

THE LOCAL AND REGIONAL ECONOMIC IMPACTS OF PORT EVERGLADES

FISCAL YEAR 2018

Final Report



Prepared for:
Port Everglades Department
1850 Eller Drive
Fort Lauderdale, FL 33301
www.porteverglades.net



Prepared by:
Martin Associates
941 Wheatland Ave., Ste. 203
Lancaster, PA 17603
(717)295-2428
www.martinassoc.net

April 26, 2019

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
I. INTRODUCTION AND OVERVIEW	6
1. IMPACT DEFINITIONS	6
2. METHODOLOGY	8
3. ECONOMIC IMPACT MODELS.....	10
3.1. <i>Maritime Cargo Sensitivity</i>	10
3.2. <i>Cruise Activity</i>	10
4. SUMMARY OF RESULTS	11
II. ECONOMIC IMPACTS OF MARITIME CARGO ACTIVITY	13
1. IMPACT STRUCTURE	15
1.1. <i>The Surface Transportation Sector</i>	15
1.2. <i>The Maritime Services Sector</i>	15
1.3. <i>Related Shipper/Consignees of Port Everglades Sector</i>	17
1.4. <i>Port Everglades Department</i>	18
2. COMMODITIES INCLUDED IN THE ANALYSIS.....	18
3. MARITIME CARGO EMPLOYMENT IMPACTS	19
3.1. <i>Direct Maritime Cargo Job Impacts</i>	20
3.1.1. Job Impacts by Category	20
3.1.2. Direct Job Impacts by Commodity.....	21
3.1.3. Distribution of Direct Cargo Jobs by Place of Residency	22
3.2. <i>Induced Jobs</i>	23
3.3. <i>Indirect Jobs</i>	24
3.4. <i>Related User (Shipper/Consignee) Jobs</i>	24
4. TOTAL ECONOMIC OUTPUT, BUSINESS REVENUE, INCOME AND TAX IMPACTS.....	25
4.1. <i>Revenue Impact – Total Economic Activity</i>	26
4.1.1. Revenue Impacts by Economic Sector/Category	26
4.1.2. Revenue Impacts by Commodity.....	27
5. PERSONAL EARNINGS IMPACT	28
6. TAX IMPACTS.....	29
7. COMPARISON OF CARGO IMPACTS FY2017 TO FY2018.....	30
III. ECONOMIC IMPACTS OF CRUISE SERVICES AT PORT EVERGLADES.....	32
1. ECONOMIC IMPACT STRUCTURE.....	32
2. ECONOMIC IMPACT OF HOMEPORT CALLS	33
3. CRUISE SERVICE IMPACT MODEL.....	36
4. PORT EVERGLADES CRUISE OPERATIONS FY2018.....	37
5. ECONOMIC IMPACTS OF CRUISE SERVICE AT PORT EVERGLADES.....	39
6. JOB IMPACTS.....	39
7. PERSONAL INCOME IMPACT	40
8. BUSINESS REVENUE	40
9. TAX REVENUE	40
10. COMPARISON OF CRUISE IMPACTS FY2017 TO FY2018.....	41
APPENDIX A – SAMPLE SURVEY QUESTIONNAIRE	43

TABLE OF EXHIBITS

EXHIBIT E-1: FLOW OF ECONOMIC IMPACTS OF SEAPORT ACTIVITY THROUGH THE ECONOMY2
EXHIBIT E-2: FY2018 LOCAL AND REGIONAL ECONOMIC IMPACTS GENERATED BY PORT EVERGLADES.....4
EXHIBIT I-1: FY2018 ECONOMIC IMPACT OF PORT EVERGLADES CARGO AND CRUISE ACTIVITY11
EXHIBIT II-1: FLOW OF ECONOMIC IMPACTS GENERATED BY MARITIME ACTIVITY13
EXHIBIT II-2: FY2018 CARGO EMPLOYMENT IMPACTS BY SECTOR AND JOB CATEGORY21
EXHIBIT II-3: FY2018 DISTRIBUTION OF DIRECT CARGO JOB IMPACT BY COMMODITY22
EXHIBIT II-4: FY2018 DISTRIBUTION OF DIRECT CARGO JOBS BY PLACE OF EMPLOYMENT23
EXHIBIT II-5: FY2018 DISTRIBUTION OF DIRECT JOBS BY JURISDICTION WITHIN BROWARD COUNTY23
EXHIBIT II-6: FY2018 DIRECT REVENUE GENERATED BY PORT CARGO ACTIVITY.....27
EXHIBIT II-7: FY2018 CARGO REVENUE IMPACTS BY COMMODITY.....28
EXHIBIT II-8: FY2018 DISTRIBUTION OF STATE AND LOCAL TAX REVENUE.....29
EXHIBIT II-9: COMPARISON OF CARGO IMPACTS FY2017-FY201830
EXHIBIT III-1: FY2018 CRUISE CALLS AND PASSENGERS BY CRUISE LINE.....37
EXHIBIT III-2: ORIGIN OF PORT EVERGLADES CRUISE PASSENGERS.....38
EXHIBIT III-3: MODE OF ACCESS BY CRUISE PASSENGERS38
EXHIBIT III-4: FY2018 ECONOMIC IMPACT OF CRUISE OPERATIONS AT PORT EVERGLADES39
EXHIBIT III-5: FY2018 DISTRIBUTION OF STATE AND LOCAL TAX REVENUE40
EXHIBIT III-6: COMPARISON OF CRUISE IMPACTS FY2017-FY201841

EXECUTIVE SUMMARY

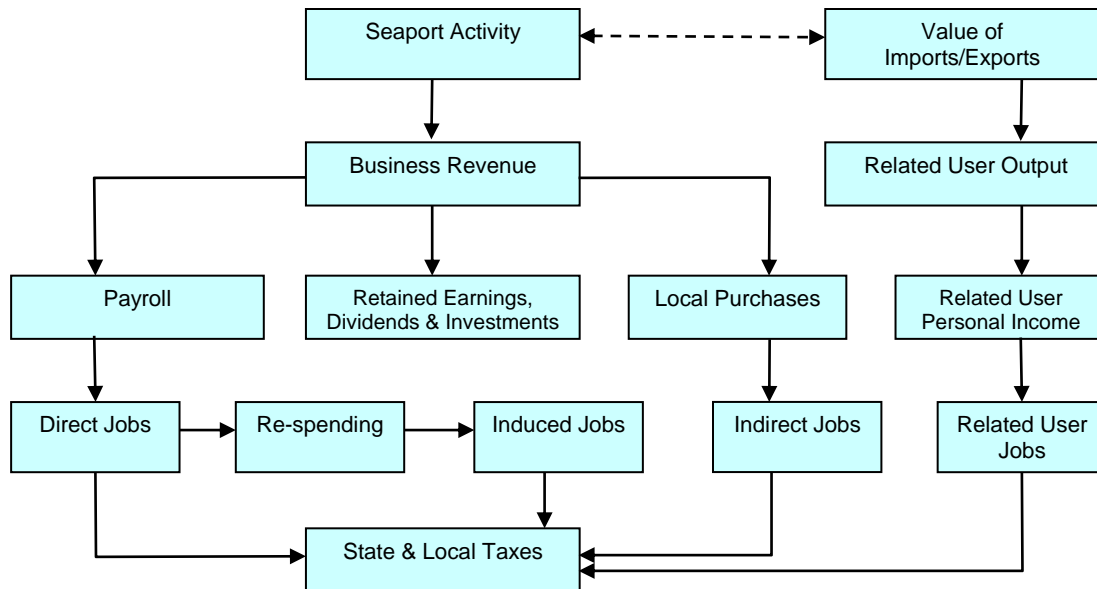
Martin Associates was retained by Broward County's Port Everglades Department to measure the local, regional and state economic impacts generated by maritime activity at the maritime container, break bulk, liquid bulk and dry bulk cargo terminals as well as cruise terminals at Port Everglades. Economic impacts generated at the cargo facilities include the impacts generated by containerized cargo (both dry and reefer), petroleum, steel products, cement, OEM autos, RO/RO-FLO/FLO cargo such as used motor vehicles and yachts, and other dry bulk cargo such as aggregates. In addition to the economic impacts generated by the cargo activity at the seaport terminals, Martin Associates has also quantified the economic impacts of the cruise industry at Port Everglades.

