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Justification Review

Toll Operations Program
Florida Department of Transportation

Report 99-08 September 1999



*Office of Program Policy Analysis
and Government Accountability*

an office of the Florida Legislature

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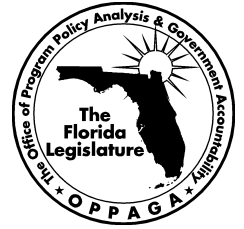
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The Florida Legislature

OFFICE OF PROGRAM POLICY ANALYSIS AND GOVERNMENT ACCOUNTABILITY



John W. Turcotte, Director

September 1999

The President of the Senate,
the Speaker of the House of Representatives,
and the Joint Legislative Auditing Committee

I have directed that a program evaluation and justification review be made of the Toll Operations Program administered by the Florida Department of Transportation. The results of this review are presented to you in this report. This review was made as a part of a series of justification reviews to be conducted by OPPAGA under the Government Performance and Accountability Act of 1994. This review was conducted by Shunti Houston under the supervision of Julie Ferris.

We wish to express our appreciation to the staff of the Florida Department of Transportation for their assistance.

Sincerely,

John W. Turcotte
Director

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Justification Review of the Toll Operations Program

Purpose

This is the second of two reports presenting the results of our program evaluation and justification review of the Florida Department of Transportation's Toll Operations Program. State law directs our office to complete a justification review of each state agency program that is operating under a performance-based program budget. Our office reviews each program's performance and identifies alternatives for improving services and reducing costs.

Background

The Toll Operations Program administers toll collection activities for transportation projects financed by the sale of bonds or toll facilities. The program's primary purpose is to efficiently operate and maintain state-owned and state-operated toll facilities. To achieve this purpose, program staff collect and deposit toll revenues and, on non-turnpike facilities, review plans for initial design and improvement of toll plazas, as well as administer contracts for maintenance. Staff also conduct field inspections to ensure that toll collections are properly accounted for and deposited.

To improve its efficiency, the department began privatizing toll collection activities beginning in Fiscal Year 1993-94. Privatization of toll collectors has reduced costs and enabled toll facility managers to focus more on facility operations and less on personnel issues. The program is also implementing a new technology called SunPass that allows toll revenues to be collected electronically. This electronic toll collection system requires a transponder to be mounted in vehicles, which allows patrons to proceed through the toll plaza without stopping.

As part of its responsibility to operate and maintain toll facilities, the department enters into lease-purchase agreements and operating agreements with local expressway and bridge

authorities. Under lease-purchase agreements, the department pays the annual operations and maintenance costs for the toll facilities and the revenues collected are first applied toward the facilities' bond debt. The department often assumes a position which permits reimbursement of operations and maintenance costs after debt service requirements. Operating agreements allow the local authority to continue the planning, management, and operational control of the toll facility, while the department assumes the responsibility for toll collection and facility maintenance. The department currently has five lease-purchase agreements and one operating agreement with expressway and bridge authorities.

The Florida Department of Transportation's Office of Toll Operations administers the Toll Operations Program. The department allotted the office \$118 million and 1,186 positions for Fiscal Year 1999-2000. The program's toll collection activities resulted in revenues of \$361.5 million in Fiscal Year 1997-98.

Program Benefit, Placement, and Performance

Toll roads fill vital transportation needs, providing funds that are otherwise not available to build and maintain roads and bridges needed to meet traffic demands. Due to funding limitations, the department and local entities often finance toll road and bridge projects by the sale of bonds. This method of finance has assisted the state in building some roads at a faster pace than would otherwise be possible. Department managers stated that toll roads have added substantial capacity to Florida's Intrastate Highway System. If the Toll Operations Program were abolished, new road and bridge construction would likely decrease and the state would lose approximately \$362 million annually in needed revenue. OPPAGA did not identify any benefit to transferring the program's functions and activities to another state agency.

The Toll Operations Program met performance standards in Fiscal Year 1997-98. The program's output measures show that program staff processed 13.5% more toll transactions than expected in Fiscal Year 1997-98, primarily due to the addition of new toll facilities. The program's outcome measures show that it also met the Fiscal Year 1997-98 standard for the cost to process each toll transaction. These measures assess the program's efficiency in collecting toll revenues. However, the program lacks measures that address service quality.

The program's toll collection system has been assessed by the Auditor General and (for turnpike facilities) an independent auditor. In their most recent reviews of the program's operations, the Auditor General and the independent auditor reported no material weaknesses in the program's internal control structure. Using private sector toll collectors has not adversely affected the program's control systems.

Toll facilities must undergo feasibility studies to determine their feasibility, financial risk, and credit worthiness. In the past, some of the department's feasibility studies were based on inaccurate traffic and revenue forecasts and substantially overestimated potential facility revenue. Some of these problems were due to the inherent difficulty in projecting factors such as population, employment, and household makeup. Most problems were due to the lack of Florida-specific experience in forecasting. For some facilities, shortfalls in toll collection revenue have affected their ability to meet annual debt service requirements. However, the department assists toll facilities to meet debt service requirements in a variety of ways. The department has improved its traffic and revenue estimates in recent years. The traffic and revenue consultant has modified forecasting models to provide more realistic estimates of traffic and revenues.

Options for Improvement

The program generally performed well in containing collection costs and is more efficient than most states' systems

To improve program operations and efficiency, we recommend that the department monitor the costs of older toll facilities to identify instances and sources of cost increases. The department should identify ways to reduce these costs, such as by installing the electronic toll collection system sooner than planned and reducing toll facility staff accordingly.

We also recommend that the department seek ways to expand the use of SunPass beyond commuters. Program staff should continue in their discussions with the rental car industry to make SunPass readily available to tourists and other travelers. We estimate that with 15% of toll facility patrons using SunPass, the program's cost will be reduced by 5% or approximately \$3.8 million annually.

The program could further reduce its costs by contracting out the remaining toll collector positions

To reduce the cost of program operations, we recommend that the department contract out its 338 remaining toll collector positions. Privatization of these positions would reduce the program's cost by an estimated \$2 million. Furthermore, privatization of the toll collection supervisory staff would further reduce the program's cost by an estimated \$1.8 million annually, but is not feasible at this time due to financial and program risks. However, we recommend that the department monitor and assess the

Executive Summary

program's utilization of supervisory services after SunPass is fully implemented. If the program is not fully utilizing all available toll collector supervisory staff after SunPass is fully implemented, we recommend that the Legislature consider reducing the number of supervisory staff by an appropriate amount. Based on the program's estimates, the state would save approximately \$965,000 by reducing the number of its supervisory staff by 10%.

