The 2008 Review of Florida’s MPO Long Range Transportation Plans
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Long Range Transportation Plans

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The Florida Department of Transportation
The Florida Metropolitan Planning Organization Advisory Council

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Executive Summary

Federal and state transportation statutes require that a long range transportation plan (LRTP) be developed for all urban areas with more than 50,000 people. The agency responsible for drafting and approving LRTPs is the Metropolitan Planning Organization (MPO). There are twenty-six MPOs in Florida. All of the state’s MPOs are members of the Florida Metropolitan Planning Organization Advisory Council (MPOAC), which serves as a statewide discussion forum and policy education organization.

In 1997, the MPOAC asked the Center for Urban Transportation Research (CUTR) at the University of South Florida to conduct a comparative review of all LRTPs in the state. The project aimed to gain a comprehensive understanding of the issues being assessed and documented in plans, as well as to uncover examples of outstanding planning practice. These studies suggested several technical, methodological, and policy improvements to the transportation planning process. Data from the LRTPs was also used to estimate a statewide twenty-year metropolitan funding shortfall of $22.3 billion. The project was repeated in 2002 and uncovered a shortfall of $37.7 billion.

This project is a continuation of the reviews undertaken in 1997 and 2002. Federal and state legislation have continued to alter the priorities and requirements of LRTPs. In addition, several systemic and voluntary changes have altered the MPO planning environment. Every MPO had adopted a new LRTP since the last review.

Overall, the quality of LRTPs improved substantially beyond those reviewed in 2002 and 1997. MPOs have moved away from overwhelming the reader with technical analysis in favor of crafting a document that is accessible to lay readers. MPOs have also increased the rigor of their analysis. Further, MPOs are exhibiting greater attention to regional and statewide issues.

Specific observations discussed in the report are:

- LRTPs were substantially more user-friendly and better organized during this cycle.
- MPOs are meeting or exceeding levels of public involvement set forth by state and federal law, and are continuing to develop new methods for communication.
- There was wide-spread reliance on the Efficient Transportation Decision Making (ETDM) screening process to identify cultural, environmental, or community impacts, often to the exclusion of independent analysis.
- There remains little agreement across the state on the horizon year and effective years of LRTPs.
- Although most MPOs discussed freight and economic competitiveness, few gave the issue detailed consideration.
- MPOs had difficulty adjusting to the designation of the Strategic Intermodal...
System (SIS) and the associated investment policy.

- MPOs paid greater attention to non-highway transportation modes.
- Planning for Intelligent Transportation Systems (ITS) has become commonplace.
- The reporting of financial data varied widely across the state.
- Interagency coordination is becoming institutionalized at most MPOs.
- MPOs are frequently not documenting their methodology for moving projects from the needs plan to the cost feasible plan and to the TIP.
- There remains little consistency across the state over the definition of transportation need.
- Although MPOs are aligning their goals closely with SAFETEA-LU, less attention is being paid to the goals and objectives of the Florida Transportation Plan (FTP).

The statewide twenty-year funding shortfall increased by an inflation-adjusted forty-six percent to reach **$62.5 billion**. This represents an annualized statewide shortfall of just over $3.1 billion per year. The shortfall has increased by 110 percent since 1997. The shortfall is growing quickly due to factors both within and beyond the control of MPOs.

Although the review identified many improvements in the long range transportation planning process, certain changes could be considered. The report makes thirteen specific suggestions for improvement during the next LRTP cycle. These suggestions range from altering the focus of transportation planning to simple procedural changes.
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Introduction

The Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU) continued the longstanding role of Metropolitan Planning Organizations (MPOs) as the lead agency in the metropolitan transportation planning process. Every urbanized area with more than 50,000 people must be part of an MPO, but an MPO may include more than one urbanized area. In Florida, there are twenty-six MPOs, covering all or part of thirty-four counties and more than ninety percent of Florida’s population.

One of the core documents in the metropolitan transportation planning process is the long range transportation plan (LRTP). Federal and Florida statutes and rules require plans to cover at least a twenty-year time horizon. Plans must also be cost-feasible, which is defined as containing only projects that can be funded with reasonably expected revenue sources over the life of the document. SAFETEA-LU enumerated eight planning factors that must be considered in the planning process. The planning factors are summarized in Figure 1.

Florida State Statute also promotes consistency with the Florida State Plan and the State’s strategic investment policies. Even with all the rules and guidance in place, MPOs are permitted to, and in practice exhibit, considerable variation in the content, format, and complexity of LRTPs.

This project reviewed all MPO long range transportation plans in Florida. The content, format, methodology, and priorities of each plan were examined in relation to its peers, plans from previous cycles, and generally accepted planning practices. Additionally, using information from each MPO LRTP, a transportation funding shortfall was estimated for the state’s urbanized areas.

Figure 1- Federal Planning Factors
Source: USDOT
Previous LRTP Reviews

This project is a continuation of similar reviews conducted in 1997 and 2002. Each round of reviews began after all MPOs in the state had adopted a new LRTP. Since this is the third in a progression of projects, long-term trends and changes in the adopted documents can be easily identified. Several MPOs reported finding the previous LRTP reviews instructive when developing their current LRTP document.

1997 Review of Long Range Transportation Plans

The first LRTP review took place in 1997, after all MPOs in Florida had adopted LRTPs consistent with the requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. This study served as a baseline for the study of processes, methodology, and prevailing issues in the state. Several observations and suggestions were made. It was noted that most plans were dominated by transportation demand modeling data outputs, which made them very large and harder for the public to understand. There was widespread uncertainty on the definition of a transportation need. Plans also seemed “sanitized,” or not forthcoming about the challenges and unique characteristics of their region. Lastly, MPOs displayed widely varying degrees of concern and attention to environmental and air quality issues.

The authors of MPO plans repeatedly cited difficulty addressing two issues. Many MPOs cited a general inability to interest the public in the LRTP drafting process, which they attributed to a lack of resources to undertake more extensive public involvement efforts. Many MPOs also found it difficult to adequately address needs on facilities outside of the Florida Intrastate Highway System (FIHS) due to low levels of funding.

Based on the review, the research team offered suggestions for the next generation of long range transportation plans. Some specific suggestions from the 1997 review were:

- Incorporating discussion of current issues, a strong visioning process, and principles of strategic planning into LRTP documents;
- Recognizing the interaction between transportation and land use;
- Placing greater emphasis on difficult policy trade-offs and less reliance on transportation planning models;
- Standardizing the reporting of certain performance measures;
- Systematically assessing safety considerations in plan development;
- Systematically considering hurricane evacuation in development of LRTPs;
- Standardizing the timing of plan updates throughout the state; and
- Using the same standards for evaluating needs and projecting revenue.

2002 Review of Long Range Transportation Plans

In 2002, a second review of LRTPs was conducted. The timing of the second review was advantageous, as all twenty-five MPOs had completed an update of their plans since the 1997 review. Further, the Transportation
Equity Act for the Twenty-First Century (TEA-21) was signed into law during the interim, although federal regulations pertaining to LRTP development had not been updated. TEA-21 consolidated the number of planning factors from sixteen to seven. TEA-21 also placed greater emphasis on transit capital construction, environmental protection, and public involvement in the planning process.

The study found that most MPOs had improved the quality and scope of their LRTPs. Several suggestions from the 1997 review were acknowledged and addressed by MPOs. Documents became more user-friendly, concise, and less dominated by modeling data and technical jargon. Public involvement efforts were much improved and better documented. There was an increase in the consideration of social and community impacts of transportation improvements. LRTPs also began considering alternative modes of transportation such as public transit and bicycle/pedestrian networks in more detail, although alternative modes did not receive the same level of attention as roadway improvements.

