

Changing Roles for State Transportation Planning: The Florida Case

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The current organization of the Florida Department of Transportation (FDOT) Division of Planning and Programming contains four bureaus, as follows: Bureau of Multi-Modal Systems Planning, Bureau of Policy Planning, Bureau of Project Programming and Priorities, and Bureau of Transportation Statistics. The Florida transportation plan serves to establish FDOT policies, future directions, and guiding policies for each modal planning process. In 1984, the Division of Planning and Programming considered functions that were then carried out by the central office that might more appropriately be carried out by the various districts. Results of this effort included decentralization of the responsibility for developing and documenting issues, needs, and plans for urbanized areas with Metropolitan Planning Organizations; vesting of responsibility for regional and small urban area planning in district and urban presence offices; and standardization of transportation system modeling, administrative procedures, contract administration, and methods for dissemination of techniques and procedures. The FDOT is also taking a stronger role in inter-district and regional transportation systems modeling. New emphasis is being placed on statewide transportation planning and the development of a statewide highway system plan. This planning process will primarily serve to balance the need for property access with capacity for regional and through-trip movements and to provide compatibility of the highways with other transportation facilities. The first Florida Highway System Plan was scheduled for completion by September 1987.

Transportation planning within the Florida Department of Transportation (FDOT) has undergone a change in emphasis over the course of the past several years. Briefly, this change has resulted in establishment of stronger roles in local transportation planning for the FDOT's six district offices, coupled with a strengthening of the central office's role in statewide and regional modal planning. The purpose of this paper is to provide a brief overview of these changes, with emphasis upon the process and current activities in statewide modal and highway system planning.

CURRENT ORGANIZATION

Responsibility for transportation planning within the FDOT is vested with its Division of Planning and Programming. Within this division there are four bureaus, as follows:

1. Bureau of Multi-Modal Systems Planning. Major objectives are to document statewide multi-modal transportation needs; to develop and maintain system plans for all modes

consistent with FDOT's policies and guidelines; and to coordinate with other governmental entities in the development of regional, urbanized-area [Metropolitan Planning Organization (MPO)], and local transportation plans.

2. Bureau of Policy Planning. Major objectives are the identification of long-range trends and future directions; development and analysis of policy alternatives; application of economic principles and methods to transportation issues; and preparation of the Florida Transportation Plan. This latter document serves as the FDOT's functional plan component of the state comprehensive plan.

3. Bureau of Project Programming and Priorities. Major objectives are to coordinate a program planning process resulting in the development of a policy-driven FDOT program plan and to implement the plan through the development and adoption of a prioritized transportation work program.

4. Bureau of Transportation Statistics. Major objectives are to gather, maintain, analyze, and distribute accurate data on the characteristics and usage of transportation systems within the state; and to function as a central clearinghouse and principal source for all transportation data.

BUREAU OF MULTI-MODAL SYSTEMS PLANNING RESPONSIBILITIES

The Bureau of Multi-Modal Systems Planning has the overall responsibility to determine statewide transportation needs and to prepare statewide plans for the individual modes—highways, aviation, public transit, rail, and port and waterways—and to guide transportation investments consistent with state policies and guidelines. Coordination of needs between individual modes as well as on a statewide basis is important.

These responsibilities are executed through several areas and programs, including the following:

1. Regional Systems Planning. Provides centralized guidance, analysis, and technical assistance to FDOT's 6 districts, 5 urban presence offices, 21 MPOs, and 2 emerging area offices for urban transportation studies. Identifies needs and develops long-range statewide highway systems plans including regional and intermodal coordination and a statewide bicycle and pedestrian plan.

2. Modal Systems Planning. Develops statewide modal system plans for aviation, rail, transit, and waterways and ports. Provides coordination between modes and determines impacts of proposed federal and state legislation and regulations.

3. Systems Support. Supervises development, research, maintenance, dissemination, and training for computerized

techniques used in transportation system modeling. Provides special expertise for model applications and troubleshooting for urban area and statewide planning processes.

4. Special Services. Provides central office expertise for matters related to statewide, regional, or legislative requests regarding transportation planning; prepares special facility development studies on a statewide or regional basis; and administers and evaluates consultant studies and work efforts.