The department has an informal practice that calls for the toll facilities it assists under new lease-purchase agreements to begin to pay their own operations and maintenance costs after 10 years of operation. We recommend that the department adopt an official policy to discontinue paying these costs after a facility has been in operation for 10 years.

The agreements with the Orlando-Orange County Expressway Authority are atypical of the department's lease-purchase agreements

If the Legislature believes that the Orlando-Orange County Expressway Authority is receiving an unfair funding advantage, we recommend that it consider reducing transportation funding to the Orlando-Orange County area by an amount equal to the funds appropriated to the department for its share of the expressway authority's operations and maintenance costs. These costs amounted to \$11 million in Fiscal Year 1997-98.

Agency Response

The Assistant Secretary for Finance and Administration of the Florida Department of Transportation generally agreed with OPPAGA's preliminary report. However, she did not agree to not delay privatization of the remaining 338 FTE toll collector positions. (See Appendix C, page 31 for her response.)

The executive director of the Orlando-Orange County Expressway Authority stated his belief that lease-purchase agreements between the authority and the department were beyond the scope of this Justification Review. (See Appendix C, page 35 for his response.)

Introduction

Purpose

This is the second of two reports presenting the results of OPPAGA's Program Evaluation and Justification Review of the Florida Department of Transportation's (FDOT) Toll Operations Program. The Government Performance and Accountability Act of 1994 directs OPPAGA to conduct a justification review of each program during its second year of operating under a performance-based program budget.¹ Justification reviews assess agency performance measures and standards, evaluate program performance, and identify policy alternatives for improving services and reducing costs. In February 1999, we published a report presenting our analysis of the program's performance measures and standards and its performance using these measures.² This report analyzes policy alternatives for improving program services and reducing costs. Appendix A summarizes our conclusions regarding the nine issue areas the law requires to be considered in a program evaluation and justification review.

Background

The Toll Operations Program administers toll collection activities for transportation projects financed by the sale of bonds or toll facilities. The program's primary purpose is to efficiently operate and maintain state-owned and state-operated toll facilities. To achieve this purpose, program staff collect and deposit toll revenues and, on non-turnpike facilities, review plans for initial design and improvement of toll plazas, as well as administer contracts for maintenance. Staff also conduct field inspections to ensure that toll collections are properly accounted for and deposited.

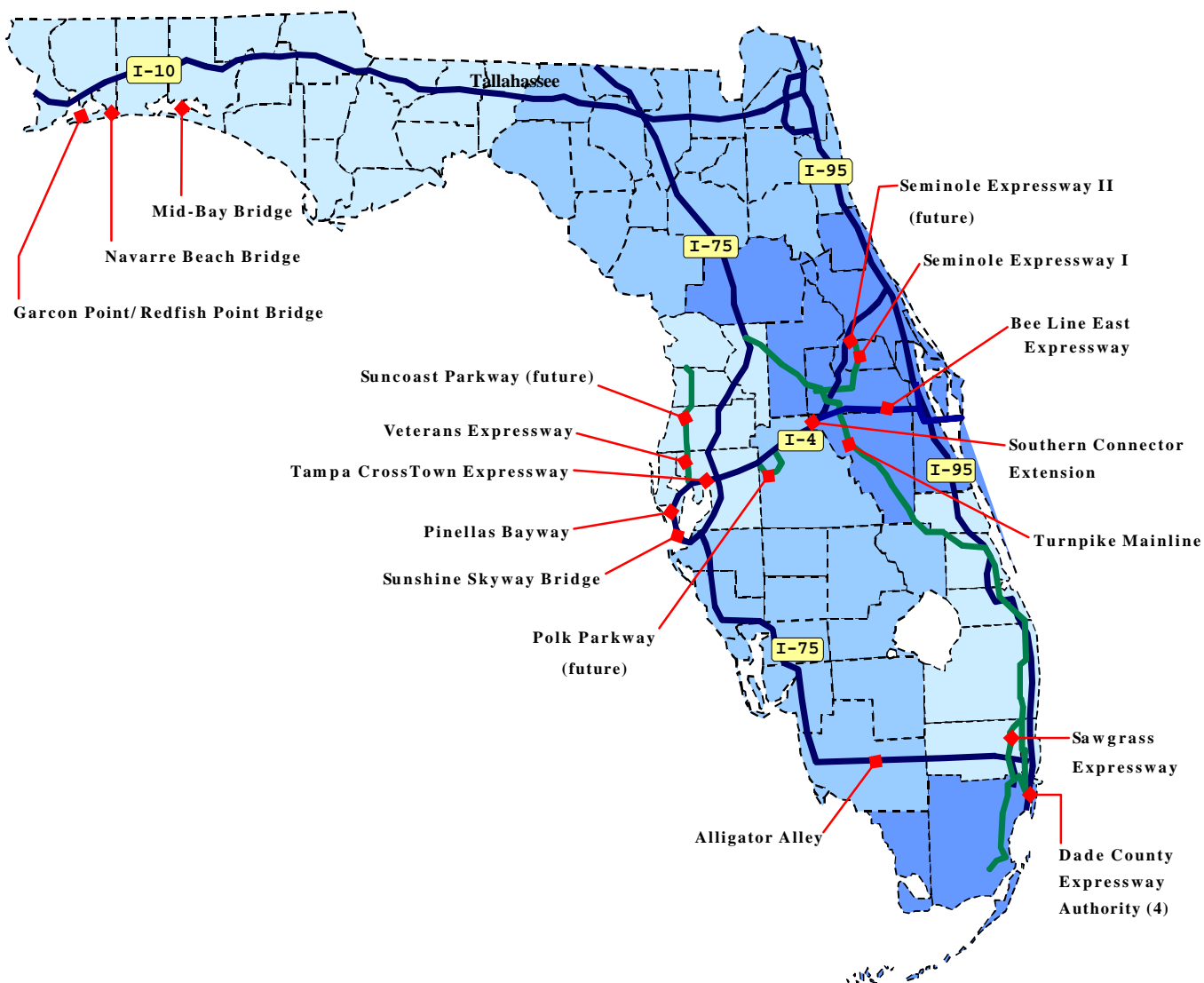
¹ The Toll Operations Program began operating under a performance-based program budget in Fiscal Year 1997-98.

² *PB² Performance Report: Toll Operations*, [OPPAGA Report No. 98-57](#), February 1999. Appendix D contains the full text of this report.

