

## 2.3 Cruise Market Assessment

### 2.3.1 Summary

**Overview.** The objective of this market forecast is to develop estimates of constrained and unconstrained growth in cruise passenger volumes over the 5-, 10-, and 20-year milestones of this 2014 Plan. While some growth can be accommodated by enhancements to existing infrastructure and operations, more aggressive or unconstrained growth will require an assumption of expanded capacity. To develop these forecasts, it is first critical to understand global industry trends, Caribbean market trends, and the historic performance of Port Everglades.

- Since 2003, the global cruise industry has continued to grow at a rate of 8.8 percent annually, from under 10 million cruise passengers to over 20 million in 2012. Based on estimates by Cruise Market Watch, this rate is expected to slow in the coming years to 3.1 percent per year through 2017.
- Cruise Lines International Association, Inc. (CLIA) represents 26 of the major cruise lines serving North America and 83 percent of global passenger embarkations. Data from 2008 through 2012 show that the member lines have increased their global embarkations at a rate of 7.2 percent per year, while growing embarkations in the United States only at 3 percent per year.
- With an 8.6 percent annual rate, Port Everglades has grown its embarkations above CLIA's global rate, resulting in an increased market share among the lines represented.
- CLIA's 2011 market profile study highlighted several key strengths driving the cruise industry's success, including value, variety of destinations, and the rate of repeat cruisers. Since only 24 percent of the U.S. population has taken a cruise before, there is still room for significant growth.<sup>1</sup>
- While the cruise industry has much room for growth and has many factors working in its favor, other variables have also slowed growth from its full potential, including the global recession, ship failures, the emissions control areas (ECA), and fuel prices.
- The Caribbean is still the dominant market, comprising over 37 percent of total deployments and has consistently been listed as the top area to visit on a cruise. This market share was maintained by a 33 percent increase in capacity over the last five years.
- While the Caribbean has seen extensive growth in the past decade, cruise industry members believe this growth is slowing. Expansion of cruise services at Port Everglades is not only dependent on the Port's ability to handle, attract, and maintain more ships, but also the Caribbean ports' ability to support this growth.
- The target market for potential cruisers, as identified by CLIA, are individuals over 25 years old with a household income over \$40,000. Within the U.S., this represents approximately

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<sup>1</sup> Cruise Lines International Association, *Cruise Market Profile Study*, 2011.

40 percent of the total population; however, only about 3.3 percent of the population cruises each year. Nearly every country examined not only showed an increase in passenger volumes, but also an increase in market penetration.

Growing populations will have some effect on the growth of the cruise industry, provided that market penetration remains the same. Estimates from the United Nations show the world population growing from 6.9 billion in 2010 to 8.7 billion in 2035. This equates to a roughly 0.9 percent annual growth rate.

- With the U.S. representing such a large source market, population trends within the country will have a significant impact on the global cruise industry. Based on estimates from the U.S. Census Bureau, the target market of persons over 25 is expected to grow at 0.9 percent annually through 2035.
- Port Everglades has continued to be among the leading cruise ports in the world by passenger embarkations. While the Port has seen a significant decline in single-day cruisers, the multi-day market has grown at a relatively steady rate of 4.1 percent over the same period.

**Approach.** Forecasts for multi-day and single-day cruisers were developed separately. For multi-day forecasts, port and industry input was used, as appropriate, to drive forecasts for FY 2014 and FY 2015. Subsequent years were developed based on an analysis of the available demand (constrained and unconstrained) along with the ability of Port Everglades to provide additional capacity through a variety of operational and infrastructure enhancements and expansions, including: weekend utilization; summer sailings; non-weekend sailings; 9 multi-day ships per day; port-of-call; and vessel repositioning and larger ships. Low, medium and high forecasts developed for the existing 8-ship capacity represent “constrained” conditions. An “unconstrained” high forecast also was developed to represent a 9-ship scenario.

For single-day forecasts, growth estimates were developed based on a range of growth rates and key infrastructure assumptions. Possible development of a Cuban market represents the primary unconstrained opportunity for single-day service. Estimates for this potential opportunity have not been calculated at this time as the timing is uncertain. Table 2.3-1 summarizes the assumptions for each of these service types.

**Table 2.3-1  
SUMMARY OF GROWTH ASSUMPTIONS**

Source: Cambridge Systematics, Inc.

|                            | Constrained                  |       |                     |                                 |       |                    | Unconstrained                    |       |                    |                                  |       |                    |
|----------------------------|------------------------------|-------|---------------------|---------------------------------|-------|--------------------|----------------------------------|-------|--------------------|----------------------------------|-------|--------------------|
|                            | Low                          |       | Medium              |                                 | High  |                    | High (9 Multi-Day)               |       |                    |                                  |       |                    |
|                            | Assumption                   | Year  | Revenue Passengers  | Assumption                      | Year  | Revenue Passengers | Assumption                       | Year  | Revenue Passengers | Assumption                       | Year  | Revenue Passengers |
| <b>Weekend Utilization</b> | No change                    | N/A   | N/A                 | 1 more weekend sailing per week | FY 16 | 156,000            | 2 more weekend sailings per week | FY 16 | 156,000            | 2 more weekend sailings per week | FY 16 | 156,000            |
| <b>Summer Sailings</b>     | No change                    | N/A   | N/A                 | 1 shorter summer sailing        | FY 21 | 260,000            | 1 shorter summer sailing         | FY 18 | 260,000            | 1 shorter summer sailing         | FY 18 | 260,000            |
| <b>Weekday Sailings</b>    | No change                    | N/A   | N/A                 | 1 more weekday sailing per week | FY 19 | 156,000            | 2 more weekday sailings per week | FY 19 | 156,000            | 2 more weekday sailings per week | FY 19 | 156,000            |
| <b>9 Ship Maximum</b>      | No change                    | N/A   | N/A                 | No change                       | N/A   | N/A                | No change                        | N/A   | N/A                | No change                        | FY 22 | 208,000            |
| <b>Port of Call</b>        | No change                    | N/A   | N/A                 | No change                       | N/A   | N/A                | No change                        | N/A   | N/A                | No change                        | N/A   | N/A                |
| <b>Vessel Shifts</b>       | Over 25 US Population Growth | FY 16 | about +40,000       | Over 25 US Population Growth    | FY 16 | about +40,000      | Over 25 US Population Growth     | FY 16 | about +40,000      | Over 25 US Population Growth     | FY 16 | about +40,000      |
| <b>Single-day</b>          | Loss of Terminal 1           | FY 15 | All single-day lost | 10% Annual Growth               | FY 15 | about +12,000      | 10% Annual Growth                | FY 15 | about +15,000      | 10% Annual Growth                | FY 15 | about +15,000      |
|                            |                              |       |                     | 5% Annual Growth                | FY 19 | about +8,000       | 3% Annual Growth                 | FY 24 | about +8,000       | 3% Annual Growth                 | FY 24 | about +8,000       |
|                            |                              |       |                     | 3% Annual Growth                | FY 24 | about +6,000       |                                  |       |                    |                                  |       |                    |



**Forecasts.** For the single-day cruise market, Table 2.3-2 summarizes the impact of the assumptions made. For the low estimate, the entire single-day market will be gone without a terminal to operate from. The medium (“most likely”) estimate has volumes growing at an annual rate of 5.8 percent to 251,000 by FY 2033. The high estimate grows at an annual rate of 7.0 percent to 317,000. As noted, an unconstrained high forecast was not developed for the single-day market. This growth is shown in Figure 2.3-1 on a yearly basis.

Compared to the 2009 plan, the single-day cruise market has experienced vast changes. Anticipated volumes were expected to continue to decrease, but at a much slower rate than the actual performance. Forecasts presented here have these volumes growing back to where this market was expected to decline to, as Figure 2.3-1 shows.

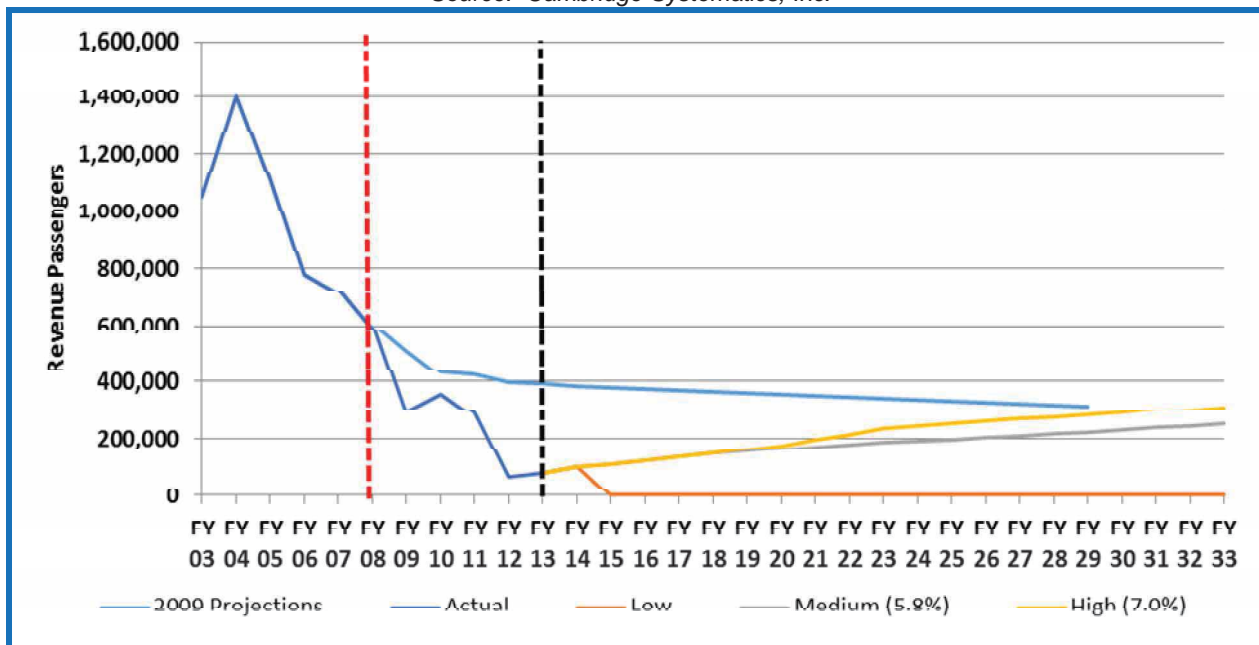
**Table 2.3-2**  
**SUMMARY OF PROJECTED GROWTH OF SINGLE-DAY CRUISE PASSENGERS**

Source: Cambridge Systematics, Inc.

|        | Overall Increase | Annual Increase | FY 2018 | FY 2023 | FY 2028 | FY 2033 |
|--------|------------------|-----------------|---------|---------|---------|---------|
| Low    | N/A              | N/A             | 0       | 0       | 0       | 0       |
| Medium | 209%             | 5.8%            | 146K    | 187K    | 217K    | 251K    |
| High   | 289%             | 7.0%            | 146K    | 236K    | 273K    | 317K    |

**Figure 2.3-1**  
**SINGLE-DAY CRUISE PROJECTIONS COMPARED TO 2009 PLAN**

Source: Cambridge Systematics, Inc.



The forecast growth of the multi-day cruise passenger market is summarized in Table 2.3-3, with yearly growth shown in Figure 2.3-2. For constrained conditions, low estimates for the multi-day market result in an average annual increase of 1.6 percent, predominantly fueled by the large growth anticipated in FY 2014 and FY 2015. Growth in the medium and high scenarios range from 2.2 percent to 2.5 percent, modest growth on a year-to-year basis, but with significant volume increases by FY 2033. For unconstrained conditions, the high estimate results in an average annual increase of 3.0 percent.

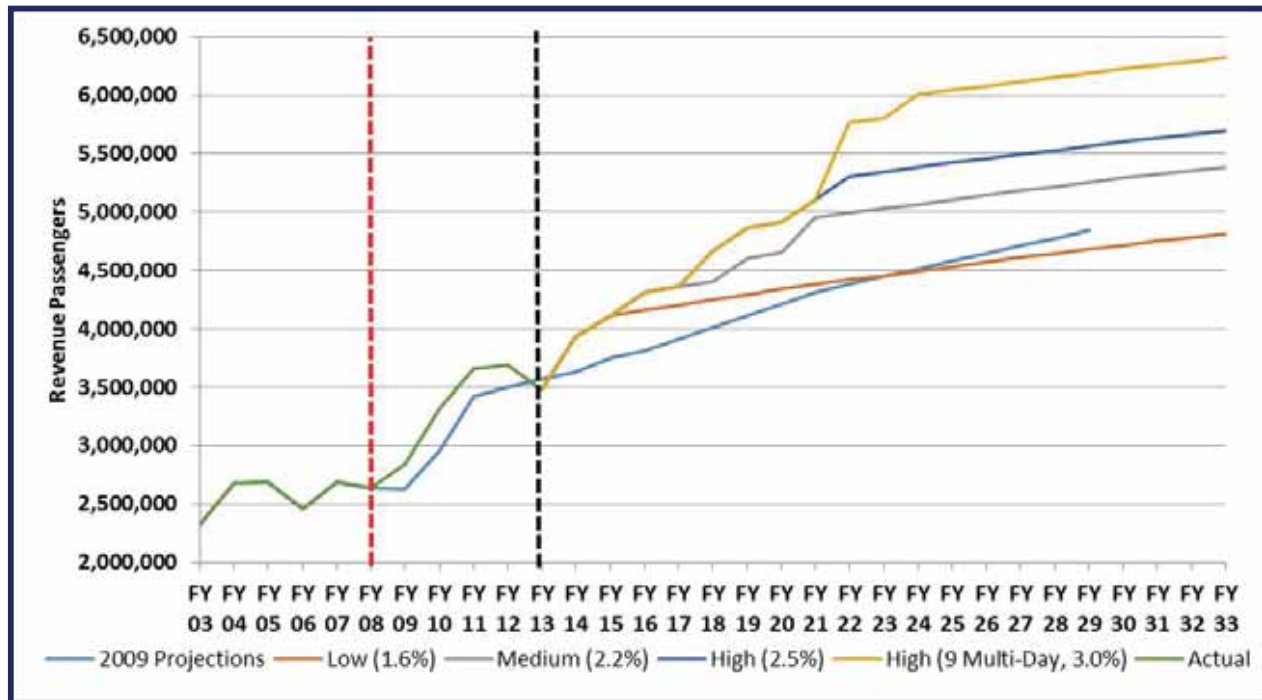
These forecasts are all above the “most likely” scenario from the 2009 plan until FY 2024. At this point, the previous forecast surpasses the low estimate. Continuing the average annual growth of 1.9 percent predicted from FY 2011 to FY 2029 results in the current medium scenario staying above the previous forecast by about 150,000 revenue passengers. Most likely, this difference is due to the significant growth expected between FY 2013 and 2014 from the introduction of more summer sailings.

**Table 2.3-3**  
**SUMMARY OF PROJECTED GROWTH OF MULTI-DAY CRUISE PASSENGERS**

*Source: Cambridge Systematics, Inc.*

|                      | Overall Increase | Annual Increase | FY 2018 | FY 2023 | FY 2028 | FY 2033 |
|----------------------|------------------|-----------------|---------|---------|---------|---------|
| <b>Constrained</b>   |                  |                 |         |         |         |         |
| Low                  | 38%              | 1.6%            | 4.2 M   | 4.5 M   | 4.6 M   | 4.8 M   |
| Medium               | 55%              | 2.2%            | 4.4 M   | 5.0 M   | 5.2 M   | 5.4 M   |
| High                 | 64%              | 2.5%            | 4.7 M   | 5.3 M   | 5.5 M   | 5.7 M   |
| <b>Unconstrained</b> |                  |                 |         |         |         |         |
| High (9 Multi-Day)   | 82%              | 3.0%            | 4.7 M   | 5.8 M   | 6.2 M   | 6.3 M   |

**Figure 2.3-2  
MULTI-DAY CRUISE PROJECTIONS COMPARED TO 2009 PLAN**

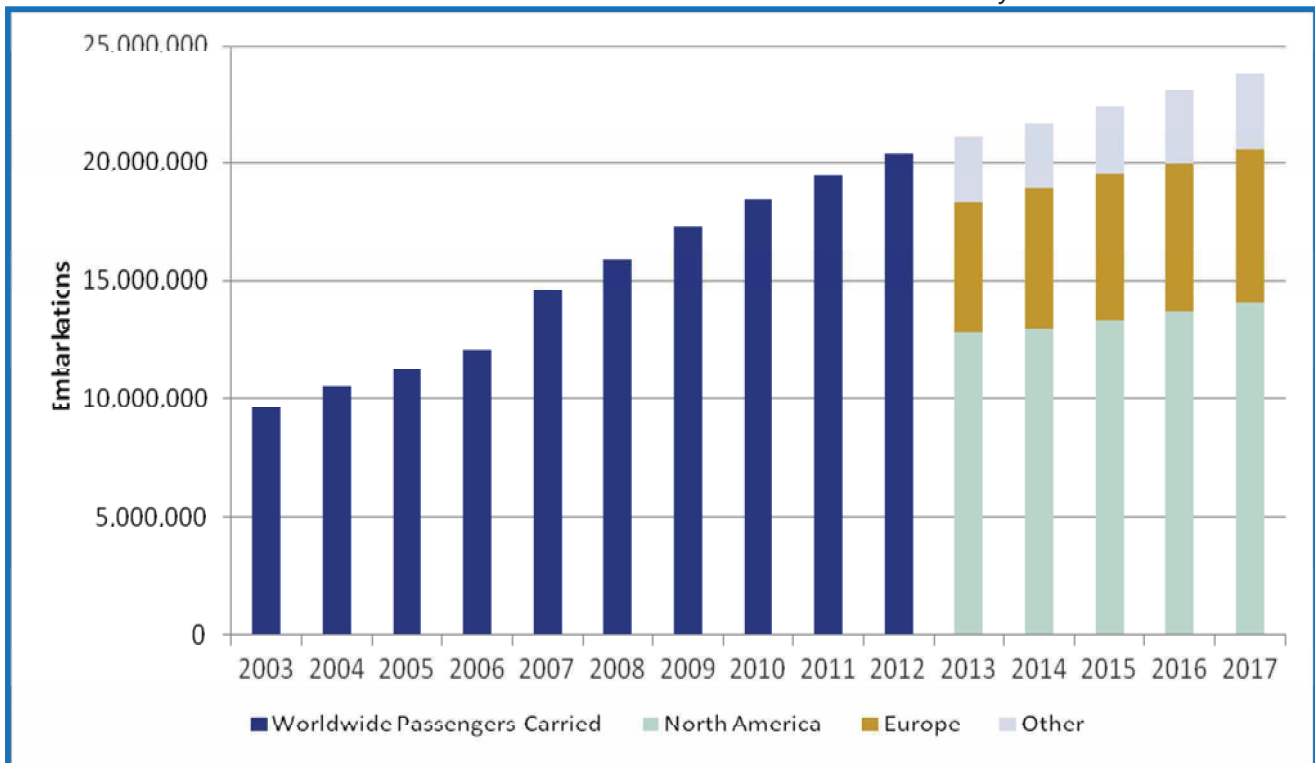


Source: Cambridge Systematics, Inc.

