



## 4 FINANCIAL CONSIDERATIONS

The capacity to fund projects intended to accommodate the aviation activity forecast in a long-term master plan is an unavoidable constraint on an airport operator when evaluating development options. All major airports in the United States, including FLL, are self-financing. That is, monies used to fund capital projects are directly supported by user fees, rents, charges, and other revenues of the airport or airport system.

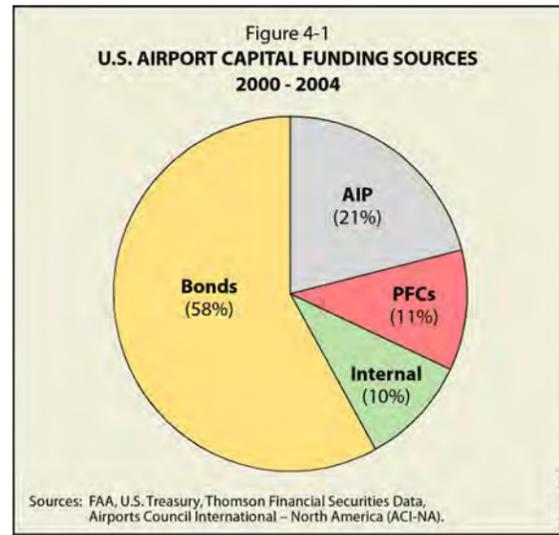
General local taxes do not directly support projects at large airports, which is the case at FLL also. As large airports do not rely on any local secondary source to support project financing, and given that such projects most often are intended to accommodate forecast activity (rather than existing activity), the capacity to finance projects is somewhat constrained, and financial planning is essential.

This section presents an overview of the sources of funding generally available to airport operators when developing a financial plan for capital projects, presents a review of the County's capacity to finance future capital projects at FLL, outlines the financial implications of completing projects treated as "givens" in the FLL Master Plan Update process, outlines key factors affecting project cost and financing to be considered by the County in reviewing the Master Plan Update process, and discusses airline rate-making considerations.

### 4.1 OVERVIEW OF AIRPORT CAPITAL FUNDING

Airports are capital-intensive facilities and airport operators rely on a wide variety of diverse sources to finance capital projects as described below and shown on Figure 4-1.

- **Airport Revenue Bonds** – Among large airports in the United States, bond proceeds account for considerably more than 50% of the funds used to construct capital projects. These bonds are, in most cases, secured by airport revenues and sometimes passenger facility charge revenues. Under some negotiated airline agreements, including the one in effect at FLL, airline tenants must approve the issuance of general airport revenue bonds. This is in part because the debt service on such bonds may affect future airline rates.



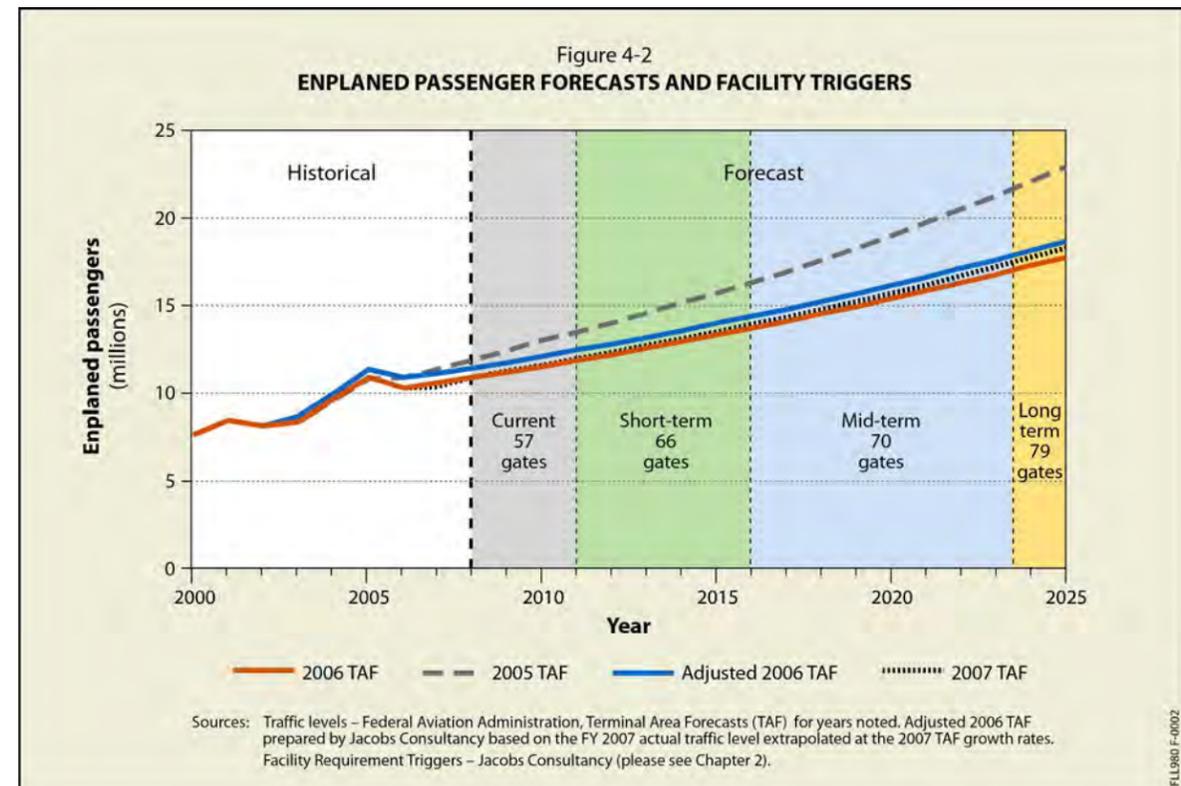
- **Passenger Facility Charges (PFCs)** – PFCs are Congressionally authorized local user fees that may be used only to fund eligible capital projects. PFCs are collected by the airlines on behalf of an airport operator in conjunction with the airline ticket sale, and PFC revenues are remitted directly to the airport operator less an airline fee for administration. PFC revenues may be used to fund projects on a pay-as-you-go basis or to support financing by paying debt service on bonds and other debt instruments.
- **Federal Grants** – Airport operators annually receive formula-based grant funds through the FAA's Airport Improvement Program (AIP). Formulas for determining the amount of annual AIP "entitlement" grants are based on numbers of enplaned passengers and cargo weight and are discounted if the airport levies a PFC greater than \$3.00. Airport operators may also apply to the FAA for additional "discretionary" AIP grants to fund eligible capital projects (e.g., noise set-aside grants, Letter of Intent or "LOI" for the South Runway). In general, the larger the airport, the smaller the role of AIP grants in funding a capital program. For example, AIP grants have historically financed less than 5% of FLL's capital spending. Since 2002, grants have also been available on a very limited basis from the Transportation Security Administration (TSA) for security-related capital projects at airports. It is expected that the County would pursue TSA security infrastructure grants.