Introduction

The program operates toll facilities on 13 roads and four bridges that include 138 toll plazas in northwest, central, and south Florida.³ These toll roads and bridges amount to 2,100 lane miles and account for 5% of the 39,100 lane miles of state roads. Exhibit 1-1 shows the location of the state's toll facilities.

Exhibit 1-1 FDOT-Operated Toll Roads are Primarily Located in Central and South Florida



Source: Florida Department of Transportation.

³ These toll facilities include five Florida Turnpike roads (including the turnpike mainline) and four Miami-Dade Expressway Authority toll roads. Tolls are collected at sites termed "plazas." The program operates 114 turnpike plazas and 24 non-turnpike plazas. These figures do not include toll roads under construction or not yet open to traffic.

The program uses private toll collectors to perform its collection duties

The program has privatized a portion of its toll collection activities. To improve its efficiency, the department began privatizing toll collection activities beginning in Fiscal Year 1993-94. Contracting with a private firm to supply personnel to collect tolls at most toll plazas has reduced costs and has enabled toll facility managers to focus more on facility operations and less on personnel issues. The program continues to employ state employees to collect tolls at some locations, but is continuing to phase-in privatization as staff vacancies occur. The program also employs state employees to supervise the private toll collectors as well as to manage facility operations. As of June 1999, approximately 83% of the toll collectors were private employees.

The program is also implementing a new technology called SunPass that allows toll revenues to be collected electronically. This electronic toll collection system requires a transponder to be mounted in vehicles, which allows patrons to pass through the toll plaza without stopping. Equipment at the toll plaza communicates with the transponder, records the transaction, and debits a patron's toll account. This system should further reduce the need for the expansion of state toll collection staff.

As part of its responsibility to operate and maintain toll facilities, the department enters into lease-purchase agreements and operating agreements with local expressway and bridge authorities. Under lease-purchase agreements, the department consents to pay the annual operations and maintenance costs for the toll facilities so that revenues collected can first be used to pay the facilities' bond debt. The department often assumes a position which permits reimbursement of operations and maintenance costs after debt service requirements. Under operating agreements, the local authority continues the planning, management, and operational control of the toll facility, and the department assumes the responsibility for toll collection and facility maintenance. The department currently has five lease-purchase agreements and one operating agreement with expressway and bridge authorities.⁴

Program costs are 2.6% of FDOT's budget

The Florida Department of Transportation's Office of Toll Operations administers the Toll Operations Program. The department allotted the office \$118,058,174 and 1,186 positions for Fiscal Year 1999-2000.⁵ See Exhibit 1-2 for Fiscal Year 1996-97 through 1999-2000 allotments and staffing for the Office of Toll Operations. The Office of Toll Operations accounts for 2.6% of the

⁴ The department has lease-purchase agreements with the Tampa-Hillsborough County Expressway Authority, Santa Rosa Bay Bridge Authority, Mid-Bay Bridge Authority, Orlando-Orange County Expressway Authority, and the former Broward County Expressway Authority. The department entered into an operating agreement with the Miami-Dade Expressway Authority.

⁵ This figure does not include more than 1,600 contracted toll collectors.

Introduction

Florida Department of Transportation's \$4.5 billion budget for Fiscal Year 1999-2000.

Exhibit 1-2

Office of Toll Operations Funding Has Increased From Fiscal Years 1996-97 Through 1999-2000

Program Allotments	Fiscal Year			
	1996-97	1997-98	1998-99	1999-2000
Positions	1,186	1,181	1,145	1,186
Program Operations	\$76,499,754	\$80,348,234	\$ 87,478,317	\$ 92,801,806
Capital Improvements and Maintenance	1,433,551	10,131,760	14,600,933	25,256,368
Total Funding	\$77,933,305	\$90,479,994	\$102,079,250	\$118,058,174

Source: Florida Department of Transportation.

Exhibit 1-2 shows that most (\$92,801,806) of the program's funding is allocated to program operations. The remaining \$25,256,368 in funding is used for capital improvements and maintenance of toll facilities; these maintenance activities are performed by the FDOT district in which the facility is located. The program's funding has increased by 51% since Fiscal Year 1996-97 because new toll facilities have been opened. Also, the department is obligated to pay operations and maintenance costs to the Orlando-Orange County Expressway Authority under a lease-purchase agreement, and these costs have increased since Fiscal Year 1996-97.

The program is largely self-supporting

The program's operations and maintenance expenses are initially funded from revenues in the State Transportation Trust Fund, into which a variety of transportation-related funding is placed to pay the costs of the department's programs. However, the department is reimbursed for these costs with revenues generated by the states' toll facilities. The program's toll collection activities resulted in revenues of \$361.5 million in Fiscal Year 1997-98. Revenues that exceed program costs are used to maintain the toll facilities and to make debt service payments.

In addition to revenues generated by the program's toll collection activities, local entities also receive loans from the department's Toll Facilities Revolving Trust Fund, which is under the Financial Planning Office. This trust fund provides interest-free loans to pay initial development costs such as preliminary engineering, traffic and revenue studies, environmental impact studies, financial advisory services, engineering design, right-of-way map preparation, and right-of-way-land acquisition. These loans are intended to encourage the development and to enhance the financial feasibility of toll facility projects. Loan proceeds must be repaid within 7 to 12 years of the date of the advance or at the time of bond issuance for construction, at the option of the borrower.

Since its inception in 1986, the Toll Facilities Revolving Trust Fund Loan Program has awarded \$143 million in loans to 19 local governments and expressway authorities. As of March 1999, \$62.9 million has been repaid and “revolved” into new loans, and \$3.7 million has been written off as uncollectible.

Program Benefit and Performance

Program Benefit and Impact of Abolishment

The program's toll collection activities are beneficial and should be continued

Toll roads provide needed transportation resources

Toll roads fill vital transportation needs. While motor fuel taxes and highway user fees (such as motor vehicle registration and driver's license fees) were once relied on to fund highway construction, the cost of building needed roads in Florida exceeds the available funding. Florida Department of Transportation managers stated that the toll roads provide funds that are otherwise not available to build and maintain roads and bridges needed to meet traffic demands.

Revenue bonds are an important finance tool

Due to funding limitations, the department and local entities often finance toll road and bridge projects by the sale of bonds. Generally, revenues generated from toll roads are dedicated to repay the bonds issued to build them. This method of finance has assisted the state in building some roads at a faster pace than would otherwise be possible. The 1997 Legislature showed its support for this financing method and doubled the amount the department could bond for Florida Turnpike projects.⁶

Toll roads have made a significant contribution in meeting the state's transportation capacity needs. Department managers stated that toll roads have added substantial capacity to Florida's Intrastate Highway System. Toll roads have been responsible for nearly one-third of all lane miles added to the system from Fiscal Year 1990-91 to Fiscal Year 1995-96. This level of contribution is expected to continue through Fiscal Year 2000-2001.⁷

New road and bridge construction would likely decrease if the Toll Operations Program were abolished. Since toll roads are generally

⁶ In 1997, the Legislature passed Senate Bill 2060, which increased the turnpike's bonding capability from \$1.5 billion to \$3 billion.