This study focuses on impacts generated in the Port Everglades Department's Fiscal Year (FY) 2018 – October 1, 2017 through September 30, 2018. 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.

The impacts of Port Everglades presented in this FY2018 report were estimated based on telephone, personal interviews and data collected from 259 firms in the Greater Fort Lauderdale area conducted between February and April 2019. This represents the universe of ocean cargo, and cruise related businesses (with the exception of trucking and freight forwarding firms) in the Greater Fort Lauderdale area, as defined in the "Port Everglades Facilities Guide & Directory 2018-2019 and 2017-2018", "Port Everglades Department FTZ Tenant Directory", supplemental lists supplied by the Port Everglades Department as well as Martin Associates' in-house databases developed over previous studies for the Port. The results in the FY2018 report were also affected by the use of updated U.S. Bureau of Census indices as well as Bureau of Economic Analysis Regional Input-Output Model (RIMSII) multipliers, which may result in variations from the previous year's economic impact data results.

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

Exhibit E-1: Flow of Economic Impacts of Seaport Activity through the Economy



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 seaport terminals.

As demonstrated by this chart, four categories 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 Port Everglades' maritime terminals, members of the International

Longshoremen's Association (ILA) and Teamster's Union, other non-union dockworkers, steamship agents, Broward County Sheriff's Office (BSO), freight forwarders, ship chandlers, warehouse operators, bankers, lawyers, terminal operators, stevedores, etc. 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 Fort Lauderdale-Hollywood International Airport due to the cruise passengers arriving via air.

- 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 seaport activity. State and local taxes include taxes paid by individuals dependent upon the seaport activity.

This report is based on interviews conducted with 259 firms providing services to the cargo and vessels handled at Port Everglades' cargo and cruise terminals. These 259 represent 98+ percent of the firms in the Port Everglades seaport community, underscoring the defensibility of the study. Furthermore, the impacts can be traced back to the individual firm. The data collected from these interviews was then used to develop operational models of the terminals located at Port Everglades. With respect to cruise passenger impacts, Martin Associates used data obtained from an updated cruise passenger survey that was completed in March, 2015 by AECOM.

The economic impacts generated by the cargo and cruise terminals are summarized in Exhibit E-2.

Exhibit E-2: FY2018 Local and Regional Economic Impacts Generated by Port Everglades

CATEGORY	CARGO	CRUISE	TOTAL
JOBS			
DIRECT	7,306	5,821	13,127
INDUCED	5,592	3,032	8,624
INDIRECT	5,607	4,053	9,660
RELATED USER JOBS	<u>200,168</u>	NA	<u>200,168</u>
TOTAL JOBS	218,673	12,906	231,579
PERSONAL INCOME (1,000)			
DIRECT	\$358,249	\$172,847	\$531,097
INDUCED	\$711,627	\$296,634	\$1,008,260
INDIRECT	\$267,141	\$128,995	\$396,137
RELATED USER INCOME	<u>\$7,668,872</u>	NA	<u>\$7,668,872</u>
TOTAL PERSONAL INCOME	\$9,005,890	\$598,476	\$9,604,366
VALUE OF ECONOMIC ACTIVITY (1,000)			
BUSINESS SERVICES REVENUE	\$1,830,680	\$1,973,891	\$3,804,571
RELATED USER OUTPUT	<u>\$30,140,158</u>	NA	<u>\$30,140,158</u>
TOTAL VALUE OF ECONOMIC ACTIVITY	\$31,970,838	\$1,973,891	\$33,944,729
LOCAL PURCHASES (1,000)	\$564,097	\$180,339	\$744,436
STATE & LOCAL TAXES (1,000)			
DIRECT, INDUCED AND INDIRECT	\$135,408	\$67,169	\$202,577
RELATED USER TAXES	<u>\$992,712</u>	NA	<u>\$992,712</u>
TOTAL STATE AND LOCAL TAXES	\$1,128,120	\$67,169	\$1,195,289

Totals may be rounded.

The vessel and cargo activity at the cargo and cruise facilities at Port Everglades generated the following estimated impacts in the regional economy in FY2018:

- **231,579 jobs in Florida are in some way related to the cargo and cruise activity at Port Everglades. Of the 231,579 total jobs:**
 - **13,127 direct jobs** are generated by the ocean cargo and cruise activity.
 - As the result of local and regional purchases by those 13,127 individuals holding the direct jobs, an additional **8,624 induced jobs** are supported in the regional economy.

- **9,660 indirect jobs** were supported by \$744.4 million of local purchases by businesses supplying services at the cargo and cruise terminals and by businesses dependent upon Port Everglades for the shipment and receipt of cargo.
- The import and export cargo moving via Port Everglades supports **200,168 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.
- **Approximately \$9.6 billion of wages and salaries were generated by Port Everglades' cargo and cruise activity in FY2018.**
 - **\$531.1 million of direct wages and salaries** were received by those 13,127 directly employed.
 - As a result of re-spending this direct job holder income, an **additional \$1 billion of income and consumption expenditures were created** and supported the 8,624 induced jobs.
 - The 9,660 indirect job holders received **\$396.1 million of wages and salaries.**
 - The 200,168 related user job holders generated **\$7.7 billion in wages and salaries.**
- **The FY2018 cargo and cruise activity at Port Everglades generated \$33.9 billion in economic value to the state of Florida.**
 - Businesses providing services to the cargo and cruise terminals received **\$3.8 billion of revenue.**
 - In addition, the cargo activity at the Port created an additional **\$30.1 billion of related user economic output** in the state, the vast majority of which is created by the movement of containers, and the in-state industries supporting these industries.
- Local businesses and suppliers to the cargo and cruise industries at Port Everglades made **\$744.4 million of local purchases.**
- **\$1.2 billion of state and local taxes** were generated by activity at the cargo and cruise terminals, including nearly **\$1 billion generated by the related users** throughout the state.

I. INTRODUCTION AND OVERVIEW

Martin Associates was retained by the Broward County Port Everglades Department to measure the local, regional and state economic impacts generated by maritime activity at the container, break bulk, liquid bulk and dry bulk cargo terminals as well as cruise terminals at Port Everglades. Economic impacts generated at the cargo facilities include the impacts generated by containerized cargo (both dry and reefer), petroleum, steel products, cement, roll on/roll off and float on/float off (RO/RO and FLO/FLO) cargo such as motor vehicles and yachts, and other dry bulk cargo such as aggregates. In addition to the economic impacts generated by the cargo activity at the seaport terminals, Martin Associates has also quantified the economic impacts of the cruise industry at Port Everglades.

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 Port Everglades. Specific re-spending models have been developed for the Greater Fort Lauderdale area to reflect the unique economic and consumer profiles of the regional economy. To further underscore the defensibility of the study, standardized impact models are not used. Instead, the resulting impacts reflect the uniqueness of the individual Port operations, as well as the surrounding regional economy.

At the outset, it is important to note that this study uses a different methodology than previous studies prior to the 2006 Martin Associates' baseline report and cannot be compared directly to results of economic impact studies previously completed for Port Everglades by other consultants. However, since the initial FY2006 baseline report, Martin Associates has updated the results annually, including a complete re-survey of members of the maritime cargo and cruise community serving Port Everglades' terminals and tenants in FY2009, FY2011, FY2015 and FY2018. Therefore, direct comparisons can be made beginning with the FY2006 study.

1. IMPACT DEFINITIONS

The impacts are measured separately for the Port'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 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 Fort Lauderdale-Hollywood International Airport due to the cruise passengers arriving via air.