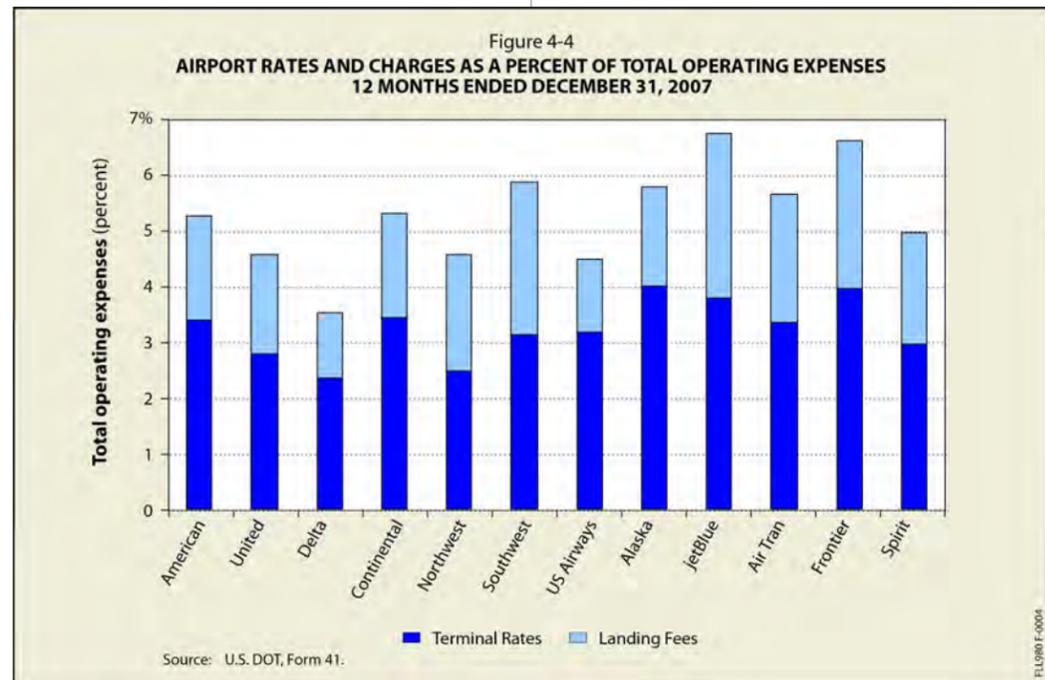
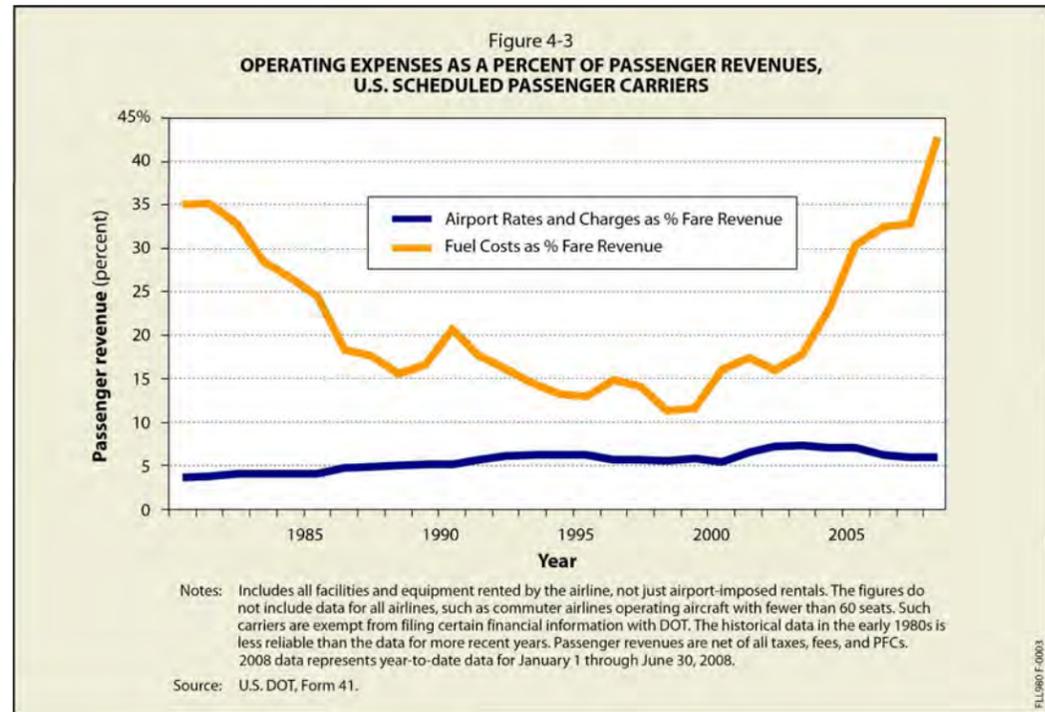
- **State Grants** – The State of Florida is unique in that it provides (1) grants through its Department of Transportation (FDOT) and (2) State Infrastructure Bank (SIB) loans to airport operators for eligible capital projects. The County has received both types of assistance from the State to help fund projects at FLL. Florida has the largest airport state grant program in the nation.
- **Available Airport Funds** – Airport operators generate revenues from various airline and non-airline sources. After paying operating and debt service costs, the revenues be retained and invested in capital projects, depending on the terms of the airline agreements, if any, and agreements with bondholders.