⁷ A number of toll facility projects are currently underway, including the Polk Parkway, Suncoast Parkway, and Seminole Expressway II.

self-supporting, the loss of toll collection revenues and bonding capacity would likely result in the need for additional funding to meet annual debt service requirements and to provide maintenance on existing facilities. Department studies reported that transportation officials may become increasingly reliant on motor fuel taxes to fund new road projects and that traffic volumes on previously tolled roads may increase if toll collections ceased. Furthermore, department studies estimate that \$28 billion is needed for improvements to the Florida Intrastate Highway System, but projected that only \$6 billion would be available through the year 2010 for these improvements. If the Toll Operations Program were abolished, the state would lose approximately \$362 million annually in needed revenue.

OPPAGA did not identify any benefit to transferring the program's functions and activities to another state agency. The Florida Department of Transportation is the only state entity responsible for the toll collection function on the state's toll facilities and toll facilities owned by expressway and bridge authorities. Transferring responsibility for all toll facilities to local governments would not be desirable as toll roads such as the Florida Turnpike are intended to meet statewide needs and some local governments may not have the expertise to operate toll facilities. The program's current organizational placement is an efficient way to ensure that toll facilities throughout the state are being operated and maintained in a consistent manner.

Program Performance

In general, the Toll Operations Program is operating efficiently. The program has reasonable processes in place to ensure that toll collection revenues are safeguarded and that new toll facilities are successful over time. However, as discussed in our earlier report on the program's performance-based program budgeting measures, the program's effectiveness in reducing wait times and improving customer satisfaction at toll facilities is unknown due to a lack of performance measures in these areas. We recommended new outcome measures to address this problem.⁸

⁸ [OPPAGA Report No. 98-57](#), February 1999. (See Appendix D.)

Based on its performance-based program budgeting measures and standards, the program is containing its cost to collect toll revenues

Program staff processed more transactions and contained collection costs

The program's output measures show that program staff processed 13.5% more toll transactions than expected in Fiscal Year 1997-98, primarily due to the addition of new toll facilities. As shown in Exhibit 2-1, the number of transactions program staff processed in Fiscal Year 1997-98 was also an improvement over the prior year's level. The program's outcome measures show that it also met the Fiscal Year 1997-98 standard for the cost to process each toll transaction. At less than 16 cents in Fiscal Year 1997-98, the program has contained its cost to collect toll revenues between 15 and 17 cents from Fiscal Years 1994-95 to 1997-98. The Legislature desires comparable processing costs and increased transactions based on the performance standards set for Fiscal Years 1998-99 and 1999-2000.⁹

Exhibit 2-1

The Toll Operations Program Met Performance-Based Program Budgeting Standards in Fiscal Year 1997-98

	1996-97 Performance	1997-98 Standard	1997-98 Performance	Met Standard for 1997-98?	1998-99 Standard
Operational cost per toll transaction	\$0.158	\$0.163	\$0.158	Yes	<\$0.16
Number of toll transactions	421,593,721	404,785,847	459,529,849	Yes	472,000,000

Source: OPPAGA Performance Report No. 98-57.

Additional measures are needed to assess customer satisfaction

The mission of the Toll Operations Program is to collect and safeguard toll revenues while ensuring quality service to customers. While the current measures assess the program's efficiency in collecting toll revenues, the measures do not address service quality. To recognize the customer service aspects of its mission, we recommend that the program establish outcome measures to assess its progress in limiting wait times at toll facilities and increasing customer satisfaction. While program staff asserted that it would be problematic to collect data on these service quality indicators, we note that program staff have collected data on wait times at specific facilities that have experienced traffic delays as well as data that can be used to determine effectiveness in moving vehicles through toll lanes over time. For example, the Office of Toll Operations sponsored a study that evaluated the toll collection process at toll facilities on the Dade County Expressway System.¹⁰

⁹ Performance results for Fiscal Year 1998-99 are not yet available. Fiscal Year 1999-2000 standards were established for operational cost per toll transaction (<16 cents) and number of toll transactions (472,000,000).

¹⁰ General Toll Consultant Services for Dade County Expressway Systems:

A key recommendation stemming from the evaluation was the implementation of SunPass to reduce congestion levels at peak periods. To limit the potential costs of obtaining customer satisfaction data, program staff may wish to conduct a customer survey every three to five years.¹¹

Recent audits show no material weaknesses in the program's internal control structure

The department has processes to account for all toll collections

Proper accountability for toll facilities requires that the collections be counted, recorded, and compared to related records. The program uses three sources of information to determine the amount of revenue that should have been received by an individual toll collector: individual collectors' reports of how much they collected, toll lane equipment accounts of the number and classification of vehicles that passed through the facility during each collector's shift, and bank deposits. The data reported by these three sources are verified through system level comparisons and through audits. See Appendix B for a graphic summary of this traffic and revenue verification process. Several factors may cause variances in the data reported, including equipment or software failures that affect the accuracy of computerized records, patrons who improperly proceed through the toll plazas without paying the required tolls, and employees or others who may intercept toll collections and divert them for personal use.

Prior audits reported no serious deficiencies in the control systems

The program's toll collection system has been assessed by the Auditor General and (for turnpike facilities) an independent auditor. In its most recent review of the program's operations, the Auditor General found some deficiencies in the toll collection process, but reported no material weaknesses.^{12,13} For example, the Auditor General reported that toll facility compliance reviews were not adequate to provide assurance that toll facility operations statewide were standardized and that toll facility internal control structures

Traffic Operations Analysis, Post, Buckley, Schuh, & Jernigan, Inc., 1997.

¹¹ We note that the Toll Operations Program's biggest customer, the Florida Turnpike, considers wait times and customer satisfaction as the most important measures for assessing the performance of toll operations. The Turnpike District has sponsored several studies that assess traffic volumes, queue lengths, and traffic delays at turnpike facilities, which have been used to determine toll lane capacity and to make recommendations for the most efficient use of toll lanes for varying traffic volumes. Turnpike District staff also assess the level of customer satisfaction on its facilities through an annual survey of turnpike patrons. As part of its responsibility for the toll collection function, Toll Operations Program staff should also collect this type of data regularly to determine their effectiveness in performing program duties.