Induced jobs are jobs created in the Greater Fort Lauderdale 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 Greater Fort Lauderdale 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 Greater Fort Lauderdale area as the result of purchases for goods and services by the *firms* directly impacted by Port Everglades activity, including the tenants, terminal operators and the firms providing services to cargo – which includes containerized cargo, petroleum, general cargo, RO/RO-FLO/FLO 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 Port Everglades shippers and consignees' impacts involve the import and export of ocean containerized cargo. Port Everglades and other South Florida ports, including Port *MLAMI*, are unique in the fact that a more balanced (inbound/outbound) trade exists. These jobs, while difficult to isolate to a specific county, are held throughout the state including Broward and Miami-Dade counties. 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. For example, when hurricane devastation renders a port's container and breakbulk terminals inoperable, essentially suspending operations at the port, the direct, induced and indirect jobholders are immediately affected with similar consequence. However, the jobs held with related users such as manufacturing as well as wholesale and retail distribution throughout the unaffected areas of state will continue to operate. These firms are required to find alternative ports to ship and receive cargo in order to maintain given levels of operation. Therefore, viable port operations are essential to long-term retention of import and export related jobs throughout the state.

- **Personal income impact** consists of wages and salaries received by those directly employed by Port activity, and includes a re-spending impact which measures the personal consumption activity in the Greater Fort Lauderdale area of those directly employed as the result of Port Everglades 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 Port Everglades cargo, cruise, and ship repair activity.

2. METHODOLOGY

The impacts of Port Everglades presented in this FY2018 report were estimated based on telephone, personal interviews and data collected from 259 firms in the Greater Fort Lauderdale area conducted between February and April 2019. This represents the universe of ocean cargo, and cruise related businesses (with the exception of trucking and freight forwarding firms) in the Greater Fort Lauderdale area, as defined in the “Port Everglades Facilities Guide & Directory 2018-2019 and 2017-2018”, “Port Everglades Department FTZ Tenant Directory”, supplemental lists supplied by the Port Everglades Department as well as Martin Associates’ in-house databases developed over previous studies for the Port. It is to be emphasized that a 98+% response rate was achieved from these firms located in the Port directory and Port tenant listings. The direct impacts are measured at the firm level of detail and aggregated to develop the impacts for each of the Port’s lines of business (cargo and cruise). Each firm was surveyed to provide Martin Associates with detailed employment levels (both full time and part time), annual payroll, local purchases and the residence of the employees. Data collected

from Broward County Port Everglades Department includes: Port Everglades Department employment, tonnage, cruise passenger activity, vessel (both cargo and cruise) calls, Port revenues and expenditures to estimate the FY2018 impacts. The results in the FY2018 report were also affected by the use of updated U.S. Bureau of Census indices as well as Bureau of Economic Analysis Regional Input-Output Model (RIMSII) multipliers, which may result in variations from the previous year's economic impact data results.

The induced impacts are based on the expenditure profile of residents in the Miami-Fort Lauderdale/Miami area, as estimated by the U.S. Bureau of Labor Statistics, "Consumer Expenditure Survey 2016-2017." This survey indicates the distribution of consumer expenditures over key consumption categories for Fort Lauderdale/Miami 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 re-spending 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 Greater Fort Lauderdale 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 Greater Fort Lauderdale 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 most recent available 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 - RIMS II 2007/2016.

Cruise passenger characteristics are based on an updated passenger survey conducted by AECOM in March, 2015.

3. ECONOMIC IMPACT MODELS

The impacts presented in this report are measured for FY2018, 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 Port Everglades 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 Greater Fort Lauderdale 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 Port Everglades.

Exhibit I-1: FY2018 Economic Impact of Port Everglades Cargo and Cruise Activity

CATEGORY	CARGO	CRUISE	TOTAL
JOBS			
DIRECT	7,306	5,821	13,127
INDUCED	5,592	3,032	8,624
INDIRECT	5,607	4,053	9,660
RELATED USER JOBS	<u>200,168</u>	NA	<u>200,168</u>
TOTAL JOBS	218,673	12,906	231,579
PERSONAL INCOME (1,000)			
DIRECT	\$358,249	\$172,847	\$531,097
INDUCED	\$711,627	\$296,634	\$1,008,260
INDIRECT	\$267,141	\$128,995	\$396,137
RELATED USER INCOME	<u>\$7,668,872</u>	NA	<u>\$7,668,872</u>
TOTAL PERSONAL INCOME	\$9,005,890	\$598,476	\$9,604,366
VALUE OF ECONOMIC ACTIVITY (1,000)			
BUSINESS SERVICES REVENUE	\$1,830,680	\$1,973,891	\$3,804,571
RELATED USER OUTPUT	<u>\$30,140,158</u>	NA	<u>\$30,140,158</u>
TOTAL VALUE OF ECONOMIC ACTIVITY	\$31,970,838	\$1,973,891	\$33,944,729
LOCAL PURCHASES (1,000)	\$564,097	\$180,339	\$744,436
STATE & LOCAL TAXES (1,000)			
DIRECT, INDUCED AND INDIRECT	\$135,408	\$67,169	\$202,577
RELATED USER TAXES	<u>\$992,712</u>	NA	<u>\$992,712</u>
TOTAL STATE AND LOCAL TAXES	\$1,128,120	\$67,169	\$1,195,289

Totals may be rounded.

In FY2018, Port Everglades supported 231,579 jobs in the state of Florida. Of these jobs, 13,127 jobs are directly created by port activities, while another 8,624 induced jobs are generated in the Greater Fort Lauderdale area as a result of local purchases made by those directly employed due to Port Everglades activity. In addition, there are 9,660 indirect jobs supported in the Greater Fort Lauderdale area as the result of \$744.4 million of local purchases. In addition, the cargo moving via Port Everglades supports 200,168 jobs throughout the state of Florida. The vast majority of these jobs are associated with the movement of containerized cargo at Port Everglades.

The 13,127-direct cargo and cruise jobholders received \$531.1 million of direct wage and salary income, for port-wide (cargo and cruise) average earnings of \$40,458 per direct employee. As a result of local purchases with this \$531.1 million of direct wages and salaries, an additional \$1 billion of income and local consumption expenditures were created in the Greater Fort Lauderdale area. It is this re-spending impact that supported the 8,624 induced jobs.¹ The indirect jobs holders received \$396.1 million in personal income. In total, \$9.6 billion of personal income was created as the result of Port Everglades operations, including the \$7.7 billion received by those employed with the related users of the Port.

Local businesses received \$3.8 billion of sales revenue from providing services to the cargo activity and cruise activity. This does not include the value of the cargo moving via the Port. The cargo activity at the Port created an additional \$30.1 billion of total economic output in the state, the majority of which is created in the state's retail and wholesale and distribution industries and the in-state industries supporting the movement and distribution of containerized cargo imports and exports. It is to be emphasized that only the economic activity associated with the raw materials and finished products that move via the Port is included. Port Everglades and other South Florida ports including Port *MIAMI* are unique in the fact that a more balanced trade, that is inbound and outbound, has historically existed; and Port Everglades is one of only a few ports in the U.S. that has maintained a net container export surplus. These jobs, while difficult to isolate, occur throughout the state including Broward and Miami-Dade counties.

As a result of the cargo and cruise activity at Port Everglades, a total of \$1.2 billion of state and local tax revenue was generated (see page 29 for detailed discussion).

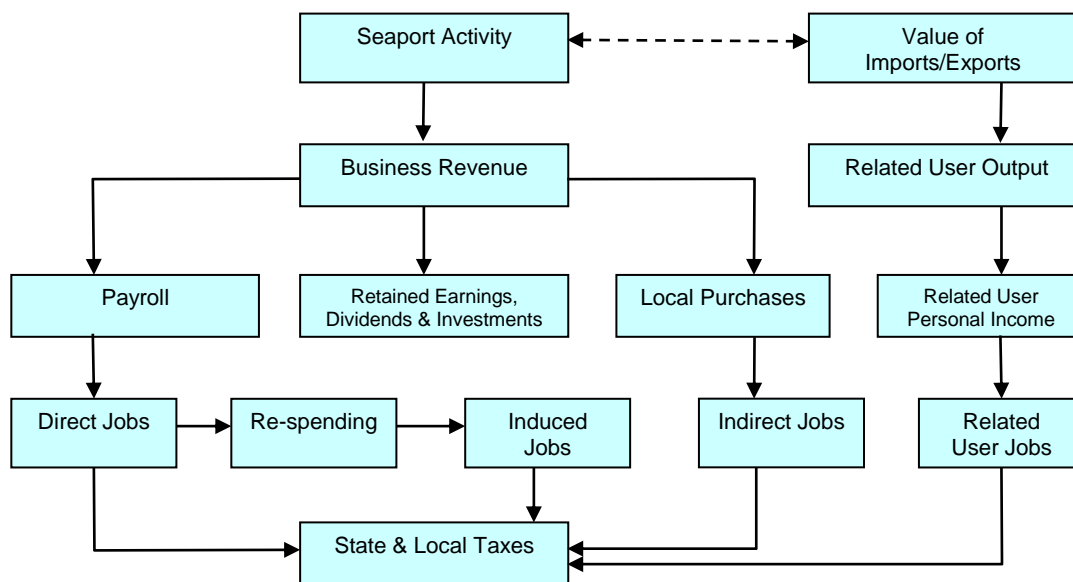
The balance of the report describes the impacts created by maritime cargo and cruise service at Port Everglades.