### 4.2 CAPACITY TO FINANCE FUTURE CAPITAL PROJECTS AT FLL

The core drivers of the County's ability to afford future capital projects include:

- Increases in passenger levels and associated nonairline and PFC revenues. As noted earlier, facility improvements are driven by passenger "trigger" levels. Given the erratic nature of airport construction, airline unit costs increase immediately after new facilities are placed into service and then decline over time as passengers increase. Figure 4-2 shows the estimated timing for key passenger triggers based on recent FAA Terminal Area Forecasts as described in Chapter 2.
- FLL's existing cost structure and levels of outstanding debt.
- Additional costs and outstanding debt once the Master Plan Update's "given" projects are completed.
- The cost, scale, and timing of future capital projects.
- The County's willingness to charge users fees that reflect the capital and operating costs of the Airport's facilities, and user acceptance of such fees.





The potential for realizing increased PFCs, either through increased passenger numbers or from a potential increase in the federally imposed cap on the PFC rate. An increase in the PFC rate above \$4.50 is under discussion throughout the aviation industry and has been included in the FAA Reauthorization proposals from both the Administration and the House of Representatives. As a result, the financial analysis included an assessment of an increase in the PFC level to \$6.00 per enplaned eligible passenger. An increase in the rate is not under the County's control, but requires Congressional action for airports nationwide.

- Ability to secure federal and state grants.
- Escalation of construction costs and general inflation.
- Access to financial credit markets at reasonable rates.
- The County's capacity to bond finance the capital program based on forecast growth.

4.2.1 Current Financial Performance and Future Targets

To assess the County's capacity to finance the alternative terminal development programs discussed in Section 6, it is necessary to make certain assumptions about the financial performance measures the County might use to compare performance. Three primary metrics were used in our assessments: (1) airline cost per enplaned passenger (CPE), (2) airline CPE in relation to fare revenue, and (3) debt per enplaned passenger.

Airport rates and charges are a growing category of airline costs, both in relative and absolute terms. Airport charges are important to airlines, especially during these times of financial duress for the industry.

As shown in Figure 4-3, airport rates and charges have historically represented between 4% to 6% of airline fare revenues (except for a few years after September 11, 2001). However, as shown in Figure 4-4, airport rates and charges account for a larger share for low cost carriers (e.g., Southwest, AirTran, jetBlue, Frontier, Spirit) due to low fares.