¹² A material weakness is a condition in which the design or operation of at least one of the internal control components does not reduce the risk that material errors or irregularities in amounts may occur and may not be detected within a timely period by employees in the normal course of performing their assigned functions.

¹³ *Operational Compliance Audit of the Toll Collection Systems of the Florida Department of Transportation for the Period July 1, 1993, Through June 30, 1995*, Office of the Auditor General Report No. 12673, March 25, 1996.

were effective. The Auditor General recommended that the program conduct and document more frequent compliance reviews. The department implemented the Auditor General's recommendation and program compliance unit staff now visit each of the state's toll facilities at least twice a year. The independent auditor who conducted subsequent reviews of turnpike operations reported no material weaknesses in the program's internal control structure.¹⁴

Hiring private sector collectors has not adversely affected control systems

Using private sector toll collectors has not adversely affected the program's control systems. Computerized toll equipment has helped to ensure accuracy of the revenues collected by the privatized toll collectors. Also, FDOT supervisory personnel are responsible for maintaining oversight of toll collection equipment to ensure that the vendor can be held responsible for all revenues that should be collected. Furthermore, the program has included provisions in its contract for private sector collectors that require the contractor to deliver all revenues expected, regardless of any shortfalls due to theft, inaccurate classification of vehicles, or other procedural violations by its employees. These processes, as well as other methods of verifying toll collections, help to assure the department that toll revenue is safeguarded.

Although some toll facilities have not produced the expected levels of revenue, forecasting models have been improved

Feasibility studies determine a toll project's financial strength

Toll roads that are financed by revenue bonds depend on traffic and revenues generated by the facility to repay bond proceeds. Consequently, it is critical that facilities generate enough revenue to become self-supporting. Florida law requires that toll projects must undergo a feasibility study prior to their construction.¹⁵ As part of these studies, traffic and revenue consultants develop models to estimate the amount of traffic and revenue a toll facility will generate. The results are used to determine the project's feasibility, financial risk, and credit worthiness. Traffic and revenue estimates must be highly accurate because they are a primary determinant in the decision to build and finance a toll facility.

In the past, some of the department's feasibility studies were based on inaccurate traffic and revenue forecasts and substantially overestimated potential facility revenue. Some of these problems were due to the inherent difficulty in projecting factors such as population, employment, and household makeup. Most problems encountered were due to the lack of Florida-specific experience in forecasting. Thus, early feasibility studies did not accurately

¹⁴ *Florida's Turnpike System, Florida Department of Transportation Statements for the Years Ended June 30, 1998, and 1997 and Independent Auditors' Reports*, Deloitte and Touche, LLP.

¹⁵ The Toll Operations Program is not involved in traffic and revenue forecasting and does not develop toll feasibility studies.

measure such factors as toll rates that discourage use of the toll facility and the amount of time it takes for drivers to learn about new roads.¹⁶

Turnpike projects passed feasibility tests, but do not meet original projections

Due in part to these weaknesses in past forecasts, two recently constructed toll facilities have not met their traffic and revenue projections and are operating at substantial deficits. These facilities, the Seminole and Veterans expressways in central Florida, are two recent turnpike expansion projects. These facilities passed preliminary feasibility tests in 1992, but have fallen short of the initial revenue forecasts; however, actual revenues are improving to the projected levels. As shown in Exhibit 2-2, the Seminole Expressway had a revenue shortfall of \$2,437,000 in Fiscal Year 1997-98 while the Veterans Expressway had a shortfall of \$6,840,000. The Sawgrass Expressway in Broward County also has not met initial revenue projections, but was constructed by the former Broward County Expressway Authority based on a local feasibility test.¹⁷

**Exhibit 2-2
Seminole and Veterans Expressways Revenues
Not Yet at 100% of Original Forecasted Revenues**

Facility	Fiscal Year	Toll Revenue (in thousands)			Actual Growth Rate	Ratio: Actual vs. Forecast
		1992 Forecast	Actual	Shortfall (in thousands)		
Seminole Expressway	1994-95	\$12,127	\$ 6,505	\$5,622	NA	.54
	1995-96	12,951	8,452	4,499	30%	.65
	1996-97	13,802	10,721	3,081	27%	.78
	1997-98	14,680	12,243	2,437	14%	.83
Veteran's Expressway	1994-95	\$11,982	\$ 5,960	\$6,022	NA	.50
	1995-96	17,161	9,945	7,216	67%	.58
	1996-97	18,346	11,469	6,877	15%	.63
	1997-98	19,530	12,690	6,840	11%	.65

Source: International Bridge, Tunnel, and Turnpike Association, Florida Department of Transportation, and OPPAGA analysis.

¹⁶ The 1997 Legislature considered these factors when it revised the feasibility criteria to require that net revenue projections on turnpike expansion projects cover 50% of their debt service by the fifth year of operation (prior policy required average net revenue coverage in the first five years of operation) and 100% of their debt service by the fifteenth year of operation. This legislation allows more toll projects to meet feasibility criteria.

¹⁷ The Sawgrass Expressway was constructed by the former Broward County Expressway Authority and was based on a local feasibility test. The facility was opened in July 1986 and was acquired by the department's Turnpike District in 1990 under a lease-purchase agreement. Revenues for the Sawgrass Expressway have been significantly less than forecast in the initial feasibility study, with an estimating error of \$15,340,000 in Fiscal Year 1997-98. However, gross toll and Broward County gas tax revenues collected in Fiscal Year 1997-98 were sufficient to cover the facility's annual debt service requirement as well as operations and maintenance expenses. Toll collection revenues for the Sawgrass Expressway have increased by 35% since Fiscal Year 1994-95. The department has updated the initial revenue forecast and the facility exceeded the department's new toll revenue projection in Fiscal Year 1997-98.

Program Benefit and Performance

FDOT assists toll facilities to meet debt service requirements

Although revenues have significantly increased for the Seminole and Veterans expressways, they are still below debt service requirements. Since 1994, revenues for the Seminole Expressway have increased by more than 88% and revenues for the Veterans Expressway have increased by 113%. However, these facilities are not generating revenues sufficient to meet annual debt service requirements due to less than initial forecast traffic and revenue levels.¹⁸ Nonetheless, as drivers become increasingly familiar with the roads, these projects are expected to meet the fifteenth year economic feasibility test. To ensure that debt service requirements are met, the department assists such toll projects in four ways.

