.6	\$53.9
WAREHOUSING	\$132.9	\$11.5	\$144.4
GOVERNMENT	NA	NA	\$0.0
MARINE CONSTRUCTION/ SH	\$236.2	\$13.9	\$250.2
BARGE/BUNKERING	\$453.3	\$138.1	\$591.4
BANKING/INSURANCE/LAW	\$3.0	\$0.6	\$3.6
PORT AUTHORITY	\$45.9	NA	\$45.9
<b>TOTAL</b>	<b>\$1,338.6</b>	<b>\$458.1</b>	<b>\$1,796.8</b>

Revenue received by warehouses and consolidators accounts for \$250.2 million while terminal operations accounts for \$127.7 million of the revenue impact.

### 5.1.2. Revenue Impacts by Commodity

Exhibits II-7 and II-8 show the total revenue impact by commodity and the revenue per ton. It is to be emphasized that the revenue received by shippers/consignees from the sales of the products (value of the commodities) moving via the marine terminals is not included, since product value is determined by the demand for the product, not the use of the marine terminals. The two exhibits show that:

- In terms of total revenue, liquid bulk and containers generate the greatest revenue impact.
- In terms of per ton revenue, automobiles generate the greater revenue per ton impacts,

reflecting the more labor intensive loading and handling, processing, and support services required for the import and export of automobiles and RoRo cargo. Containerized cargo and refrigerated breakbulk cargo generates the next largest revenue impact per ton, reflecting not only the labor intensive nature of the vessel loading and discharge operations, but also the cold storage warehousing and other maritime support operations.

Exhibit II-7  
Revenue Impacts by Commodity\*

COMMODITY	PUBLIC	PRIVATE	TOTAL
CONTAINERS	\$297.5	\$77.8	\$375.4
STEEL	\$2.1		\$2.1
LUMBER	\$1.3		\$1.3
AUTOS	\$153.3	\$12.5	\$165.8
PAPER/PULP	\$46.5		\$46.5
REEFER BREAKBULK	\$10.1		\$10.1
OTHER BREAKBULK	\$6.9		\$6.9
DRY BULK	\$34.2	\$56.5	\$90.7
LIQUID BULK	\$231.3	\$240.9	\$472.2
NOT ALLOCATED	\$555.2	\$70.4	\$625.6
TOTALS	\$1,338.6	\$458.1	\$1,796.8

\* The revenue does not include an allocation of the marine construction and ship repair revenue, and Jacksonville Port Authority revenue to the commodity groups.

Exhibit II-8  
Revenue Per Ton Impacts

COMMODITY	TOTAL
CONTAINERS	\$79.16
STEEL	\$41.84
AUTOS	\$121.35
FOREST PRODUCTS	\$71.45
REEFER BREAKBULK	\$75.55
OTHER BREAKBULK	\$70.69
DRY BULK	\$14.78
LIQUID BULK	\$51.64

## 5.2. Personal Earnings Impact

In the previous section of this chapter, the total revenue generated by port activity was identified. As described earlier, the personal income received by those directly dependent upon port activity within the Jacksonville Port District is paid from the business revenue received by the firms supplying direct services at the marine terminals.

The income impact is estimated by multiplying the average annual earnings (excluding benefits) of each port participant, i.e., truckers, steamship agents, pilots, towing firm employees, longshoremen, warehousemen, etc., by the corresponding number of direct jobs in each category. The individual annual earnings in each category multiplied by the corresponding job impact resulted in \$396.5 million in personal wage and salary earnings. It is important to emphasize that the average annual earnings of a port-dependent job is about \$44,231. These relatively high paying jobs will have a much greater economic impact in the local economy through stimulating induced jobs than will a job paying lower wages.

The impact of the re-spending of this direct income for local purchases is estimated using a personal earnings multiplier. The personal earnings multiplier is based on data supplied by the Bureau of Economic Analysis (BEA), Regional Input-Output Modeling System (RIMS II). The BEA estimates that for every one dollar earned by direct employees generated by activity at the marine terminals, an additional \$2.91 of personal income and consumption expenditures would be created as a result of re-spending the income for purchases of goods and services produced locally. Hence, a personal earnings multiplier of \$3.96 was used to estimate the total income and consumption impact of nearly \$1.2 billion, inclusive of the re-spending effect. This additional re-spending of the direct income generates the 8,845 induced job impact, described in the previous chapter.