¹The induced income impact also includes local consumption expenditures and should not be divided by induced jobs to estimate the average salary per induced job. 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 Greater Fort Lauderdale area. Hence, the average salary would be overestimated.

II. ECONOMIC IMPACTS OF MARITIME CARGO ACTIVITY

Waterborne cargo 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 seaport 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 seaport terminals generates 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 II-1 shows graphically how activity at Port Everglades’ maritime terminals generates the four impacts.

Exhibit II-1: Flow of Economic Impacts Generated by Maritime Activity



At the outset, activity at the port generates business revenue for firms that provide cargo and cruise-related services. This business revenue impact is dispersed throughout the economy in several ways. It is used to hire people to provide the services, to purchase goods and services, and to make Federal, state and local tax payments. The remainder is used to pay stock-holders, retire debt, make investments, or is held as retained earnings. It is to be emphasized that the only portions of the revenue impact that can be definitely identified as remaining in the local/regional economy are those portions paid out in salaries to local employees, for local purchases by individuals and businesses directly dependent on the seaport, in contributions to state and local taxes, in lease payments to Port Everglades by tenants, and wharfage and dockage fees paid to the Port.

The employment impact of seaport activity consists of four levels of job impacts:

- ***Direct employment impact*** -- jobs directly generated by seaport activity. Direct jobs generated by ocean cargo include jobs with railroads and trucking companies moving cargo between inland origins and destinations and the seaport terminals, longshoremen and dockworkers, steamship agents, freight forwarders, stevedores, etc. It is to be emphasized that these are classified as directly generated in the sense that these jobs would experience near term dislocation if the activity at Port Everglades maritime terminals were to be discontinued.
- ***Induced employment impact*** -- jobs created throughout the local economy because individuals directly employed due to seaport activity spend their wages locally on goods and services such as food, housing and clothing. These jobs are held by residents located throughout the region, since they are estimated based on local and regional purchases.
- ***Indirect Jobs*** -- are jobs created locally due to purchases of goods and services by firms, not individuals. These jobs are estimated directly from local purchases data supplied to Martin Associates by the companies interviewed as part of this study, and include jobs with local office supply firms, maintenance and repair firms, parts and equipment suppliers, etc.
- ***Related shipper/consignee (related user) jobs*** -- jobs with shippers and consignees (exporters and importers) supported in the state's manufacturing and retail and wholesale distribution industries and the in-state industries supporting the movement and distribution of all commodities, primarily containerized cargo imports and exports using the seaport terminals for shipment and receipt of cargo.

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 Greater Fort Lauderdale area. 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 personal earnings are a measure of the local impact since they are received by those directly employed by seaport activity.

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 seaport terminals.

1. IMPACT STRUCTURE

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 seaport terminals. These are the:

- Surface Transportation Sector;
- Maritime Services Sector;
- Related Shippers/Consignees Sector; and
- Port Everglades Department.

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.

1.1. 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 seaport terminals and the inland origins and destinations. Also included is the pipeline transportation of petroleum products received at the Port and destined for airports and end users within the region.

1.2. The Maritime Services Sector

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

- Maritime Cargo 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:

- Maritime Cargo Transportation

Participants in this category are involved in arranging for inland and water transportation for export or import freight. The freight forwarder/customs broker is the major participant in this category. The freight forwarder/customs 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 medical and dental care of the crew, for ship supplies as well as payment of various expenses including Port Everglades Department charges. 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 Port Everglades' maritime terminals;
- Bunkering firms - provide fuel to the vessels;
- Marine surveyors - inspect the vessels and the cargo; and
- 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 & dockworkers - include members of the International Longshoremen's Association (ILA), as well as the Teamsters Union and those dockworkers with no union affiliation that are involved in the loading/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 Port Everglades are provided by private stevedoring companies franchised by Broward County;
 - Cargo terminal operators - provide services to operate the maritime terminals, track cargo movement and provide security where cargo is loaded and off-loaded, as well as the petroleum terminal and pipeline operators which includes petroleum tank farm operations;
 - Warehouse operators - store cargo after discharge or prior to loading and consolidate cargo units into shipment lots. In many cases the freight forwarders and consolidators are also involved in warehousing activity.
 - Foreign Trade Zone (FTZ) tenants - operate facilities in the Port Everglades Foreign Trade Zone and in non-contiguous FTZ's in Broward County established under Port Everglades' FTZ.
- 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. Department of Homeland Security (DHS), which includes U.S. Customs and Border Protection (CBP), U.S. Immigration and Customs Enforcement (ICE) and U.S. Coast Guard, U.S. Department of Labor, U.S. Department of Agriculture and the U.S. Army Corps of Engineers, are involved. These services are provided by the government offices located in the Greater Fort Lauderdale area. The Broward Sheriff's Office (BSO), including fire/rescue department and Florida Department of Law Enforcement (FDLE) are also included in this group.

1.3. Related Shipper/Consignees of Port Everglades Sector

Related jobs consist of jobs with related shippers/consignees shipping and receiving cargo through the public cargo terminals at Port Everglades. While these impacts are generated by all commodities, the majority of these users are attributed to containerized import and export cargo

through the Port. Only the user industry activity that can be linked to the movement of cargo (either raw materials or finished products) through Port Everglades is considered in this related user impact.

1.4. Port Everglades Department

The Port Everglades Department includes those individuals employed by Broward County whose purpose is to oversee port activity at the port's cargo and cruise terminals. The seaport department provides basic infrastructure, establishes usage rules and tariff rates, markets the seaport facilities, and negotiates long-term agreements and leases. The Port's Operations Division controls berthing and provides Harbormaster and line handling services. The Port Everglades Department is an enterprise fund which operates from user fees and not taxes.

2. COMMODITIES INCLUDED IN THE ANALYSIS

A major use of an economic impact analysis is to provide a tool for port development planning. As a port grows, available land and other resources for port facilities become scarce, and decisions must be made as to how to develop the land and utilize the resources in the most efficient manner. Various types of facility configurations are associated with different commodities. For example, containers, automobiles and RO/RO require a large amount of paved, open storage space, while certain types of break bulk cargoes such as steel coil requires covered storage. Perishable commodities require temperature-controlled warehouses and some dry bulk cargo requires covered storage and special dust removing equipment, while tank farms are needed to store liquid bulk cargo.

An understanding of the commodity's relative economic value in terms of employment and income to the local community, the cost of providing the facilities, and the relative demand for the different commodities is essential in making future port development plans. Because of this need for understanding relative commodity impacts, economic impacts are estimated for the following commodities handled at the public and private cargo terminals:

- Containers (dry and refrigerated) – Containerized cargo moved to/from vessel via crane or driven onto/off vessels while container is still on a truck chassis;
- Steel (Coils and Rebar – breakbulk (non-containerized) steel products handled at the terminal by various lifting methods;
- OEM Autos – Original Equipment Manufacturers new automobiles that are Roll-on/Roll-off cargoes imported/exported via the Port;
- RO/RO and FLO/FLO – breakbulk cargo that is defined as Roll-on/Roll-off Float-on/Float-off indicating which is driven or floated onto/off vessels including used and privately-owned automobiles, buses, tractors, trucks and yachts (yachts may be lifted or also designated as Float-on/Float-off (FLO/FLO));
- Gypsum – bulk cargo discharged from vessel by conveyor or pneumatic discharge system;

- Cement – bulk cargo discharged from vessel by conveyor or pneumatic discharge system;
- Other Dry Bulk – other dry bulk cargoes not specified; and
- Petroleum Products – liquid bulk cargoes including jet fuel, gasoline, and oils discharged from vessels by pumps attached to vessel and ethanol arriving by rail for blending.