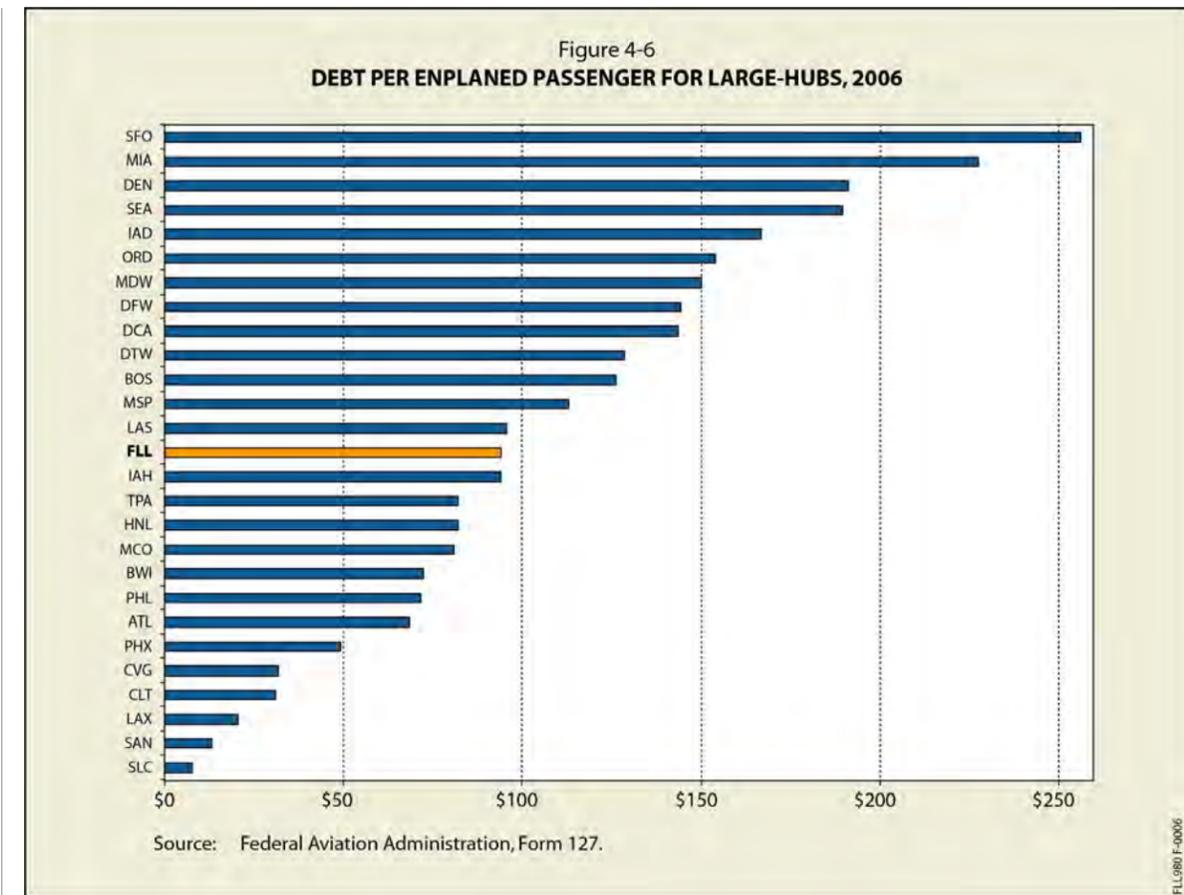
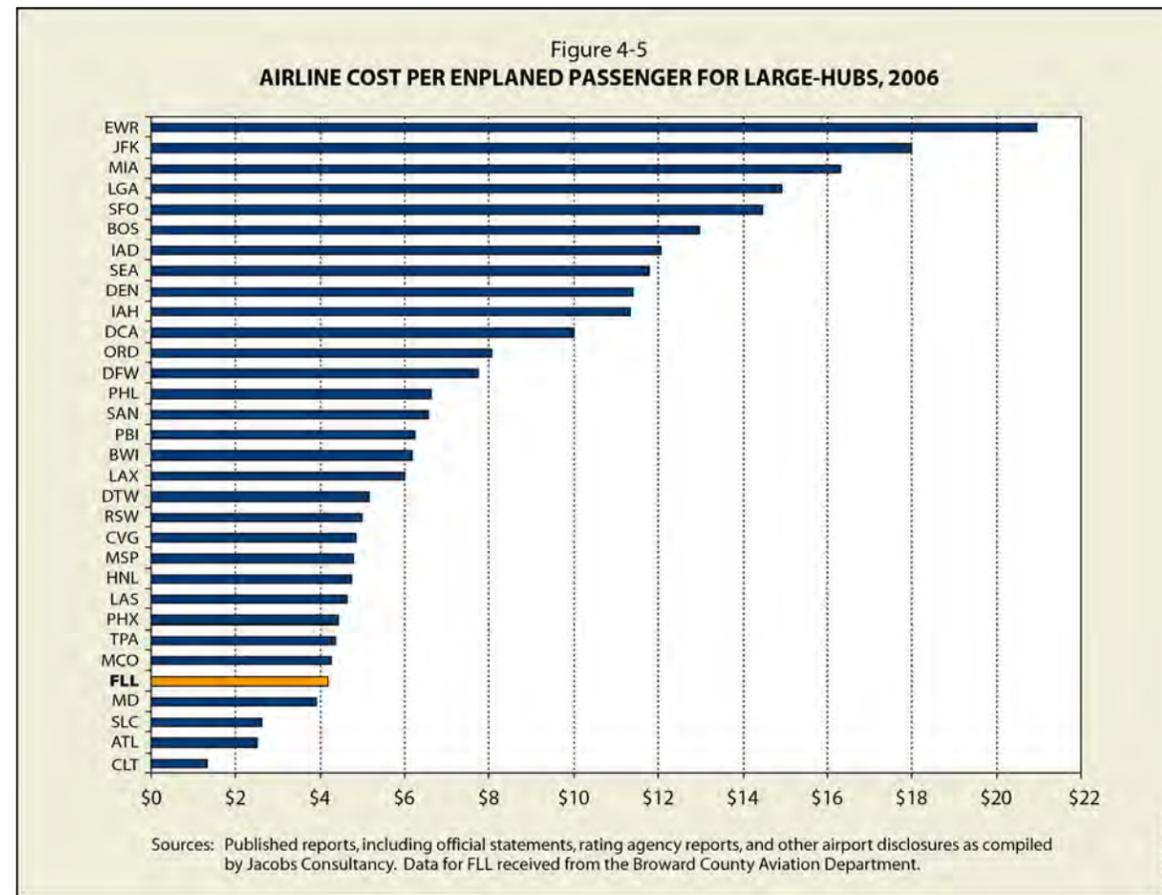
Unlike the cost of aviation fuel, which represents a growing percentage of the airline cost structure and is largely beyond the control of airline management, airlines view airport charges as subject to some degree of control. Savings in airport charges, if any, are relatively modest.

The three key measures for helping an airport assess the reasonableness of its airline rates and charges are: (1) airline costs per enplaned passenger (CPE), (2) debt per enplaned passenger (DPE), and (3) airline costs as a percentage of fare revenue. Because all three rating agencies regard CPE (and outstanding DPE) as indicators of an airport's cost structure, it is widely recognized as a key rating metric. In the final analysis the "reasonableness" of airline rentals, fee, and charges is a judgment that must be made by the individual airlines in deciding what level of service to provide in the FLL market, which is why the airlines were consulted as part of the Master Plan Update process.

- **Airline Cost per Enplaned Passenger** — Revenues from airlines typically constitute more than 50% of total revenues at large-hub airports and consist of landing fees, terminal rentals, and other fees and charges. CPE is a standard, though imperfect, measure used to compare landing fees and terminal rents paid by airlines across airports. CPE is an increasingly important consideration for the airlines in the weak airfare revenue environment as many airlines have already negotiated concessions from labor, vendors, and suppliers and significantly reduced their distribution costs with the Internet. Compared to costs at other large airports, airline costs at FLL are among the lowest in the industry as shown on Figure 4-5 (on the following page). While the median airline CPE at large-hub airports was estimated to be \$6.20 in 2006, and the 75th percentile was \$11.79 (i.e., the CPE at 75% of large-hub airports is at or below \$11.79), the CPE at FLL in Fiscal Year 2006 was \$4.19. The County has a well-established history of seeking to maintain low airline costs, with a goal of attracting low-fare airline service to FLL. The CPE increased to an estimated \$6.61 in FY 2008, reflecting the end of credits from the Rate Stabilization Fund.

In addition to the County's management goal of supporting low airline rates, FLL has remained a low-cost airport to date because:

- No substantial airfield or terminal facilities were built at the Airport between 1986 and 2001, when Concourse C at Terminal 1 was completed.
- Rapid passenger growth through the recent period of construction has kept pace with capital expenditures and operating costs, keeping CPE relatively flat.



- Construction to date has been on undeveloped land, so little relocation or demolition of existing facilities was necessary.
- PFC revenues have been leveraged to fund a significant share of new facilities that would otherwise have been funded with airline revenues.