- For turnpike projects such as the Seminole and Veterans expressways, revenues collected on established segments of the turnpike are used to support these newer portions until they begin to generate revenues that are sufficient to cover their costs. These facilities will eventually become contributors to the turnpike system and help support new projects.
- The department assists other toll facilities to meet debt service requirements through lease-purchase agreements. As discussed previously, lease-purchase agreements permit the department to pay operations and maintenance costs for toll facilities that are built by local government entities so that toll revenues can be used to meet debt service requirements. The department assumes a position for the reimbursement of operations and maintenance costs after debt service requirements. The department enters into these agreements regularly and currently has five lease-purchase agreements and one operating agreement with expressway and bridge authorities.
- Florida law provides that the department can increase toll rates on turnpike facilities if revenue shortages continue after 15 years of operation. According to program staff, the department has not increased toll rates on any of its facilities to meet debt service requirements.
- The department may advance funds from the Toll Facilities Revolving Trust Fund to cover revenue shortages for the first five years of operation, up to a maximum of \$5 million per year. The department has not taken this step in recent years.

¹⁸ The Mid-Bay Bridge also did not generate revenues sufficient to cover debt service payments in Fiscal Year 1997-98; however, actual revenues generated were 20% more than forecast. The department pays operations and maintenance expenses under the terms of a lease-purchase agreement and Okaloosa County provides additional revenues to assist the bridge authority to meet its annual debt service requirement.

Forecasting models have been improved to be more realistic

The department has improved its traffic and revenue estimates in recent years. Turnpike officials have worked with their traffic and revenue consultant to modify forecasting models and to improve the sensitivity testing of additional factors that may have caused the Seminole and Veteran's facilities to under-perform.¹⁹ These modifications have improved subsequent forecasts for other turnpike projects. In addition, the turnpike's traffic and revenue consultant is required to annually submit a traffic engineering report to the department that includes a 10-year traffic and revenue forecast for each component of the turnpike system. These recent forecasts provide more realistic estimates of traffic and revenues for turnpike facilities.

In general, most toll facilities met traffic and revenue expectations in Fiscal Year 1997-98.²⁰ As newer facilities such as the Seminole and Veterans expressways become more established, the amount of traffic and revenue they generate is expected to further increase. Based on past performance, revenues for the Sawgrass Expressway should continue to increase. The Sawgrass Expressway gross revenues are expected to be sufficient to pay debt service, operations, and maintenance costs in Fiscal Year 1999-2000. While traffic and revenue levels may never parallel the original forecasts, they closely approximate the adjusted estimates.

Options for Improvement

The remaining two chapters of our report contain our conclusions and recommendations for improving the Toll Operations Program. Chapter 3 presents our conclusions and recommendations to improve program operations and efficiency. Chapter 4 presents our conclusions and recommendations to reduce program costs.

¹⁹ Sensitivity testing refers to the testing of the factors that may contribute to traffic and revenue shortfalls to determine the degree of sensitivity they might pose, especially regarding possible negative impacts on projected traffic and revenue.

²⁰ Fiscal Year 1998-99 data not yet available.

Program Operations and Efficiency

Introduction

In general, the program is containing its costs to collect toll revenue and is collecting tolls more efficiently than most states. However, collection costs vary among the state's toll facilities for various reasons. Implementing an electronic toll collection system is expected to improve the operational efficiency of Florida's toll collection process.

Program Performance

The program generally performed well in containing collection costs and is more efficient than most states' systems

Toll facilities had collection costs ranging from 7 to 26 cents per transaction

In Fiscal Year 1997-98 (the most recent year for which data are available), the program's cost per transaction was 0.158 cents. This cost is lower than the cost standard the Legislature set for Fiscal Year 1997-98 and has been contained between 15 and 17 cents since Fiscal Year 1994-95. The Legislature expects comparable processing costs in Fiscal Years 1998-99 and 1999-2000. By containing its costs, the program is able to retain an increasing amount of revenue to meet annual debt service requirements and to maintain and improve the toll facilities. As shown in Exhibit 3-1, toll facilities had transaction costs that ranged from 7 to 26 cents in Fiscal Year 1997-98, with an average of about 16 cents.

Exhibit 3-1
Toll Facility Collection Costs Ranged from 7 to 26 Cents in Fiscal Year 1997-98

Facility	Transactions	Costs	Cost Per Transaction
Southern Connector Extension	4,076,736	\$ 1,047,253	\$0.26
Navarre Beach Bridge	936,499	238,084	0.25
Turnpike Mainline	238,459,844	49,456,737	0.21
Mid-Bay Bridge	3,667,503	603,319	0.17
Alligator Alley	10,644,079	1,460,878	0.14
Sunshine Skyway Bridge	11,800,540	1,662,377	0.14
Veterans	20,412,281	2,858,829	0.14
Pinellas Bayway	9,454,533	1,218,161	0.13
Seminole	13,244,503	1,660,999	0.13
Tampa Crosstown	28,451,029	3,225,694	0.11
Bee Line East	8,746,361	801,916	0.09
Sawgrass	33,341,903	2,974,434	0.09
Dade County	76,293,038	5,516,581	0.07
Toll Operations Program	459,528,849	\$72,725,262	\$0.16

Source: Florida Department of Transportation, Office of Toll Operations.

The three facilities with relatively high toll collection costs exceeded the statewide average for a variety of reasons. These facilities are the Southern Connector Extension, Navarre Beach Bridge, and Turnpike Mainline.²¹

- **Southern Connector Extension.** At 26 cents, the Southern Connector Extension facility had the highest collection cost among the state’s toll facilities in Fiscal Year 1997-98. This facility is a recent turnpike expansion project and is generating less traffic than initially estimated. However, the facility is generating sufficient revenue to cover its operating costs. The facility is still in its start-up period, but should begin to generate sufficient traffic to sustain its operations and maintenance costs as it becomes more established.
- **Navarre Beach Bridge.** This is an older facility with limited traffic. In Fiscal Year 1997-98, program staff processed approximately 936,499 transactions on this facility. The facility needs additional toll transactions in order to reduce collection costs from 25 cents. However, traffic levels are not likely to increase significantly as there is little population growth in the area. It is unlikely that a reduction in operating costs will occur as the facility’s costs are about average for a facility of this size and costs would stay about the same if the number of transactions processed doubled. Insurance costs are a significant portion of this facility’s operating cost.

²¹ The Turnpike Mainline is the 266-mile stretch of road that passes through 11 counties from North Miami to a junction with I-75 in north central Florida.