Although most LRTPs demonstrated significant progress, room for improvement was found. The most pressing concerns dealt with the structure of the documents and the consistency of planning methodologies across the state. The research team noted a wide variation in the criteria used to determine a transportation need. Some MPOs had a narrow definition, others used only modeling data, while others had much larger needs than their peers. There was also a considerable variety in systems for selecting projects for inclusion in the cost feasible plan. There was little consistency on the length and horizon year of LRTPs. Very few LRTPs were internally consistent in that it was difficult to determine how LRTP goals and objectives were reflected in the final list of cost feasible projects.

Some specific suggestions from the 2002 review were:

- Systematically analyzing safety issues in the transportation system, particularly with respect to hurricane evacuation;
- Analyzing land use alternatives for the region, and infrastructure decision-making to support the land use vision of the community;
- Standardizing revenue and cost estimates, including separation of modes;
- Linking the final list of cost feasible projects back to the goals, objectives, and policies of the document;
- Considering the importance of transportation improvements to economic competitiveness and freight movement;
- Continuing to develop the system of Intelligent Transportation Systems;
- Considering non-highway improvements in place of, rather than in addition to, roadways; and
- Taking into account future right-of-way needs.
About the 2007/08 Review

The third review of MPO LRTPs began in August 2007. This review took place after a new update cycle had been completed. For the present cycle, there were twenty-six MPOs in the state, some alternately known as Transportation Planning Organizations (TPO), Transportation Planning Agencies (TPA), Metropolitan Transportation Planning Organizations (MTPO) or having unique names like METROPLAN Orlando. However, there were only twenty-five LRTP documents to review because the Martin MPO and the St. Lucie County TPO authored a joint plan.

In the period since the last review, several MPOs experienced major changes in their coverage area and mission. A new MPO was created as a result of the 2000 Census—the Lake-Sumter MPO. The First Coast MPO dramatically expanded its boundary to incorporate the St. Augustine area of St. Johns County, as well as portions of Nassau and Clay Counties. The Volusia County MPO incorporated a portion of southern Flagler County, and the MPO in Tallahassee (now named the Capital Region TPA) expanded to cover adjacent parts of Gadsden and Wakulla Counties. The Pensacola MPO incorporated Santa Rosa County and a small portion of Baldwin County, Alabama, and renamed itself the Florida-Alabama TPO.

SAFETEA-LU and its accompanying rules came into effect between reviews. Although some MPOs had already adopted their LRTP for this cycle prior to the passage of the bill, all MPOs were required to bring their LRTPs into conformity with SAFETEA-LU by July 2007. Many did so through minor amendments, often in the form of a new appendix which did not significantly modify the original LRTP document. Additionally, the Florida Department of Transportation released an update to the Florida Transportation Plan (FTP), and issued a separate investment policy associated with the designation of the Strategic Intermodal System (SIS). The new investment policy requires that seventy-five percent of all new capacity funding be spent on SIS and SIS-related transportation facilities. The review was conducted with the knowledge that many of the LRTPs were drafted prior to the full implementation of these policy changes.

Each MPO was asked to provide a hard copy of their LRTP. The MPOs determined for themselves if they wanted to provide additional summaries, supplemental reports, or electronic copies for review. Plans were reviewed between November 2007 and June 2008. Follow-up information was sought from MPO directors if questions arose during the review. A major component of this project was the collection of data on the 20-year statewide funding shortfall. MPO directors were given the opportunity to confirm the data used in this calculation. Further information on the shortfall calculation and its assumptions can be found on page 15 of this report, and in Appendix A.
Observations

During the course of reviewing thousands of pages in twenty-five different documents, many generalized observations of current practice became evident. This section details those broad observations, and is interspersed with outstanding examples from the MPOs.

LRTPs were substantially more user-friendly and better organized during this cycle.

There was a dramatic increase in the number and utility of graphics and maps. Many MPOs went to great lengths to explain transportation and planning issues of the region to the lay reader of the LRTP. For example, the Hillsborough County MPO devoted the first several pages of its LRTP to explaining the purpose of the document and how the document can be used by the public. The Pinellas County MPO included a glossary, and the Pasco County MPO provided an acronym guide to help lay people decipher transportation planning jargon. Most MPOs included similar information to make their document easier for the public to read and understand.

Seventeen of twenty-five MPOs developed a summary document such as an executive summary or hand-out map. The Florida-Alabama TPO, the Bay County TPO, and the Okaloosa-Walton TPO produced outstanding examples of summary documents on glossy, fold-out brochures. These summaries included approximately six pages of text and figures summarizing the document on one side, while the reverse side featured a detailed 34 inch by 22 inch map of the adopted cost feasible projects.

Most LRTPs were arranged as one document with five to ten chapters. A few MPOs developed their LRTPs as a series of linked technical reports. These technical reports differ from chapters in that each report has its own table of contents, was adopted separately, and make little reference to each other. The Gainesville MTPO and the Lake-Sumter MPO used the linked technical report format to present their LRTP on the Internet in a user-friendly fashion. A unified Webpage served as a graphic table of contents, similar to a flow chart. The user could click on the desired section to pull up the report.

About a quarter of the documents were authored by in-house staff, while the remainder were authored by outside consultants. Four consulting firms authored more than one plan. In-house documents tended to have distinctive layouts, custom graphics, and significant text devoted to public involvement efforts. Some plans authored by the same firm shared design elements, methodologies, and even duplicated text. While this did not appear to impact the quality of individual plans this cycle, it signals the potential that unique characteristics of each region could be missed in future cycles.

The past five years have seen substantial advances in Internet technology. Further, SAFETEA-LU required LRTPs to be available electronically. All twenty-five LRTPs are available on the Internet. Electronic publishing offers much lower costs, wider distribution of documents, and the ability to cross-link with related documents such as the Transportation Planning.
Improvement Program (TIP). However, over a quarter of MPOs offered their LRTP exclusively over the Internet. This may disadvantage certain segments of the public who do not have computer skills or access to the Internet.

**MPOs are meeting or exceeding levels of public involvement set forth by state and federal law, and are continuing to develop new methods for communication.**

Common public involvement activities included newsletters, public meetings, charettes, and interviews with community leaders. Nearly all MPOs embraced the trend toward electronic communication by creating Websites dedicated to their plan, offering newsletters over the Internet, and accepting public comments by email.

Some examples of innovative public involvement include:

- **Visual Choice Surveys** were distributed by the Florida-Alabama TPO, the Okaloosa-Walton TPO, and the Bay County TPO. These surveys presented participants with photographic examples of the options being considered, and asked them to rate their preference. For example, a roadway is shown with a variety of median configurations, bicycle/pedestrian infrastructure, and foliage and participants are asked to select their preferred alternative.
- **The “Strings and Ribbons” activity** employed by the Volusia County MPO and the Ocala/Marion County TPO allowed the MPOs to collect geographic data on the public’s vision for the future and compare it to the one crafted by staff and the MPO advisory committees. Participants were given fixed lengths of string and ribbon which correlate to expected revenue by mode. Participants then designed their preferred transportation system by affixing strings to a map of the region. Staff then collected information from the maps and compiled the data to determine public preference.
  - The Miami-Dade MPO went to great lengths to inform the public in all languages frequently spoken in their region. TV shows, radio segments, documents, and newsletters were distributed in English, Spanish, and Haitian Creole.
  - The Polk TPO hosted a live call-in television show to discuss the LRTP.