It should be emphasized that commodity-specific impacts are not estimated for each of the economic sectors described in Section II.1. Specific impacts could not be allocated by individual commodities with any degree of accuracy for maritime construction, ship repair, or the state and Federal government due to the fact that it is difficult to estimate the percentage of resources that are dedicated to one commodity over another. For example, maritime construction may occur at a terminal that is multi-use and cannot be attributed to a specific commodity. Similarly, law enforcement and security operations at the port cannot be attributed to a single commodity.

3. MARITIME CARGO EMPLOYMENT IMPACTS

The employment generated by maritime cargo activity at Port Everglades is estimated.

- First, the total employment that is in some way related to the activities at cargo terminals is estimated from the interviews and data collection process of 259 tenants and service providers and tenants and FY2018 data provided by the Port Everglades Department as described in the methodology;
- 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/warehouse and consolidators, 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 maritime activity at the cargo terminals are described.

It is estimated that 218,673 jobs are directly or indirectly generated by port activities at the cargo terminals within Port Everglades Jurisdictional Area (PJA). Of the 218,673 jobs:

- 7,306 jobs are directly generated by activities at the cargo terminals and if such activities should cease, these jobs would be discontinued over the short term.
- 5,592 jobs (induced jobs) are supported by the local purchases of the 7,306 individuals directly generated by port activity at the cargo terminals. An additional 5,607 indirect jobs were supported by \$564.1 million of purchases in the local and regional economy by firms providing direct cargo handling and vessel services.
- 200,168 jobs related to cargo imported and exported over the docks at Port Everglades. These jobs are supported in 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.

3.1. Direct Maritime Cargo Job Impacts

In FY2018, nearly 26.5 million tons of cargo (including 729,160 tons of railed petroleum products) moved via Port Everglades. Of this, containerized activity accounted for 1,108,465 TEUs, recording the fifth consecutive year the Port has surpassed 1 million TEUs. As a result of this activity, 7,306 full-time jobs were directly created.² In this section the jobs are analyzed in terms of:

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

These distributions are developed in more detail below.

3.1.1. Job Impacts by Category

Exhibit II-2 presents the distribution of the 7,306 direct cargo jobs by type of job. The exhibit indicates that the majority of direct jobs are with trucking jobs (3,232) moving cargo to and from the terminals, followed by ILA/dockworkers (716), warehouses/consolidators/freight forwarders (652), maritime service providers (558), then terminal operators/stevedores (468).

² 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 Everglades cargo terminals, then this worker is counted as .5 jobs.

Exhibit II-2: FY2018 Cargo Employment Impacts by Sector and Job Category

SECTOR	DIRECT JOBS
SURFACE TRANSPORTATION	
RAIL	232
TRUCK	3,232
MARITIME SERVICES	
TERMINAL EMPLOYEES	468
ILA/DOCKWORKERS	716
TOWING/BARGE	76
PILOTS	28
AGENTS	199
MARITIME SERVICES	558
WAREHOUSING/CONSOLIDATORS/FORWARDERS	652
GOVERNMENT	365
MARINE CONSTRUCTION/DREDGING	89
FTZ	431
BANKING/INSURANCE/LAW	24
PORT EVERGLADES DEPARTMENT	<u>235</u>
TOTAL	7,306

Totals may be rounded.

3.1.2. Direct Job Impacts by Commodity

Most of the 7,306 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 maritime construction and ship repair cannot be identified with a specific commodity. As a result, employment in these groups (which totaled 1,262) was not allocated to commodity groups. Exhibit II-3 presents the relative employment impacts in terms of commodity groups.

Exhibit II-3: FY2018 Distribution of Direct Cargo Job Impact by Commodity

COMMODITY	DIRECT JOBS
CONTAINERS	3,365
REEFER	301
STEEL COILS/REBAR	85
OEM AUTOS	33
RO/RO	69
GYPSUM	19
CEMENT	72
OTHER DRY BULK	102
PETROLEUM PRODUCTS	1,998
NOT ALLOCATED	<u>1,262</u>
TOTAL	7,306

Totals may be rounded.

The movement of containerized cargo (including reefer containers) creates the largest number of direct jobs, 3,365 as well as 301 reefer containerized jobs, followed by the movement and distribution of finished petroleum products (1,998 jobs). The majority of the remaining direct jobs are supported by the movement of cement, other dry bulk commodities and steel.

3.1.3. Distribution of Direct Cargo Jobs by Place of Residency

To underscore the geographic scope of the impacts generated by the cargo terminals, Exhibit II-4 presents the distribution of the 7,306 direct jobs by place of residency. The geographic employment analysis is estimated based on the results of the interviews conducted in FY2018 with the maritime community. As this exhibit indicates, 72.6% of the direct job holders reside in Broward County, followed by about 23.3% residing in Miami-Dade County.

Exhibit II-4: FY2018 Distribution of Direct Cargo Jobs by Place of Employment

JURISDICTION	SHARE	DIRECT JOBS
Broward County	72.6%	5,302
Miami-Dade County	23.3%	1,702
Palm Beach County	2.4%	177
Collier County	0.1%	8
Hendry County	0.1%	6
Other FL	0.5%	36
Other US	1.0%	76
TOTAL	100.0%	7,306

Totals may be rounded.

Exhibit II-5 illustrates the distribution of the residency of the direct jobs within Broward County. Of those residing in Broward County, about 51% reside in Fort Lauderdale, followed by 13.8% residing in Hollywood and 7.7% in Pompano Beach.

Exhibit II-5: FY2018 Distribution of Direct Jobs by Jurisdiction within Broward County

JURISDICTION	SHARE	DIRECT JOBS
Fort Lauderdale	51.3%	2,724
Hollywood	13.8%	731
Pompano Beach	7.7%	407
Davie	5.4%	286
Cooper City	4.3%	228
Weston	4.1%	215
Pembroke Pines	3.7%	196
Dania Beach	2.3%	120
Sunrise	2.2%	115
Coral Springs	1.8%	96
Deerfield Beach	1.1%	57
Plantation	0.9%	46
Hallandale Beach	0.7%	37
Margate	0.3%	17
Coconut Creek	0.3%	13
Lauderhill	0.3%	13
Other	0.1%	6
Total	100.0%	5,308

Totals may be rounded.

3.2. Induced Jobs

The 7,306 directly employed individuals due to activity at the cargo 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, 5,592 jobs in the regional economy were supported. The majority of the induced jobs are with local and regional private sector social services, business services, educational services and state and local government agencies, followed by jobs in the food and restaurant sector, and then jobs in the construction and home furnishings sector.

3.3. 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 7,306 direct jobs make local purchases for goods and services. These local purchases by the firms dependent upon the cargo facilities generate additional local jobs - indirect jobs. Based on the interviews with the 259 firms, these firms made an estimated \$564.1 million of local and in-state purchases in FY2018. These direct local purchases created an additional 5,607 indirect jobs in the local economy.

3.4. Related User (Shipper/Consignee) Jobs

It is estimated that about 200,168 jobs are supported in Florida with shippers/consignees that use Port Everglades. It is important to emphasize that the user jobs are supported by the cargo moving only via Port Everglades in FY2018, and do not include jobs supported by cargo moving via other ports that are consumed or produced by in-state shippers/consignees and manufacturers.

To estimate the related user impact for containerized cargo, the average value per ton of each containerized imports and exports was estimated using U.S. Bureau of Census, Foreign Trade Statistics and Port Everglades Department data (through queries of PIERS data). The employment to value of output coefficient for the retail sector related to the exported and imported containerized cargoes was then computed from Bureau of Economic Analysis, Regional Input-Output Model (RIMS II) for the state of Florida. To estimate the related containerized cargo jobs, the average value per ton of containerized cargo was multiplied by the tons handled at the Port. The job coefficient was next multiplied by the value of the containerized cargo moving via the Port to estimate the related jobs with exported and imported containerized cargo. The value was adjusted to reflect retail margins.