**2.3.2 Overview of the Cruise Industry**

**Global Growth.** Since 2003, the global cruise industry has continued to grow at a rate of 8.8 percent annually, from under 10 million passengers to over 20 million cruise passengers in 2012. The largest jump in this growth occurred in 2007, with over 2.6 million more embarkations than the year before. Based on estimates by Cruise Market Watch, this rate is expected to slow in the coming years. Predictions through 2017 estimate that the global market will grow about 3.1 percent per year through 2017, albeit from a higher initial volume, as shown in Figure 2.3-3.

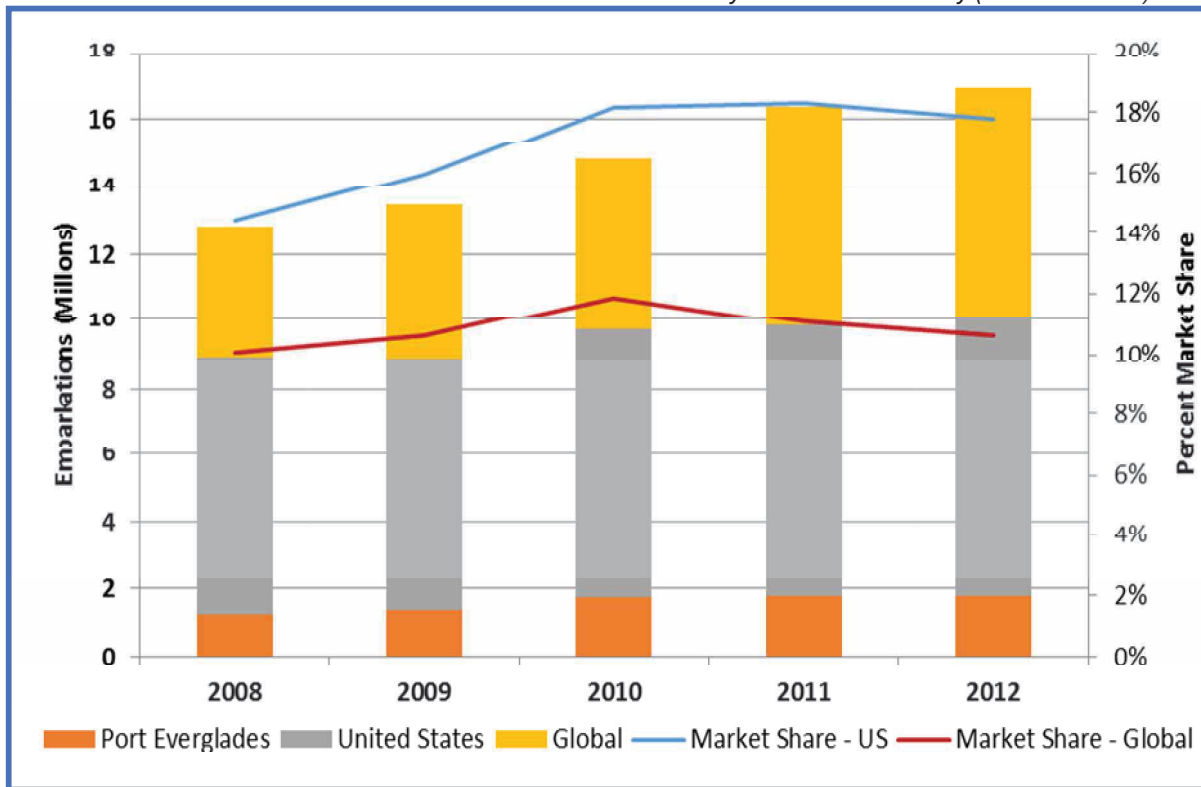
**Figure 2.3-3**  
**GROWTH IN GLOBAL PASSENGER EMBARKATIONS**  
 Source: Cruise Market Watch – Growth of the Cruise Line Industry.



More important for Port Everglades, given its location, are the actions of the North American cruise industry. CLIA represents 26 of the major cruise lines serving North America and 83 percent of global passenger embarkations. This association publishes composite data on market performances and trends within the industry. Data from 2008 through 2012 show that the member lines have increased their global embarkations at an annual rate of 7.2 percent, while growing embarkations in the United States only at a 3 percent annual rate. This reflects the globalization of the cruise industry as lines continue to diversify their markets. Port Everglades’ embarkations have grown at an 8.6 percent annual rate, which exceeds CLIA’s global figure, resulting in an increased market share among the lines represented. Figure 2.3-4 shows these trends and Port Everglades’ significance within the cruise industry.

**Figure 2.3-4**  
**CLIA EMBARKATION TRENDS AT PORT EVERGLADES**

Source: *The Contribution of the North American Cruise Industry to the U.S. Economy (2011 and 2012)*



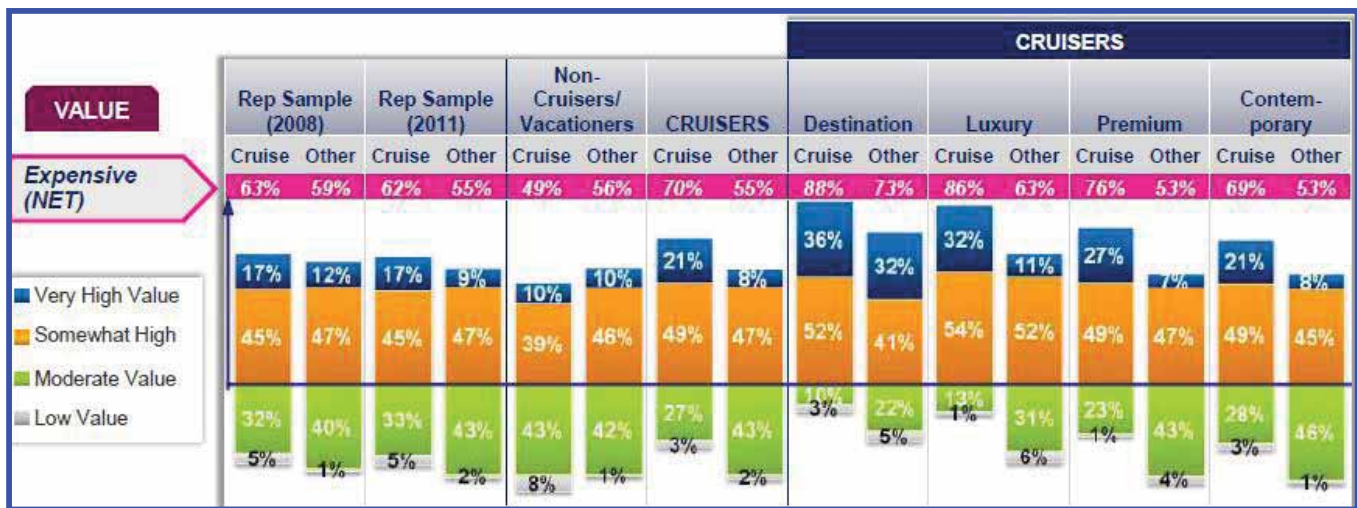
**Drivers of Growth for the Cruise Industry.** Since 2004, CLIA has completed four market profile studies to assess target markets and provide cruise lines with better insight about their customers and future expectations. The most recent study was completed in 2011. This study provides a comparison of how perceptions about cruising have changed over the past few years, as well as highlights key strengths of the industry.

- **Value**

One of the drivers of growth for the cruise industry is the high value placed on cruise vacations. Compared to other types of vacations, cruising is seen as either “Very High Value” or “Somewhat High” by 62 percent of responders. Figure 2.3-5 shows that this is the case for only 55 percent of other vacations. Past cruisers rank the value of a cruise higher than average with 70 percent of those surveyed reporting cruises as a “Very High Value” or “Somewhat High,” with almost all destination cruisers falling into these categories. This is aided by the all-inclusive nature of amenities on-board as well as some cruise lines’ offering airfare to the point of embarkation. As overall awareness of cruising increases, non-cruisers may begin to see the value afforded by cruising and embark on their first voyage.



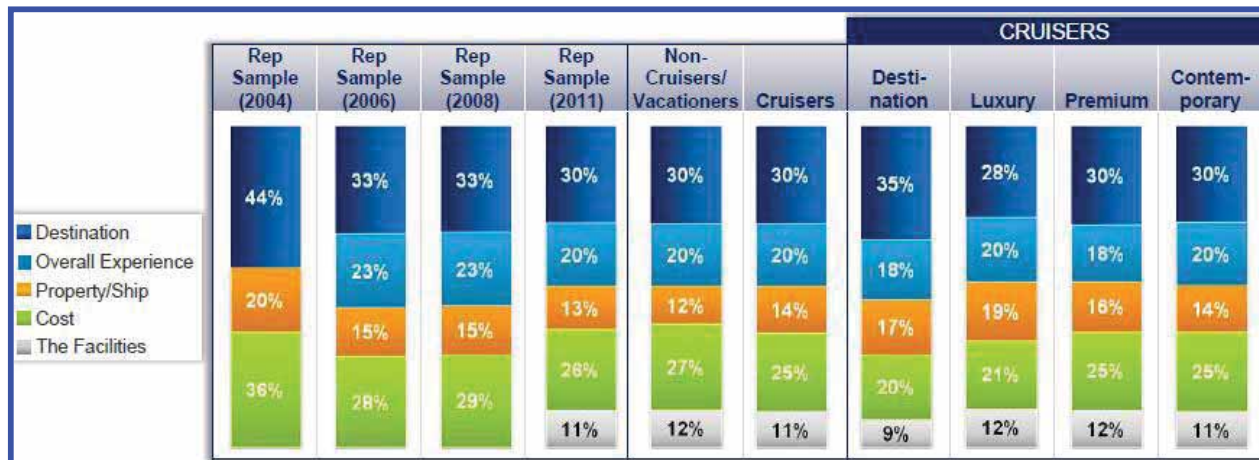
**Figure 2.3-5**  
**VALUE OF CRUISING VERSUS LAND-BASED VACATIONS**  
 Source: CLIA 2011 Cruise Market Profile Study.



- **Variety of Destinations**

Another factor driving growth in the cruise industry is the ability for passengers to visit multiple destinations. In fact, 30 percent of potential passengers list destination as their top influence in selecting a cruise. Figure 2.3-6 shows that this holds constant for both cruisers and non-cruisers. The actual cost of the cruise comes in second at 26 percent. Additionally, 56 percent report that cruises offer a better chance of visiting several locations than other vacations. Eighty percent report cruising as a good way to sample destinations. These visits commonly generate interest in a location and 35 percent of past cruisers report that they have returned to a destination first visited on a cruise. Many will also extend their vacations in the port city as well. Continued efforts by cruise lines and ports to develop new destinations will help to ensure that both new and past passengers have a variety of locations to explore.

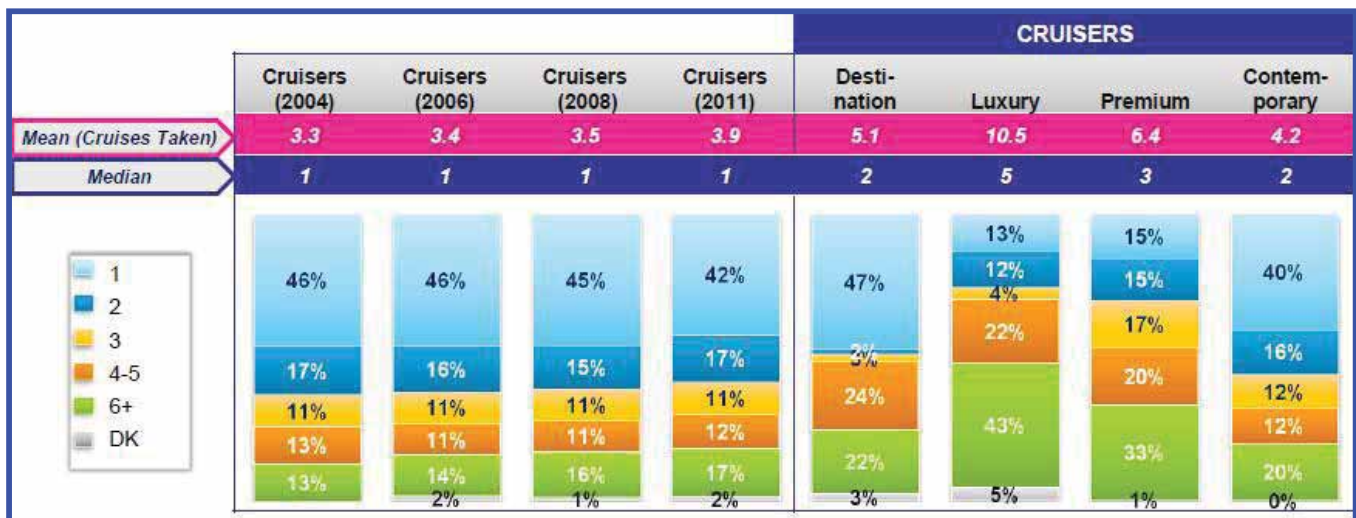
**Figure 2.3-6**  
**FACTORS INFLUENCING A CRUISE SELECTION**  
 Source: CLIA 2011 Cruise Market Profile Study.



• **Repeat Cruisers**

Market studies have also shown that past cruisers are very likely to cruise again. Figure 2.3-7 shows that the average number of cruises taken by those who have cruised at least once has increased from 3.3 to 3.9 since 2004. Additionally, the number of people taking only one cruise has decreased from 46 to 42 percent. Premium cruisers are the most likely to take multiple cruises with 43 percent taking six or more. As people become more interested in cruising, they begin to seek new destinations and experiences. Cruise lines have identified this need and added new activities, such as rock climbing and zip lines, to continue to meet the interests of this group.

**Figure 2.3-7**  
**TOTAL CRUISE VACATIONS TAKEN**  
 Source: CLIA 2011 Cruise Market Profile Study.



Factors such as these continue to influence vacationers to take a cruise. As only 24 percent of the U.S. population has taken a cruise before, there is still room for significant growth. In fact, in 2008, only 20 percent had taken a cruise. By ensuring that passengers have an enjoyable first experience, cruise lines will capture this market and encourage past guests to return for another voyage.

**Impediments to Cruise Industry Growth.** While the cruise industry has much room for growth and has many factors working in its favor, other variables have also slowed growth from its full potential.

- **World Economy**

Over the course of the last few years, economic conditions have changed drastically. The global recession, beginning in late 2007 and still ongoing, had significant impacts on the markets that cruise lines serve. High unemployment rates and rising costs of living resulted in lower discretionary spending. Employment rates in the U.S. are still at 7.6 percent, with the European Union well above that at 11.0 percent. In 2012, Carnival Corporation reported that North American brands achieved a growth in revenue yields, signifying a return of this market as the U.S. emerges from the recession. These gains were counterbalanced by losses in the European market due to the European debt crisis. Royal Caribbean International decreased its European capacity by 23 percent in 2013 in order to mitigate exposure to the uncertain economic conditions of the area. Political unrest in some areas such as North Africa and Greece has also influenced itineraries of cruise lines.

In addition to the impacts on passengers, economic concerns also have an influence on the lines themselves. Existing contracts may be broken by other entities that are no longer able to fulfill them. Failures of banks and financial institutions to fund borrowing under loan agreements or variable interest rates can have significant impacts on the bottom line. Variations in cash flow will impact the results of operations and the financial condition of each line.

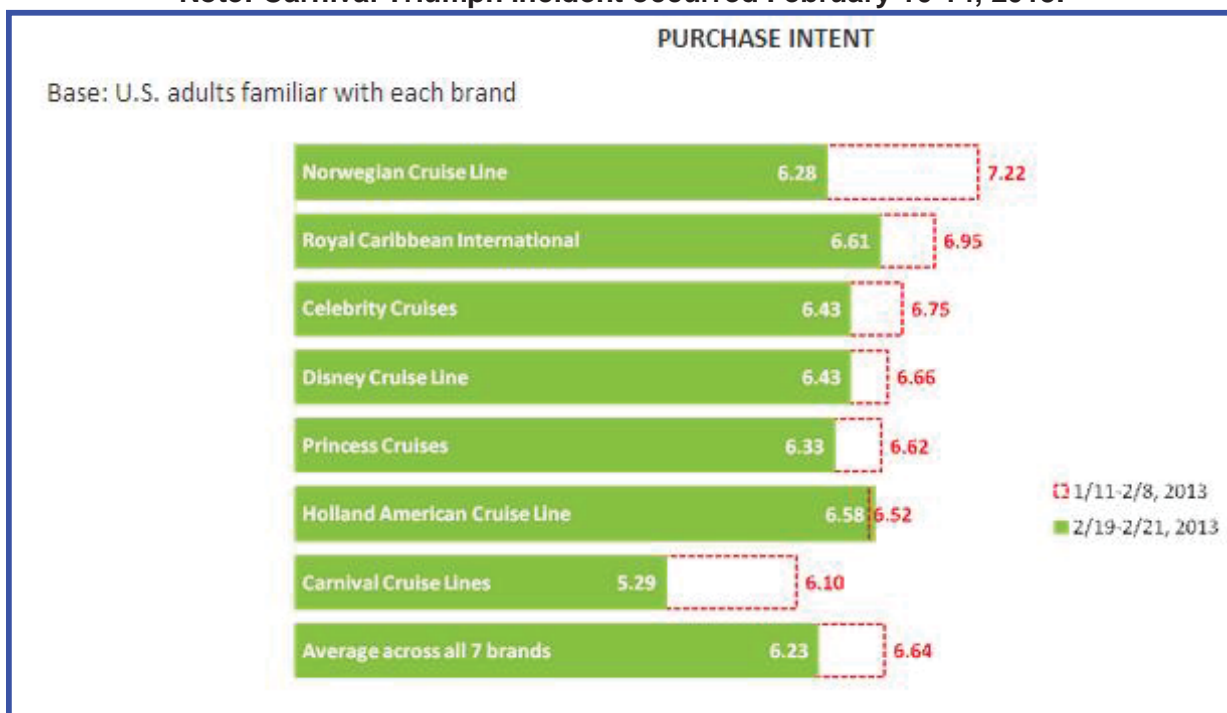
- **Ship Failures**

Recently, a few highly publicized incidents involving cruise ships have had an impact on the global market. Most significant was the sinking of the *Costa Concordia* on January 13, 2012, which resulted in the loss of 32 lives. Other high-profile incidents include the power loss on the *Carnival Triumph* in February 2013 and the fire on Royal Caribbean's *Grandeur of the Seas* in May 2013. These types of events not only have an immediate impact on the capacity of a market due to cancelled sailings and repair needs, but also on the long-term perception of cruising.