Although MPOs are employing an array of public involvement techniques, most LRTP documents failed to document how information gained during the public participation process influenced the outcome of the LRTP document. Public involvement, although well executed, seemed to be regarded as a stand-alone task in the LRTP drafting process.

There were notable exceptions to this observation that provide guidance on how to link data collected through the public involvement process with the final cost-feasible plan. The Indian River County MPO used public opinion information to assign increased weight to certain criteria for selecting cost feasible projects. The Volusia County MPO’s “Strings and Ribbons” activity established that the public
preferred eighty-two percent of transportation revenue be expended on roadways, which was used as a benchmark later in the document. Further, a “Citizens Alternative” showing the top thirty most popular improvements based on the results of the “Strings and Ribbons” exercise was compared with technical alternatives derived from the travel demand model and used to refine the final cost feasible plan.

MPOs continue to struggle with poor public understanding of their mission and work products. Several MPOs attempted to “brand” their agency with logos, slogans, and name changes that capture the public’s attention. The Sarasota/Manatee MPO found that only fifty percent of surveyed stakeholders were familiar with the agency, and this was considered a high figure. Some observed branding efforts included coordinated logo and color schemes, descriptive agency names, and thoughtful design of public involvement materials. Another type of branding was a more user-friendly name for the LRTP and the drafting process. For example, METROPLAN Orlando named their project and plan “Community Connections- A Transportation Vision for the Next 25 Years,” which effectively described the purpose of the document to the general public.

There was wide-spread reliance on the Efficient Transportation Decision Making (ETDM) screening process to identify cultural, environmental, or community impacts, often to the exclusion of independent analysis.

The ETDM process has proven to be an effective tool for identifying potential environmental impacts, given the broad participation of a number of federal and state resource agencies. However, overreliance on the ETDM process to identify cultural and community impacts creates the potential to overlook issues that are not typically within the purview of those agencies. Therefore, ETDM does not fully substitute for a thorough study of local conditions by the MPO. Because ETDM relies on input from other agencies and outside groups, any comments received may not capture issues of a local nature or be consistent enough to influence the outcome of the plan.

Even though the overall trend was toward relying on ETDM, there were some excellent examples of local community impact analysis. The Capital Region TPA demonstrated attention to community impacts by inventorying and categorizing so-called “canopy roads,” where mature oak trees shade the street. These roadways were considered policy constrained during the project selection process and thus excluded from the cost feasible plan. The Gainesville MTP eliminated all projects that would impact a park or recreation area. It is unlikely that canopy roadways or park resources would have been identified in the typical ETDM process, yet through the MPOs’ efforts, local cultural assets were preserved.

Another potential unintended consequence of relying too heavily on ETDM is the reduction of the MPOs capacity to independently participate in the ETDM process as a resource agency. MPOs that do not collect their own sociocultural data will not have unique information to supply to the ETDM process when other agencies propose projects. For example, if a toll authority proposes a project, an MPO that does not maintain its own
sociocultural data set may find itself incapable of alerting the toll authority of the project’s potential impact on local community or cultural resources.

There remains little agreement across the state on the horizon year and effective years of LRTPs.

All LRTPs had horizon years of either 2025 or 2030. The effective length ranged from fifteen to twenty-five years, with an average of less than twenty years. The variance of effective LRTP length across the state is a function of the inclusion or exclusion of the years covered by the then-current TIP and the horizon year. The inclusion or exclusion of the TIP years determine the effective starting year of the plan. The horizon year defines the last year of the LRTP. For example, a 2025 LRTP adopted in 2005 that includes the TIP years (the years 2005 through 2010) has an effective length of twenty years. An otherwise identical plan that excluded the TIP years would effectively begin in 2010 and cover fifteen years.

Figure 2 shows the breakdown of plan horizons and the inclusion or exclusion of the TIP years. Fourteen LRTPs have a planning horizon year of 2030, and only two of those exclude the first five years. LRTPs with a horizon year of 2025 are more likely to exclude the first five years.

Of the eleven plans with a 2025 horizon year, five exclude the TIP years. With such a variety of plan lengths and horizon years, it is difficult to compare plans directly. Perhaps more troubling is the difficulty for neighboring MPOs and local governments to coordinate plans.

Although most MPOs discussed freight and economic competitiveness, few gave the issue detailed consideration.

Many MPOs considered freight movement to be a factor in their area’s transportation system, but few dedicated much space in the LRTP to the subject. Special studies were sometimes noted, but there was little evidence that these studies influenced the outcome of the LRTP. A handful of MPOs established goods movement advisory boards, which offered private sector carriers an important opportunity to furnish information to the agency.

Most MPOs catalogued the location of major goods movement hubs like ports, airports, and
freight rail intermodal centers. Some discussed the locations of major employers and goods distribution centers. Some used freight benefits as a project selection criterion. The Indian River County MPO analyzed the goods movement performance of the proposed system between adoption of the needs plan and the cost feasible plan. It produced information about the volume to capacity ratio of goods movement thoroughfares and intermodal access roads.

MPOs had difficulty adjusting to the designation of the Strategic Intermodal System (SIS) and the associated investment policy.

All LRTPs made reference to the Strategic Intermodal System (SIS) and emphasized the importance of the system. However, MPOs seemed uncertain about how to consider and plan for SIS and SIS-related facilities. MPOs reported trouble projecting the designation of new and “emerging” SIS facilities, particularly in the absence of a SIS Cost Feasible Plan.

MPOs also had difficulty estimating revenue availability for SIS and non-SIS facilities in the presence of the then new investment policy associated with the SIS. The investment policy restricted the availability of funds for capacity and non-capacity highway projects not on the SIS.

A handful of MPOs made specific note of an expected loss of revenue due to either a low number of SIS facilities and/or a lack of deficient SIS facilities. These MPOs contended that the investment policy favors metropolitan areas with a large number of SIS facilities or large identified SIS needs.

Three methods were used by MPOs to consider SIS-related facilities in their needs and cost-feasible plans. They were:

Weighting- The most common way of dealing with SIS facilities was to consider SIS designation as a weighting criterion for the inclusion of projects in the cost-feasible plan. SIS or Emerging Facility designations were assigned a very high weight. This had the effect of placing all SIS segments above most, if not all, other projects.

Inclusion- Deficiencies on SIS facilities were treated no differently than other network deficiencies. Each project’s merit was evaluated on equal footing when being considered for the cost feasible plan. This was the most common method in metropolitan areas with relatively slow growth.

Separation- This method created two tracks for the needs and cost feasible plans. SIS facilities with expected deficiencies were matched to expected SIS funds and displayed in a separate table. This method was most common in areas with high growth rates.

MPOs paid greater attention to non-highway transportation modes.

Though highway projects still dominate the needs and cost-feasible plans, it is clear that transit is being given serious consideration. Every MPO discussed transit in their plan, and nearly all included at least one transit project in the cost feasible plan. Some MPOs—particularly smaller ones—allowed the local
transit development plan (TDP) to take the lead for transit needs analysis. Transit was sometimes separated into its own chapter and had a separate transit cost feasible plan, never bringing transit and other modes together as a unified system. While the higher level of transit consideration is a step forward, separating transit from other modes may hamper the formation of a truly multimodal metropolitan transportation system.