For purposes of this analysis, it was assumed that the County would want to limit the CPE at FLL to the 75th percentile or lower compared to other large-hub airports.

- **Airport Debt Levels** – FLL also has lower debt levels than other large-hub airports, as measured by the amount of outstanding principal on bonds (not annual debt service) per enplaned passenger. In 2005, both the median level of outstanding debt per enplaned

passenger (DPE) at large-hub airports and that at FLL was \$94, while the 75th percentile was \$144. (FLL is closer to the median in DPE than CPE because the County has issued PFC debt, which is reflected in DPE but not CPE.) DPE is taken into account by credit rating agencies, bond insurers, and potential investors.

As shown in Figure 4-6, airport debt per enplaned passenger is more evenly distributed across a range among large-hub airports than CPE. For purposes of this analysis, it was assumed that the County would also want to limit DPE at FLL to no more than the 75th percentile compared to other large-hub airports.

The reasonableness of airport costs must also be considered in the context of the fare revenues generated in the

market. In general, the higher the fare revenues, the more the airlines can afford to pay in airport fees and charges.

These metrics show where FLL falls relative to (1) other low fare airports and tourist destinations, (2) other Florida airports, which share similar market characteristics as Sun Belt destinations, and (3) competing South Florida airports within driving distance of FLL. No absolute benchmark exists for airport financial capacity or for determining affordability. However, the above figures represent the upper limits of the affordability range, which generally occurs at the 75th percentile of the CPE index. Only certain airports with unique characteristics operate above this “soft ceiling” largely because of unique circumstances; for example, the three large-hub New York airports and Washington-Dulles, San Francisco, Seattle, and Boston.

CPE and DPE at the 75th percentile for large-hub airports do not represent a target for results, and should not be interpreted as acceptable to airport users, particularly airlines. In general, airline concerns about cost will increase significantly as an airport’s development increases from baseline levels, exceeds the industry medians, or approaches this “soft ceiling”. User views of increased costs will also be affected by the utility and efficiency of the development program presented by the airport operator. Therefore, a standardized upper limit at the 75th percentile for CPE and DPE is a financial planning and comparative tool for stakeholders and the Board to use in evaluating development options that have varied efficiencies, financial capacities, and user benefits.

**4.3 FINANCIAL MODELING APPROACH AND BASELINE ASSUMPTIONS**

The financial planning model developed to assist in this analysis is based on historical information for FY 2006, estimated information for FY 2007, and budgeted information for FY 2008 and other key assumptions described below.

**4.3.1 Financial Planning Approach**

A key step in developing the financial plan for the Master Plan Update was to resolve the tension between new facility requirements, financial performance, and cost management targets. To accomplish this, facility timing and sequencing were reviewed, as were innovative financing options. A financial forecasting model through 2025 was also created to evaluate numerous scenarios for development at FLL, and to ensure that facilities are developed to optimize financial capacity and funded in such a way as to manage FLL's cost structure and minimize airline costs as much as possible. FLL is nearing a point at which some of the factors that have kept costs and debt levels fairly low historically will no longer be in play. As the County moves forward with projects intended to accommodate forecast traffic growth through 2025, FLL will experience more complex and costly construction phasing, as is the case at most other large-hub airports. This is characteristic of airport development through redevelopment or rehabilitation, which is inherently more expensive than greenfield airport development.

The financing strategy for the Airport Master Plan Update was developed with input from key stakeholders, including BCAD staff, the airlines serving FLL, the EIS team for the South Runway Extension, and also with the Board of County Commissioners in public workshops and meetings.

**4.3.2 Existing Capital Improvement Program**

BCAD prepares a multi-year Capital Improvement Plan (CIP) each year in the course of preparing its annual budget for the Airport. At the time of this writing, the FY 2007-2013 CIP identified approximately \$1.76 billion in potential future capital projects after escalating for inflation at 5% per year. The cost estimate for the South Runway Extension (\$810 million) was provided by the EIS consultant, which includes approximately \$40 million for Terminal 4 gate replacement, as well as allowances for design, construction management, and contingencies. It was assumed that the

gate replacement costs would be absorbed in the Master Plan cost estimates. All other cost estimates were provided by the County and its consultants and include allowances for design, construction management, and contingencies. The CIP represents to the County's best knowledge and belief at the time it was developed, all of the significant capital improvements expected to be undertaken through FY 2013. The County reassesses its capital needs at least annually and will modify the CIP as necessary to accommodate traffic activity, security needs, and other factors, which could result in increases or decreases to the CIP, or extend the timing to complete certain projects.

**4.3.3 BCAD Funding Source Assumptions**

At the time of this writing, in developing a funding plan for the existing CIP and the Master Plan, the following assumptions were used in consultation with BCAD staff:

- Federal and State Grants
  - A federal and state grant application was submitted December 2009. Prior to formal application for the South Runway Extension, it was conservatively assumed the County would secure a Letter of Intent (LOI) from the FAA totaling \$200 million in AIP grants with a term of 10 years. This amount is approximate and is dependent on the final LOI.
  - For noise mitigation, it was assumed the County would secure \$35 million in PFC funding, which would be the 20% matching share of a total of \$175 million. Therefore the County would be seeking \$140 million in noise-set aside grants.
  - From the Transportation Security Administration (TSA), it was assumed that the County would receive \$70 million for security infrastructure grants through 2025.
  - From the Florida Department of Transportation, it was assumed that the County would receive \$9 million per year, which is the historical average.
- PFC Revenues
  - In light of the discussions on the FAA Reauthorization, it was assumed that the PFC level would be increased by Congress and that the County would propose an increase in PFC's from \$4.50 to \$6.00 per eligible enplaned passenger.
  - \$1.50 of each PFC was assumed to be dedicated to pay noise mitigation through the Noise Mitigation

Bank on both a pay-as-you-go and leveraged basis, up to 35 Million for the Noise Mitigation Fund.