A Harris Interactive poll, part of which is shown in Figure 2.3-8 conducted immediately after the *Triumph* incident found that Quality, Trust, and Purchase Intent were down across almost all cruise brands, and most significantly Carnival Cruise Lines. A later poll in May 2013 showed that the perception of the cruise industry continued to fall.

For the most part, significant events such as these do not have an impact on those who have taken a cruise already. Past passengers realize the value and reliability provided by cruise lines and often take advantage of the lowered fares after an incident. The greatest impact is on those who have not taken a cruise before. As only about 3.3 percent of the U.S. population cruises each year and only 24 percent have ever taken a cruise, this has a large impact on the potential future cruise passenger market. To capture this untapped market, cruise lines lower their prices to fill the ships. In lowering fares, the cruise ships then become more dependent on on-board spending, excursions, and other supplemental income to break even.

**Figure 2.3-8**  
**HARRIS INTERACTIVE POLL SHOWING IMPACT OF CARNIVAL TRIUMPH EVENT**  
 Source: Harris Interactive.  
 Note: Carnival Triumph incident occurred February 10-14, 2013.

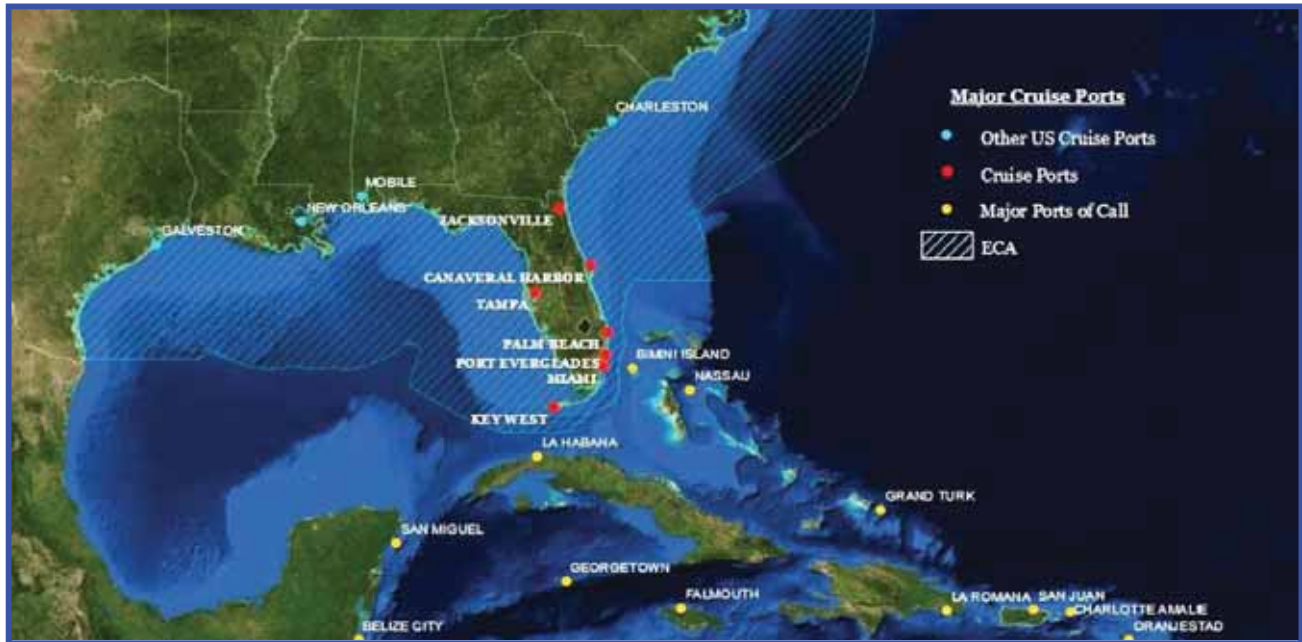


- **Emissions Control Areas**

In March 2010, the International Maritime Organization (IMO) amended the International Convention for the Prevention of Pollution from Ships (MARPOL) to designate portions of the U.S., Canadian, and French waters as Emission Control Areas (ECA). ECA extends 200 nautical miles from the coast except for areas subject to the sovereignty of other states, as shown in Figure 2.3-9. Due to the proximity of the Caribbean islands, ports in South Florida have a significant advantage as ships can exit the ECA sooner, thus saving the cruise lines fuel costs and allowing them to give their guests a more attractive cruise rate.

### Figure 2.3-9 EMISSIONS CONTROL AREA

Source: Florida's Cruise Industry Statewide Perspective (FDOT, 2013).



To comply with ECA standards, ships will have to reduce their emissions of nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), and fine particulate matter (PM<sub>2.5</sub>) according to the schedule summarized in Table 2.3-4. The strictest requirement is anticipated to be met through fuel switching, which will require ships to carry more than one type of fuel. Alternatively, some vessels may be modified with scrubbers to extract sulfur from the exhaust in order to meet standards. Norwegian Cruise Line has taken the lead on this with the recent announcement that they will be installing scrubbers on their two new builds to be delivered in 2015 and 2017. In September 2013, Carnival Corporation also announced a \$180 million investment on 32 vessels which typically sail in the North American region. This investment will focus on exhaust cleaning technology that allows these ships to exceed ECA standards and potentially return to ports located further within the boundaries of ECA.

**Table 2.3-4**  
**INTERNATIONAL SHIP ENGINE AND FUEL STANDARDS**

Source: Environmental Protection Agency U.S. Caribbean Emission Control Area Fact Sheet.

|                        | Year                | Fuel Sulfur | NO <sub>x</sub>          |
|------------------------|---------------------|-------------|--------------------------|
| Emissions Control Area | July 2010           | 10,000 ppm  |                          |
|                        | January 2015        | 1,000 ppm   |                          |
|                        | January 2016        |             | TIER III After treatment |
| Global                 | January 2011        |             | TIER II Engine controls  |
|                        | Before January 2012 | 45,000 ppm  |                          |
|                        | 2012                | 35,000 ppm  |                          |
|                        | 2020*               | 5,000 ppm   |                          |

\*Subject to fuel availability study in 2018, may be extended to 2025.

- **Fuel Prices**

Even without the implementation of ECA, cruise lines are reporting significant increases in their fuel costs. Both Norwegian Cruise Line and Royal Caribbean Cruise Lines have stated in their 2012 annual reports that fuel costs accounted for a larger percentage of total cruise operating expenses. For Norwegian Cruise Line, fuel expenses were 15.4 percent of total operating expenses in 2010 compared to 19.2 percent in 2012. Norwegian Cruise Line reports this is due to significant increases in the cost of available fuel. Prices rose 14.2 percent in 2011 on average and another 16.3 percent in 2012, taking the price per metric ton from \$500 in 2010 to \$664 in 2012.

To combat these rising fuel costs, cruise lines participate in fuel swaps, which help to mitigate the volatility of fuel prices. Additionally, cruise lines can exercise their ability to pass fuel surcharges directly on to their passengers. This is not a popular option, however, as it increases the overall price of cruising and drives down the perceived value. Since 2009, the major carriers have not implemented this option.

In addition to these measures, brands are also attempting to make their fleets more fuel efficient. As mentioned previously, newer ships are being built with scrubbers to extract sulfur from the exhaust. Carnival Cruise Lines has been working to reduce their overall fuel consumption and has been successful in these endeavors. While fuel prices increased \$215 million from 2011 to 2012, their overall fuel consumption per unit decreased 4 percent. Since 2007, it has decreased by 21 percent.

**Cruise Operators.** Currently, the leading cruise operators account for over 86 percent of the entire industry. Carnival Corporation & plc represents the largest share of the industry, at 48.4 percent, followed by Royal Caribbean Cruise Lines (23.3 percent), Norwegian Cruise Line (7.6 percent) and MSC Cruises (7.0 percent). The remainder of the market share comprises over thirty other companies, with Disney Cruise Lines representing the next largest market share at 2.5 percent. A summary of these four largest cruise brands follows below.

- **Carnival Corporation & plc**

Carnival Corporation & plc is made up of ten different cruise brands: Carnival Cruise Lines, Holland America Line, Princess Cruises, and Seabourn in North America; P&O Cruises (UK) and Cunard in the United Kingdom; AIDA Cruises in Germany; Costa Cruises in Southern Europe; Iberocruceros in Spain; and P&O Cruises (Australia) in Australia. Combined, these cruise brands operate 100 ships (61 in North America) with 203,000 lower berths (124,358 in North America). 2012 saw Carnival Corporation carry nearly 10 million passengers, with ships sailing at an average occupancy of 105.5 percent. Continued growth is expected with nine new ships to be delivered between March 2013 and March 2016.

- **Royal Caribbean Cruise Lines**

Royal Caribbean Cruise Lines is made up of six brands, serving over 460 ports-of-call. These brands are: Royal Caribbean International and Celebrity Cruises in North America; Pullmantur in Spain; Azamara Club Cruises in Europe, Asia, and North America; and CDF Croisières de France, along with TUI in Germany as a 50 percent joint venture. These cruise brands operate 41 ships with 98,500 lower berths. In 2012, Royal Caribbean Cruise Lines carried over 4.8 million passengers, with ships sailing at an average of 104.4 percent occupancy. The company is adding five more ships by the end of 2016, an addition of approximately 18,600 lower berths to the fleet (19 percent increase).

- **Norwegian Cruise Line**

Norwegian Cruise Line, unlike Carnival Corporation and Royal Caribbean Cruise Lines, consists of a single brand. The company operates 11 ships, for a total of over 26,000 berths. These ships carried 1.5 million passengers in 2012 at an average occupancy of 107.6 percent. The *Norwegian Breakaway*, with 4,000 lower berths, was delivered in April 2013. Two additional ships, the *Norwegian Escape* and the *Norwegian Bliss*, are to be delivered in 2014 and 2015, adding an additional 8,200 lower berths (32 percent increase).

- **MSC Cruises**

MSC Cruises operates 12 ships, which sail year-round in the Mediterranean and seasonally in other locations. These 12 ships comprise over 30,000 berths, with all the ships in operation delivered after 2001. Over 1.4 million passengers sailed on MSC Cruises in 2012 and this number is expected to grow to 1.5 million in 2013. With the *MSC Divina* and *MSC Preziosa* launched in 2012 and 2013, respectively, no new ships are currently on order for MSC Cruises.

Beyond these main markets are numerous other cruise lines, typically characterized by smaller vessels. Some of these cruise lines, such as Silversea and Regent Seven Seas, have made visits to Port Everglades in the past. Other lines have yet to call at Port Everglades even though they do serve the Caribbean market, as evidenced by Table 2.3-5. Growth is possible from such lines as they seek new ports to visit to offer their customers new experiences.

**Table 2.3-5**  
**CRUISE LINES WITH SMALLER MARKET SHARES**

Source: Cambridge Systematics, Inc.

| Brand                        | Market Share | Port Everglades Visit Since FY 08 | Current Ships | Caribbean/South American Itineraries |
|------------------------------|--------------|-----------------------------------|---------------|--------------------------------------|
| Disney                       | 2.5%         | X                                 | 4             | X                                    |
| Thomson Cruises              | 1.4%         |                                   | 5             | X                                    |
| Star Cruises                 | 1.4%         |                                   | 4             |                                      |
| Hurtigruten                  | 1.3%         |                                   | 12            |                                      |
| Louis Cruises                | 0.9%         |                                   | 3             |                                      |
| TUI Cruises*                 | 0.8%         |                                   | 2             | X                                    |
| Oceania Cruises              | 0.5%         |                                   | 5             | X                                    |
| Phoenix Reisen               | 0.5%         |                                   | 3             | X                                    |
| Fred Olsen                   | 0.4%         |                                   | 4             | X                                    |
| Saga Cruises                 | 0.4%         |                                   | 4             | X                                    |
| Silversea                    | 0.4%         | X                                 | 8             | X                                    |
| All Leisure Holidays         | 0.3%         |                                   | 3             | X                                    |
| Cruise & Maritime Voyages    | 0.3%         |                                   | 3             | X                                    |
| Crystal                      | 0.3%         |                                   | 2             | X                                    |
| Regent Seven Seas            | 0.3%         | X                                 | 3             | X                                    |
| Hapag-Lloyd                  | 0.2%         | X                                 | 5             | X                                    |
| Celebration Cruise Line      | 0.2%         | X                                 | 1             | X                                    |
| Ponant Yacht Cruises         | 0.2%         |                                   | 4             | X                                    |
| Windstar                     | 0.1%         |                                   | 4             | X                                    |
| Star Clippers Cruises        | 0.1%         |                                   | 3             | X                                    |
| American Cruise Lines        | 0.1%         |                                   | 6             |                                      |
| Lindblad Expeditions         | 0.1%         | X                                 | 10            | X                                    |
| Paul Gauguin (PGC)           | 0.1%         |                                   | 2             | X                                    |
| SeaDream Yacht Club          | 0.0%         |                                   | 2             | X                                    |
| Orion Expedition Cruises     | 0.0%         |                                   | 1             |                                      |
| Pearl Seas Cruises           | 0.0%         |                                   | 1             |                                      |
| Voyages to Antiquity         | 0.0%         |                                   | 1             |                                      |
| Blount Small Ship Adventures | 0.0%         |                                   | 2             | X                                    |

\*Owned in part by Royal Caribbean

At least 27 new ships are set to be delivered from 2014 through 2018, as listed in Table 2.3-6. While many do not have a homeport publicly announced, the *Regal Princess* will be added to the Port Everglades fleet in 2014, as highlighted in the table below.



Table 2.3-6  
NEW CRUISE SHIPS ON ORDER

Source: AECOM, Inc.

| Ship                               | Cruise Line                   | Gross Tonnage  | Length (ft)  | Double Capacity | Max Capacity | Anticipated Deployment Date | Anticipated Market                  |
|------------------------------------|-------------------------------|----------------|--------------|-----------------|--------------|-----------------------------|-------------------------------------|
| <i>Pearl Mist</i>                  | Pearl Seas Cruises            | 5,073          | 336          | 210             | -            | 14-Jun                      | Atlantic Coast                      |
| <i>Norwegian Getaway</i>           | Norwegian Cruise Line         | 146,600        | 1,063        | 4,000           | 5,100        | 14-Jan                      | Caribbean                           |
| <i>Quantum of the Seas</i>         | Royal Caribbean International | 167,800        | 1,142        | 4,180           | 4,905        | Fall 2014                   | Caribbean                           |
| <i>Aranui 5</i>                    | Ponant                        | 10,700         | 407          | 228             | 300          | 14-Dec                      | French Polynesia                    |
| <i>Costa Diadema</i>               | Costa Cruises                 | 132,500        | 1,005        | 3,708           | 4,927        | 14-Oct                      | Mediterranean                       |
| <i>Star Pride</i>                  | Windstar Cruises              | 9,975          | 438          | 212             | 212          | 14-May                      | Mediterranean                       |
| <i>Blue Motion (Mein Schiff 3)</i> | TUI Cruises                   | 99,300         | 968          | 2,500           | 3,500        | 14-May                      | Mediterranean/<br>Canary Islands    |
| <b><i>Regal Princess</i></b>       | <b>Princess Cruises</b>       | <b>141,000</b> | <b>1,080</b> | <b>3,600</b>    | -            | <b>14-Jun</b>               | <b>Mediterranean/<br/>Caribbean</b> |
| Unnamed                            | Viking River                  | 45,000         | 443          | 190             | -            | 14-Dec                      | Mississippi River                   |
| <i>Utopia</i>                      | Utopia                        | 105,000        | 972          | 1,232           | 1,832        | 14-Apr                      | World                               |
| Unnamed                            | P&O Cruises                   | 141,250        | 1,083        | 3,611           | 4,372        | 15-Mar                      | Europe                              |
| <i>Viking Star</i>                 | Viking Ocean                  | 47,800         | 746          | 930             | -            | 15-May                      | Europe                              |
| <i>Mein Schiff 4</i>               | TUI Cruises                   | 99,300         | 968          | 2,500           | 3,500        | 15-Apr                      | Mediterranean                       |
| <i>AIDamia</i>                     | AIDA Cruises                  | 125,000        | 985          | 3,250           | -            | 15-Mar                      | N/A                                 |
| <i>Breakaway Plus</i>              | Norwegian Cruise Line         | 163,000        | -            | 4,200           | -            | 15-Oct                      | N/A                                 |
| <i>Anthem of the Seas</i>          | Royal Caribbean International | 167,000        | 1,142        | 4,180           | 4,905        | 15-Mar                      | N/A                                 |
| Unnamed                            | Ponant                        | 10,700         | 466          | 264             | 404          | Winter 2015                 | World                               |
| Unnamed                            | Viking Ocean                  | 47,800         | 746          | 930             | -            | Winter 2016                 | Europe                              |
| <i>AIDAtua</i>                     | AIDA Cruises                  | 125,000        | 985          | 3,250           | -            | 16-Mar                      | N/A                                 |
| <i>Carnival Vista</i>              | Carnival Cruise Lines         | 135,000        | -            | 4,000           | -            | 16-Dec                      | N/A                                 |
| Unnamed                            | Holland America Line          | 100,000        | -            | 2,660           | -            | 16-Feb                      | N/A                                 |
| Unnamed (Oasis III)                | Royal Caribbean International | 225,000        | 1,182        | 5,412           | 6,318        | 16-Jun                      | N/A                                 |
| Unnamed (Quantum 3)                | Royal Caribbean International | 167,000        | 1,142        | 4,180           | 4,905        | 16-May                      | N/A                                 |
| <i>Titanic II</i>                  | Blue Star Line                | 56,000         | 884          | 2,435           | -            | N/A                         | World                               |
| <i>Seven Seas Explorer</i>         | Regent Seven Seas Cruises     | 54,000         | 732          | 738             | -            | Summer 2016                 | World                               |
| <i>Breakaway Plus II</i>           | Norwegian Cruise Line         | 163,000        | -            | 4,200           | -            | Spring 2017                 | N/A                                 |
| <i>Xiamen China</i>                | Xiamen International          | 100,000        | -            | 2,000           | -            | 18-Oct                      | Asia                                |

**Shifts in Market Shares.** With the recent growth in global deployments, there have been some shifts in market shares for existing destinations. Based on Table 2.3-7, the Caribbean is still the dominant market, comprising over 37 percent of total deployments, and has consistently been listed as the top area to visit on a cruise. This market share was maintained by a 33 percent increase in capacity over the last five years. Other markets, such as Europe and the Mediterranean, have, however, seen a much larger percent increase in capacity and significant gains in market shares. Emerging markets such as Asia have been fueled by rising middle classes in the region as well as a growing awareness of cruising.