Many MPOs, primarily in small and medium-sized metropolitan areas, are using an inverted evaluation process to establish cost feasible transit projects. Transit revenues are being estimated before needed projects are selected. Therefore, needed but unfunded transit projects are never identified. By treating transit needs differently than highway needs, these MPOs are likely underestimating their overall system needs.

While a handful of MPOs placed greater emphasis on transit than other modes, this was made possible only through the availability of local funding sources. The Broward MPO’s goals and objectives reflect the county government’s strong commitment to transit. The County has enacted several innovative funding streams for transit, which allowed the MPO to plan an extensive bus and rail network. The Pinellas County MPO was able to fund all of its transit needs thanks to the Pinellas Mobility Initiative.

Some MPOs are exploring the potential of integrating entirely new modes into their metropolitan transportation system. The Palm Beach MPO included a system of water taxis in the cost feasible plan. The Ocala-Marion County TPO explored the future possibility of light rail, but concluded that the region was not yet ready to support that mode.

There was a strong commitment to bicycle and pedestrian planning evident in almost all LRTPs. Nearly all documents recognized bicycle and pedestrian facilities as a needed form of transportation infrastructure. Further, bicycle lane and sidewalk costs were almost universally included in the calculation of construction costs. This makes it much more likely that new roadways and widenings will have bicycle and pedestrian facilities.

Despite the universal support for bicycle and pedestrian infrastructure, agencies had differing reasons for enhancing their programs. Bicycle and pedestrian safety was an important consideration for the Hillsborough County MPO. Some MPOs, such as the Hernando County MPO, had the goal of improving access to county schools. The Sarasota/Manatee MPO placed greater emphasis on completing the bicycle/pedestrian network, particularly in more densely populated areas along the coast and barrier islands.

Bicycle/pedestrian and transit infrastructure investments were sometimes planned for using the boxed funds method. Under this method, the LRTP often commits to spending a set amount of money per year for the life of the plan, but defers project selection to a later date. Frequently, the LRTP defers project selection to a separately adopted document such as a bicycle/pedestrian needs assessment or the local transit development plan. A handful of MPOs, such as the Pasco County MPO, charged the Bicycle and Pedestrian
Advisory Committee to select and forward to the Governing Board projects they felt should be constructed with each year’s boxed funds.

Sometimes transit and bicycle/pedestrian planning was combined. The Polk TPO performed a bus stop inventory in conjunction with its survey of bicycle and pedestrian facilities. The bus stop inventory identified the top 100 bus stops in the county. The inventory allowed the TPO to identify needed infrastructure to improve the convenience and safety of bus stops.

Planning for Intelligent Transportation Systems (ITS) has become commonplace.

Nearly all MPOs documented the operational status of ITS architecture and operation in their region. In areas where the ITS system was not fully operational, LRTPs frequently included these projects alongside roadway and transit improvements in the cost feasible plan. The boxed funds method was frequently encountered. In areas where ITS is currently running, many MPOs planned for the operation of the system. Many MPOs maintain an ITS advisory committee.

Despite the near-universal discussion of ITS, it was treated differently across the state. Many MPOs included ITS operations in their plan, while others did not. Some MPOs linked ITS efforts with congestion management systems (CMS or CMP) or system monitoring.

The Brevard MPO’s Traffic Operations Committee directs the ITS program, making it one of the first MPOs in the state to create such a committee. The Kennedy Space Center, law enforcement agencies, and Brevard County Emergency Operations use the ITS system to manage traffic during special events or emergency situations.

The reporting of financial data varied widely across the state.

MPOs across the state reported financial data in disparate ways. As was previously mentioned, MPO financial data was reported in a variety of base years (2000 through 2006), projected to a variety of horizon years (2025 and 2030) and covered a range of effective time periods (15 through 25 years).

The composition of financial data was also defined in a number of ways. For example, some MPOs calculated a needs plan and cost feasible plan for each mode. Some separated local and federal/state projects. A handful of MPOs did not distinguish between operating and capital costs, particularly when associated with transit. Definitions were further confused when ITS, freight, or safety education programs were included in the plan. While these variations may make historical sense or be preferred in the local context, they make it difficult to perform cross-MPO comparisons and statewide summaries.

Most MPOs did not break funding down by project phase in their LRTP, instead preferring to focus on total project costs. A handful of MPOs, like the Capital Region TPA, broke down project costs into phases. Costs for Project Development & Environment (PD&E), Design, and Right of Way Acquisition were expressed as percentages of the construction cost. Several MPOs did not allocate all of their anticipated revenue in their cost feasible plan, leaving remaining funds uncommitted. These funds
could have been used to partially pay for a project, or be set aside as contingency funds.

A number of the issues identified in this observation should be resolved over the next planning cycle due to the MPOAC Financial Guidelines adopted in 2007. A copy of the adopted MPOAC Financial Guidelines is included as Appendix B of this report. This set of voluntary rules and definitions will standardize plans across the state.

**Interagency coordination is becoming institutionalized at most MPOs.**

MPOs are increasingly coordinating with their neighbors, members, and peers to help guide the transportation planning process. While MPOs have always held a role as a regional leader and convener, there was a rise in the number and depth of connections between MPOs and affiliated agencies. It is clear that MPOs are finding these cross-agency relationships to be valuable. The connections between agencies are becoming more formal and institutionalized.

The most common interagency coordination was between the MPO and its constituent local governments. Nearly all MPOs referred to their local governments’ capital improvement programs. School boards, water management districts, Native American tribal governments, military installations, toll authorities, and seaport/airport authorities all have some sort of formalized coordination relationship with their MPO. The Bay County TPO leads a regular transportation roundtable consisting of five of its neighboring rural counties. The Brevard MPO reserves seats on its technical advisory committee for Space Florida, while the Miami-Dade MPO reserves a seat on its governing board for a school board member.

Many MPOs seem unsure how to deal with toll facilities, Florida’s Turnpike Enterprise, and toll authorities. Some plans mentioned toll facilities only in passing. Others included detailed descriptions of interactions and joint planning with the local toll authority. Some LRTPs included toll projects in the cost feasible plan, although toll road projects were handled separately from other projects. A few MPOs considered the mention of toll roads to be for informational purposes only.

MPOs are looking beyond their borders to enhance coordination with MPOs in their part of the state. Sixteen of Florida’s MPOs have joined one of the four multi-MPO coordinating bodies in the state:

- West Central Florida MPO Chairs Coordinating Committee (Hernando MPO, Pasco County MPO, Hillsborough County MPO, Pinellas County MPO, Polk TPO, Sarasota/Manatee MPO)
- Northwest Florida Regional Transportation Planning Organization (Florida-Alabama TPO, Okaloosa-Walton TPO)
- Central Florida MPO Alliance (Brevard MPO, Volusia County MPO, METROPLAN Orlando, Lake-Sumter MPO, Polk TPO, Ocala-Marion County TPO)
- Southeast Florida Transportation Council (Palm Beach MPO, Broward MPO, Miami-Dade MPO)

All of these multi-MPO agencies take on the task of jointly approving a list of important
regional facilities, particularly those eligible for the Transportation Regional Incentive Program (TRIP). In turn, each constituent MPO places a high emphasis on those facilities in the modeling and project selection components of its individual LRTP. The Central Florida MPO Alliance (CFMPOA) and the West Central Florida MPO Chairs Coordinating Committee (CCC) developed regional travel demand models for their constituent MPOs.