Florida's modal transportation system planning process provides a fundamental input to the FDOT (Figure 1). This process links policies and project implementation through steps of increasing specificity and detail to meet the FDOT's mission, including

1. Promoting the goals and policies of the state comprehensive plan.
2. Developing and continuously maintaining comprehensive modal system plans for a multi-modal statewide transportation system.
3. Coordinating and integrating the transportation facilities and services of all governmental entities and the private sector.
4. Developing, operating, and preserving the various modal transportation systems.



FIGURE 1 Overview of FDOT's Division of Planning and Programming's responsibilities.

THE FLORIDA TRANSPORTATION PLAN: THE POLICY GUIDE

The Florida Transportation Plan is FDOT's agency functional plan as part of the overall state comprehensive plan. This plan serves to establish FDOT policies and future directions for each of the modal systems. The Florida Transportation Plan establishes the following guiding policies to drive each modal planning process:

1. To use transportation investments to aid sound growth management.
2. To ensure that transportation systems provide timely and efficient access serving jobs, markets, and attractions.
3. To preserve and enhance interstate and interregional mobility.

With this input, each modal system plan allows for analysis of statewide issues and needs and provides for an analysis of financial resources unique to each mode (Figure 2). These modal system plans are used by the FDOT's program teams. These teams are special groups designated for each major modal responsibility area and function of the FDOT. Their charge is to develop specific program recommendations for

consideration and adoption by the FDOT's executive committee. In turn, program teams provide input to and receive guidance from the various modal systems' planning processes.

CHANGING PERSPECTIVES IN TRANSPORTATION PLANNING

In 1984, the Division of Planning and Programming was directed to reexamine its role in transportation planning. In specific terms, this charge was to examine those functions and responsibilities then carried out by the central office that might be more appropriately or effectively handled by the various districts. The creation of the positions of district directors for planning and programs, the establishment of urban presence offices in the state's largest urban areas, and the decentralization of certain central office functions and positions were in response to that charge. The FDOT's central office is currently assisting the district and urban presence offices with this shift of planning responsibilities. This includes establishment, with the cooperation of FHWA and UMTA, of an ongoing training program to improve the technical and administrative expertise of district and MPO staffs.

REGIONAL AND SMALL URBAN AREA TRANSPORTATION PLANS

The responsibility for developing and documenting issues, needs, and plans for the urbanized areas with MPOs has now been decentralized. In the past, authorization for these activities was typically based upon either central office identification of need for such studies or requests from local governments or MPOs. The FDOT determined whether such studies would be undertaken, provided that there was sufficient justification and resources were available. While district personnel were involved in the management of such studies, central office personnel were assigned project management roles.

FDOT DISTRICTS AND DECENTRALIZATION

Regarding decentralization, district staffs or MPO staffs (where appropriate) are better positioned to manage and carry out local transportation projects more effectively. Because these studies generally require expertise historically not available in the districts, the central office has proceeded to decentralize these responsibilities over a period of transition. Responsibility for regional and small urban area planning is now vested in the districts and urban presence offices, considering that these entities now have the proper staffs and capabilities.

THE TWO WAVES: DECENTRALIZATION AND STANDARDIZATION

The foundation for decentralization has also been laid through standardization of effort. In addition to transportation system modeling, this included administrative procedures, contract administration, and uniform dissemination of techniques and procedures. Through a legislative mandate, a Metropolitan Planning Organization Advisory Committee (MPOAC) was created