**Table 2.3-7**  
**CHANGE IN DEPLOYMENT TRENDS 2008-2013**

Source: CLIA 2013 North America Cruise Industry Update.

| Market           | 2008 Share   | 2013 Share   | Capacity Increase 2008-2013 | Change in Market Share |
|------------------|--------------|--------------|-----------------------------|------------------------|
| Alaska           | 7.6%         | 5.4%         | -5%                         | -2.2%                  |
| <b>Caribbean</b> | <b>37.2%</b> | <b>37.3%</b> | <b>33%</b>                  | <b>0.1%</b>            |
| Europe           | 8.3%         | 9.8%         | 57%                         | 1.5%                   |
| Mediterranean    | 17.6%        | 19.9%        | 49%                         | 2.3%                   |
| South America    | 2.9%         | 3.4%         | 57%                         | 0.5%                   |
| Asia             | 1.2%         | 3.6%         | 302%                        | 2.4%                   |
| Australasia      | 2.2%         | 4.1%         | 155%                        | 1.9%                   |
| Total of Top 7   | 77.0%        | 83.5%        |                             | 6.5%                   |
| Remainder        | 23.0%        | 16.5%        |                             | -6.5%                  |

Many of these markets have a distinct seasonal appeal. The Alaskan market, for example, consists of almost all summer sailings due to the cold climate and icy conditions later in the year. On the other hand, the Caribbean is focused on November – April sailings. This corresponds to the winter season in the northern United States and Canada. Travelers want to get away from the cold climate and travel to a warmer destination. As the source country of passengers continues to evolve, some of these seasonality trends may also change, particularly as different hemispheres experience their seasons at different times of the year.

**Caribbean Market.** For Port Everglades, the Caribbean market is by far the most pivotal to operations. Proximity to this market gives a distinct advantage to the South Florida seaports. While the Caribbean market has seen extensive growth in the past decade, cruise industry members believe this growth is slowing. Expansion of cruise services at Port Everglades is not only dependent on the Port's ability to handle, attract, and maintain more ships, but also on the Caribbean ports' ability to support this growth. In response to a growing need for more destinations, cruise lines and established destinations have been developing new ports or enhancing existing infrastructure to attract new passengers and provide a different experience for past cruisers. This growth is done in one of two ways: either through the purchase of a private island or the development of an existing destination.

Private islands give a cruise line control over all operations on the island. Most of these are operated by only one corporation, allowing the lines to coordinate scheduling at these locations. Islands are typically nearby other popular ports-of-call, such as Nassau, to allow for shorter

transit times between destinations. Such destinations offer guests a variety of excursions and shopping options. Examples of some of these locations include CocoCay (Royal Caribbean), Half Moon Cay (Holland America), and Princess Cays (Princess Cruises).

Development of existing locations has continued with the growth of the Caribbean market. These locations are similar to the private island development but include more local and cultural experiences. Recent examples of these developments by cruise lines include:

- **Banana Coast, Honduras.**

Banana Coast was designed by OBM International, who has also completed Carnival's Grand Turk and Royal Caribbean's CocoCay destinations. This Western Caribbean port, about 32 miles south of the Honduran island of Roatan, will be capable of handling two ships at its dock. The first phase of this project was inaugurated in June 2013 with the first call to be made by Holland America's *Ryndam* on November 19, 2014. Oceania Cruises and Silversea Cruises are also expected to call at this new port.

- **Maimon Bay, Dominican Republic.**

In 2011, Carnival Corporation signed a memorandum of understanding to finance a \$65 million port facility and commercial development. The docking facility at this port is expected to be able to handle two ships and host more than 250,000 cruise passengers in its first year of operation. Groundbreaking on this location started in May 2012 and the port is expected to open in 2014.

- **Harvest Caye, Belize.**

In 2013, Norwegian Cruise Line announced the purchase of approximately 75 acres of land in Southern Belize. This area will be developed into an eco-friendly tourist cruise destination. The company expects that the number of guests sailing to the Western Caribbean on their fleet will double by 2017, aided by Belize's receiving four times as many guests as it does today.

**Target Cruise Market and Population Forecasts.** The target market for potential cruisers, as identified by CLIA, are individuals over 25 years old with a household income over \$40,000. Within the United States, this represents approximately 40 percent of the total population; however, only about 3.3 percent of the population cruises each year. Market research, summarized in Table 2.3-8, shows how market penetration varies by country. At 56 percent, the U.S. is by far the dominant source market for the cruising industry. The second top country by number of passengers, the UK, represents only 9.1 percent of all cruisers. Nevertheless, regardless of the market, nearly every country examined not only showed an increase in passenger volumes, but also an increase in the market penetration. This illustrates that more and more people are aware of cruising and are embarking on a cruise.

**Table 2.3-8**  
**SOURCE MARKET OF CRUISERS (2010 AND 2011)**  
 Source: CLIA North America Cruise Industry Update (2012 and 2013).

|   | 2010 Cruise Passengers | 2011 Cruise Passengers | 2010 Passenger % | 2011 Passenger % | 2010 Population % | 2011 Population % | 2011 Passenger Rank | 2011 Population Penetration Rank |
|---|------------------------|------------------------|------------------|------------------|-------------------|-------------------|---------------------|----------------------------------|
| US  | 10.09                  | 10.45                  | 60.4%            | 56.1%            | 3.3%              | 3.3%              | 1                   | 1                                |
| UK*   | 1.56                   | 1.7                    | 9.3%             | 9.1%             | 2.5%              | 2.7%              | 2                   | 3                                |
| Australia   | 0.47                   | 0.62                   | 2.8%             | 3.3%             | 2.1%              | 2.8%              | 8                   | 2                                |
| Canada  | 0.69                   | 0.76                   | 4.1%             | 4.1%             | 2.0%              | 2.2%              | 5                   | 4                                |
| Germany   | 1.22                   | 1.39                   | 7.3%             | 7.4%             | 1.5%              | 1.7%              | 3                   | 5                                |
| Italy   | 0.89                   | 0.92                   | 5.3%             | 5.0%             | 1.5%              | 1.5%              | 4                   | 8                                |
| Spain   | 0.65                   | 0.7                    | 3.9%             | 3.8%             | 1.4%              | 1.5%              | 6                   | 7                                |
| Scandinavia**   | 0.17                   | 0.31                   | 1.0%             | 1.6%             | 0.7%              | 1.2%              | 10                  | 10                               |
| Benelux***  | 0.13                   | 0.16                   | 0.8%             | 0.9%             | 0.5%              | 0.6%              | 11                  | 12                               |
| Switzerland   | 0.09                   | 0.12                   | 0.5%             | 0.6%             | 1.2%              | 1.5%              | 12                  | 6                                |
| Austria   | 0.09                   | 0.1                    | 0.6%             | 0.6%             | 1.1%              | 1.2%              | 13                  | 9                                |
| France  | 0.39                   | 0.44                   | 2.3%             | 2.4%             | 0.6%              | 0.7%              | 9                   | 11                               |
| Ireland   | 0.06                   |                        | 0.3%             |                  | 1.3%              |                   |                     |                                  |
| Brazil  |                        | 0.69                   |                  | 3.7%             |                   | 0.3%              | 7                   | 13                               |
| Portugal  | 0.04                   | 0.04                   | 0.2%             | 0.2%             | 0.4%              | 0.3%              | 14                  | 14                               |
| Other Europe  | 0.17                   | 0.22                   | 1.0%             | 1.2%             |                   |                   |                     |                                  |
| NA/Europe/ AUS Total  | 16.7                   | 18.63                  |                  |                  |                   |                   |                     |                                  |
| North America Total   | 10.78                  | 11.21                  | 64.6%            | 60.2%            | 3.1%              | 3.2%              |                     |                                  |
| *UK: England, N. Ireland, Wales & Scotland (includes Eire)            |                        |                        |                  |                  |                   |                   |                     |                                  |
| ** Scandinavia: Norway, Sweden, Denmark, Finland, Iceland (2011 Only) |                        |                        |                  |                  |                   |                   |                     |                                  |
| ***Benelux: Belgium, Netherlands, and Luxembourg                      |                        |                        |                  |                  |                   |                   |                     |                                  |

The source market of cruisers also reflects upcoming global areas that are gaining an interest in cruising. In 2010, Australians represented only 2.8 percent of all cruisers; this has jumped to 3.3 percent in just one year. Additionally, Brazil was not even included in the 2010 assessment, yet represented 3.7 percent of cruisers in 2011. Most likely this is due to the infrastructure being developed in Brazil as well as additional South American itineraries. Growing all global markets is seen as a positive movement as a larger interest in cruising on a local level will garner interest worldwide.

- **World Population.**

As evident in the changing source market of passengers, trends in the global population will have an impact on growth in the cruise industry. This is primarily influenced by increasing populations and an expanding middle class.

Increasing populations will have some effect on the growth of the cruise industry provided that market penetration remains the same. Population growth estimates from the United Nations show the world population growing from 6.9 billion in 2010 to 8.7 billion in 2035. This equates to a roughly 0.9 percent annual growth rate.

More important to growth in the cruise industry, and the vacation market as a whole, is the rise of the middle class in certain countries. Key emerging markets have been identified such as South America and Asia. Both of these continents have large populations with emerging middle classes who are becoming interested in vacationing. Spending on outbound travel in China alone grew 40 percent from 2011 to 2012 reaching \$102 billion. This jump has caused China to surpass both Germany and the United States as the largest spender on international travel. If the Chinese population were to have the same market penetration of cruisers each year as the United States, this would result in roughly 43 million more cruise passengers, a number twice that of current global volumes.

While many consumers in these emerging markets may choose to sail from their home countries, an interest in cruising supports growth across the globe. As people become more aware of and familiar with cruising, they begin to seek new destinations. This has most recently occurred with the growing trends in Mediterranean cruises, as seasoned cruisers yearn for a different experience.

- **United States Population.**

With the United States representing such a large source market, population trends within the country will have a significant impact on the global cruise industry. Based on estimates from the U.S. Census Bureau, the target market of persons over 25 is expected to grow at 0.9 percent annually through 2035. As Table 2.3-9 shows, this is predominantly fueled by the growth in the 65 years and older age group, due to the aging Baby Boomer generation. For the cruise lines, this represents an enormous opportunity. As this generation reaches retirement age, they will have more time to cruise and embark on the average 7-night itineraries offered by the cruise industry.

**Table 2.3-9**  
**EXPECTED U.S. POPULATION GROWTH BY AGE**

Source: U.S. Census Bureau

|                      | 2010           | 2015           | 2020           | 2025           | 2030           | 2035           | CAGR        | Percent    |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|------------|
| Under 25 years       | 104,854        | 105,501        | 106,187        | 108,371        | 110,953        | 113,634        | 0.3%        | 8%         |
| <b>Over 25 years</b> | <b>203,892</b> | <b>215,861</b> | <b>227,708</b> | <b>238,037</b> | <b>247,517</b> | <b>256,028</b> | <b>0.9%</b> | <b>26%</b> |
| 25 to 44 years       | 82,135         | 84,327         | 88,501         | 91,833         | 93,878         | 95,013         | 0.6%        | 16%        |
| 45 to 64 years       | 81,489         | 83,839         | 83,238         | 81,152         | 80,865         | 83,700         | 0.1%        | 3%         |
| 65 years and over    | 40,268         | 47,695         | 55,969         | 65,052         | 72,774         | 77,315         | 2.6%        | 92%        |
| Total                | 308,746        | 321,363        | 333,896        | 346,407        | 358,471        | 369,662        | 0.7%        | 20%        |

Within the United States, the Florida market is a subarea of significant impact. With 60 percent of embarkations leaving from a Florida seaport and the location of several major cruise line headquarters, Florida is a pivotal part of the overall industry. The 2012 CLIA report on the cruise industry states that Florida residents account for 29.8 percent of all U.S. cruisers. Most likely this stems from the proximity of the population to any of the five cruise ports within the state. With this consideration in mind, it is important to understand how the Florida market is expected to change in the coming years. Estimates from the 2011 University of Florida Bureau of Economic and Business Research data show that this population is expected to grow at a 1.3 percent annual rate from 2010 through 2035. This rate is higher than both the overall U.S. population projections and the over 25 years of age group, as summarized in Table 2.3-10.

**Table 2.3-10**  
**EXPECTED POPULATION GROWTH**

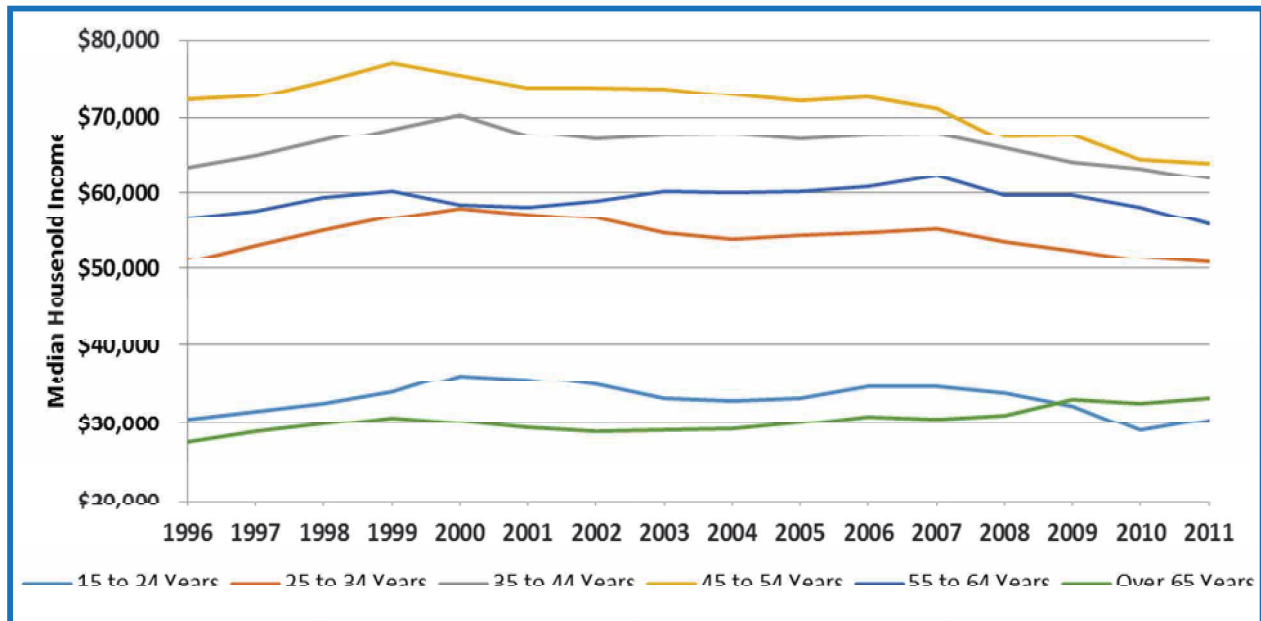
Source: United Nations, U.S. Census Bureau, University of Florida.

| Population (thousands) | 2010           | 2015           | 2020           | 2025           | 2030           | 2035           | CAGR        | Percent    |
|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|------------|
| World                  | 6,916,183      | 7,324,782      | 7,716,749      | 8,083,413      | 8,424,937      | 8,743,447      | 0.9%        | 26%        |
| U.S. Population        | 308,746        | 321,363        | 333,896        | 346,407        | 358,471        | 369,662        | 0.7%        | 20%        |
| <b>Over 25 years</b>   | <b>203,892</b> | <b>215,861</b> | <b>227,708</b> | <b>238,037</b> | <b>247,517</b> | <b>256,028</b> | <b>0.9%</b> | <b>26%</b> |
| Florida Population     | 18,801         | 19,974         | 21,327         | 22,641         | 23,878         | 26,082         | 1.3%        | 39%        |

While there are no forecasts for average household income, particularly by age group, historical trends can give some insight to this aspect of the target market.

Figure 2.3-10 shows how the median household income has changed in the United States over the course of 15 years. Since 1996, nearly every income bracket has experienced a loss in household income. As mentioned previously, the global recession has had a significant impact on discretionary spending over the course of the last few years. While this may have slowed potential growth, the cruise market has proven that it is capable of growth even in trying economic times. As the economy stabilizes and more people can afford to vacation, this market will continue to strengthen.