MPOs are also participating in one-to-one collaborative efforts with their neighboring MPOs. The Martin MPO and the St. Lucie TPO drafted a joint long range transportation plan, the first of its kind in the state. The Sarasota/Manatee MPO and the Charlotte County-Punta Gorda MPO worked closely to develop regional project lists, and shared modeling data and technical information. The Lee County MPO and the Collier MPO worked closely with each other to build a joint travel demand model.

**MPOs are frequently not documenting their methodology for moving projects from the needs plan to the cost feasible plan and to the TIP.**

Many MPOs did not fully document their methodology for selecting projects to be included in the cost feasible plan. The lack of documentation raises questions about whether MPOs are focused on the internal consistency of their LRTPs. It is difficult to determine if the final cost feasible list of projects supports the MPOs long range goals and objectives without some discussion or evidence linking the two.

One way of achieving internal consistency is through a system of objective project selection criteria, such as a point system. The Hillsborough County MPO used nine evaluation factors, with each factor carrying a different weight. Alternatively, the First Coast MPO used 13 equally weighted criteria for selecting cost feasible projects, including one that favors hurricane evacuation routes. Most MPOs did not include any discussion on how projects were to be chosen from the cost feasible plan for inclusion in the TIP.

**There remains little consistency across the state over the definition of transportation need.**

Some MPOs are continuing to make a broad interpretation of a transportation need by establishing needs plans that contain large numbers of projects, expensive limited access highway networks, or rail transit projects. In practice, the vast majority of such projects may never be built and in some cases, are more than what is actually needed to satisfy transportation demand.

Instead, some MPOs subjected their needs plan to some sort of filtering process, removing projects that were determined to be beyond what was “needed.” These decisions were often made based on the cost of projects, but were sometimes made based on other socioeconomic and political factors.

The MPOAC Financial Guidelines adopted in 2007 (Appendix B) provide principles for reporting and defining “needs” in LRTPs and should result in greater consistency in the next planning cycle.
Although MPOs are aligning their goals closely with SAFETEA-LU, less attention is being paid to the goals and objectives of the Florida Transportation Plan (FTP).

All MPOs exhibited knowledge of the eight federal planning factors included in SAFETEA-LU. This was reflected in the goals and objectives section of each plan—every MPO had at least one goal that supported every federal planning factor. The Florida-Alabama TPO went even farther, and linked each of its cost feasible projects to a SAFETEA-LU planning factor.

Federal law is silent on the relationship between MPO LRTPs and statewide transportation plans. However, Florida law requires MPOs to consider the goals and objectives of the Florida Transportation Plan when developing an LRTP. Few MPOs discussed the FTP goals and objectives in their plan documents. A handful linked their goals to the goals of the FTP in a matrix.
Twenty-Year Statewide Funding Shortfall

There is a large and growing shortfall between transportation needs and reasonably available revenues identified in MPO LRTPs. The twenty-year statewide funding shortfall is estimated to be $62.5 billion in 2005 dollars. This is a shortfall of 42.9 percent (needs divided by revenue). There is an annualized statewide shortfall of just over $3.1 billion per year.

Table 1 compares the 2008 shortfall estimate to previous estimates as expressed in 2005 dollars. Since 2002, the shortfall has increased by 46 percent. Between 1997 and 2008, the shortfall grew by a cumulative 110 percent.

All financial data was adjusted to reflect Year 2005 dollars. In order to account for differing plan base years (2000 to 2006 dollars), horizon years (2025 and 2030) and different time periods covered by plans (15 to 25 years), an average annual shortfall estimate was calculated by dividing the total financial shortfall by the number of years the plan is in effect. Each annualized shortfall estimate was then multiplied by twenty to arrive at a twenty-year shortfall estimate for each MPO. Those twenty-year shortfall estimates were totaled to calculate a statewide twenty-year funding shortfall estimate. Appendix A details the methodology and assumptions used to calculate the statewide financial shortfall.

It should be noted that the shortfall estimate is only for metropolitan areas of the state. Further, this shortfall estimate only attempts to estimate surface transportation infrastructure. It does not include aviation, freight rail, or maritime shortfalls, although some local access roads are included.

Insufficient data was available to estimate a shortfall by individual mode, since only about two-thirds of plan documents included non-highway project costs and/or available revenue. Further, the issue of equating transit needs with available funding—as discussed in the observations section of this report—would make any attempt to separate the shortfall by mode imprecise.

There were a number of potential causes for an increase in the statewide financial shortfall. They may include:

- Growth in receipts from taxes on motor fuels has been declining. The federal motor fuels tax has not increased since

<table>
<thead>
<tr>
<th>Review Year</th>
<th>Shortfall in 2005 Dollars</th>
<th>Percent Growth</th>
<th>Cumulative Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>$29.8 Billion</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2002</td>
<td>$42.7 Billion</td>
<td>43%</td>
<td>--</td>
</tr>
<tr>
<td>2008</td>
<td>$62.5 Billion</td>
<td>46%</td>
<td>110%</td>
</tr>
</tbody>
</table>

Note: The 1997 and 2002 reviews have been adjusted into 2005 dollars to enable comparison. The first review revealed a shortfall of $22.3 billion in 1995 dollars. The second review revealed a $37.7 billion shortfall in 2000 dollars.
the early 1990s, and is charged as cents-per-gallon, not as a percentage of the cost of a gallon of gas. State and local taxes have been adjusted somewhat, but they have also not kept pace with inflation.

- The costs of construction and right-of-way acquisition have increased in recent years.
- As detailed earlier in this report, many MPOs have revenue sources that expire before the horizon year of their plan. Examples of expiring local sources include voter-initiated sales taxes, temporary local option gas taxes, impact fees, or infrastructure charges. Expanding local sources of revenue expand the shortfall in outer years of the plan. It is possible that some of these local sources will be renewed before their expiration.
- There was a marked increase in the number of plans that identified a funding shortfall for transit, bicycle/pedestrian, and ITS systems. Many MPOs did not sufficiently address these modes in previous plans and, therefore, identified no funding shortfall. With the inclusion of these modes in the most recent cycle, shortfalls begin to be included in the statewide figure.
- Several new areas of the state are now included in an MPO as a result of the 2000 Census. All or parts of Lake, Sumter, Flagler, Santa Rosa, Gadsden, Wakulla, St. Johns, Nassau, and Clay Counties became covered by an MPO. Further, a small portion of Alabama was added to the Florida-Alabama TPO. All of these areas added to the estimated transportation needs of their respective MPOs and contributed to their estimated shortfall, including approximately $400 million in unfunded projects in Baldwin County Alabama.
- Some MPOs are continuing to take a broad interpretation of a transportation need. Defining a need is difficult, but some MPOs are adding projects to the needs plan that for a variety of reasons are unlikely to be built. This drives up the cost of their needs plan, and thus, the shortfall.

There is no doubt that Florida is experiencing a large and rapidly increasing gap between identified transportation needs and available transportation revenue. The estimation of a shortfall figure is somewhat limited by the complexity of comparing data collected from different LRTPs. These issues include the following:

- Some MPOs included roadway operating costs in the needs plan, but many did not.
- Two MPOs did not have a cost estimate for their needs plan published in the LRTP. Follow-up conversations and after-the-fact calculations were required to establish the cost of their needs plans.
- LRTPs were inconsistent in their inclusion of non-modal transportation improvements such as ITS, intermodal connectors, education programs, and safety improvements. Many MPOs included these types of projects in their LRTPs, but some used a boxed funds approach, which does not produce a shortfall because funds are
set aside in the plan, but not allocated to projects until a later date. Others did not address these types of improvements at all.