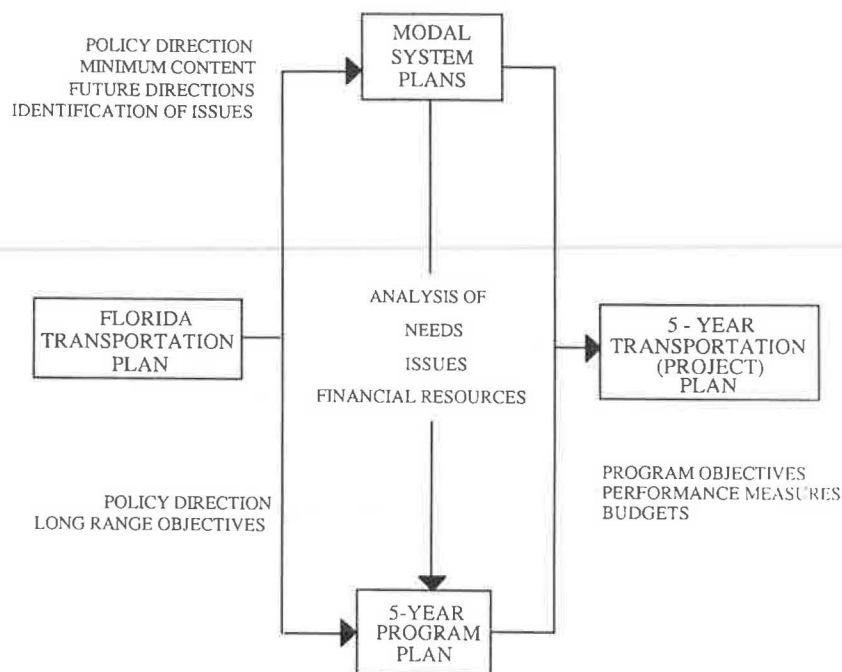


FIGURE 2 FDOT planning process relationships.

to provide a formal means to transmit and disseminate information and also to provide a forum for discussion of concerns. This organization meets periodically with the FDOT to discuss transportation planning procedures and techniques.

Decentralization has been a logical step in the evolution of urban transportation planning in Florida. The decentralization process recognizes that the various MPOs and district offices are far more self-sufficient than they were in the recent past. Decentralization also supports FDOT policy that decisions related to the transportation system should be made at the local level whenever feasible. Decentralization also improves the response time for planning in terms of having expertise in proximity to the subject area, and is expected to provide greater coordination with local taxing and revenue powers. Decentralization recognizes the FDOT role more in terms of a partnership for transportation planning within the local areas.

TRANSPORTATION MODEL APPLICATIONS

Most transportation planning systems and feasibility studies require the use of relatively sophisticated mathematical models to forecast future travel demand and system capacity needs. These processes are, of course, substantially computerized and have evolved over many years with major funding and support provided by FHWA and UMTA. The bureau has also invested significant resources and has undertaken a major program to tailor these models to Florida's transportation environment. This effort has also involved standardization of the transportation models, applications, and analysis procedures. This program encourages uniform transportation decision making in the state with a consistent base of technical information and analysis techniques. The FDOT is currently implementing these models as part of the periodic updating of urban area system plans.

Historically, the application of transportation models was a central office function, although there were situations in which the districts were major participants. Partially because of the complexity of the models and industry demands for the services of those personnel who are proficient in their use, it has been difficult for the department to retain a relatively large group of staff who have the needed expertise.

NEW TECHNOLOGY IN TRAVEL MODELING

Changes in technology, particularly in terms of development of microcomputer hardware and software within the past 2 years, suggested to the department that it was approaching the point at which district and MPO staffs would be capable of performing many of the model applications. A large part of this capability results from the elimination of mainframe computer access as a requirement for model usage. This change has obviously been coupled with an increase in microcomputer techniques. Of course, decentralized transportation planning model applications will still require a small group of highly qualified individuals to monitor the technical adequacy of decisions and to be available for assignment to the most complex model tasks. The FDOT is also taking a stronger role in interdistrict and regional transportation systems modeling. Thus, the FDOT will maintain a small centralized technical policy and complex application staff in the central office.

REGIONAL MULTI-MODAL STUDIES

Florida statutes require preparation of regional and statewide modal transportation plans. Individual modal plans are required for public transit, rail, aviation, bicycle and pedestrian ways, and highway systems on a statewide basis. Although some

degree of examination of intermodal trade-offs is the responsibility of the Bureau of Policy Planning, major responsibility for preparation and maintenance of these plans is that of the Bureau of Multi-Modal Systems Planning. To a certain extent, this represents a change in direction and emphasis for the bureau. This change is most evident in the deemphasis of the actual preparation of urban street and highway plans and re-focusing of the bureau on a statewide basis.

EMPHASIS ON HIGHWAY SYSTEMS PLANNING

As part of this emphasis on statewide transportation planning, greater importance is being placed on the development of a statewide highway system plan for Florida. This should not be considered a retreat from a multi-modal perspective, but rather an acknowledgment of the importance of highways to all modes.

Improvements to Florida's highway system have not kept pace with demands. Congestion is increasing. This problem has resulted for a number of reasons. Florida's rapid growth has strained existing transportation systems and has made provision of needed new facilities difficult. Perhaps this is most evident in the provision of major new highways. Moreover, there is a general lack of funds for new facilities. Changes in funding emphasis from federal to state and from state to local responsibility have also affected the process. For example, the construction of the currently defined Interstate highway system is nearing completion. In Florida, further widenings are anticipated but no additional extensions under the Interstate program are being planned. In addition, many existing facilities are constructed to their maximum laneage due to various physical constraints.