The 4,399 indirect job holders earned \$186.6 million in indirect wages and salaries. Combining the direct, induced and indirect personal income impacts, the total income impact is \$1.7 billion. Related jobholders throughout the state received an additional \$1.6 billion in income.

### **5.3. Tax Impacts**

State and local tax impacts are based on per employee tax burdens which are developed at the county, local and state jurisdictional levels. These tax per employee burdens are essentially tax indices that are used to allocate total taxes at each level of government to economic activity generated by the marine terminals. To estimate the per employee tax indices, total taxes received at each governmental level in Florida were developed from the Tax Foundation, which reports total state and local taxes from all sources as a percent of total personal income.

Activity at the public and private marine terminals generated \$128.6 million of state, county and local taxes. Related users supported \$120.4 million in tax payments. Also, as a result of cargo activity at Jacksonville Port Authority, \$320.0 million of customs receipts were generated.

## **6. COMPARISON OF CARGO IMPACTS FY2004 TO FY2008**

The purpose of this section is to provide a comparison of the economic impacts generated by Jacksonville Port District the cargo activity between FY2004 and FY2008. The methodology used by Martin Associates to estimate the economic impacts generated by seaport activity is identical to

the methodology used to estimate the economic impacts of the seaport in FY2004, and therefore, direct comparisons can be made.

Exhibit II-9

Summary Comparison of Cargo Impacts FY2004-FY2008

CATEGORY	PUBLIC 2004	PUBLIC 2008	PRIVATE 2004	PRIVATE 2008	TOTAL 2004	TOTAL 2008	TOTAL CHANGE
JOBS							
DIRECT	4,425	6,335	2,082	2,630	6,507	8,965	2,458
INDUCED	4,469	6,182	1,958	2,663	6,427	8,845	2,418
INDIRECT	3,562	3,413	337	986	3,900	4,399	499
TOTAL	12,457	15,930	4,377	6,279	16,834	22,209	5,375
PERSONAL INCOME (1,000)							
DIRECT	\$206,785	\$276,033	\$89,505	\$120,501	\$296,290	\$396,534	\$100,244
RE-SPENDING	\$591,509	\$804,415	\$256,029	\$351,164	\$847,538	\$1,155,579	\$308,041
INDIRECT	\$126,796	\$142,838	\$11,717	\$43,727	\$138,512	\$186,565	\$48,053
TOTAL	\$925,090	\$1,223,286	\$357,251	\$515,392	\$1,282,341	\$1,738,678	\$456,337
BUSINESS REVENUE (1,000)	\$558,132	\$1,338,630	\$184,776	\$458,126	\$742,908	\$1,796,756	\$1,053,848
LOCAL PURCHASES (1,000)	\$215,981	\$280,754	\$23,155	\$97,294	\$239,136	\$378,048	\$138,912
STATE/LOCAL TAXES (1,000)	\$86,033	\$90,523	\$33,224	\$38,139	\$119,258	\$128,662	\$9,404
CUSTOMS RECEIPTS (1,000)	\$258,000	\$320,000	NA	NA	\$258,000	\$320,000	\$62,000
RELATED JOBS	22,626	32,433	5,447	10,214	28,073	42,647	14,574
RELATED INCOME (1,000)	NA	\$1,267,581	NA	\$359,843	NA	\$1,627,424	NA
RELATED OUTPUT (1,000)	NA	\$12,979,310	NA	\$3,103,638	NA	\$16,082,949	NA
RELATED TAXES (1,000)	NA	\$93,801	NA	\$26,628	NA	\$120,429	NA

Totals may not add due to rounding

Exhibit II-10

Comparison of Direct Job Impacts by Commodity

COMMODITY	2006	2008	CHANGE
CONTAINERS	2,713	2,861	148
STEEL	79	20	-59
LUMBER	5	7	2
AUTOS	1,120	1,489	369
PAPER/PULP	63	405	342
REEFER BREAK BULK	110	77	-34
OTHER BREAK BULK	67	148	81
DRY BULK	555	705	150
LIQUID BULK	688	1,195	506
NOT ALLOCATED	1,107	2,059	952
TOTALS	6,507	8,965	2,458

As illustrated in Exhibits II-9 and II-10, impacts in the Jacksonville Port District over the 2004 to 2008 period grew significantly, primarily with respect to the Jacksonville Port Authority public terminals. Specifically, the Jacksonville Port District direct, induced and indirect jobs as a whole grew by 5,375, driven by direct and induced increases of 2,485 and 2,418 jobs respectively. In addition, related jobs throughout the state increased by 14,574. Similarly, personal income grew by \$456.3 million and business revenue grew by \$1.1 billion over the period. The growth in business revenue can be attributed to the fact that barging revenue was included as a part of the 2008 analysis. Local purchases increased by \$138.9 million, contributing to the 499 increase in indirect jobs.