For breakbulk cargoes, the associated consuming and producing industries were identified with each commodity. For example, for imported iron and steel products, relationships were developed to convert the dollar value of these imported materials into a dollar value of output in the key consuming industries, which include construction and metal fabrication industries. Relationships between the values of inputs to the value of outputs in these industries were estimated using latest data available (2012 Series) from the U.S. Bureau of Census, including Census of Manufacturing and Census of Construction. These ratios were then used to convert the dollar value of the imported breakbulk and

bulk cargoes, including petroleum into a dollar value of output in the consuming industries in the state. Using the respective jobs to value of output multipliers for these industries from the Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II 2007/2016) model, the value of the breakbulk and bulk cargoes (i.e., steel products, cement, gypsum and petroleum) moving via the Port and remaining in (or produced in) the state of Florida was converted into related shipper/consignee jobs with these users and associated supporting industries within the state.

Finally, the direct, induced and indirect port sector job impacts associated with each of the cargoes for which related shipper/consignee jobs were estimated were subtracted from the total related jobs (by commodity and cargo type) to avoid double counting, as the related shipper/consignee jobs include job impacts at each stage of handling the imported and exported cargo, such as the port activity and the trucking and rail activity to move the cargo to and from the Port and the induced and indirect jobs associated with the direct port activity.

4. TOTAL ECONOMIC OUTPUT, BUSINESS REVENUE, INCOME AND TAX IMPACTS

The 26.5 million tons of containerized, bulk (dry and liquid) and neo-bulk cargo handled at the cargo terminals (including the nearly 730,000 tons of railed petroleum products) 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 seaport terminals and distributing the imported commodities inland after receipt at the cargo 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. The Port Everglades Department 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 seaport 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 seaport 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 Greater Fort Lauderdale area providing

goods and services to the economic sectors and for the distribution of company profits to shareholders. Many of these firms and owners are located outside of the state of Florida and, thus, it is difficult to trace the ultimate location of the distributed revenue (other than personal income, taxes and local purchases). The value of output created by in-state related shippers/consignees of the Port is attributed to the state of Florida, and the local purchases from other firms within the state are also included in this user output measure, as defined by the in-state output coefficients (for the user industries) developed from the U.S. Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II).

4.1. Revenue Impact – Total Economic Activity

The revenue impact is a measure of the **total economic activity** in the state that is generated by the cargo moving via Port Everglades. In FY2018, maritime cargo activity at the Port generated a total of \$32 billion of total economic activity in the state. Of the \$32 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 \$30.1 billion represents the value of the output to the state of Florida that is created due to the cargo moving via Port Everglades. 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 Port Everglades 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 at Port Everglades.

4.1.1. Revenue Impacts by Economic Sector/Category

Exhibit II-6 presents the total revenue estimated to have been generated by port activity in FY2018. This revenue includes the revenue received by firms providing services to the commodity and vessel activity at the cargo terminals, and includes revenue received by trucking firms, stevedores, Port Everglades Department, chandlers, agents, pilots, towing companies, etc. Not included is the revenue from the use/value of the cargo moving via the maritime terminals, as this is included in the related shipper/consignee output.

The trucking industry receives the largest revenue impact, followed by Foreign Trade Zone (FTZ) activity, terminal operations and then warehousing/freight forwarding. It should be noted that the marine construction figure is tied to the level of capital construction during the period and not tied to a specific commodity.

Exhibit II-6: FY2018 Direct Revenue Generated by Port Cargo Activity

SECTOR	REVENUE (1,000)
SURFACE TRANSPORTATION	
RAIL	\$55,070
TRUCK	\$911,039
PIPELINE	\$1,220
MARITIME SERVICES	
TERMINAL EMPLOYEES	\$207,475
TOWING	\$29,230
PILOTS	\$5,938
AGENTS	\$4,775
MARITIME SERVICES	\$100,304
WAREHOUSING/CONSOLIDATORS/FORWARDERS	\$175,000
GOVERNMENT	NA
MARINE CONSTRUCTION/DREDGING	\$76,701
FTZ	\$152,143
BANKING/INSURANCE	\$3,384
PORT EVERGLADES DEPARTMENT	<u>\$108,400</u>
TOTAL	\$1,830,680

Totals may be rounded.

4.1.2. Revenue Impacts by Commodity

Exhibit II-7 shows the direct revenue impact by commodity. 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 seaport terminals is not included, since product value is determined by the demand for the product, not the use of the cargo terminals. Certain revenue categories such as government employees and employees with maritime construction and ship repair cannot be identified with a specific commodity. As a result, revenue in these groups (which totaled \$361.4 million) was not allocated to commodity groups.

Exhibit II-7: FY2018 Cargo Revenue Impacts by Commodity

COMMODITY	REVENUE (1000)
CONTAINERS	\$925,299
REEFER	\$143,626
STEEL COILS/REBAR	\$9,207
OEM AUTOS	\$2,525
RO/RO	\$16,218
GYPSUM	\$3,330
CEMENT	\$10,855
OTHER DRY BULK	\$16,907
PETROLEUM PRODUCTS	\$341,310
NOT ALLOCATED	\$361,403
TOTAL	\$1,830,680

Totals may be rounded.

As this exhibit indicates containerized cargo (dry and refrigerated) generate the largest direct revenue impacts, followed by petroleum products.

5. PERSONAL EARNINGS IMPACT

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 \$358.3 million in personal wage and salary earnings. It is important to emphasize that the average annual salary of a ***cargo port-dependent job is approximately \$49,030***. 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 2007/2016). The BEA estimates that for every one dollar earned by direct employees generated by activity at the cargo terminals, an additional \$1.99 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 2.99 was used to estimate the total income and consumption impact of \$711.6 million, inclusive of the re-spending effect. This additional re-spending of the direct income generates the 5,592 induced job impacts.

The 5,607 indirect job holders earned \$267.1 million in wages and salaries. The 200,168 related

shipper/consignees of the cargo moving via the Port received about \$7.7 billion of personal income. Therefore, in FY2018, the total personal income impact and consumption impact created by Port Everglades ocean cargo activity is estimated at \$9 billion.

6. 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. The 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 cargo terminals. To estimate the per employee tax indices, total taxes received at each governmental level in Florida was developed from the Tax Foundation, which reports total state and local taxes from all sources as a percent of total personal income. In addition, the figures include a proportional estimate of corporate taxes paid by firms.

Direct cargo activity generated \$135.4 million of state, county and local taxes. As a result of the economic activity created by the related shipper/consignees an additional \$992.7 million of state and local taxes were generated for a total cargo tax impact of \$1.1 billion. The state of Florida receives approximately 53% of the tax revenues, while the local governments received 47% of the tax impact as illustrated in Exhibit II-8.

Exhibit II-8: FY2018 Distribution of State and Local Tax Revenue

TAXES BY CATEGORY (millions)	STATE	LOCAL	TOTAL
DIRECT, INDUCED & INDIRECT	\$71.8	\$63.6	\$135.4
RELATED USER	<u>\$526.1</u>	<u>\$466.6</u>	<u>\$992.7</u>
TOTAL	\$597.9	\$530.2	\$1,128.1

Totals may be rounded.

7. COMPARISON OF CARGO IMPACTS FY2017 TO FY2018

The purpose of this section is to provide a comparison of the economic impacts generated by Port Everglades cargo activity between FY2017 and FY2018. The methodology used by Martin Associates to estimate the economic impacts generated by seaport activity is essentially identical to the methodology used to initially estimate the economic impacts of the seaport in FY2006, and therefore, direct comparisons can be made.