- \$3.00 of each PFC is largely committed through 2012 to the payment of debt service on bonds and the repayment of a State Infrastructure Bank loan.
- The PFC-backed 2004L Bonds would be redirected to existing CIP projects.
- The PFC eligibility for the Master Plan would be approximately 70%.
- PFC revenues would be completely used for CIP and Master Plan projects.
- At the time of this writing, all PFC bonds would be available for the South Runway Extension.
- BCAD CIP Funding — Assumptions used in the development of the FY 2008 – FY 2013 CIP were also used for the existing CIP except for the redirection of the 2004L Bonds.
- Airport System Revenue Bonds – would fund the balance of Master Plan project costs because internally generated cash would be dedicated to renewal and replacement of existing facilities and BCAD's CIP.

**4.3.4 Financing Assumptions**

At the time of this writing, in developing financing assumptions, the following assumptions were used in consultation with BCAD staff. These are conservative assumptions for conceptual level analysis especially for the runway. It is expected that BCAD would utilize commercial paper and/or phase bond issues to meet cash flow needs to reduce negative arbitrage and capitalized interest costs.

- Airport System Revenue Bonds
  - An average interest rate of 5.5% representing a blend of fixed and variable rate debt.
  - Level annual principal and interest.
  - 30-year bonds.
  - Cash funded debt service reserve from Bonds.
  - Interest would be capitalized for the full runway construction period (estimated to be five years), one year for all other bond funded CIP projects, and three years for all Master Plan funded projects to correspond to the assumed design and construction periods.

– There would be no capitalized interest for PFC-backed bonds.

- Line of Credit for Runway LOI
  - 5.0% interest rate (variable rate assumed).
  - Paid down as LOI receipts are received.

**4.3.5 Project Cost Assumptions**

At the time of this writing, the following assumptions were used for projects costs in consultation with BCAD staff:

- The 2007 Adjusted TAF traffic forecast was used as the enplaned passenger forecast.
- A project design contingency of 10% was applied to all Master Plan projects.
- Renovation costs were included in Master Plan budget.
- After consulting with the airlines, it was assumed that there would be nonexclusive use leasing of gates after the existing airline agreements expire in 2011, which will permit higher gate utilization and therefore the need for a lower gate build-out.
- Construction costs escalation at 5% per year through 2012 then 3.5% per year thereafter.
- The South Runway Extension construction starts in 2010 and opens in 2014.

**4.3.6 Operating Assumptions**

At the time of this writing, the following assumptions were used for operations in consultation with BCAD staff:

- Allowances were made for incremental O&M expenses for new and expanded facilities.
- Base O&M expenses would increase at 4% per year from the FY 2008 budget.
- Parking rates would increase \$1 per day every 5 years.
- At the time of this writing, \$20M per year would be spent for renewal and replacement through 2012, then reduced to \$10M per year. These amounts would be expensed in each year through the airline rate base. This assumption may be revisited with detailed terminal planning studies.
- The existing airline ratemaking procedures would remain in place under current agreement, subject to negotiations.

**4.4 AIRLINE RATE-MAKING CONSIDERATIONS**

The County entered into long-term Airline-Airport Lease and Use Agreements (Airline Agreements) with most of the airlines currently serving the Airport (the Signatory Airlines). These agreements are scheduled to expire in September 2011. The Airline Agreements define:

- Terms for use of the Airport and its facilities.
- Leasing of exclusive and nonexclusive space.
- Airline majority-in-interest (MII) approval of (1) certain capital expenditures and (2) issuance of bonds for which debt service is to be included in the airline rate base.
- Terms for maintaining and operating the Airport.
- A “residual” methodology for setting airline rates and charges each year, which credits revenues from various non-airline sources, such as parking, rental cars, terminal concessions, and land rentals, to abate the fees paid by the airlines. BCAD, therefore, recovers from airline fees and charges the net amount necessary for the Airport to break even annually, retaining limited deposits to capital funds.
- Earnings retained each year that can be used at the County’s discretion without MII approval, which currently ranges from \$5 million to \$6 million annually, is a fairly limited amount compared to that available to most other airport operators.

When the current Airline Agreements expire in 2011, the County will need to decide what form of airline agreement, if any, and rate-making methodology it wants to implement. The County’s business relationship and rate-making methodology will be a function of several key policy decisions, including but not limited to:

- **Whether or Not to Adopt a New Airline Agreement** – It was assumed in this analysis that a new airline agreement will be executed.
- **Control of Capital Program and Operation** – A number of capital projects proposed for 2012 through 2025 may or may not have airline support. For the purposes of this analysis, it is assumed that, after 2012, the County will reserve its right to make decisions regarding capital investments and operating costs.

- **Airline Costs** – The County will need to decide whether it prefers to (1) minimize increases in airline costs while proceeding with the identified capital projects by crediting nonairline net earnings to abate airline rates and charges, or (2) retain net earnings to be invested as equity in capital projects, as discussed below. It was assumed in this analysis that controlling airline costs will take priority over accumulating equity for projects.
- **Managing Debt Levels** – The County may need to establish an acceptable level of debt for FLL, and this may be a more conservative amount than the level established by other airport operators. If so, the County may prefer to retain non-airline revenues and invest them as equity in capital projects.