State and local tax revenue attributed to direct, induced and indirect jobholders grew by nearly \$9.4 million over the four-year period.

Although the Jacksonville Port Authority's container tonnage showed a slight decline over the period, direct jobs related to containerized cargo grew by 128. Autos handled at public terminals grew by 123,528 units, an increase of 23%, reflecting an increase of 369 direct jobs over 2004. Also, increases in labor-intensive paper and pulp operations at the public terminals, with the completion of the ICS Warehouse at Talleyrand Marine Terminal, contributed to the increase in direct job impacts of 342 in FY2007/2008. Overall, Jacksonville Port Authority public terminal tonnage increased from 7.7 million tons in 2004 to 8.4 million tons in 2008, representing a 9.1% increase. In addition, the \$169 million of reported capital construction funds spent in FY2008, primarily driven by the construction of the MOL/TRAPAC terminal at Dames Point Marine Terminal supported significant jobs in the maritime construction sector.

### III. ECONOMIC IMPACTS OF CRUISE ACTIVITY

In FY2008, 50 cruise vessel calls were recorded at the Jacksonville Port Authority, carrying approximately 76,474 embarking passengers. It is important to note that these are all cruise calls by homeported vessels in contrast to in-transit calls. The key difference between an in-transit call and a homeport call is the fact that a vessel home porting will take on passengers and supplies at the Jacksonville Port Authority while a vessel making an intermediate in-transit call typically does not take on or discharge passengers and neither does the vessel take on supplies from local chandlers and caterers, as well as use local services such as advertising, maintenance and repair, linen services, etc. Hence, a call by a homeported vessel will generate a greater economic impact than an in-transit call.

To measure the economic impact of the cruise service, Martin Associates developed a cruise impact model. The model can be used to test the sensitivity of the impacts to changes in the percent of passengers flying into Jacksonville versus the percent of passengers driving to the Port, the share of passengers staying in hotels prior to and after the cruise, the local expenditures by passengers while in hotels either before or after the cruise, and the local purchases by the cruise lines for food, liquor, and other supplies and services. The impact of changes in the mix of the size of vessels and the number of cruises by size of vessel and itinerary can also be evaluated using the model.

#### 1. ECONOMIC IMPACT STRUCTURE

Cruise service related to the home porting of a vessel contributes to the local and regional economies by providing employment and income to individuals, tax revenues to local and state governments, and revenue to businesses engaged in providing operational services and supplies to the vessels and passengers. The flow of cruise industry-generated economic impacts throughout an economy creates four separate and non-additive types of impacts. These four types of impacts are:

- **Employment Impact** – represents the number of full-time equivalent jobs generated by cruise activity at the Jacksonville Port Authority. This consists of jobs directly generated by the home porting of cruise vessels as well as induced jobs, or jobs created in the Jacksonville area due to the purchase of goods and services by those individuals directly dependent upon cruise activity.
- **Income Impact** - the level of earnings associated with the jobs created by cruise activity, and adjusted to reflect respending throughout the economy.
- **Revenue Impact** - the sales generated by firms engaged in supplying services and materials to the vessels while in port, as well as firms in the Jacksonville area visitor industry that supply services to cruise passengers staying in hotels before and after the cruise. The value of the cruise tickets is not included as a revenue impact.



- Tax Impacts – includes the state and local tax revenues generated by cruise activity. These are taxes paid by individuals directly dependent upon the cruise activity.

The methodology used to estimate these impacts is described in the following section.

## 2. ECONOMIC IMPACT OF HOMEPORT CALLS

Homeport activity at Jacksonville Port Authority affects two sectors of the local and regional economy:

- Maritime Service Sector; and
- Visitor Industry Sector.

Separate impacts are estimated for each of the various economic categories supplying goods and services to the cruise ships and passengers. A discussion of each of the impact categories is provided below.