**Figure 2.3-10**  
**TRENDS IN MEDIAN HOUSEHOLD INCOME BY AGE BRACKET**

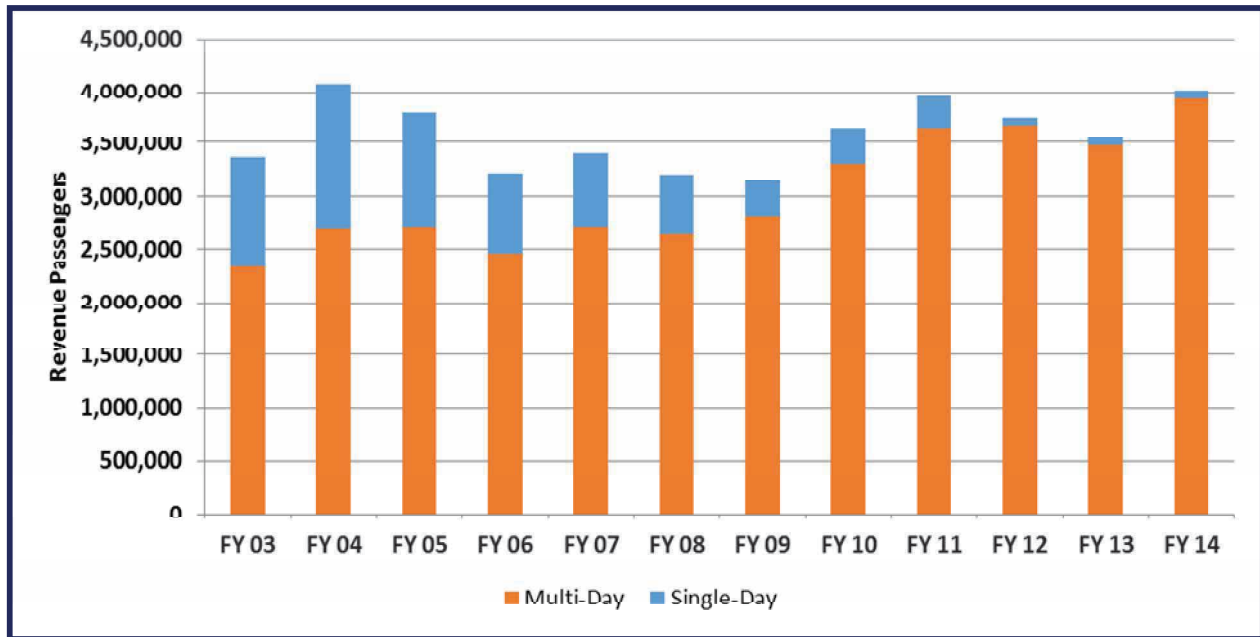


Source: U.S. Census Bureau Historical Income Tables.

**Port Everglades Historical Trends.** Port Everglades has continued to be among the leading cruise ports in the world by passenger embarkations. The makeup of this market has, however drastically changed in the past ten years, as discussed earlier. In FY 2003, single-day cruisers made up nearly 31 percent of all cruisers. By FY 2013, this number had fallen to only an anticipated 2 percent, a result of both the decrease in single-day cruising and a significant increase in the multi-day market. The multi-day market has grown at a relatively steady rate of 4.1 percent over this same period, resulting in an overall port growth of 0.5 percent annually through 2013.

Figure 2.3-11 shows how these volumes have changed over the last ten years, along with estimated volumes for FY 2014.

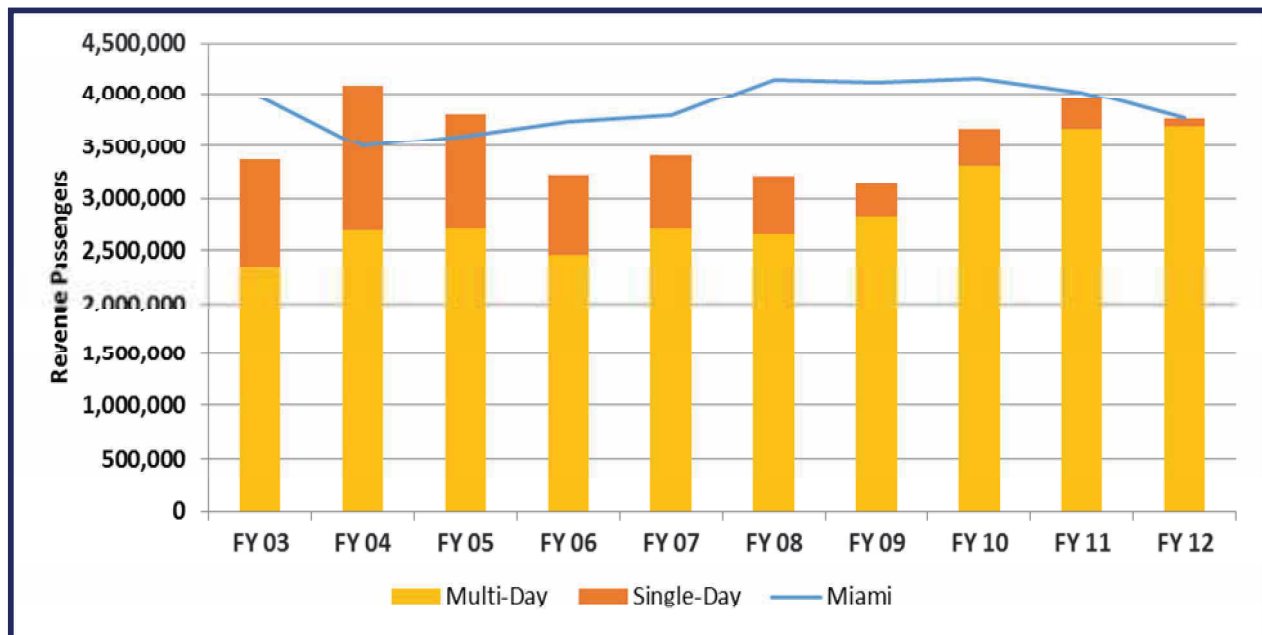
**Figure 2.3-11**  
**HISTORICAL REVENUE PASSENGERS AT PORT EVERGLADES**  
 Source: Port Everglades Waterborne Commerce Chart and 2014 Cruise Fact Sheet.  
 FY 13: Anticipated, FY 14: Estimated



Compared to operations at PortMiami, Port Everglades has had significantly higher growth in the multi-day market. Previously, when the single-day market still carried large volumes of passengers, Port Everglades reported more total passengers in FY 2004 and FY 2005. As the single-day market declined, the difference in passenger volumes between these two ports became more pronounced; however, PortMiami has not had significant growth in the last ten years with volumes fluctuating on an annual basis between 3.5 and 4.1 million passengers (see Figure 2.3-12). In FY 2012, Port Everglades only trailed the top two leading cruise ports by a few thousand revenue passengers: 72,034 less than Port Canaveral and 85,430 less than PortMiami.



**Figure 2.3-12**  
**COMPARISON OF PORT EVERGLADES CRUISE TRAFFIC WITH PORTMIAMI**  
 Source: Port Everglades Waterborne Commerce Chart and Florida Seaport Mission Plans.



**2.3.3 Cruise Passenger Market Forecasts Approach**

The objective of the market forecast is to develop estimates of constrained and unconstrained growth in cruise passengers. While some growth can be accommodated by enhancements to existing infrastructure and operations, more aggressive or unconstrained growth will require an assumption of expanded capacity. In addition, separate assumptions and analyses have been completed for multi-day and single-day markets. The appropriate balance between constrained and unconstrained forecasts will be addressed in Phase II of this planning process.

**Multi-Day Cruises.** For multi-day operations, low, medium, and high forecasts were developed for the existing 8-ship capacity representing “constrained” conditions. An “unconstrained” high forecast also was developed to represent a 9-ship scenario.

For FY 2014 and FY 2015, forecasts are based on port budgets and published cruise line plans. Cruise lines have their available sailing dates planned well ahead of most of the tourism industry. Compared to airlines (6 months) and hotels (1 year), sail dates are available for nearly the next 2 years. Using this information, Port staff has already determined estimated volumes for FY 2014. As such, these numbers were used for the FY 2014 estimate. Growth in this year is attributed to the introduction of two additional summer sailings as well as the deployment of the new *Royal Princess*.

For FY 2015, all available sailings were determined. Most lines have these planned through April 2015. Since many lines, such as Celebrity Cruises and Holland America, do not have summer sailings, this affords the opportunity to compare deployment trends directly with FY

2014. At a line level, sailings for available dates in FY 2015 were compared with FY 2014 and volumes were adjusted accordingly. For sailings beyond what has already been scheduled, typically April 2015 – October 2015, volumes were assumed to remain the same as the prior year. Growth for FY 2015 is primarily driven by Princess Cruises with the introduction of weekly sailings on the *Regal Princess*.

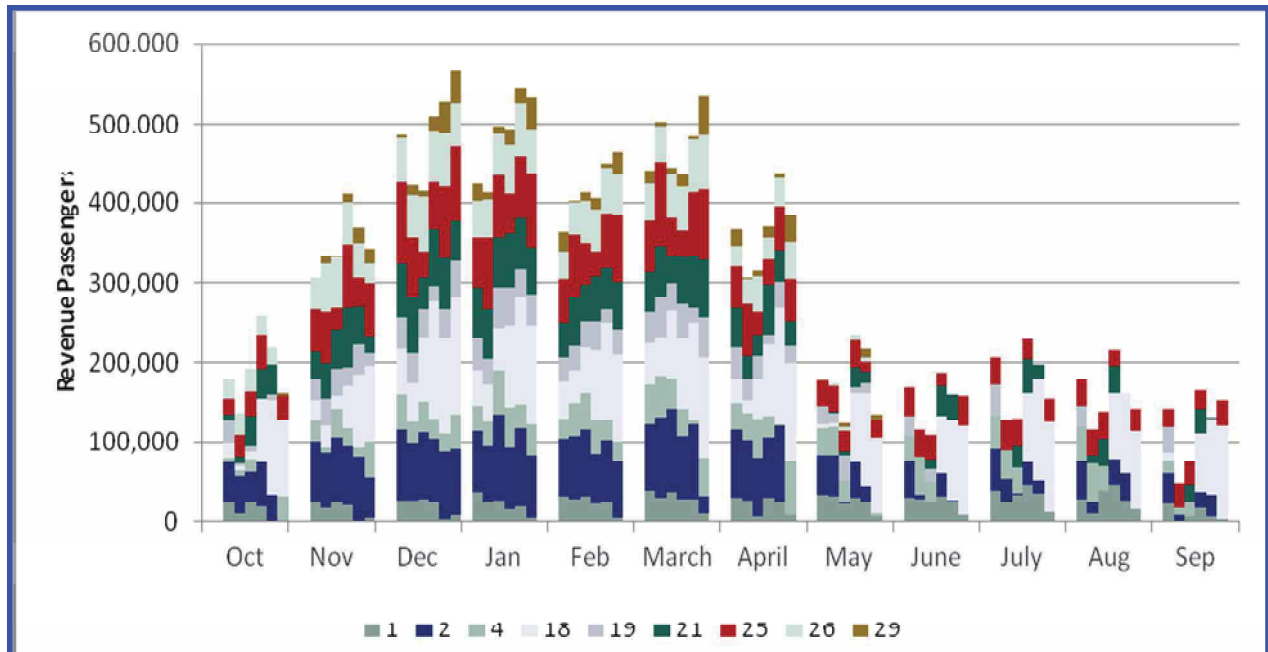
Forecasts for FY 2016 and beyond are based on an analysis of the available demand (constrained and unconstrained) along with the ability of Port Everglades to provide additional capacity through a variety of operational and infrastructure enhancements and expansions, including:

- Weekend utilization.
- Summer sailings.
- Non-weekend sailings.
- 9 multi-day ships per day (unconstrained conditions only).
- Port-of-call.
- Vessel repositioning and larger ships.

**Weekend Utilization.** For sailings out of Port Everglades, industry members have continued to stress the importance of weekend sailings. Most North American customers want to maximize their vacation time by making use of weekends at both ends of their cruise. Some lines have indicated that they do not sail out of Port Everglades due to the lack of available weekend berths, or weekend berths that can accommodate their ships. Current sailings for FY 2014 and FY 2015 indicate, however, that these weekend berths are not utilized to their greatest extent. For the November-through-April season, there are an average of 11 weekend sailings in FY 2014 and 10.8 sailings in FY 2015. Ideally, this would be 16 to represent full weekend usage; however, scheduling can be complicated by variable itinerary lengths. The Port is contractually committed to providing berth preferences to the largest cruise lines which, in turn, provide significant passenger guarantees.

Figure 2.3-13 shows how this utilization can vary throughout the year, with December, January, and March having the heaviest traffic. Berth 18 shows consistent volumes throughout the year with the year-round embarkations of Royal Caribbean’s *Oasis of the Seas* and the *Allure of the Seas*.

**Figure 2.3-13**  
**TOTAL CRUISE TRAFFIC BY BERTH FY 2008 - FY 2013 (through December)**



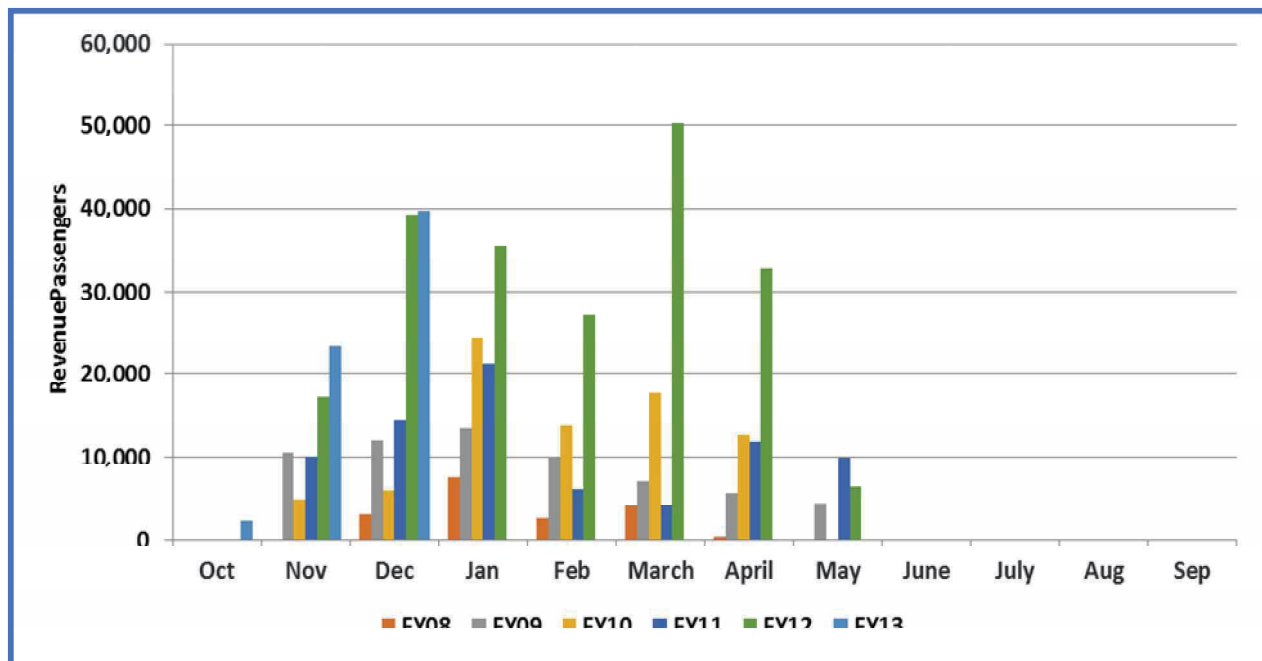
Source: Port Everglades.



A few of the Port’s berths used for cruise ships appear to be less desirable than others. Most notably is Berth 29, as seen in Figure 2.3-14 below. Berth 29 is one of the few berths capable of handling the larger-sized ships, yet it is typically used only when Berth 18 and Berth 25 are already occupied. Currently, due to the width of the channel, access to this berth is constrained when other cruise ships are docked at Berths 25 and 26. This constraint should be eliminated with the planned harbor deepening and widening.

FY 2012 and the beginning of FY 2013 saw growth at this berth, but still not to the fullest extent possible. October through December 2012 saw only 9 weekend sailings at Berth 29 out of 26 weekend days, or 35 percent utilization, along with some weekday sailings. Excluding October, since it was out of season, the utilization only increased to 50 percent for November and December weekend sailings. The particularly high use in March 2012 reflects unusual activity at the Port’s other cruise terminals.

**Figure 2.3-14**  
**BERTH 29 MONTHLY USAGE FY 2008 - FY 2013 (through December)**



Source: Port Everglades.

Most recently, Royal Caribbean’s *Independence of the Seas* has made calls at this berth. With multiple Freedom Class ships in the fleet, and many vessels of comparative size, Berth 29 should easily be capable of handling two ships per weekend. At a double capacity of 3,634 passengers, two Freedom Class ships calling once per week each should result in at least 58,000 passengers per month in season. Even supplemented with some weekday sailings, this berth has never reached this minimum volume, suggesting there is still room to improve this usage.

**Potential Throughput Impact**

While Berth 29 is perhaps the most underutilized berth and is capable of handling larger ships, a ship of 965 feet was selected for determining the impacts of better weekend utilization. This represents a vessel capable of calling at any cruise berth at Port Everglades. A ship of this length typically has about 3,000 passengers at double occupancy. One additional 7-night itinerary on a ship this size during season would result in an additional 156,000 revenue passengers per year at 100 percent occupancy.