An examination of the existing highway system with respect to current and future problems due to anticipated growth reveals several general problems:

1. Many major (over 50,000 population) city pairs throughout Florida are not connected by multilane facilities operating at an acceptable level of service.
2. Many existing segments of Interstate and other major state highways serving or passing through urbanized areas are clogged with local trips, thus restricting interstate and inter-regional trips.
3. Segments of rural Interstate highways are congested, some with very heavy truck movements. This is a significant problem for all major routes in Florida, but one that is particularly evident on the north-south facilities serving major tourist destinations in central and south Florida.
4. Many state highways do not have desirable pavement widths, paved shoulders, drainage, bridges, or lateral clearances.

ACCESS MANAGEMENT: AN IMPORTANT ASPECT OF FUTURE PLANNING

The state highway system planning process will also serve to balance the need for property access with capacity for regional and through-trip movements. The system must also provide

access to other transportation facilities and should be designed to be compatible with them.

The planning process will examine improvements for the existing highway system and what new facilities should be built to provide an adequate highway network serving into the 21st century. Population projections anticipate a statewide 23 percent growth in population over the next 10 years. Thus, simply to keep up with anticipated population, a major commitment for new and improved facilities is required. In determining future directions, it has become most evident that the FDOT must preserve access to its state highway system for through-trip capability. Three suggested policies or actions that will be studied in detail in the highway planning process include the following:

1. All interregional highways built on new alignment should be access controlled. Any bypass routes around urban areas connected to the regional systems should also be access controlled.
2. An access control plan should be developed and concurred in by the department and local governments prior to any widenings or improvements to existing interregional and regional facilities. This access control plan would then be used by local governments in land use, zoning, and platting approval decisions.
3. An interchange and driveway policy should be developed balancing the need to preserve the through-trip service characteristics of the roadway with access to abutting properties.

To meet current and projected needs, preliminary highway corridors have been defined. Facility improvements such as widening along with construction of new facilities have been proposed.

The initial Florida Highway System Plan, anticipated to be an ongoing planning process, is being developed in a three-phase effort. Phase 1 involves developing a sketch plan and network. Phase 2 involves network refinement and investigation of policies. Phase 3 (concurrent) will allow development of analysis methodology including network assignment techniques.

The initial highway network is based upon existing information, ideas, and input from district offices. The sketch plan lays out preliminary concepts, corridors, issues, costs, and benefits for a major network of Florida's highways. The sketch plan has been developed in several formats including a brief written report, a network map, and a coordinated slide and sound presentation to communicate the network concepts as well as the policy issues to interested parties. It will serve as a basis for refinement, a process anticipated to take approximately 1 year. The first Florida Highway System Plan will be completed by September 1987.

STUDY ON LATEST TECHNIQUES OF STATEWIDE PLANNING

The bureau is also undertaking two work activities in conjunction with the development of the Florida Highway System Plan. A cooperative university research contract study will summarize statewide transportation planning processes from other states and areas. Work on this project will be completed

in conjunction with refinement of the sketch plan. In addition, the FDOT has collected special origin-destination travel information at various locations throughout Florida. This work, which has been underway for several years, will be analyzed under the current contract and will provide a basis for calibration of statewide transportation demand models.

A STATEWIDE TRAVEL MODEL

Bureau personnel are attempting to develop a demand estimation and traffic assignment process suitable for statewide transportation networks. The first step in this process will be to develop a broad statewide highway system assignment process to uniformly test and analyze various network configurations. This work is proceeding in-house, and may be an outgrowth from a regional planning model currently being developed for Dade, Broward, and Palm Beach counties.

CONCLUSION

The Bureau of Multi-Modal Systems Planning, as part of the FDOT Division of Planning and Programming, is responsible for preparation of short- and long-range statewide multi-modal

transportation system plans. The bureau has undergone a change in role over the past several years. The shift has been from a heavy urban area, MPO street and highway planning orientation to much more of a statewide modal planning orientation. Concurrently, urban area planning functions of the department's various districts and urban planning offices have been strengthened to correspond to decentralization and the shift in responsibility from the central office. This shift has been a natural evolution to reflect changes and emphasis in transportation system funding, and to reflect the current responsibilities and directions of the FDOT.

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