- Some MPOs included transit capital improvements in their plans, but did not include operating funds.
- As previously discussed in this report, plans varied in their effective dates, base years, and horizon years.

Shortfall by MPO

All but one MPO—Indian River County—projects a shortfall over the life of their current LRTP. The shortfalls ranged from a high of nearly $9 billion to a surplus of nearly $20 million. In general, the dollar amount of the shortfall does not appear to correlate with the population size of the MPO. Among MPOs with the top file largest shortfalls, only one has a population over one million people, while two have less than 250,000.

As can be seen in Table 2, the percentage shortfall was also not proportionately distributed across MPOs. Several of the state’s largest and most established metropolitan areas have the smallest percentage shortfalls. This observation may be explained by: a) the enactment of dedicated transportation sales taxes and impact fees by local government(s) in these areas; b) slower growth rates in those areas; and c) the presence of more SIS facilities, which will receive the majority of state revenues. Conversely, an MPO is more likely to have a higher percentage shortfall if the area is growing quickly, if there are few SIS facilities, or if local governments have not enacted supplementary revenue streams.
## Table 2 – Percent Shortfall by MPO

<table>
<thead>
<tr>
<th>MPO</th>
<th>20-year Shortfall (millions)</th>
<th>Percent Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Okaloosa-Walton</td>
<td>$6,399.2</td>
<td>85.3%</td>
</tr>
<tr>
<td>Gainesville</td>
<td>$359.1</td>
<td>84.4%</td>
</tr>
<tr>
<td>Martin &amp; St. Lucie</td>
<td>$2,098.9</td>
<td>76.3%</td>
</tr>
<tr>
<td>Hillsborough</td>
<td>$6,917.6</td>
<td>73.0%</td>
</tr>
<tr>
<td>Bay</td>
<td>$4,230.3</td>
<td>72.3%</td>
</tr>
<tr>
<td>Florida-Alabama</td>
<td>$8,958.3</td>
<td>65.6%</td>
</tr>
<tr>
<td>Lee</td>
<td>$4,668.6</td>
<td>63.5%</td>
</tr>
<tr>
<td>Polk</td>
<td>$6,505.6</td>
<td>65.3%</td>
</tr>
<tr>
<td>Ocala-Marion</td>
<td>$781.8</td>
<td>59.2%</td>
</tr>
<tr>
<td>Brevard</td>
<td>$935.4</td>
<td>57.4%</td>
</tr>
<tr>
<td>Charlotte-Punta Gorda</td>
<td>$716.6</td>
<td>53.6%</td>
</tr>
<tr>
<td>Pasco</td>
<td>$1,644.4</td>
<td>51.4%</td>
</tr>
<tr>
<td>First Coast</td>
<td>$3,166.8</td>
<td>47.2%</td>
</tr>
<tr>
<td>Hernando</td>
<td>$498.9</td>
<td>47.1%</td>
</tr>
<tr>
<td>Collier</td>
<td>$2,103.2</td>
<td>41.4%</td>
</tr>
<tr>
<td>Lake-Sumter</td>
<td>$683.3</td>
<td>38.9%</td>
</tr>
<tr>
<td>Capital Region</td>
<td>$1,066.5</td>
<td>38.8%</td>
</tr>
<tr>
<td>Volusia</td>
<td>$717.7</td>
<td>35.6%</td>
</tr>
<tr>
<td>Sarasota/Manatee</td>
<td>$983.9</td>
<td>26.6%</td>
</tr>
<tr>
<td>Broward</td>
<td>$2,245.0</td>
<td>24.2%</td>
</tr>
<tr>
<td>Palm Beach</td>
<td>$1,565.0</td>
<td>22.2%</td>
</tr>
<tr>
<td>Miami-Dade</td>
<td>$3,260.6</td>
<td>14.3%</td>
</tr>
<tr>
<td>METROPLAN Orlando</td>
<td>$1,244.5</td>
<td>12.7%</td>
</tr>
<tr>
<td>Pinellas</td>
<td>$741.1</td>
<td>9.4%</td>
</tr>
<tr>
<td>Indian River</td>
<td>$-19.8</td>
<td>-2.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$62,472.5</strong></td>
<td><strong>42.9%</strong></td>
</tr>
</tbody>
</table>
Suggestions

The following suggestions are intended to guide MPOs during the drafting of their next LRTP. These suggestions should be paired with the MPOAC Financial Guidelines (Appendix B), which address several issues in current practice, some of which were noted in the observations section of this report.

1) **MPOs should relate how information gained during public involvement activities was incorporated into the LRTP document and the projects it contains.** There were many outstanding examples of public involvement, but readers were generally not shown how the information gained was put to use. Demonstrating the value of public involvement will help ensure that MPOs continue to receive high levels of support for these activities in the future.

2) **MPOs should continue to refine their LRTPs for Internet publication.** The publication copy of the plan may need additional formatting to optimize it for Internet posting. Some plans are not published on standard size pages, which complicates the viewing of the document on a standard-sized screen. The Internet can allow plans to contain both standard-size text pages and oversize map pages. Readers can zoom in to view maps in greater detail.

3) **Consider the goals of the Florida Transportation Plan when drafting the goals and objectives of the LRTP.** Florida statute requires MPOs to consider the goals and objectives of the FTP when developing their LRTP. Closer consideration of the FTP goals and objectives would more closely align the strategic objectives of the MPO and the State.

4) **ETDM is an outstanding tool, but the strength of MPO planning is the insertion of local knowledge into the planning process.** MPOs should use independent studies to supplement the ETDM process for uncovering cultural, environmental, and community impacts of their plan.

5) **MPOs should exercise more editorial control over the content of plans authored by consultants, with the aim of crafting a document that is original and customized.** MPOs choosing to employ consultants should work closely with their contractors to develop a tailored document that suits their needs. This could include adding language to contract scopes that help meet these goals. Plans authored by the same company sometimes used duplicate text and graphics. While this did not impact plan quality during this past cycle, it has the potential to damage the quality of future documents if the trend continues.
6) Even though the Internet will be the primary source for LRTP distribution, at least a limited number of documents should be made available in hard copy format. During this review, about a quarter of MPOs did not offer their LRTP in hard copy format. Not all members of the public use the Internet. Having a few hard copies of the LRTP on hand will allow MPOs to fully involve members of the public that do not, or cannot, use a computer.

7) MPOs should continue to work with FDOT to make the investment policy flexible enough to implement the MPO mission. This review observed that regions with a greater proportion of SIS facilities, or congested SIS facilities, expect to receive more funding than those that do not. The current investment policy makes it difficult for these MPOs to plan for capacity and non-capacity improvements not on the SIS.

8) MPOs should not separate needs on SIS facilities from non-SIS facilities during the analysis and project selection process. Separating SIS facilities from non-SIS facilities does not permit the system to be viewed holistically. Deficiencies off the SIS deserve the same level of analysis as do projects on the system.

9) Establish transit needs before revenues are analyzed. Most MPOs are doing the exact opposite—establishing revenues before developing needs. When only projects that can be expected to be paid for are identified in the plan, this results in zero unfunded projects. There should be a pool of unfunded transit projects.

10) MPOs should demonstrate their expertise in planning for the transportation disadvantaged in the LRTP. This is a growing segment of the transportation system, and is increasingly important in state and federal governing legislation. Most MPOs did not mention transportation disadvantaged programs, yet almost all Florida MPOs currently perform work in this area. Information and analysis gained during other agency activities should be included in the LRTP. Further, a transportation disadvantaged needs analysis may be able to supplement the needs analysis of transit or bicycle/pedestrian planning.