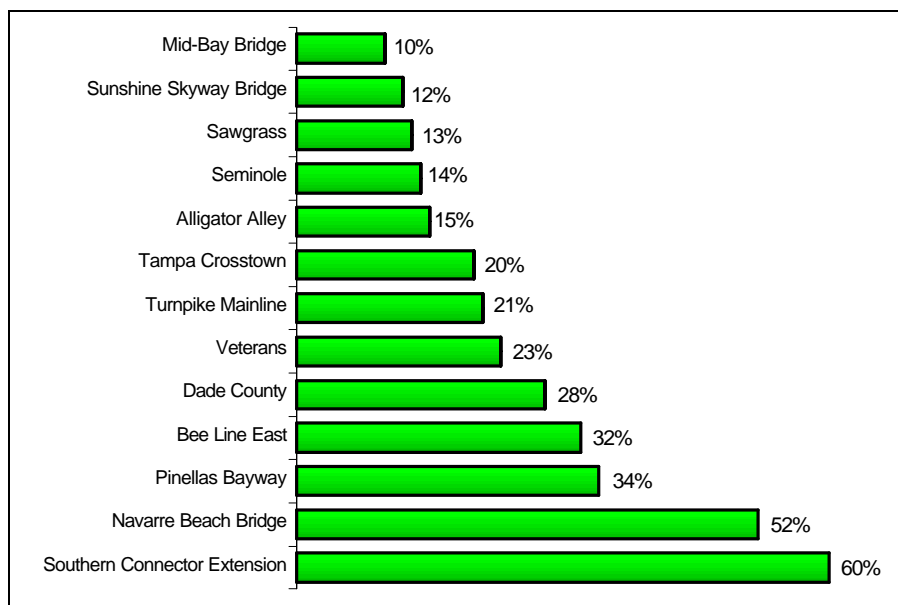
Program Operations and Efficiency

- **Turnpike Mainline.** The cost to collect toll revenues on this facility was 21 cents in Fiscal Year 1997-98. This relatively high cost may be due to the manual processing of all toll transactions on the "Closed System" or ticketed portion of the turnpike facility. Manned toll collection booths are necessary on this facility since motorists have different entry and exit locations, which require toll collection staff to calculate the exact toll amount.²²

In general, the program's costs were a reasonable portion of annual revenues

As shown in Exhibit 3-2, most of the state's facilities maintained a reasonable level of operating costs in Fiscal Year 1997-98, spending less than 30% of revenues on operating costs. Based on the program's cost and the amount of revenues collected in Fiscal Year 1997-98 the program, on average, spent about 20% of toll collections for operating costs and retained 80% (\$289 million) to support debt service, maintenance costs, and facility improvements. For some facilities such as the Southern Connector and Navarre Beach Bridge, however, a large portion of the revenues collected went toward funding their operating costs.

Exhibit 3-2
Most Toll Facilities Spent a Low Percentage of Revenues to Pay Operating Costs in Fiscal Year 1997-98



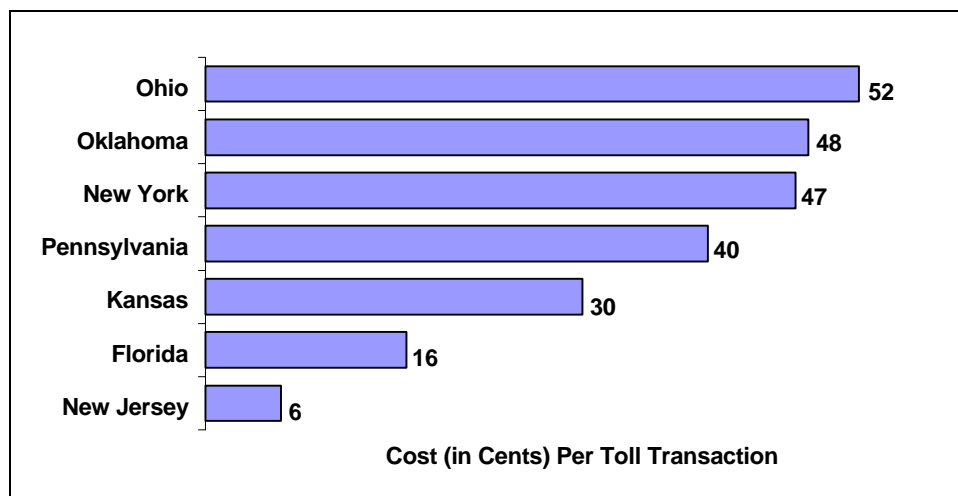
Source: Florida Department of Transportation records and OPPAGA analysis.

²² The toll collection system has two basic operational configurations. The "Barrier System" configuration is the most prevalent and refers to the collection of toll revenues at various points along the toll road, either by a toll collector or automatic coin machine. The second configuration is the "Closed System" and is used for the portion of the Florida Turnpike between Osceola County and Lantana. In the "Closed System," patrons obtain a ticket upon entry on this portion of the turnpike and pay a single toll upon exit based on vehicle classification (axles) and distance traveled.

Florida's toll collection system is more efficient than most states' systems

The program's cost efficiency compares favorably to other states. Toll collection data from six states shows that Florida has the second lowest cost to collect toll transactions, as shown in Exhibit 3-3. Operating costs are high for most states due to regional differences in the cost of living and employee wages. Some states also have higher costs because they include other factors that are not considered in Florida, such as snow removal costs.

**Exhibit 3-3
Florida's Cost to Collect Tolls Is Lower than in Most States**



Source: OPPAGA survey and analysis of state toll collection systems.

In summary, we concluded that Florida's toll collection process is generally efficient. However, some toll facilities have relatively high toll collection costs. For newer facilities, performance is expected to improve over time as they become more established. For older facilities, it may prove more difficult to reduce costs because higher traffic levels will be needed to improve their efficiency.

Electronic toll collection should improve the program's operations and efficiency

A primary way that the program can lower its costs and improve efficiency is through greater use of electronic toll collection. Electronic toll collection is a technology that allows toll facilities to collect tolls for roads and bridges without requiring vehicles to stop at a tollbooth. Florida is beginning to implement an electronic toll collection system, called SunPass. In this system, customers prepay toll charges and mount a transponder on their windshields. The customers then can drive through toll plazas without stopping. SunPass facilitates nonstop toll processing and provides customers with up-to-date information on their prepaid toll accounts. A highly automated violation enforcement system issues warnings and

citations to toll violators. Exhibit 3-4 describes the SunPass components.