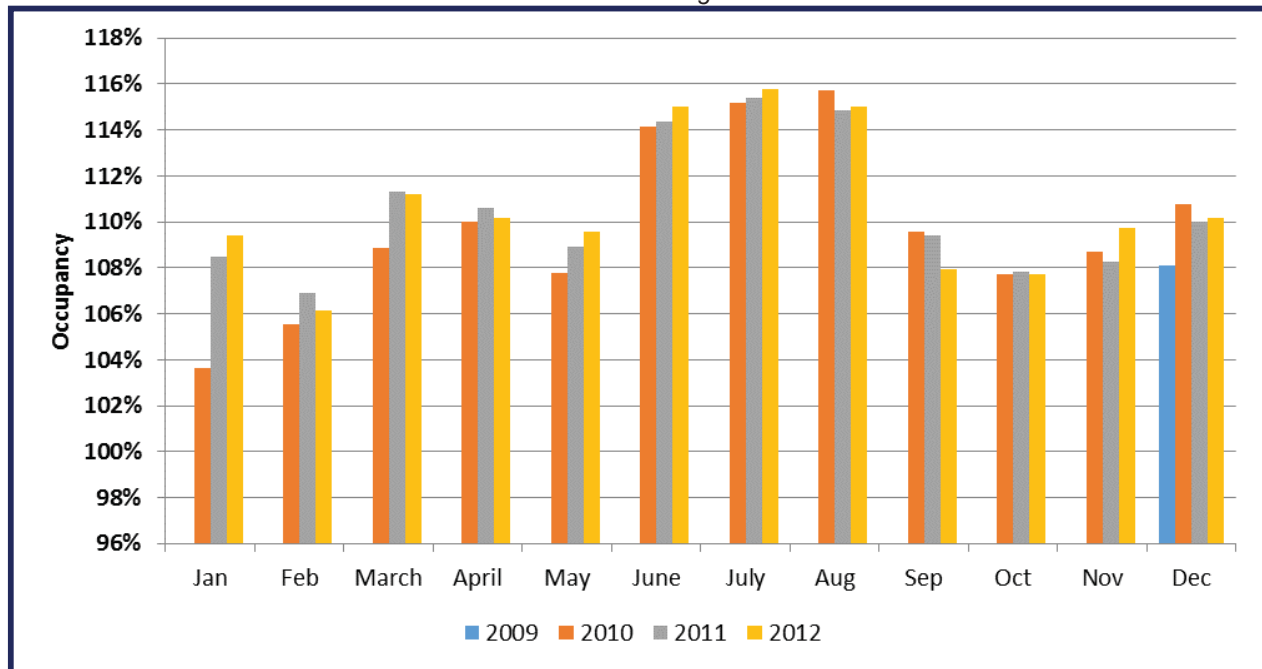
The assumptions for each growth scenario are as follows:

| Constrained                                   |  |   | Unconstrained   |
|---|--|---|---|
| Low   | Medium   | High  | High (9 Multi-Day)  |
| Average weekend utilization remains the same. | Average weekend utilization is increased by 1 sailing per weekend starting in FY 2016. | Average weekend utilization is increased by 1 sailing per weekend starting in FY 2016 and is increased by an additional sailing in FY 2021. | Average weekend utilization is increased by 1 sailing per weekend starting in FY 2016 and is increased by an additional sailing in FY 2021. |

**Summer Sailings.** Over the course of the past few summers, the diversity of sailings out of Port Everglades has been minimal. For the most part, the only ships offering multi-day itineraries operating out of the Port have been the *Oasis of the Seas*, the *Allure of the Seas*, and the *Carnival Freedom*. Predominantly, these ships sail on 7-night itineraries. While the summer months are typically viewed as “out of season” for the Caribbean market, occupancy trends on the Oasis class ships suggest there is still additional unmet demand in these months. Figure 2.3-15 shows how occupancy fluctuates for these ships by month. Since their deployment, these ships have consistently sailed above double occupancy, but show the highest occupancies in June, July, and August.

**Figure 2.3-15**  
**OCCUPANCY TRENDS OF OASIS CLASS SHIPS AT PORT EVERGLADES**

Source: Port Everglades.



Some cruise lines have already recognized that there is still additional unmet demand in the Caribbean market at Port Everglades during the off-season. FY 2014 will introduce the *Caribbean Princess* and *Vision of the Seas* to the Port Everglades summer fleet. The *Caribbean Princess* will be sailing on predominantly 4-, 5-, and 7-night itineraries while the *Vision of the Seas* will be sailing on 4- and 5-night itineraries. While the introduction of these new sailings will greatly increase sailing options for passengers, there is still a gap in sailings with shorter itineraries. Itineraries of alternating 3- and 4-night sailings would cater to the market of first-time cruisers who want to try a cruise to see if they like it as well as to vacationers who do not want to spend an entire week on board a ship. Market research shows that 42 percent of non-cruisers would prefer sailings lasting for 5 nights or less, compared to 16 percent of previous cruisers. On average, a new cruiser will spend less than 5 days on a trip. Input from industry members suggests that a sailing of this type would work at Port Everglades, especially as shorter cruises operate out of season from both PortMiami and Port Canaveral and work well.

**Potential Throughput Impact**

As a sailing of this type would still be out of season, a cruise line moving into this market would most likely use a smaller vessel which they could ensure filling. This is reflected by the 3,100-passenger *Caribbean Princess* and 2,000-passenger *Vision of the Seas*. Based on these ships, a vessel with a double occupancy of 2,500 passengers was assumed. The introduction of a vessel of this size for May through October on 3- and 4-night itineraries would increase revenue passengers by 260,000 at 100 percent occupancy.

The assumptions for each growth scenario are as follows:

| Constrained                               |  |  | Unconstrained                                  |
|---|--|--|--|
| Low                                       | Medium   | High   | High (9 Multi-Day)                             |
| No additional summer sailings introduced. | One 3- and 4-night cruise starting in FY 2021. | One 3- and 4-night cruise starting in FY 2018. | One 3- and 4-night cruise starting in FY 2018. |

**Non-Weekend Sailings.** As multiple cruise industry members have reiterated, weekend sailings are the most desirable, particularly within the North American/Caribbean market, due to passenger vacation trends. Without adequate berth space on weekends, some lines have moved their ships elsewhere, most recently MSC Cruises, which is now departing out of PortMiami. As weekend berth space fills up at PortMiami, Port Everglades, and other Florida ports, weekday sailings will, however, become more prevalent in the market. While such cruises will not have as high yields for the cruise lines, most likely due to lower occupancies, the location of Port Everglades within the ECA gives the Port a distinct advantage in terms of fuel savings. Depending on fuel prices, passenger demand, and operational costs, a weekday sailing out of Port Everglades may then prove more profitable than a weekend sailing out of a another port, such as Jacksonville, Galveston, or New Orleans.

**Potential Throughput Impact**

Since weekday sailings are typically characterized as lower yield and lower occupancy than weekend sailings, cruise lines will continue to keep the largest vessels in their fleet operating on weekends. As such, a 3,000-passenger vessel was assumed for this type of sailing. The introduction of one vessel sailing a 7-night itinerary on a weekday in season would result in an additional 156,000 revenue passengers per year at 100 percent occupancy.

The assumptions for each growth scenario are as follows:

| Constrained                     |   |   | Unconstrained   |
|---------------------------------|---|---|---|
| Low                             | Medium  | High  | High (9 Multi-Day)  |
| No additional weekday sailings. | One additional non-weekend sailing starting in FY 2019. | One additional non-weekend sailing starting in FY 2019 with another added in FY 2022. | One additional non-weekend sailing starting in FY 2019 with another added in FY 2024. |

**9- Multi-Day Ships per Day.** As stated previously, weekend embarkations are a primary focus of the industry in the Caribbean market. Limited access to berths that can accommodate their ships on weekends has driven some lines to find other home ports. As the cruise industry continues to grow, berth space will become more and more limited; already many ships are limited to the ports at which they can call. Several options were identified by stakeholders that would allow for an increase in the Port’s weekend maximum from 8 multi-day ships per day to 9. Such strategies include nighttime embarkations, resulting in 2 ships per berth per day, or the development of an additional shared or dedicated cruise berth. Given the departure time of cruise ships throughout the industry and the capabilities of supporting services (provisioning, Customs and Border Protection, etc.), the greatest probability of being able to handle 9 ships would come from additional terminal and berth capacity. By providing additional berth and terminal capacity for cruise purposes, Port Everglades has an opportunity to cater to these vessels and offer more sailings to its market. This option has been explored by the Port as part of previous master planning activities during which no viable options for an expanded cruise footprint at the Port were identified. Future possibilities for expanding the Port’s ultimate capacity from 8 to 9 ships per day will be evaluated as part of Phase II efforts.

**Potential Throughput Impact**

The addition of new capacity would likely be pursued to compete for one of the newest, largest vessels. As such, the introduction of two new 7-night sailings on 4,000-passenger vessels is assumed, which would result in an additional 416,000 revenue passengers. This number reflects the minimum (Saturday/Sunday sailings during season) anticipated passenger volume; no weekday sailings have been assumed.

The assumptions for each growth scenario are as follows:

| Constrained                                   |   |   | Unconstrained  |
|---|---|---|--|
| Low   | Medium  | High  | High (9 Multi-Day)   |
| No additional cruise berth/terminal capacity. | No additional cruise berth/terminal capacity. | No additional cruise berth/terminal capacity. | New cruise berth/terminal capacity prioritized and brought online for FY 2022, with one 7-night seasonal sailing and one 7-night year round sailing. . |

**Port-of-Call.** One method to gain additional revenue passengers is through port-of-call visits to Fort Lauderdale. Vessels could call during the week, most likely from the Northeast, when berths are available and allow guests to explore what South Florida has to offer. Most industry members agree, however, that this is not a viable option for Port Everglades. Fort Lauderdale has much to do to build itself up as a destination through extensive marketing. Port Canaveral is an excellent example of how well this can work. The one-hour drive from the Port to Disney World and the Orlando area proves to be a popular attraction for passengers,



combined with a cruise line that effectively markets these attractions. In the last year alone, port-of-call visits have increased 12 percent to 138 calls in FY 2013, boosting Port Canaveral to the fastest growing cruise port in the state. To develop a similar infrastructure here in South Florida would take a significant effort.

Some smaller luxury vessels do currently call at Port Everglades, such as those from Regent Seven Seas, Silversea, and Seabourn. Nevertheless, they account for a very small portion of the Port’s total revenue passenger count, about 40,000 for these three lines in FY 2012. Rather than remaining at one homeport for an extended period of time, these vessels typically have worldwide itineraries to give the lines’ clientele a diverse array of choices.

The assumptions related to port-of-call opportunities do not assume that these types of vessels would no longer come to the Port. Rather, these assumptions relate to the larger vessels of the larger lines, such as Carnival and Royal Caribbean. Growth of the smaller vessels making port-of-call visits would be captured under the “Vessel Repositioning and Larger Ships” assumptions.

**Potential Throughput Impact**

The assumption for all growth scenarios is that Port Everglades will have no port-of-call passengers.

| Constrained                 |                             |                             | Unconstrained               |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Low                         | Medium                      | High                        | High (9 Multi-Day)          |
| No port-of-call passengers. | No port-of-call passengers. | No port-of-call passengers. | No port-of-call passengers. |

**Vessel Repositioning and Larger Ships.** The cruise industry has shown significant growth in the past years, primarily due to the deployment of new ships. To date, these additional deployments have worked to meet the existing demand, as reflected in an industry average occupancy over 100 percent. Thus far, it is known which cruise lines will continue to develop and deploy additional vessels through 2018, with several lines also having options with ship-building yards for additional future vessels. Deployment trends and the replacement of smaller ships with larger ships have a noticeable impact on the number of passengers passing through a port. For instance, if the *Carnival Freedom*, which visits Port Everglades year round, were replaced with the upcoming *Carnival Vista*, this would result in an additional 106,704 revenue passengers (assuming both sail at 100 percent occupancy). Similarly, not maintaining visits by these larger ships results in a distinct loss in passenger numbers. The retrofitting of the *Oasis of the Seas* in September and October 2014 will decrease passenger numbers in both FY 2014 and 2015 by at least 43,000 revenue passengers.

**Potential Throughput Impact**

The ability of the cruise line fleets to fill the capacity created by larger vessels has been tied to the anticipated growth in cruisers. The assumptions for low-, medium- and high-growth were based on expected population growth in the

United States of the population over 25, as shown in Table 2.3-11, and closely mirrors the expected world population growth. Since the United States is the largest source market for the cruise industry, the growth of this population will continue to have a large impact on sailings.

**Table 2.3-11  
ANNUAL GROWTH RATE OF POPULATION IN 5 YEAR INTERVALS**

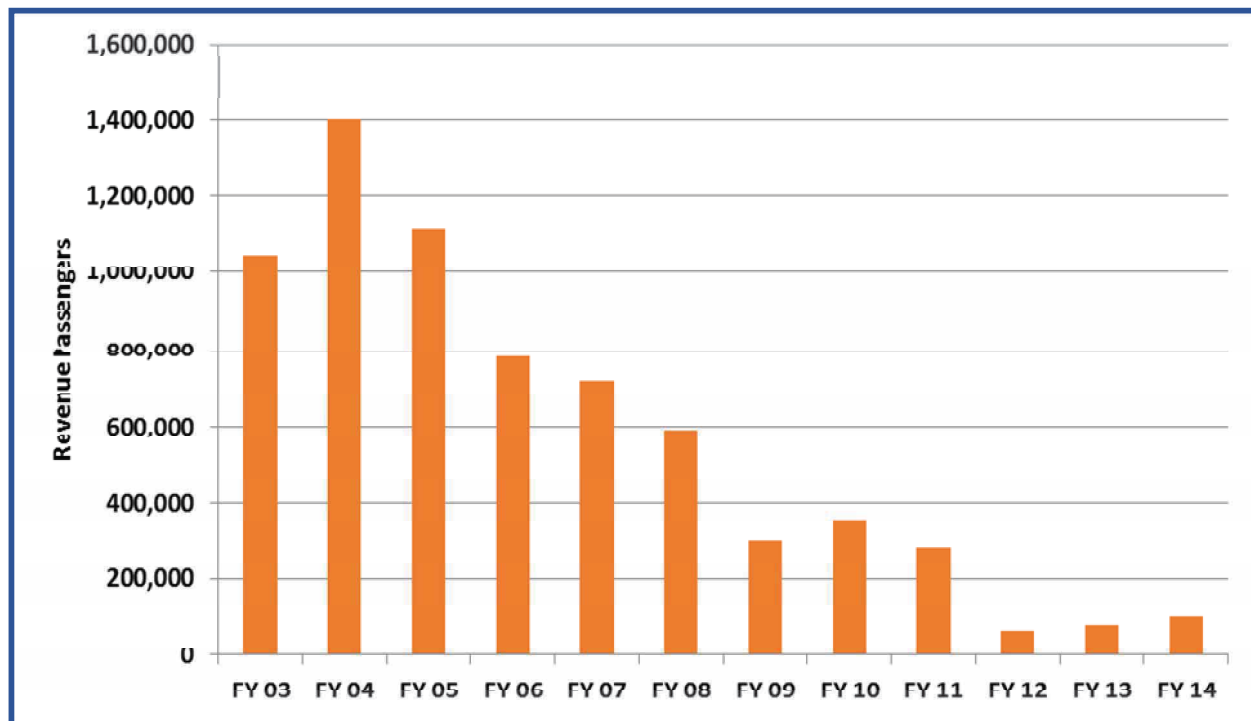
|                      | 2016-2020   | 2021-2025   | 2026-2030   | 2031-2033   |
|----------------------|-------------|-------------|-------------|-------------|
| World                | 1.0%        | 0.9%        | 0.8%        | 0.7%        |
| US Population        | 0.8%        | 0.7%        | 0.7%        | 0.6%        |
| <b>Over 25 years</b> | <b>1.1%</b> | <b>0.9%</b> | <b>0.8%</b> | <b>0.7%</b> |
| Florida Population   | 1.3%        | 1.2%        | 1.1%        | 1.8%        |

This assumption reflects no further market penetration. Nevertheless, as more people become aware of and interested in cruising, such penetration is likely to grow, assuming that cruise lines maintain a large enough fleet.

| Constrained   |        |      | Unconstrained      |
|---|--------|------|--------------------|
| Low   | Medium | High | High (9-Multi-Day) |
| Passengers grow: <ul style="list-style-type: none"> <li>• 1.1% annually 2016-2020</li> <li>• 0.9% annually 2021-2025</li> <li>• 0.8% annually 2026-2030</li> <li>• 0.7% annually 2031-2033</li> </ul> |        |      |                    |

**Single-Day Market.** As evidenced by the historic volumes at Port Everglades shown in Figure 2.3-16, the single-day market has been highly volatile in the past ten years. This change has come about due to many factors, primarily the economic recession in the United States and the introduction of casino hotels in South Florida. While currently only one single-day cruise -- the *Baleària Bahamas Express* -- is operating out of Port Everglades, the past few years have seen a little bit of growth of this market.

**Figure 2.3-16**  
**SINGLE-DAY CRUISE VOLUMES AT PORT EVERGLADES**  
 Source: Port Everglades Waterborne Commerce Chart and 2014 Cruise Fact Sheet.  
 FY 13: Anticipated, FY 14: Estimated



Other local initiatives suggest continued interest in developing and serving the single-day market. PortMiami has recently started operating the *Bimini Superfast* which offers passage to Resorts World Bimini. The *Island Breeze*, lately renamed from the *Black Diamond*, is expected to start operating out of the Port of Palm Beach in October 2013 after extensive remodeling. The primary driver of success for the single-day market in South Florida is the ability of operators to identify and serve niche markets. There is not a large volume of passengers looking for different versions of the same product, as with multi-day itineraries, so in order to grow this service, a provider must identify and market a unique product. The only exception is likely to be the Cuban market, which will have impacts on both multi- and single-day itineraries.

Redevelopment associated with the Greater Fort Lauderdale/Broward County Convention Center expansion may impact the single-day infrastructure; however, if the eventual facility is designed to maximize use of the waterfront, there is still an opportunity to keep single-day cruising at the Port. Incorporating a cruise element at the hotel would be an appropriate fit for the single-day market. The Pan Pacific Vancouver has used this design and incorporates convenient hotel stays with cruise embarkations. In addition, the proximity of the Convention Center to the Port may also encourage visiting conventions to use the single-day cruise vessel as a unique experience for their guests, whether for day-time meetings or night time excursions. The possible development of a Cuban market represents the primary unconstrained opportunity for single-day service. Estimates for this opportunity have not been calculated at this time as

the timing for an opening of the Cuban market is uncertain. This opportunity is discussed in more detail below.

**Potential Throughput Impact**

The single-day cruise passenger estimate provided in the Port Everglades’ FY 2014 budget was used for FY 2014. The assumptions for each growth scenario are as follows:

| Constrained  |   |  | Unconstrained  |
|--|---|--|--|
| Low  | Medium  | High   | High (Cuban market)  |
| Loss of Terminal 1 due to Convention Center hotel. No further single-day cruises beyond FY 2014. | Convention Center hotel is not approved or Terminal 1 is incorporated into hotel plans.<br><br>Current volume grows at a 10 percent annual rate for the first 5 years, at a 5 percent annual growth for years 6-10, and at a 3 percent annual growth for years 11-20. | Convention Center hotel is not approved or Terminal 1 is incorporated into hotel plans.<br><br>Current volume grows at a 10 percent annual rate for the first 10 years and at a 3 percent annual growth for years 11-20. | No estimates developed at this time due to unknown timeline for opening of the Cuban market. |

**Cuba Opportunity.** Among those in the cruise industry, Cuba has been a continued topic of potential growth. Should relations with Cuba normalize, this will offer opportunities for both the single- and multi-day markets. For the single-day market, a ferry service to Cuba would be a popular option due to the proximity of Cuba to South Florida seaports. For this service, Port Everglades would, however, face strong competition from PortMiami and the Port of Tampa. (Section 2.7 provides additional information about the Cuba situation as well as diverse ferry opportunities.)