11) Guidance on how to analyze and consider toll projects would be helpful when planning for these types of roadways. LRTPs showed considerable variation in the treatment of toll facilities and coordination mechanisms with toll agencies. The MPOAC and individual MPOs should work together with FDOT to draft such guidance.
12) Evacuation routes should play a larger role in deciding which projects are included in the cost feasible plan. Given the magnitude of the issue in Florida, evacuation plans were noticeably absent from many LRTPs. One simple place to insert evacuation planning is as a selection criterion for choosing projects for the cost feasible plan.

13) MPOs should take greater care to demonstrate and document how the projects contained in their cost feasible plan support the adopted goals and objectives of the LRTP. Many LRTPs did not demonstrate internal consistency. The methodology of the LRTP should be designed so that each goal and objective are given due consideration. Projects should be selected based on adopted goals. Without internal consistency, MPOs may be negatively impacting the credibility of their plans and processes with the public.
Conclusion

Florida’s MPOs have made great strides with their LRTPs over the past five years. Plan documents are better organized, far more descriptive, and more accessible to the general public. Public involvement, intergovernmental coordination, and multimodalism have advanced significantly. There has been mixed success at adjustment to changes brought from the outside, such as the implementation of ETDM and establishment of the SIS and its associated investment policy.

LRTP methodologies and narratives improved substantially, but the financial condition of the transportation system continues to decline. With a large and growing twenty-year statewide funding shortfall, FDOT and the state’s MPOs will be battling a substantial backlog of needed projects for the foreseeable future.

While progress is clearly being made, a number of areas still show room for improvement. A series of suggestions are offered in this report that would enhance the effectiveness and clarity of future long range transportation plans. Coupled with the MPOAC Financial Guidelines, future LRTP cycles should break new ground in the comprehensive, cooperative, and continuing transportation planning process.
Appendix A- Shortfall Methodology

Calculating the twenty-year statewide shortfall involved a five-step calculation.

1) Determine the shortfall for each MPO
   (Cost of Needs Plan) – (Expected Revenue) = (Shortfall)

2) Adjust each shortfall into a common comparison year
   (Shortfall) * (Inflation Adjustment Factor) = (Adjusted Shortfall)

3) Annualize each shortfall
   (Adjusted Shortfall) / (Years Plan is in Effect) = (Annual Adjusted Shortfall)

4) Multiply the annual shortfall by 20
   (Annual Adjusted Shortfall) * 20 = Twenty-year Shortfall

5) Total

Step 1 - Determine the Shortfall
The funding shortfall is the difference between the cost of all projects in the needs plan and the amount of revenue expected over the life of the plan. The cost of the Needs Plan includes expenses slated for both capital and operations projects, although not all MPOs listed costs related to operations. The expected revenue includes all funding sources listed in the plan, including local and toll-related sources.

In a handful of cases, the Cost Feasible Plan cost was substituted for the expected revenue. This occurred only when revenue was not listed in the plan or made available during follow-up with MPO staff. In each case, the lack of a revenue figure was due to uncertainty regarding funds for the TRIP or FIHS/SIS programs. Analysis of other plans demonstrated that the Cost Feasible Plan was always within 5 percent of the dollar value of expected revenue, and was always underestimated.

Step 2 - Adjust for Common Year
In order to compare and total the shortfall from each plan, it was necessary to normalize the results into a common comparison year. The year selected was 2005, because that was the most frequently encountered base year among the 25 plans. The base year of plans varied from the year 2000 through 2006. All plans with a base year prior to 2003 were cast as “plan updates” rather than brand new documents.

The inflation factor applied was derived from the US Department of Commerce’s Consumer Price Index-All Urban Consumers (CPI-U), which tracks the inflation of the US Dollar in urban areas over 50,000 people. The CPI-U has a base year of 1982, when it equaled 100.0. Each year after that, the CPI-U goes up in lockstep with the inflationary forces on urban goods. The CPI-U from a given year can be compared with the CPI-U from a different year to

<table>
<thead>
<tr>
<th>Base Year</th>
<th>Number of Plans</th>
<th>CPI-U</th>
<th>Cumulative Percent Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2</td>
<td>201.6</td>
<td>-3.12</td>
</tr>
<tr>
<td>2005</td>
<td>9</td>
<td>195.3</td>
<td>0.00</td>
</tr>
<tr>
<td>2004</td>
<td>8</td>
<td>188.9</td>
<td>3.39</td>
</tr>
<tr>
<td>2003</td>
<td>3</td>
<td>184.0</td>
<td>6.14</td>
</tr>
<tr>
<td>2002</td>
<td>1</td>
<td>179.9</td>
<td>8.56</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>177.1</td>
<td>10.28</td>
</tr>
<tr>
<td>2000</td>
<td>2</td>
<td>172.2</td>
<td>13.41</td>
</tr>
</tbody>
</table>
determine the percentage difference between the two. The percentage difference between two years’ CPI-U is the same as the percent adjustment required to bring two dollar figures into a common year. The table below shows the base year, the number of plans in those base year dollars, the CPI-U, and the percent adjustment needed to convert shortfalls from their base year into 2005 dollars.

**Step 3- Annualize the Shortfall**  
Federal law requires plans to cover twenty years into the future. However, there is no requirement that plans must be exactly twenty years long. Some documents have longer time horizons. Other plans do not begin immediately, instead deferring the immediate subsequent five years to the TIP. Because of the wide variety of plan effective dates, it was necessary to annualize the shortfall figures from each plan document. For each LRTP, the shortfall amount was divided by the number of years the plan was in effect. This results in an annualized shortfall.

**Steps 4 and 5- Multiply by Twenty and Total**  
After the shortfall for each MPO has been put into a common year and annualized, it is ready for the final calculation step. The first step is to multiply the annualized shortfall by twenty. This gives us a shortfall that estimates what the figure would be if the plan was exactly twenty years long.

Since we normalized each shortfall to match its peers, we are able to directly compare the shortfall of each MPO. In addition, we can perform other types of analysis such as totaling, averaging, and projecting into the future.

**A Hypothetical Example**  
The hypothetical Key West MPO adopted their LRTP in 2003. This plan is effective through 2030, and uses 2002 as the base year of analysis. The adopted Needs Plan would cost $300,000,000. However, the MPO estimates that only $200,000,000 will be available over the course of the plan. This means there is a $100,000,000 shortfall in base year dollars.

Since the plan’s base year was 2002, the shortfall figure must be converted into 2005 dollars. If the shortfall is not converted, the Key West MPO’s shortfall cannot be compared to its peers because dollars were worth more in 2002 than in 2005. The CPI-U for the year 2002 was 179.9. In 2005, the CPI-U had increased to 195.3. The difference between the two is 15.4, which is a change of 8.56 percent. To convert the Key West MPO plan, the shortfall must be increased by 8.56 percent. Since the shortfall was $100,000,000 in 2002 dollars, the adjusted shortfall would be $108,650,000 in 2005 dollars.

The shortfalls of each MPO still cannot be compared, because the plans are of different lengths. The Key West MPO has a plan that is twenty-two years long, because it was adopted in 2003 and has a horizon year of 2030. Other MPOs have plans as short as fifteen years, some as long as twenty-five years. To compare, we must make all of the shortfalls appear as though they are of equal length—twenty years. We divide the inflation-adjusted shortfall by the number of years in the plan (22). This gives us an annual shortfall of $4,938,636. Then, we multiply the annual shortfall by twenty years. This gives us an inflation-adjusted, twenty-year shortfall for the Key West MPO of $98,772,727.
Appendix B- MPOAC Financial Guidelines for Long Range Transportation Plans

The following Guidelines were adopted by the MPOAC Governing Board and Staff Directors Committee at their meetings on October 25th, 2007. The Guidelines address several issues encountered during the LRTP reviews, and were drafted—in part—in response to the conclusions made by this project and its predecessors. The included Guidelines were amended on October 23rd, 2008 to reflect a new base year of 2009.