The typical expenditure profile of a cruise line while in port provides an understanding of the types of firms involved in providing goods and services to the vessel and its passengers. These expenditure categories are:

- Food and Beverage - This category includes wholesale food and liquor distributors. It is to be emphasized that in some cases the non-perishable food brought on board at the beginning of a cruise is not necessarily purchased locally, but based on contractual relationships and is trucked in from out of the area. Similarly, in some cases, liquor is purchased from in-bound warehouses, and not from local distributors. Interviews with the cruise operators identified the amount spent locally.
- Logo Items - These items are typically purchased under contract and are trucked into the port of embarkation. Therefore, no local impact is estimated.
- Flowers - Local wholesale flower distributors supply flowers for each cruise.
- Public Relations and Advertising - Contracts are usually developed with local advertising firms to promote the cruise. This is especially the case for the local cruises providing daily/two-day cruise services.
- Parking – A Port parking management companies provide parking services for the passengers.
- Taxis/buses - Local taxis and buses provide transportation between the airport and the ship or between the hotel and the ship for air/sea passengers.

- Security - Security services are hired while the ship is in port.
- Linen services - Contracts are developed with local laundries for linen and laundry services.
- Pilots – State licensed and locally based operators guide the cruise ships into the terminal.
- Tugs - Tug services are required for certain cruise ships to assist in docking and undocking. However, most cruise vessels require minimal, if any, tug assists.
- Stevedoring - Required in loading and unloading baggage and ship stores.
- Linehandling –Securing and unsecuring the vessel to the dock
- Local and Regional Travel Agencies - Local travel agencies will receive a commission from ticket sales to area residents.
- Waste Disposal - Solid waste and other refuse that cannot be discharged at sea will be disposed by local refuse collectors.
- Bunkers - Fuel will be purchased from local bunkering companies.
- Water- Most cruise ships manufacture water at sea, but will still purchase some water locally prior to departure.
- Visitor Industry - In addition to the impacts generated by direct vessel purchases, nearly 17% of the cruise passengers stay in hotels either before or after the cruise. These individuals will typically purchase incidental retail items before or after the cruise and eat in local hotel restaurants while in the Jacksonville area. Also, these air/sea passengers will take cabs/buses from the airport to the hotel or ship, as well as taxis between the hotel and the ship and throughout the city. In addition to passengers impacting the local visitor industry, the ship's crew will also impact the local industry. For example, the crew will likely purchase personal incidentals while in port. Also, a portion of the crew could be rotated on each sailing. The new crew may stay in a local hotel upon arrival, while the departing crew may also stay in a hotel prior to leaving the area.

In addition, the passengers arriving via the Jacksonville International Airport also generate impacts on site at the airport, including jobs with airlines (ticket agents, baggage, concessions, taxis, security, etc.). To estimate the impact on the Airport, Martin Associates used average impact ratios developed from our numerous airport impact studies conducted for such airports as Miami International Airport, Atlanta Hartsfield International Airport, Washington Dulles and Reagan

National Airports, Baltimore-Washington International Airport, San Francisco International Airport, and Seattle-Tacoma International Airport.

The economic impact analysis of cruise service at Jacksonville Port Authority is based on a telephone survey of Carnival Cruise Lines. Additional data was supplemented by in-house data bases which records data for other lines including Royal Caribbean International, Princess Cruise Lines and Holland America Line. While budgetary constraints of the project did not allow for detailed passenger surveys, which Martin Associates typically conducts as part of the cruise impact studies at other ports, Martin Associates used data provided by the Jacksonville Port Authority including a 2005-2006 passenger survey analysis conducted by Ulrich Research Services, Inc. of Orange Park Florida. The Ulrich analysis is a comprehensive passenger survey which was conducted on ten sailing dates from December 22, 2005 through March 20, 2006. The results of the analysis incorporated data from 9,068 individual passenger surveys.

The interviews of cruise lines focused on typical expenditure profiles of a vessel while in port as well as the percent of crew that are rotated on/off during each sailing. Incidental expenses by crew while in port were also estimated from the interviews as well as in-house data. The percent of passengers that are air/sea versus drive-in, the percent of visitor versus local passengers, and the share of passengers spending a pre/post night in Jacksonville were developed from the results of the Ulrich Research Services, Inc. Passenger Survey Study described above.