Growth within the multi-day market would take significantly longer to establish. Due to the increased size of cruise vessels and passenger expectations, significant infrastructure would need to be built in Cuba to accommodate visitors. As such, even when Cuba is available as a port-of-call, it would be several years before the impacts are felt in the Caribbean market.

Growth related to opportunities in Cuba is not incorporated in projections as it is uncertain when this market would open to U.S. trade and tourism. From a single-day market perspective, however, maintaining a viable infrastructure to serve this market should be a key consideration.

**Summary of Projected Growth by Market Type.** Each of the potential growth opportunities is dependent on the anticipated market and future growth. Table 2.3-12 summarizes each of these by scenario and shows the expected impact date and anticipated increase in revenue passengers.

**Table 2.3-12**  
**SUMMARY OF GROWTH ASSUMPTIONS**  
 Source: Cambridge Systematics, Inc.

|                            | Constrained                  |       |                     |                                 |       |                    | Unconstrained                    |       |                    |                                  |                    |                    |
|----------------------------|------------------------------|-------|---------------------|---------------------------------|-------|--------------------|----------------------------------|-------|--------------------|----------------------------------|--------------------|--------------------|
|                            | Low                          |       | Medium              |                                 | High  |                    | High (9 Multi-Day)               |       | High (9 Multi-Day) |                                  | High (9 Multi-Day) |                    |
|                            | Assumption                   | Year  | Revenue Passengers  | Assumption                      | Year  | Revenue Passengers | Assumption                       | Year  | Revenue Passengers | Assumption                       | Year               | Revenue Passengers |
| <b>Weekend Utilization</b> | No change                    | N/A   | N/A                 | 1 more weekend sailing per week | FY 16 | 156,000            | 2 more weekend sailings per week | FY 16 | 156,000            | 2 more weekend sailings per week | FY 16              | 156,000            |
| <b>Summer Sailings</b>     | No change                    | N/A   | N/A                 | 1 shorter summer sailing        | FY 21 | 260,000            | 1 shorter summer sailing         | FY 18 | 260,000            | 1 shorter summer sailing         | FY 18              | 260,000            |
| <b>Weekday Sailings</b>    | No change                    | N/A   | N/A                 | 1 more weekday sailing per week | FY 19 | 156,000            | 2 more weekday sailings per week | FY 19 | 156,000            | 2 more weekday sailings per week | FY 19              | 156,000            |
| <b>9 Ship Maximum</b>      | No change                    | N/A   | N/A                 | No change                       | N/A   | N/A                | No change                        | N/A   | N/A                | No change                        | N/A                | N/A                |
| <b>Port of Call</b>        | No change                    | N/A   | N/A                 | No change                       | N/A   | N/A                | No change                        | N/A   | N/A                | No change                        | N/A                | N/A                |
| <b>Vessel Shifts</b>       | Over 25 US Population Growth | FY 16 | about +40,000       | Over 25 US Population Growth    | FY 16 | about +40,000      | Over 25 US Population Growth     | FY 16 | about +40,000      | Over 25 US Population Growth     | FY 16              | about +40,000      |
| <b>Single-day</b>          | Loss of Terminal 1           | FY 15 | All single-day lost | 10% Annual Growth               | FY 15 | about +12,000      | 10% Annual Growth                | FY 15 | about +15,000      | 10% Annual Growth                | FY 15              | about +15,000      |
|                            |                              |       |                     | 5% Annual Growth                | FY 19 | about +8,000       | 3% Annual Growth                 | FY 24 | about +8,000       | 3% Annual Growth                 | FY 24              | about +8,000       |
|                            |                              |       |                     | 3% Annual Growth                | FY 24 | about +6,000       |                                  |       |                    |                                  |                    |                    |



**2.3.4 Cruise Passenger Market Forecasts**

**Single-Day Cruise Passengers.** For the single-day cruise market, Table 2.3-13 summarizes the impact of the assumptions made; a full breakdown by year is provided in Appendix F, For the low estimate, the entire single-day market will be gone without a terminal to operate from. The medium (“most likely”) estimate has volumes growing at an annual rate of 5.8 percent to 251,000 by FY 2033. The high estimate grows at an annual rate of 7.0 percent to 317,000. As noted above, an unconstrained high forecast has not been developed at this time. This growth is shown in Figure 2.3-17 on a yearly basis.

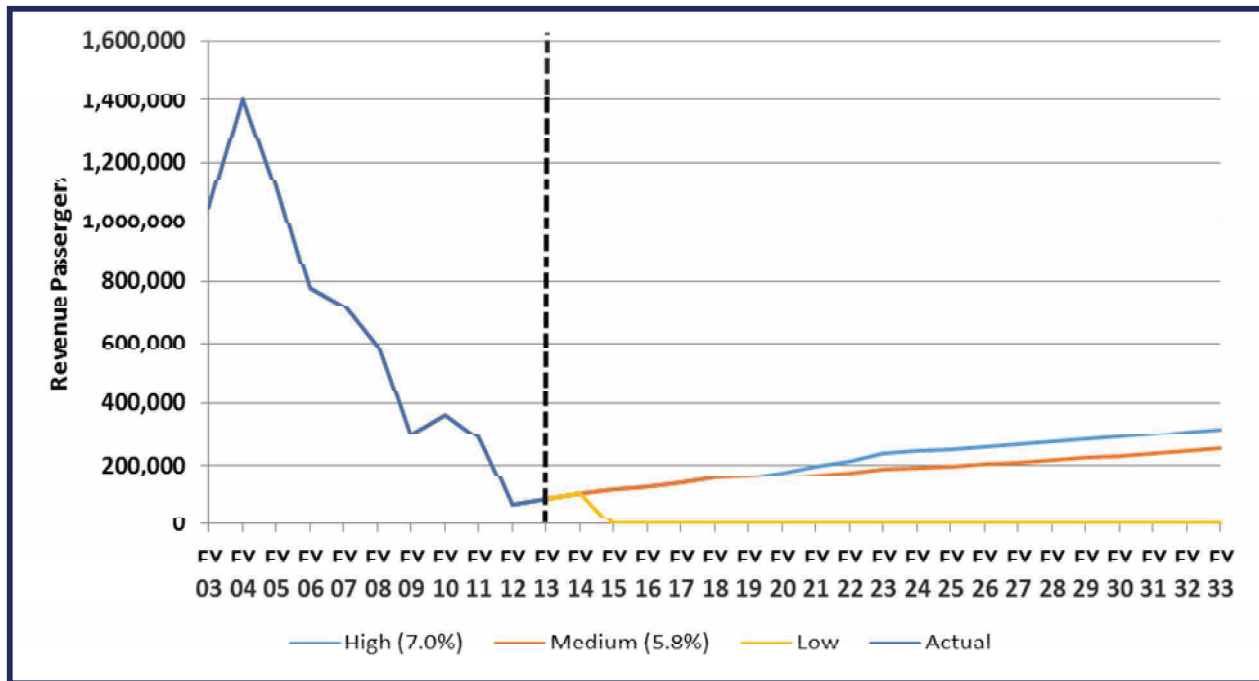
**Table 2.3-13  
SUMMARY OF PROJECTED SINGLE-DAY CRUISE PASSENGER GROWTH AT  
PLAN MILESTONES**

Source: Cambridge Systematics, Inc.

|        | Overall Increase | Annual Increase | FY 2018 | FY 2023 | FY 2028 | FY 2033 |
|--------|------------------|-----------------|---------|---------|---------|---------|
| Low    | N/A              | N/A             | 0       | 0       | 0       | 0       |
| Medium | 209%             | 5.8%            | 146K    | 187K    | 217K    | 251K    |
| High   | 289%             | 7.0%            | 146K    | 236K    | 273K    | 317K    |

**Figure 2.3-17  
PROJECTED GROWTH OF SINGLE-DAY CRUISE PASSENGERS**

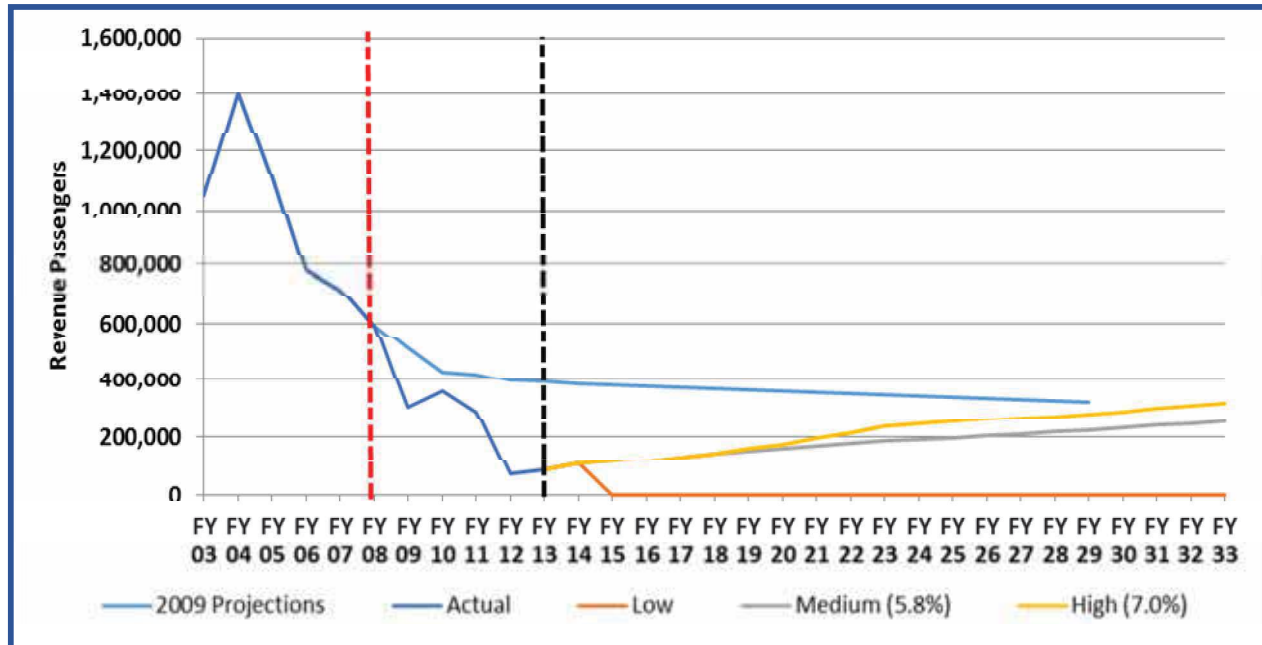
Source: Cambridge Systematics, Inc.



Compared to the 2009 plan, the single-day cruise market has experienced vast changes. Anticipated volumes were expected to continue to decrease, but at a much slower rate than the actual performance. Forecasts presented here have these volumes growing back to where this market was expected to decline to, as Figure 2.3-18 shows.

**Figure 2.3-18**  
**SINGLE-DAY CRUISE PROJECTIONS COMPARED TO 2009 PLAN**

Source: Cambridge Systematics, Inc.



**Multi-Day Cruise Passengers.** The forecasted growth of the multi-day cruise passenger market is summarized in Table 2.3-14, with yearly growth shown in Figure 2.3-19; a full breakdown by year is provided in Appendix F. Low estimates for the multi-day market result in an average annual increase of 1.6 percent, predominantly fueled by the large growth anticipated in FY 2014 and FY 2015. Growth in the medium and high scenarios range from 2.2 percent to 2.5 percent, modest growth on a year-to-year basis, but with significant volume increases by FY 2033. For unconstrained conditions, the high estimate results in an average annual increase of 3.0 percent.

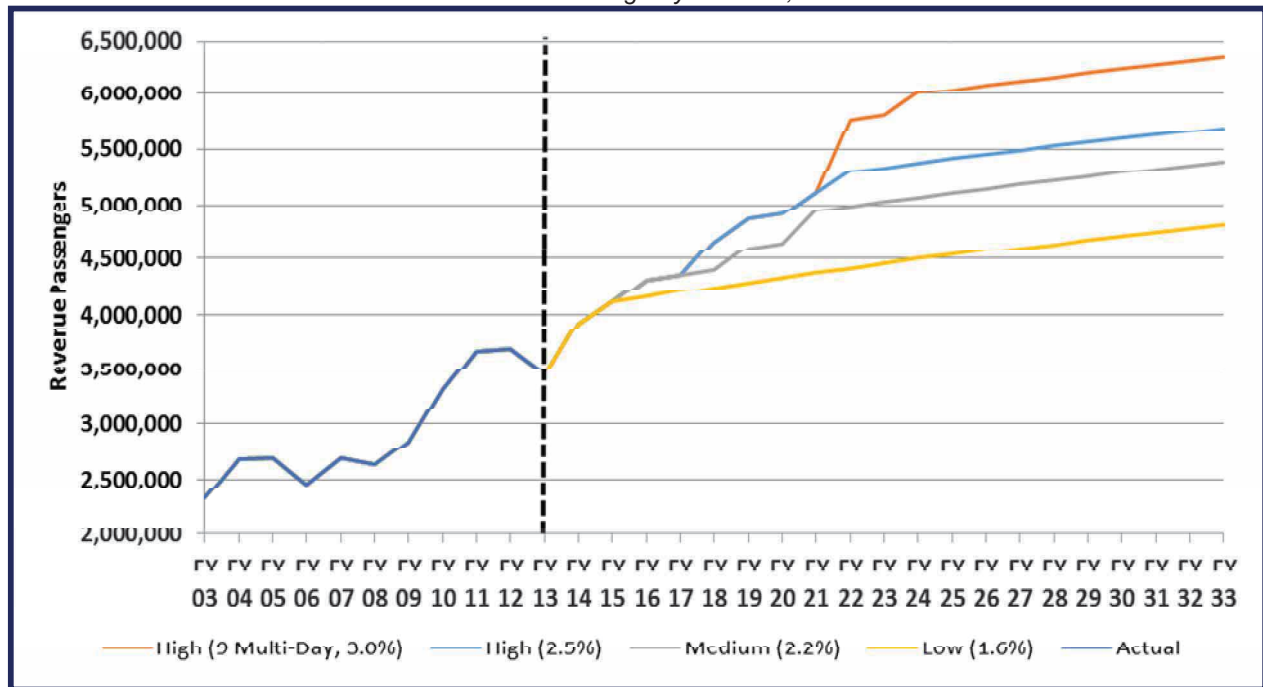
**Table 2.3-14**  
**SUMMARY OF PROJECTED MULTI-DAY CRUISE PASSENGER GROWTH AT PLAN MILESTONES**

Source: Cambridge Systematics, Inc.

|                      | Overall Increase | Annual Increase | FY 2018 | FY 2023 | FY 2028 | FY 2033 |
|----------------------|------------------|-----------------|---------|---------|---------|---------|
| <b>Constrained</b>   |                  |                 |         |         |         |         |
| Low                  | 38%              | 1.6%            | 4.2 M   | 4.5 M   | 4.6 M   | 4.8 M   |
| Medium               | 55%              | 2.2%            | 4.4 M   | 5.0 M   | 5.2 M   | 5.4 M   |
| High                 | 64%              | 2.5%            | 4.7 M   | 5.3 M   | 5.5 M   | 5.7 M   |
| <b>Unconstrained</b> |                  |                 |         |         |         |         |
| High (9 Multi-Day)   | 82%              | 3.0%            | 4.7 M   | 5.8 M   | 6.2 M   | 6.3 M   |

**Figure 2.3-19**  
**PROJECTED GROWTH OF MULTI-DAY CRUISE PASSENGERS**

Source: Cambridge Systematics, Inc.

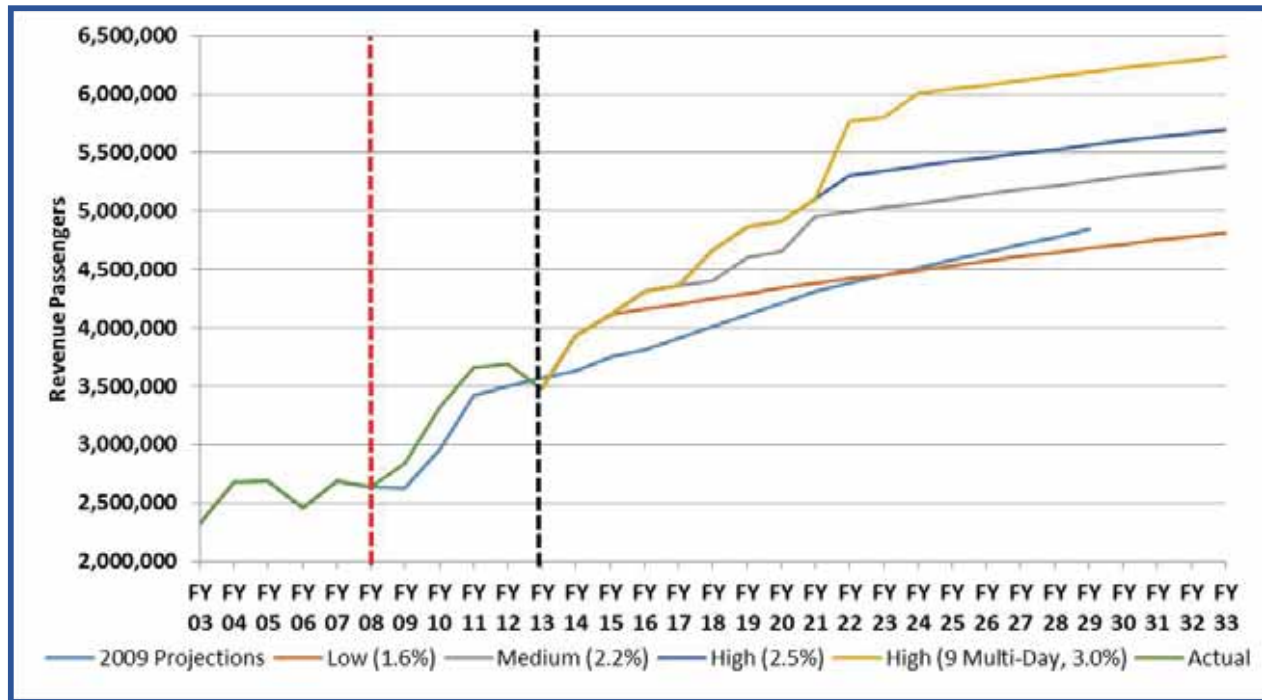




Compared to the 2009 plan, these forecasts are all above the “most likely” scenario from that plan until FY 2024 (see Figure 2.3-20). At this point, the previous forecast surpasses the low estimate. Continuing the average annual growth of 1.9 percent predicted from FY 2011 to FY 2029 results in the current medium scenario staying above the previous forecast by about 150,000 revenue passengers. Most likely, this difference is due to the significant growth expected between FY 2013 and FY 2014 from the introduction of more summer sailings.