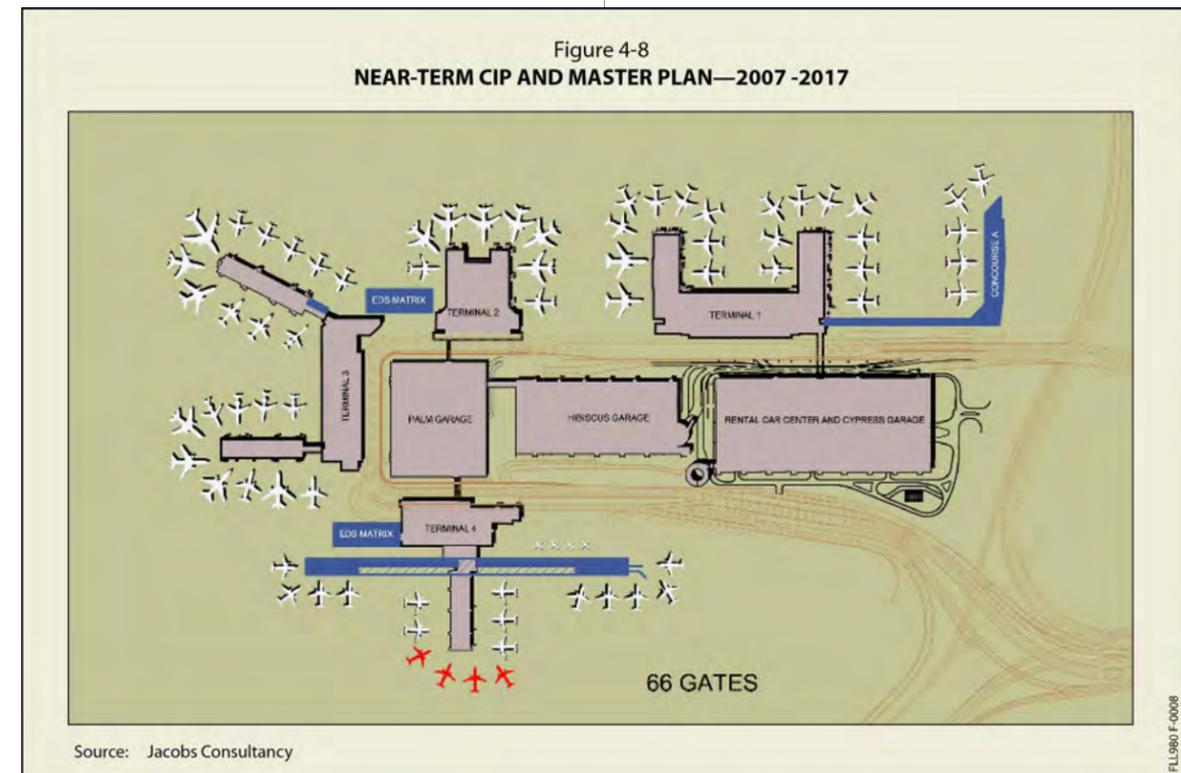
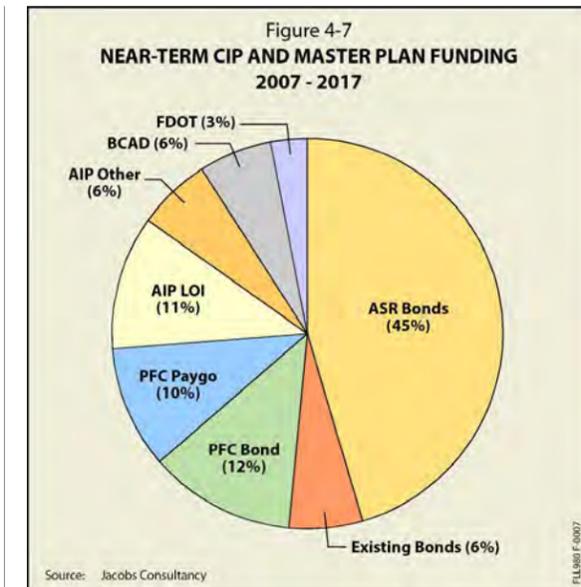
As noted above, it was assumed in this analysis that the current residual rate-making methodology is the default methodology for the future, based on existing practice and current County goals of maintaining low airline rates. Other rate-making methodologies would serve various objectives and would likely increase airline costs in the years after 2011, when such a change in methodology would be permitted. This methodology will be re-evaluated as the Broward County Aviation Department (BCAD) moves forward in the LOI process for the runway.