Background

The MPOAC adopted the “MPOAC 2025 Florida Transportation Plan Implementation Action Plan” at its April 2007 meeting. This document is intended to serve as a starting point for discussions regarding implementation of General Action 4 of the Implementation Action Plan, which states:

4. Improve Conditions for Estimating Statewide Financial Shortfall: One of the key transportation issues identified in the FTP is an imbalance between estimated transportation needs and future financial resources. The statewide 20-year funding shortfall for MPO areas was estimated to be $37.7 billion in 2002 (expressed in Year 2000 dollars). However, the accuracy of this and previous shortfall estimates are called into question due to a lack of uniformity in the reporting of financial and planning data. Therefore, a set of statewide guidelines for defining and estimating transportation needs and reporting financial data in MPO LRTPs should be developed by the MPOAC in coordination with FDOT. Additionally, MPOs in Florida will agree to include an estimate of transportation needs in their adopted LRTP to facilitate a statewide estimate of transportation needs.

Long Range Transportation Plan Needs and Cost Feasible Plan

Guidelines for Defining and Reporting Needs

- All MPOs will include an estimate of needs within the body of their adopted LRTP. While MPOs need not include a full-scale needs plan including such information as maps and a project lists, MPOs should include sufficient information to understand the composition of the identified need. The needs estimate should include all costs (operations, maintenance, capacity expansion, etc.) associated with all modes included in the adopted LRTP.
- Certain types of projects should not be considered a “needed” project if they represent projects that are extremely unlikely to be implemented and unnecessarily inflate the estimated transportation needs in the metropolitan area. The cost of such a project should not be included in an MPO Needs Plan. Such projects may include:
  - Projects that cannot be implemented due to policy constraints
  - Projects that cannot be implemented due to physical constraints
Projects that are unlikely to be implemented due to potential significant environmental constraints
Projects that are unlikely to be implemented due to potential significant environmental justice or civil rights impacts

- Transportation projects included in the MPO Needs Plan should be appropriate to meet the identified transportation need while advancing the goals and policies of the MPO. Cost should be given significant consideration when choosing among various alternatives (mode or alignment) to meet an identified need. Compelling policy or practical reasons for selecting alternatives that exceed the identified transportation need may include increasing the availability of premium transit options, overwhelming environmental benefit or the need to use compatible technology to expand an existing transportation asset.
- Reported needs should be broken down by system and by mode. For example, SIS facility needs should be identified separately from needs on non-SIS state highway facilities and highway needs not on the state highway system.

Guidelines for Financial Reporting for Cost Feasible Long Range Transportation Plans

- Reasonably available revenue should be broken down by funding category. Additionally, the LRTP should identify the system component(s) that available revenue will be expended upon.
- An estimate of the cost of all projects and all phases, regardless of mode, should be included in the cost feasible LRTP.
- The costs of operating and maintaining the existing and future transportation system should be clearly stated in the cost feasible plan, in a manner agreed upon by the MPOAC, FDOT and FHWA/FTA.
- MPOs should include full financial information for all years covered by the LRTP, including information from their TIP.
- For their next adopted cost feasible LRTP, MPOs will use:
  - FY 2008/2009 as the base year
  - FY 2034/2035 as the horizon year

Long Range Revenue Forecast for Long Range Transportation Plan Updates

FDOT, in cooperation with the MPOAC and Florida’s MPOs, has prepared long range revenue forecasts for state and federal funds that “flow through” the FDOT Work Program and other financial planning guidance since 1995. These forecasts and guidance have been used for the Florida Transportation Plan and metropolitan long range transportation plans. FDOT will, in cooperation with the MPOAC and Florida’s MPOs, develop an updated revenue forecast through 2035 and guidance for the next updates of those plans. The following are issues that will affect the next forecast:

- New federal regulations clarify that the horizon year for an LRTP must be at least 20 years from the date of adoption; i.e., any LRTP adopted before the end of December 2010 may have a horizon year of 2030 or beyond.
As of December 11, 2007, MPO long range transportation plans must be expressed in “Year of Expenditure” (YOE) dollars.

The horizon years of current adopted Florida LRTPs vary: 11 plans have a 2025 horizon year, 15 plans have a 2030 horizon year.

FDOT is currently updating the SIS Highway Component Cost Feasible Plan and extending the horizon year to 2035.

Based on these and other issues related to developing long range transportation plans, the following is guidance for developing and reporting financial estimates in the plans.

Guidelines for Revenue Estimates

- The recommended Base Year is FY 2008/2009 (State Fiscal Year) and recommended Horizon Year is FY 2034/2035 for all 26 metropolitan long range transportation plans.
- The recommended Time Period for estimates is 5 years (for example, 2009-2010, 2011-2015, 2016-2020, 2021-2025, 2026-2030, and 2031-2035). This is consistent with previous forecasts and simplifies reporting. The use of 5-year periods increases flexibility and reduces the need to “fine tune” project priorities.
- For estimates of State and Federal Revenues:
  - FDOT will provide YOE estimates for state capacity programs for individual MPOs, similar to prior forecasts.
  - FDOT will provide YOE statewide estimates for non-capacity state programs and provide documentation of program levels and system preservation objectives expected to be met by those funding levels, similar to prior forecasts; MPOs should include the material in long range transportation plan documentation.
  - FDOT will work with the MPOAC to develop the detailed assumptions required for these estimates.
- For estimates of local revenues:
  - FDOT will provide guidance for development of estimates of traditional sources.
  - FDOT and the MPOAC will develop guidance for estimating revenues from other “reasonably available sources,” particularly Proportionate Fair Share Contributions under Chapter 163, F.S.

Guidelines for Developing Project Costs

- Project Cost Estimates are typically expressed in Present Day Cost (PDC) dollars, so they will have to be adjusted with inflation factors for the time period in which they are planned to be implemented.
- To adjust costs from PDC to Year of Expenditure:
  - DOT has adopted estimates of inflation factors through 2035 that MPOs are encouraged to use. FDOT will provide documentation of the assumptions used to develop those factors.
  - MPO should document alternative inflation factors, with explanation of assumptions.
- The recommended Time Period for costs is 5 years (e.g., 2009-2010, 2011-2015, 2016-2020, etc). This is consistent with previous forecasts and simplifies reporting. In addition:
This increases flexibility and reduces the need to “fine tune” project priorities.

- Annual inflation factor estimates will be used to estimate “mid-point” factors for project costs during respective 5-year period.

- Using YOE dollars, regardless of the length of time periods, requires establishing project priorities which may require some MPOs to modify their priority setting process and schedule.

- FDOT will provide YOE cost estimates, phasing and project descriptions for projects included in the 2035 SIS Highway Component Cost Feasible Plan to each MPO.

**Guidelines for Distribution of Next Long Range Revenue Forecast**

- The long range forecast of state and federal revenues will be needed by all MPOs for modeling and financial planning for their next updates. FDOT will provide the new revenue forecast by May 30, 2008, incorporating the outcome of a 2007 Special Session of the Florida Legislature.