The induced impacts are based on the current expenditure profile of residents in the Jacksonville area, as estimated by the U.S. Bureau of Labor Statistics, "Consumer Expenditure Survey". This survey indicates the distribution of consumer expenditures over key consumption categories for Jacksonville area residents. The consumption categories are:

- Housing;
- Food at Restaurants;
- Food at Home;
- Entertainment;
- Health Care;
- Home Furnishings; and
- Transportation Equipment and Services.

The estimated consumption expenditure generated as a result of the responding impact is distributed across these consumption categories. Associated with each consumption category is the relevant retail and wholesale industry. Jobs to sales ratios in each industry are then computed for the Jacksonville area, and induced jobs are estimated for the relevant consumption categories. It is to be emphasized that induced jobs are only estimated at the retail and wholesale level, since these jobs are most likely generated in the Jacksonville area. Further levels of induced jobs are not estimated since it is not possible to defensibly identify geographically where the subsequent rounds of purchasing occur.

The “Consumer Expenditure Survey” does not include information to estimate the job impact with supporting business services, legal, social services, state and local governments, and educational services. To estimate this induced impact, a ratio of State of Florida employment in these key service industries to total State of Florida employment is developed. This ratio is then used with the direct and induced consumption jobs to estimate induced jobs with business/financial services, legal, educational, governmental and other social services.

The indirect impacts are estimated based on the local purchases by the directly dependent firms, combined with indirect job, income and revenue coefficients for the supplying industries in the State of Florida as developed for Martin Associates by the U.S. Bureau of Economic Analysis, Regional Input/Output Modeling System.

The cruise service impact model provides a tool by which the Port can evaluate changes in the types of cruises being offered, the size of vessels deployed, the number of passengers per cruise, the share of passengers staying overnight in Jacksonville area hotels prior to or after the cruise, and the number of one day cruises and multi-day cruises. The cruise model can also be used to quantify the potential impact of new services, by size of vessel and type of cruise. Finally, the cruise impact model along with the maritime cargo model can be used to evaluate the economic impact of a seaport terminal for use as a cruise terminal versus a cargo terminal.

### **3. CRUISE SERVICE IMPACT MODEL**

In order to assess the economic impacts of potential cruise business at The Jacksonville Port Authority, Martin Associates developed a spreadsheet framework, which can be used to assess the impacts of changes in such factors as:

- Number of cruise vessel calls;
- Number of passengers;
- Passenger characteristics:
  - Local expenditures;
  - Local residents versus tourists;
  - Length of pre/post night stay in Jacksonville area;
- Size of crew; and
- Size of vessel.

### **4. IMPACTS OF CRUISE OPERATIONS AT JACKSONVILLE PORT AUTHORITY**

The economic impact of the 50 cruise vessel calls in FY2008 at Jacksonville Port Authority is presented in Exhibit III-1

Exhibit III-1

Economic Impact of Cruise Operations at The Jacksonville Port Authority FY2008

CATEGORY	CRUISE	AIRPORT	TOTAL
<b>JOBS</b>			
DIRECT	159	24	183
INDUCED	126	7	133
INDIRECT	85	59	144
<b>TOTAL</b>	<b>370</b>	<b>90</b>	<b>460</b>
<b>PERSONAL INCOME (1,000)</b>			
DIRECT	\$ 5,277	\$ 520	\$ 5,796
RE-SPENDING	\$ 12,791	\$ 525	\$ 13,315
INDIRECT	\$ 2,789	\$ 1,755	\$ 4,544
<b>TOTAL</b>	<b>\$ 20,856</b>	<b>\$ 2,800</b>	<b>\$ 23,656</b>
<b>BUSINESS REVENUE (1,000)</b>	<b>\$ 42,432</b>	<b>\$ 24,993</b>	<b>\$ 67,425</b>
<b>LOCAL PURCHASES (1,000)</b>	<b>\$ 3,892</b>	<b>\$ 3,225</b>	<b>\$ 7,117</b>
<b>STATE/LOCAL TAXES (1,000)</b>	<b>\$ 1,543</b>	<b>\$ 207</b>	<b>\$ 1,751</b>

**5. JOB IMPACTS**

The cruise activity at The Jacksonville Port Authority created 460 total jobs for Jacksonville area residents. Of these 460 jobs, 183 were direct jobs, 133 jobs were supported in the Jacksonville area as the result of the purchases of the 183 direct jobs holders, while another 144 indirect jobs were supported in local industries that supply services and goods to the tourism industry catering to the passengers as well as to the chandlers and other firms supplying services and goods to the vessels while in Port.