Exhibit II-9: Comparison of Cargo Impacts FY2017-FY2018

CATEGORY	FY2018 CARGO	FY2017 CARGO	FY17-18 CHANGE
JOBS			
DIRECT	7,306	7,230	77
INDUCED	5,592	5,286	306
INDIRECT	5,607	5,257	350
RELATED USER JOBS	<u>200,168</u>	<u>199,849</u>	<u>319</u>
TOTAL JOBS	218,673	217,621	1,052
PERSONAL INCOME (1,000)			
DIRECT	\$358,249	\$336,074	\$22,175
INDUCED	\$711,627	\$660,789	\$50,837
INDIRECT	\$267,141	\$224,412	\$42,729
RELATED USER INCOME	<u>\$7,668,872</u>	<u>\$7,262,804</u>	<u>\$406,068</u>
TOTAL PERSONAL INCOME	\$9,005,890	\$8,484,080	\$521,810
VALUE OF ECONOMIC ACTIVITY (1,000)			
BUSINESS SERVICES REVENUE	\$1,830,680	\$1,423,507	\$407,173
RELATED USER OUTPUT	<u>\$30,140,158</u>	<u>\$27,035,636</u>	<u>\$3,104,522</u>
TOTAL VALUE OF ECONOMIC ACTIVITY	\$31,970,838	\$28,459,143	\$3,511,695
LOCAL PURCHASES (1,000)	\$564,097	\$479,967	\$84,130
STATE & LOCAL TAXES (1,000)			
DIRECT, INDUCED AND INDIRECT	\$135,408	\$120,951	\$14,458
RELATED USER TAXES	<u>\$992,712</u>	<u>\$923,553</u>	<u>\$69,159</u>
TOTAL STATE AND LOCAL TAXES	\$1,128,120	\$1,044,503	\$83,616

Totals may be rounded.

Total tonnage at Port Everglades increased from 26.1 to 26.5 million short tons (1.5%), primarily due to an 1.9% increase in containerized tonnage (correlating to a 2.9% increase in TEUs) as well as bulk tonnage that increased by 9.6%, and auto and yacht tonnage that increased by 30.6%. Total jobs increased by 1,052 (0.5%) due to an increase all job categories.

However, despite slight job growth, personal income increased by \$521.8 million (6.2%) reflecting higher income multipliers while business services revenue increased by \$407.2 million (28.6%) over the period. In addition, related user output increased by \$3.1 billion (11.5%), again primarily corresponding to changes in recalibrated income multipliers used.

In addition, state and local tax revenue increased by \$83.6 million (8%) over the one-year period driven by related user tax payments.

III. ECONOMIC IMPACTS OF CRUISE SERVICES AT PORT EVERGLADES

In FY2018, 858 cruise vessel calls were recorded at Port Everglades, carrying nearly 3.9 million passengers. It is important to note that the vast majority of 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 homeporting will take on passengers and supplies at Port Everglades, while a vessel making an intermediate in-transit call typically does not take on or discharge new 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. Also included in the passenger and vessel call counts are ferry service to the Bahamas.

To measure the economic impact of the cruise service, Martin Associates developed a cruise impact model for Port Everglades. The model can be used to test the sensitivity of the impacts to changes in the percent of passengers flying into the Fort Lauderdale-Hollywood International Airport 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 homeporting 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 Port Everglades. This consists of jobs directly generated by the homeporting of cruise vessels as well as induced jobs, or jobs created in the Greater Fort Lauderdale 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 re-spending 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 Greater Fort Lauderdale area visitor industry that supply services to cruise passengers staying in hotels before and after the cruise. The value of

the cruise ticket is not included as a revenue impact except for the cruise service based in Fort Lauderdale that provides ferry service to the Bahamas.

- ***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 Port Everglades 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-bond 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 ferry services.

- Parking – The Port parking management companies provide parking services for the cruise 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 – (Provided by the Port Everglades Department) 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- Some potable water purchased locally prior to departure.
- Visitor Industry - In addition to the impacts generated by direct vessel purchases, 51.4% of 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 Greater Fort Lauderdale area. Also, these air/sea passengers will take commercial transportation from the airport to the hotel or ship, as well as 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. The crews of the daily sails are treated as based in Fort Lauderdale.

In addition, the passengers arriving via the Fort Lauderdale-Hollywood 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 Port Everglades is based on a survey of cruise lines serving Port Everglades in 2015. Data was also collected from the Port Everglades Department as well as Martin Associates' in-house databases developed from previous Port Everglades impact analyses.

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.

Passenger characteristics such as 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 Fort Lauderdale and key landside expenses (e.g. hotel, food and retail) were developed from a passenger survey conducted by AECOM which entailed a survey of nearly 1,850 Port Everglades passengers conducted in March, 2015.

The induced impacts are based on the expenditure profile of residents in the Miami-Fort Lauderdale area, as estimated by the U.S. Bureau of Labor Statistics, "Consumer Expenditure Survey 2016-2017" (the latest available at the time of this report). This survey indicates the distribution of consumer expenditures over key consumption categories for Greater Fort Lauderdale 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 re-spending 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 Greater Fort Lauderdale 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 Greater Fort Lauderdale 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 the Greater Fort Lauderdale 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 Port Everglades, 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 the Greater Fort Lauderdale area;
- Size of crew; and
- Size of vessel.

This model will estimate the impacts of current cruise operations at Port Everglades.

4. PORT EVERGLADES CRUISE OPERATIONS FY2018

During the FY2018 cruise season, 858 cruises called the Port carrying nearly 3.9 million total embarking and debarking passengers, or nearly 1.9 million actual unique embarking passengers (not including transit passengers). The cruise operations at Port Everglades are divided into conventional multi-day cruises as well as daily ferry operations. Exhibit III-1 illustrates the FY2018 cruise season by type of cruise and cruise line.

Exhibit III-1: FY2018 Cruise Calls and Passengers by Cruise Line

CRUISE LINE	CALLS	PASSENGERS
MULTI-DAY		
ROYAL CARIBBEAN	184	1,852,046
PRINCESS	123	701,871
HOLLAND AMERICA	129	423,406
CARNIVAL	63	422,021
CELEBRITY	53	267,274
COSTA	9	39,621
CUNARD/SEABOURN	15	16,476
OCCASIONAL/OTHER	20	18,693
<i>MULTI-DAY SUBTOTAL</i>	<i>596</i>	<i>3,741,408</i>
DAILY		
JAUME I	262	128,934
<i>DAILY SUBTOTAL</i>	<i>262</i>	<i>128,934</i>
TOTAL	858	3,870,342

Source: Port Everglades Department; Totals may be rounded.

Based on the results of the March, 2015 passenger survey conducted by AECOM, approximately 51.4% of the Port Everglades cruise passengers arrived to the port from a hotel. Over 23% of passengers arrived to the cruise terminal from an airport (FLL, MIA or PBI), while 17.5% originated from a private residence as depicted in Exhibit III-2.

Exhibit III-2: Origin of Port Everglades Cruise Passengers

ORIGIN	PERCENT
HOTEL	51.4%
FLL	21.4%
OWN HOME	17.5%
ANOTHER'S HOME	4.5%
OTHER	2.7%
MIA	1.6%
NOT SPECIFIED	0.7%
WORK/OFFICE	0.2%
PBI	0.1%
TOTAL	100.0%

Source: AECOM 2015 Passenger Survey Data; Totals may be rounded.

As illustrated in Exhibit III-3, approximately 29.5% of the cruise passengers arrived to the cruise terminal by taxi, while 27.9% and 17.9% arrived by hotel shuttle and personal vehicle respectively.

Exhibit III-3: Mode of Access by Cruise Passengers

MODE OF ACCESS	PERCENT
TAXI	29.5%
HOTEL SHUTTLE	27.9%
OWN PERSONAL VEHICLE	17.9%
CRUISE BUS	5.4%
OTHER	4.8%
PRE-ARRANGED VAN	4.2%
RENTAL CAR	3.8%
DROPPED OFF	3.6%
PARKING SHUTTLE	2.8%
PUBLIC BUS	0.1%
TOTAL	100.0%

Source: AECOM 2015 Passenger Survey Data; Totals may be rounded.

5. ECONOMIC IMPACTS OF CRUISE SERVICE AT PORT EVERGLADES

The economic impact of the 858 cruise vessel calls in FY2018 at Port Everglades is presented in Exhibit III-4 and described in the subsequent sections.