**Figure 2.3-20**  
**MULTI-DAY CRUISE PROJECTIONS COMPARED TO 2009 PLAN**

Source: Cambridge Systematics, Inc.



**Total Cruise Passengers.** Unlike the other two scenarios, the annual growth rate of total passengers for the low estimation is lower than that of the multi-day growth. This is due to the drop off of single-day cruise passengers in FY 2015. Volumes are, however, still anticipated to grow at a rate of 1.5 to 2.7 percent through 2033. For the high estimate, this brings volumes up to 6.0 million, nearly double that of today’s operations. For unconstrained conditions, the high estimate results in an average annual increase of 3.2 percent. Table 2.3-15 and Figure 2.3-21 summarize the projected growth of cruise passenger volumes through the plan milestones.

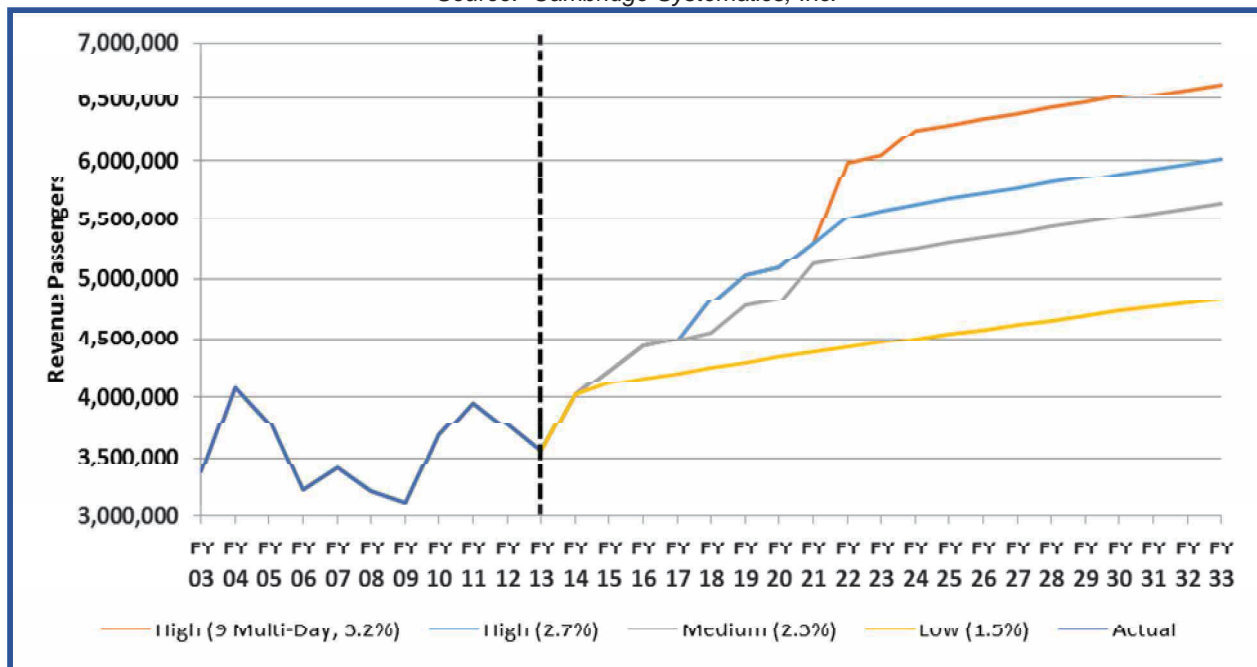
**Table 2.3-15**  
**SUMMARY OF PROJECTED GROWTH OF TOTAL CRUISE PASSENGERS**

Source: Cambridge Systematics, Inc.

|                      | Overall Increase | Annual Increase | FY 2018 | FY 2023 | FY 2028 | FY 2033 |
|----------------------|------------------|-----------------|---------|---------|---------|---------|
| <b>Constrained</b>   |                  |                 |         |         |         |         |
| Low                  | 35%              | 1.5%            | 4.2 M   | 4.5 M   | 4.6 M   | 4.8 M   |
| Medium               | 58%              | 2.3%            | 4.5 M   | 5.3 M   | 5.4 M   | 5.6 M   |
| High                 | 69%              | 2.7%            | 4.8 M   | 5.6 M   | 5.8 M   | 6.0 M   |
| <b>Unconstrained</b> |                  |                 |         |         |         |         |
| High (9 Multi-Day)   | 86%              | 3.2%            | 4.8 M   | 6.0 M   | 6.4 M   | 6.6 M   |

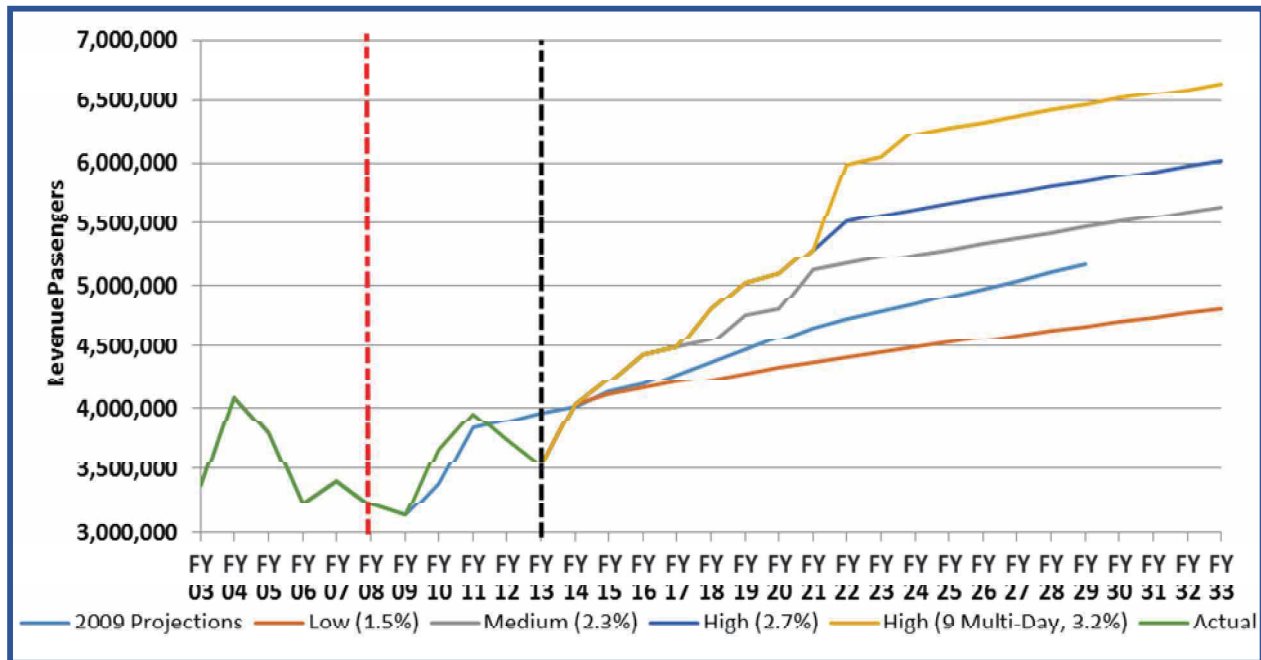
**Figure 2.3-21**  
**PROJECTED GROWTH OF TOTAL CRUISE PASSENGERS**

Source: Cambridge Systematics, Inc.



The “most likely” scenario from the 2009 plan falls between the medium and low estimates of this update, as shown in Figure 2.3-22. This does not, however, reflect the differences between the two market types. The previous forecasts still had relatively high volumes of single-day cruise passengers, which have dropped off more severely than anticipated.

**Figure 2.3-22  
TOTAL CRUISE PROJECTIONS COMPARED TO 2009 PLAN**



Source: Cambridge Systematics, Inc.

**Projected Growth Compared with Industry Estimates and PortMiami Volumes.** To put this projected growth in perspective, anticipated passenger volumes from industry sources were examined. Most significant are population growth, deployment trends in the Caribbean market, and the anticipated volume at PortMiami.

As the current largest source market, population growth in the United States will continue to impact future passenger volumes. As discussed previously, this population is expected to grow at a rate of about 0.9 percent through 2035. From 2013, this population will grow from about 316 million to 365 million in 2033. Assuming the penetration remains the same for this market, this equates to a growth of 1.6 million cruisers (3.2 million revenue passengers) in 2033 from the current year. This translates to roughly 2.9 million cruisers (5.8 million revenue passengers) worldwide if the United States maintains its 56 percent share of the cruiser population. Expected growth in other countries would likely increase this number.

Estimates for future growth by industry members are limited and only span over the course of the next few years. Cruise Market Watch provides forecasts through 2017, based on their proprietary databases, cruise lines, CLIA, Florida-Caribbean Cruise Association, and DVB Bank. Estimates for 2013 currently show about 21 million embarkations globally. This is expected to increase to 23.7 million by 2017. This growth of 2.7 million embarkations (5.4 million revenue passengers) over the next four years is well above the trends in population, suggesting that a much higher percentage of people will be cruising in the near future than are today.

From CLIA reports, both the Caribbean and Bahamas markets benefit from this growth. From 2006 to 2011, the number of bed days in the respective markets grew 2.6 percent and 1.4

percent annually. Combined, this results in an average annual growth of 2.4 percent. Assuming this growth continues through 2018 (below the 3.1 percent global growth of Cruise Market Watch) and tapers off to 1.5 percent through 2033, the number of bed days will increase by approximately 18.3 million between 2013 and 2033. Given that the average cruise is 7 nights, this results in an increase of 2.6 million more passengers (5.2 million revenue passengers) in the Caribbean market. These projected growths from the various sources are summarized in Table 2.3-16

**Table 2.3-16**  
**SUMMARY OF CRUISE INDUSTRY GROWTH ASSUMPTIONS**

Source: Cambridge Systematics, Inc.

|                           | Population Growth<br>(U.S. Census) |          |       | Passenger Growth<br>(Cruise Market Watch) |       |       | Bed Day<br>Growth<br>(CLIA) |
|---------------------------|------------------------------------|----------|-------|---|-------|-------|-----------------------------|
| Year                      | 2033                               |          |       | 2017                                      |       |       | 2033                        |
| Market                    | U.S.                               | Non-U.S. | Total | N America                                 | Other | Total | Caribbean                   |
| New Passengers            | 1.6 M                              | 1.3 M    | 2.9 M | 1.3 M                                     | 1.4 M | 2.7 M | 2.6 M                       |
| New Revenue<br>Passengers | 3.2 M                              | 2.6 M    | 5.8 M | 2.6 M                                     | 2.8 M | 5.4 M | 5.2 M                       |

Looking at the recently completed Master Plan for PortMiami, the overall composite projection has revenue passengers increasing from 4.1 million in 2011 to 5.9 million in 2035. Scaled back to the forecast year of 2033 to match this *2014 Port Everglades Master/Vision Plan*, this forecast would be 5.7 million revenue passengers, assuming a steady growth rate, or an increase of roughly 800,000 passengers (1.6 million revenue passengers). Based on the 5.2 million new revenue passengers anticipated by 2033, this leaves 1.8 million cruise passengers (3.6 million revenue passengers) to be captured by other ports for the Caribbean market. The low, medium, and high Port Everglades' forecasts fall within this parameter. Some of this growth at Port Everglades is, however, contingent upon shorter sailings which would increase embarkations significantly.

Port Everglades' market capture of new volumes for each scenario is shown in Table 2.3-17. While these data suggest that the Port's market capture will increase significantly, the overall Caribbean market estimate is conservative. What is important is that the market is anticipated to provide adequate demand for even the most aggressive Port Everglades' forecast.

**Table 2.3-17**  
**SUMMARY OF NEW CARIBBEAN MARKET PASSENGERS**

Source: Cambridge Systematics, Inc.

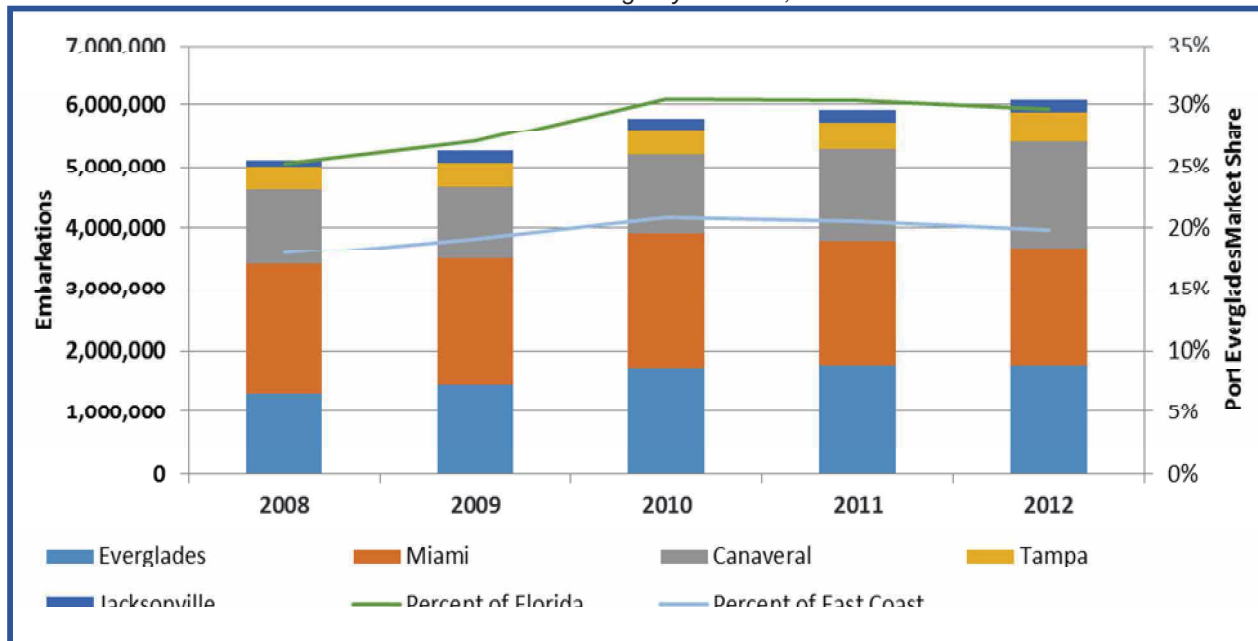
| Port                   | Bed Days  | PortMiami | Port Everglades |        |       |                |
|------------------------|-----------|-----------|-----------------|--------|-------|----------------|
| Year                   | 2033      | 2033      | 2033            |        |       |                |
|                        |           |           | Constrained     |        |       | Unconstrained  |
| Market                 | Caribbean | Total     | Low             | Medium | High  | High (9 Ships) |
| New Passengers         | 2.6 M     | 0.8 M     | 0.7 M           | 1.0 M  | 1.1 M | 1.4 M          |
| New Revenue Passengers | 5.2 M     | 1.6 M     | 1.3 M           | 1.9 M  | 2.2 M | 2.8 M          |
| Percent of New Market  |           | 31%       | 26%             | 37%    | 42%   | 54%            |



Compared to Port Everglades’ historical market capture, shown in Figure 2.3-23, all estimates are above the current embarkation share of East Coast ports. Market capture can quickly shift, however, as demonstrated by Port Everglades’ passenger volumes between 2008 and 2012 when its share increased from 25 percent of Florida embarkations to 30. Additionally, many northern ports will be more impacted by the effects of ECA than Port Everglades will be. Already Carnival Cruise Lines has reworked deployments to remove vessels from the underperforming ports of Norfolk, Baltimore, and Boston and has placed those ships in Tampa, Miami, Canaveral, and New Orleans.

**Figure 2.3-23**  
**PORT EVERGLADES SHARE OF FLORIDA AND EAST COAST EMBARKATIONS**

Source: Cambridge Systematics, Inc.



**Additional Input from Cruise Industry Members.** In speaking with cruise industry members, the consultant team found many of them had additional input regarding aesthetics and operations at Port Everglades. As a whole, both cruise lines and passengers report positive experiences at Port Everglades. Recent terminal upgrades were acknowledged and complimented, and the port was encouraged to do more. With the majority of cruise terminals located adjacent to active cargo operations, the terminals themselves provide one of the only opportunities to provide aesthetically pleasing décor.

Additionally, procedures seem to vary from terminal to terminal. Terminal 18 was lauded as having an excellent process for loading passengers, most likely from the need to board significantly higher volumes of passengers on the Oasis class ships; but there is no consistent experience at the other terminals. Standardizing procedures will increase the overall impression of Port Everglades and help to ensure that cruisers will return. This will also help the Port demonstrate to the cruise lines that it is capable of processing more ships per day on an average basis while still providing passengers with an enjoyable experience.

Additional considerations that would require collaboration with other partners include airlift capabilities and the marketing of Fort Lauderdale. Some smaller cities have limited airlift to Fort Lauderdale-Hollywood International Airport (FLL), making it more expensive for potential cruisers to fly into the airport. With easier access to Miami International Airport (MIA), these cruisers may find it easier to instead embark from PortMiami rather than transferring to Port Everglades. It was suggested that Port staff collaborate with airport officials to determine key cruise markets underserved by FLL and encourage new flights to better serve these markets.

Fort Lauderdale as a whole is seen as a more attractive destination than Miami as there are fewer people and it appears less intimidating. Nevertheless, cruise industry representatives suggested that Fort Lauderdale needs to be built up as more of a destination to serve as an 8-hour port-of-call to attract more guests, something that Port Canaveral has done well. While South Florida's landscape and community is dominated by tourism, it lacks the consolidated activity centers in proximity to the Port that function well for the limited time-window of a port-of-call. In addition, a more organized focus on the cruise market would encourage cruisers to come early or stay later than their cruise. Recent initiatives such as Sunny.org should continue to ensure that Broward's cruise industry is appropriately integrated into marketing campaigns and associated tools. For example, Sunny.org visitors can reserve hotels, flights, cars and other attractions, and take advantage of deals marketed toward cruisers; however, they cannot book a cruise directly today. Sailings out of Port Everglades could be added to these options to encourage cruising as a part of the Greater Fort Lauderdale/Broward County experience.