**6. PERSONAL INCOME IMPACT**

The 183 direct job holders received \$5.8 million of direct wages and salaries, for an annual salary of \$31,6226 As the result of the purchases made locally with this income, (which supported the 133 induced jobs in the Jacksonville area) an additional \$13.3 million of local income and consumption expenditures were created in the Jacksonville area. The 144 indirectly employed workers were paid \$4.5 million, for a total wage and salary income impact of \$23.7 million, including the consumption impact.

**7. BUSINESS REVENUE**

Local businesses supplying food, beverages, and services to the cruise lines and the services supplied at the Jacksonville International Airport received \$67.4 million of business revenue. In addition, in order to support the services and goods supplied to the cruise lines by these firms, another \$7.1 million of local purchases in the Jacksonville area were made by those firms providing

# VITAL STATISTICS

## Cargo Performance

### CARGO INDICATORS

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Vessel Calls	1,310	1,341	1,329	-31	-2%	-19	-1%
Total Tons	5,444,900	6,185,100	6,786,450	-740,201	-12%	-1,341,550	-20%
TEU's	551,563	511,755	N/A	39,808	8%	N/A	N/A
Auto Units	321,301	496,252	473,288	-174,951	-35%	-151,987	-32%
Passengers	136,324	69,980	97,500	66,344	95%	38,824	40%
Total Revenue	\$36,566,877	\$33,972,743	\$36,950,292	\$2,594,134	8%	-\$383,415	-1%

### 1. CONTAINERS

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Tons	2,816,474	2,638,107	3,198,750	178,367	7%	-382,276	-12%
Revenue	\$17,082,875	\$15,880,643	\$17,651,457	\$1,202,232	8%	-\$568,582	-3%

### 2. RO/RO

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Tons	678,365	1,000,538	949,200	-322,173	-32%	-270,835	-29%
Revenue	\$9,235,959	\$9,419,853	\$8,597,646	-\$183,894	-2%	\$638,313	7%

### 3. BREAKBULK

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Tons	554,047	716,434	870,750	-162,388	-23%	-316,703	-36%
Revenue	\$2,684,838	\$2,815,188	\$3,026,853	-\$130,350	-5%	-\$342,016	-11%

### 4. DRY BULK

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Tons	1,071,116	1,577,605	1,500,000	-506,488	-32%	-428,884	-29%
Revenue	\$1,059,148	\$1,221,289	\$1,441,224	-\$162,141	-13%	-\$382,076	-27%

### 5. LIQUID BULK

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Tons	260,802	226,866	236,250	33,935	15%	24,552	10%
Revenue	\$565,461	\$610,567	\$552,078	-\$45,106	-7%	\$13,383	2%

### 6. MILITARY

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Tons	64,096	25,550	31,500	38,546	151%	32,596	103%
Revenue	\$1,210,571	\$549,246	\$750,015	\$661,325	120%	\$460,556	61%

### 7. CRUISE

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Revenue	\$2,803,903	\$1,320,621	\$2,509,470	\$1,483,282	112%	\$294,434	12%

### 8. FERRY

	June 2009			Variance From			
	Current YTD	Previous YTD	Budget YTD	Prior Year	%	Budget	%
Revenue	\$711,284	\$849,651	\$878,292	-\$138,367	-16%	-\$167,008	-19%