Exhibit III-4: FY2018 Economic Impact of Cruise Operations at Port Everglades

CATEGORY	CRUISE	AIRPORT	TOTAL
JOBS			
DIRECT	5,230	591	5,821
INDUCED	2,865	167	3,032
INDIRECT	<u>2,632</u>	<u>1,420</u>	<u>4,053</u>
TOTAL	10,728	2,178	12,906
PERSONAL INCOME (1,000)			
DIRECT	\$160,378	\$12,469	\$172,847
INDUCED	\$284,043	\$12,590	\$296,634
INDIRECT	<u>\$86,869</u>	<u>\$42,126</u>	<u>\$128,995</u>
TOTAL	\$531,290	\$67,186	\$598,476
BUSINESS REVENUE (1,000)	\$1,374,143	\$599,748	\$1,973,891
LOCAL PURCHASES (1,000)	\$102,957	\$77,383	\$180,339
STATE/LOCAL TAXES (1,000)	\$60,921	\$6,248	\$67,169

Totals may be rounded.

6. JOB IMPACTS

The cruise activity at Port Everglades created 12,906 total jobs for Greater Fort Lauderdale area residents in FY2018. Of these 12,906 jobs, 5,821 were direct jobs, 3,032 induced jobs were supported in the Greater Fort Lauderdale area as the result of the purchases of the 5,821 direct jobs holders, while another 4,053 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.

7. PERSONAL INCOME IMPACT

The 5,821 direct job holders received \$172.8 million of direct wages and salaries, for an annual salary of cruise-related port dependent job of about \$29,700. As the result of the purchases made locally with this income, (which supported the 3,032 induced jobs in the Greater Fort Lauderdale area) an additional \$296.6 million of local income and consumption expenditures were created in the Greater Fort Lauderdale area. The 4,053 indirectly employed workers were paid \$129 million, for a total wage and salary income impact of \$598.5 million, including the consumption impact.

8. BUSINESS REVENUE

Local businesses supplying food, beverages, and services to the cruise lines and the services supplied at the Fort Lauderdale-Hollywood International Airport received nearly \$2 billion of business revenue. In addition, in order to support the services and goods supplied to the cruise lines by these firms, another \$180.3 million of local purchases in the Greater Fort Lauderdale area were made by those firms providing direct services to the cruise lines. These local purchases supported the 4,053 indirect jobs in the local economy.

9. TAX REVENUE

Finally, as the result of cruise activity at Port Everglades during the FY2018 cruise season, \$67.2 million of state and local tax revenue was collected. Exhibit III-5 presents the breakdown of state and local taxes.

Exhibit III-5: FY2018 Distribution of State and Local Tax Revenue

TAXES BY CATEGORY (millions)	STATE	LOCAL	TOTAL
CRUISE	\$32.3	\$28.6	\$60.9
AIRPORT	<u>\$3.3</u>	<u>\$2.9</u>	<u>\$6.2</u>
TOTAL	\$35.6	\$31.6	\$67.2

Totals may be rounded.

10. COMPARISON OF CRUISE IMPACTS FY2017 TO FY2018

Provided below is a comparison of the economic impacts generated by cruise activity between FY2017 and FY2018. An essentially identical methodology was used by Martin Associates to estimate the economic impacts generated by cruise activity for both the FY2017 and FY2018 studies, and therefore, direct comparisons over the period can be made.

Exhibit III-6: Comparison of Cruise Impacts FY2017-FY2018

CATEGORY	FY2018 CRUISE	FY2017 CRUISE	FY17-18 CHANGE
JOBS			
DIRECT	5,821	5,956	(135)
INDUCED	3,032	2,926	106
INDIRECT	4,053	4,244	(191)
RELATED USER JOBS	<u>NA</u>	<u>NA</u>	<u>NA</u>
TOTAL JOBS	12,906	13,125	(220)
PERSONAL INCOME (1,000)			
DIRECT	\$172,847	\$175,690	(\$2,843)
INDUCED	\$296,634	\$298,134	(\$1,500)
INDIRECT	\$128,995	\$135,311	(\$6,316)
RELATED USER INCOME	<u>NA</u>	<u>NA</u>	<u>NA</u>
TOTAL PERSONAL INCOME	\$598,476	\$609,135	(\$10,659)
VALUE OF ECONOMIC ACTIVITY (1,000)			
BUSINESS SERVICES REVENUE	\$1,973,891	\$1,951,637	\$22,254
RELATED USER OUTPUT	<u>NA</u>	<u>NA</u>	<u>NA</u>
TOTAL VALUE OF ECONOMIC ACTIVITY	\$1,973,891	\$1,951,637	\$22,254
LOCAL PURCHASES (1,000)	\$180,339	\$188,146	(\$7,806)
STATE & LOCAL TAXES (1,000)			
DIRECT, INDUCED AND INDIRECT	\$67,169	\$67,848	(\$680)
RELATED USER TAXES	<u>NA</u>	<u>NA</u>	<u>NA</u>
TOTAL STATE AND LOCAL TAXES	\$67,169	\$67,848	(\$680)

Totals may be rounded.

Over the FY2017 to FY2018 period, Port Everglades total cruise passengers, increased by 0.2% from 3,863,662 to 3,870,342. Specifically, multi-day passenger activity increased by only 3,156 (0.1%) passengers, while daily ferry passenger activity increased by 3,524 (2.8%).

Despite essentially flat passenger activity, direct jobs decreased by 135 contributing to an overall decrease of 220 total (direct, induced and indirect) jobs. The loss of jobs is attributed to the model recalibration with new interview data as well as slightly decreased multiplier effects. Subsequently, the loss of jobs caused a decrease in personal income of \$10.7 million (1.7%), and state and local tax revenue which fell by \$0.7 million (1%). However, business services revenue increased by \$22.3 million (1.1%) over the period.

APPENDIX A – SAMPLE SURVEY QUESTIONNAIRE
ECONOMIC IMPACT STUDY OF PORT EVERGLADES – 2018
Maritime Service Questionnaire

Company Name: _____
Respondent Name _____
Telephone Number: _____
Line of Business: _____

All information requested below will be kept confidential.

Please indicate which questions are not applicable to your business.

1. How many NON-ILA persons are employed in your Port Everglades operation?
Full-time _____, Part-time _____ (hrs/wk for part-time employees _____)
2. What is the average wage or salary (excluding benefits) of these employees?
Full-time _____, Part-time _____, or Combined _____

3. Please list how many (or what percentage) of these employees live in:

Cities of:

_____ Coconut Creek	_____ Cooper City	_____ Coral Springs
_____ Dania Beach	_____ Davie	_____ Deerfield Beach
_____ Fort Lauderdale	_____ Hallandale Beach	_____ Hillsboro Beach
_____ Hollywood	_____ Lauderdale-by-the-Sea	_____ Lauderdale Lakes
_____ Lauderhill	_____ Lazy Lake	_____ Lighthouse Beach
_____ Margate	_____ Miramar	_____ North Lauderdale
_____ Oakland Park	_____ Parkland	_____ Pembroke Park
_____ Pembroke Pines	_____ Plantation	_____ Pompano Beach
_____ Sea Ranch Lakes	_____ Southwest Ranches	_____ Sunrise
_____ Tamarac	_____ Weston	_____ West Park
_____ Wilton Manors		

Counties of:

_____ Broward County	_____ Miami-Dade County	
_____ Palm Beach County	_____ Collier County	_____ Hendry County
_____ Other Florida	_____ Other U.S.	

In lieu of this data, please provide a blind zip code listing of your employees' places of residence. We will then allocate your employee counts and zip codes to the specified cities and counties.

4. Please indicate the percentage of your PEV-related business by type of commodity or type of vessel.
- | | | |
|-----------------|--------------|------------------|
| container _____ | steel _____ | other _____ |
| breakbulk _____ | cement _____ | other bulk _____ |
| petroleum _____ | cruise _____ | other _____ |
5. Please provide estimated average monthly expenditures paid to local vendors:
- | | |
|----------------------------|---------------------------|
| Office Supplies: _____ | Fuel: _____ |
| Communications: _____ | Transportation: _____ |
| Cost of Goods/Parts: _____ | Maintenance/Repair: _____ |
| Rent/Utilities: _____ | Insurance: _____ |
| Contracted Services: _____ | Others (specify): _____ |