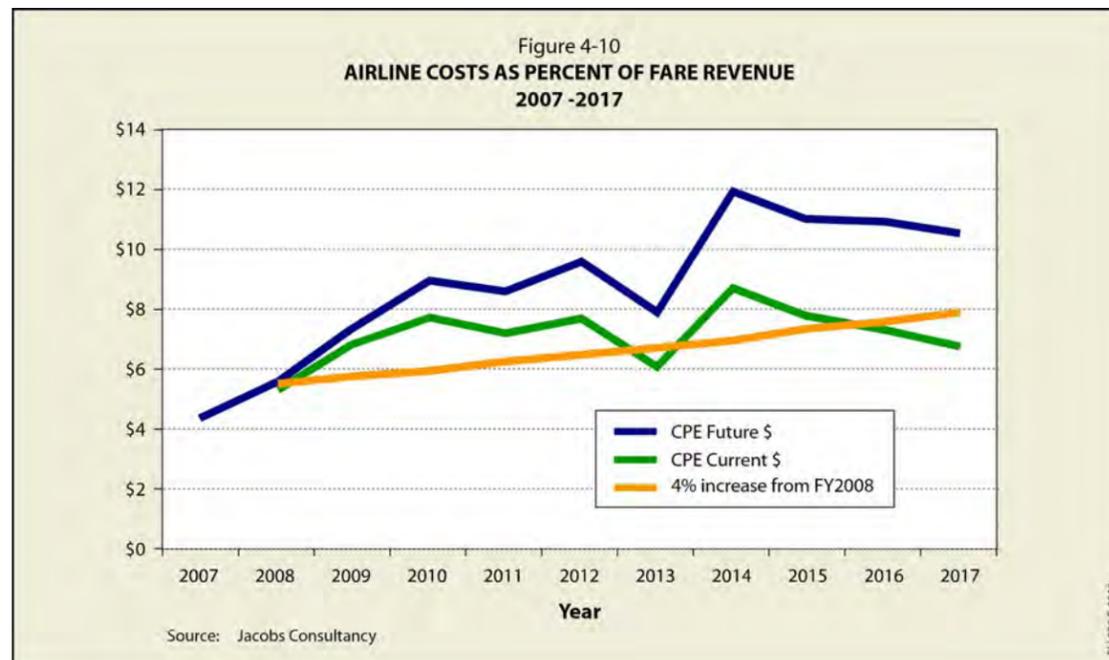
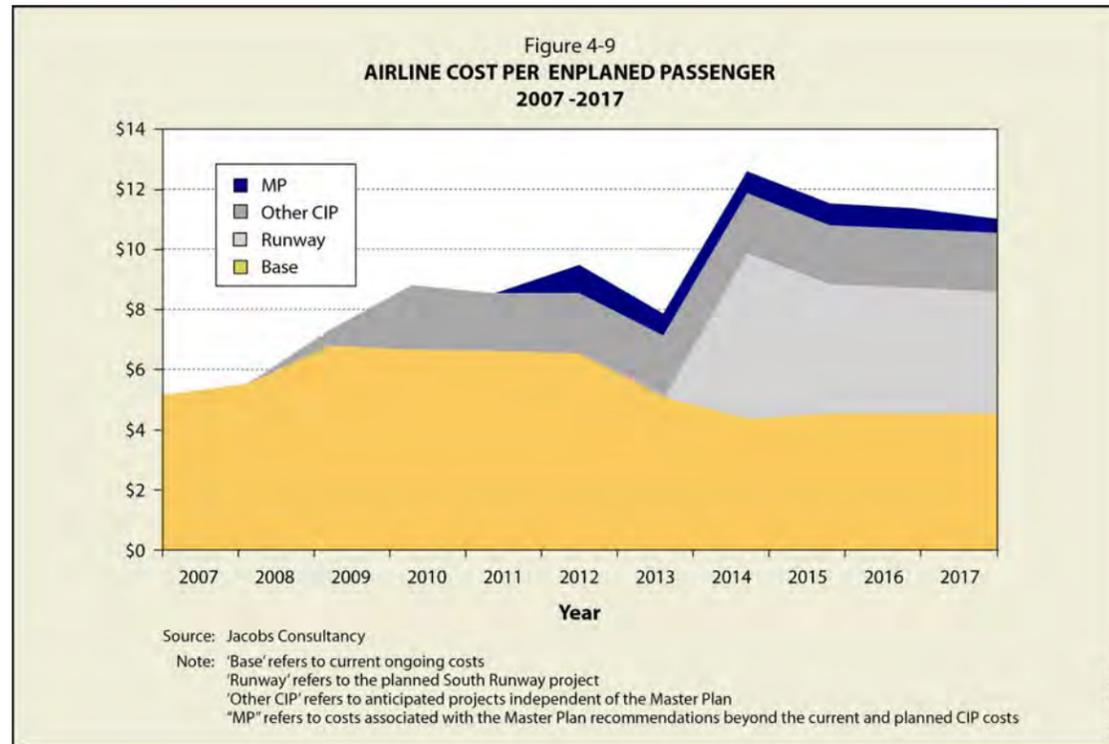
**4.5 SUMMARY OF KEY FINDINGS**

The key findings of this financial assessment include the following:

1. The County must manage future facility development in light of its financial targets and its ability to maximize the utilization of existing facilities through the use of more common use systems and nonexclusive terminal leasing procedures. The extent of FLL’s financing capacity is primarily a function of the County’s policies regarding airline costs. It will be very challenging to maintain FLL’s historically low CPE. The County will need to look at multiple strategies to maintain this or will need to depart from the historical goal of maintaining airline costs that are among the lowest in the industry for large-hub airports.
2. The County has been able to maintain lower CPEs in the past 10 years because of greater than forecast airline traffic growth, and the development of new

facilities with capital costs and funding that have been well managed. To minimize future user costs, the Airport development strategy needs to (1) be flexible enough to enable incremental development of facilities in response to demand, (2) maximize utilization of existing facilities through common use systems and nonexclusive leasing procedures, (3) minimize debt costs through the utilization of commercial paper and by negotiating airline agreements that permit access to less expensive debt (i.e., governmental purpose bonds for the South Runway), (4) aggressively lobby to secure federal and state grants for the CIP, (5) maximize PFC revenues, (6) maximize non-airline revenues, (7) maintain existing infrastructure through proactive renewal and replacement to avoid higher costs from deferral of such investments, (8) avoid high-cost capital projects that deliver marginal net capacity and/or revenue generation, (9) recognize that most new projects cannot be developed on “green field” sites and are, therefore, more likely to be relatively more expen-





sive due to complications of redevelopment, and (10) minimize the extent to which projects require large front-loaded investment that depends on subsequent traffic growth to make financial sense.

- The completion of projects in the existing CIP, including the Proposed South Runway Extension, as defined by the County to date, will increase airline costs, with the CPE projected to be in the mid range for large-hub airports. Therefore, the capacity to fund additional projects will be reduced unless actual traffic materially exceeds the forecasts.
- A number of factors could positively affect the affordability of new capital projects above the baseline assumptions, including the potential for exceeding the traffic forecasts, an increase in the PFC level, increased non-airline revenue, and managing growth in operation and maintenance expenses.
- The estimated escalated project costs for the CIP and near-term Master Plan (through 2017 based on trig-

gers using the 2006 Adjusted TAF) total \$1.76 billion for the CIP (including the South Runway Extension) and \$0.11 billion for the Master Plan. The funding plan is shown in Figure 4-7. Figure 4-8 shows the conceptual build-out for the Master Plan for this period.

- Airline costs per enplaned passenger are projected to increase as shown in Figure 4-9.
- Airline CPE in current and future dollars are projected to increase as shown in Figure 4-10 as compared to what the CPE would be if it increased at 4% per year.
- The implementation of the above funding plan would result in an airline CPE that is projected to be in the mid range of costs for other large hub airports taking into account announced programs and costs at these airports as shown in Figure 4-11.
- A re-evaluation of CIP projects and funding strategies will be identified in the LOI that will assist in lowering projected CPE.