# JAXPORT

TONNAGE STATISTICS	Current Jun-09	YTD FY 08/09	Previous Jun-08	YTD FY 07/08	Month Inc/Dec	YTD Inc/Dec
<b>Containerized</b>						
Inbound	99,957	801,694	96,919	655,767	3%	22%
Outbound	236,658	2,033,173	255,764	1,991,576	-7%	2%
<b>TOTAL:</b>	<b>336,615</b>	<b>2,834,867</b>	<b>352,683</b>	<b>2,647,343</b>	<b>-5%</b>	<b>7%</b>
<b>Breakbulk</b>						
Inbound	72,045	494,696	116,225	576,029	-38%	-14%
Outbound	18,315	75,702	13,310	143,910	38%	-47%
<b>TOTAL:</b>	<b>90,360</b>	<b>570,398</b>	<b>129,535</b>	<b>719,939</b>	<b>-30%</b>	<b>-21%</b>
<b>Bulk Cargo</b>						
Inbound	54,262	1,259,743	212,978	1,622,824	-75%	-22%
Outbound	8,672	72,123	9,072	181,649	-4%	-60%
<b>TOTAL:</b>	<b>62,934</b>	<b>1,331,866</b>	<b>222,050</b>	<b>1,804,473</b>	<b>-72%</b>	<b>-26%</b>
<b>Auto/Tractors</b>						
Inbound	26,141	273,068	56,148	576,721	-53%	-53%
Outbound	26,654	434,701	49,223	436,624	-46%	0%
<b>TOTAL:</b>	<b>52,795</b>	<b>707,769</b>	<b>105,371</b>	<b>1,013,345</b>	<b>-50%</b>	<b>-30%</b>
<b>Grand Total</b>	<b>542,704</b>	<b>5,444,900</b>	<b>809,639</b>	<b>6,185,100</b>	<b>-33%</b>	<b>-12%</b>
=====						
<b>Inbound Cargo</b>						
ratio:	47%	52%	60%	55%	-48%	-18%
<b>Outbound Cargo</b>						
ratio:	53%	48%	40%	45%	-11%	-5%

# JAXPORT

<b>BERTHING REPORT</b>	<b>Current Jun-09</b>	<b>YTD FY 08/09</b>	<b>Previous Jun-08</b>	<b>YTD FY 07/08</b>	<b>Month Inc/Dec</b>	<b>YTD Inc/Dec</b>
Auto Ships	37	440	53	451	-30%	-2%
Container	77	597	66	599	17%	0%
Cruise	6	60	0	47	100%	28%
Liquid Bulk	7	55	12	76	-42%	-28%
Dry Bulk	1	26	5	37	-80%	-30%
Breakbulk	18	122	13	117	38%	4%
Idle	0	10	1	14	-100%	-29%
	<b>146</b>	<b>1,310</b>	<b>150</b>	<b>1,341</b>	<b>-3%</b>	<b>-2%</b>
<b>CONTAINER REPORT</b>						
<b>UNITS</b>						
Full	21,392	183,024	22,261	173,009	-4%	6%
Empty	10,633	92,389	10,148	77,367	5%	19%
Land Transit	61	549	58	707	5%	-22%
<b>TOTAL:</b>	<b>32,086</b>	<b>275,962</b>	<b>32,467</b>	<b>251,083</b>	<b>-1%</b>	<b>10%</b>
<b>CONTAINERS (Loads and Empties)</b>						
20's	3,264	37968	4076	29343	-20%	29%
28's		0	0	600	0%	-100%
40's	20,069	159332	19328	140840	4%	13%
45's	3,000	26109	3602	25531	-17%	2%
48's	1,438	12319	1216	10764	18%	14%
53's	4,315	40234	4245	44005	2%	-9%
<b>TOTAL:</b>	<b>32,086</b>	<b>275,962</b>	<b>32,467</b>	<b>251,083</b>	<b>-1%</b>	<b>10%</b>
<b>TOTAL TEUS:</b>	<b>65,038</b>	<b>551,563</b>	<b>65,004</b>	<b>511,755</b>	<b>0%</b>	<b>8%</b>
<b>AUTOMOBILE REPORT</b>						
<b>UNITS</b>						
Imported	7,133	70,115	13,084	150,813	-45%	-54%
8th Street	4,613	66,233	16,734	150,296	-72%	-56%
Rail	1,843	22,723	2,942	29,805	-37%	-24%
Exported	9,513	162,230	18,656	165,338	-49%	-2%
Heavy Equip	0	0	0	0	0%	0%
<b>TOTAL:</b>	<b>23,102</b>	<b>321,301</b>	<b>51,416</b>	<b>496,252</b>	<b>-55%</b>	<b>-35%</b>
<b>CRUISE REPORT</b>						
# of Vessels	6	59	0	47	0%	26%
# of Passengers	15,410	136,324	0	69,980	100%	95%



customers under the current economic climate," despite continuous efforts to reduce costs.

Hanjin also plans to impose a fuel recovery charge for all dry, refrigerated and "special" container shipments between North Europe and South America effective Aug. 15.

The fuel charge is \$73 per TEU and \$146 per FEU for northbound shipments and \$78 per TEU and \$157 per FEU for southbound shipments.

Contact Peter T. Leach at [pleach@joc.com](mailto:pleach@joc.com).

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7/22/2009