**Exhibit 3-4
Florida's SunPass System Is Comprised of Three Components**

System Component	Description
Automatic Vehicle Identification System (AVI)	Uses radio frequency transponders to interact with antennas located in the toll collection lanes to communicate identifying information about the vehicle and customer to the toll system. The system automatically deducts tolls from the customers' prepaid accounts each time they drive through the toll plaza.
Automatic Vehicle Classification (AVC)	Uses various sensors in and around the toll lane to determine the type of vehicle so that the proper toll can be charged.
Violation Enforcement System (VES)	Captures images of the license plates of vehicles that use the facility without a valid transponder so that the owners can be identified and notified that a toll is due.

Source: Electronic Toll and Traffic Management Website, www.ettm.com.

These components work together, providing the information needed to create the toll transaction and to charge customers the appropriate costs. Program staff manage the SunPass Customer Service Center and are responsible for enrolling and issuing tags to customers, managing customers' toll accounts, handling customer inquiries, and processing the violation images.²³

Electronic toll collections benefits users and toll facility operators

The program began using SunPass in spring 1999 in south Florida and its implementation will extend through the year 2000. Currently, the department plans to install SunPass technology in 90 toll lanes dedicated for SunPass users and in 365 mixed-use lanes that will be available to both SunPass and cash-paying customers. The 90 toll lanes for SunPass users only will allow motorists to pass through toll plazas at speeds of up to 25 miles per hour.²⁴ Frequent users of SunPass will receive a 10% rebate after 40 or more transactions are made each month on Florida's Turnpike. Fewer than two trips per day on average are required to receive the discount. Similar discounts will be available on select toll roads throughout Florida.²⁵

The toll facility industry has touted several benefits of electronic toll collection systems.

- **Improved customer convenience.** Users no longer have to wait in line to pay tolls because electronic toll collection eliminates the need for vehicles to stop at toll plazas. Implementation of E-PASS, the Orlando-Orange County

²³ SunPass transponders cost \$25 (excluding tax) and require a minimum opening balance of \$25. A 45-day money back guarantee is available and includes a refund of the remaining balance.

²⁴ Higher speeds are possible; however, the department wants to maintain a safer speed due to its concern for toll collectors' and patrons' safety.

²⁵ The 1997 Legislature directed the Turnpike to offer a 10% discount to patrons who use SunPass by implementing a discount pilot project.

Expressway Authority's electronic toll collection system, has reduced wait times for E-PASS and cash-paying customers.²⁶ Electronic toll collection also increases toll payment options for users.

- **Cost-efficiency.** The use of electronic toll collection can result in a reduction of toll collection staff. As a result, use of SunPass can reduce the department's cost of operating toll facilities.²⁷ The Orlando-Orange County Expressway Authority reports its cost to process toll transactions in conventional toll lanes are about 21 cents per transaction and about 7 cents per transaction in toll collection lanes with E-PASS. By converting manual and automatic toll collection lanes to E-PASS, the authority estimates it saved about \$6 million, not including the costs associated with implementing electronic toll collection. If the costs of implementing electronic toll collection were accounted for, these savings would be significantly reduced.
- **Increased capacity.** More cars can be handled in toll lanes without the need to build additional infrastructure, such as more toll booths. Dedicated SunPass lanes can process up to 1,800 vehicles per hour, which is 300% more than conventional toll lanes. In addition, express toll lanes will process even more transactions because vehicles are allowed to travel through toll collection points at highway speeds. Due to this increased capacity, the department can delay potential toll facility expansions that are estimated to cost \$142 million. The Orlando-Orange County Expressway Authority's implementation of E-PASS has more than tripled the capacity of existing toll lanes in central Florida and has allowed the expressway authority to suspend toll facility expansions estimated at \$51 million.

At least three other states (Kansas, New York, and Oklahoma) presently have electronic toll collection systems installed. These states also require vehicles to have windshield-mounted transponders to be read by toll plaza equipment. Together with New York's electronic toll collection system, Florida's SunPass is the most comprehensive among the states, as shown in Exhibit 3-5.

²⁶ The Orlando-Orange County Expressway Authority has had electronic toll collection, E-PASS, since 1994 and plans to install SunPass antennas in E-Pass lanes to allow seamless travel for SunPass customers.

²⁷ Program staff note that costs can only be reduced to a point because there will always be a need for staff to manually collect tolls in at least one lane in each direction for cash-paying customers. As a result, program staff believe that many toll plazas that are only equipped with manual toll collection lanes cannot realize additional savings, even with SunPass.

**Exhibit 3-5
Florida's SunPass Is Among the Most Comprehensive
Electronic Toll Collection Systems**

State	Dedicated and Mixed-Use Lanes	Automatic Vehicle Identification	Automatic Vehicle Classification	Violation Enforcement System	Discount Available
Florida	•	•	•	•	•
Kansas	•	•	•		•
New York	•	•	•	•	•
Oklahoma	•	•			•

Source: IBTTA Electronic Toll and Traffic Management Survey and OPPAGA survey of other states toll collection systems.

Other states have benefited from electronic toll collection

The electronic toll collection systems in these states have shown benefits. Each state has had the benefit of increased movement of vehicles through toll plazas. New York officials report that vehicle throughput has increased from 300 vehicles per hour in manned toll collections lanes to 1,000 vehicles per hour in dedicated electronic toll collection lanes. State officials report few problems with electronic toll collections. In Kansas, problems resulted from the poor quality of the transponders. In Oklahoma, toll evasion and delinquent patron accounts have been problematic. Florida hopes to deter toll violators through its use of the Violation Enforcement System. Similar technology is currently being used in New York and has helped reduce the number of violators.

Commuters are targeted for SunPass use

In order for Florida to realize the benefits of electronic toll collection, a substantial number of toll facility patrons must use SunPass. Implementation of the discount program may encourage more users to participate in SunPass. The department is currently marketing SunPass to commuters through brochures, drive time radio, outdoor boards, and signage at the toll plazas. In addition, transponders are being sold at various locations around the state, including the SunPass Service Center and auto parts stores. However, a significant number of tourists and Floridians regularly travel throughout the state and could also participate in SunPass. Expanding the use of SunPass beyond commuters will likely increase the program's effectiveness in limiting traffic delays and reducing costs. Program staff have met with rental car agency representatives to discuss the idea of installing transponders in rented vehicles. Thus, the department has made some effort to expand participation in SunPass.

Options for Improvement

The program is containing its cost to collect toll revenues. Some newer toll facilities have higher costs, which are expected to decrease as the facilities become more established. For older facilities, we recommend that the department monitor toll facility costs to identify instances and sources of cost increases. We also recommend that the department identify ways to reduce these costs, such as by installing the electronic toll collection system sooner than planned and reducing toll facility staff accordingly.

Electronic toll collection is shown to bring about cost reductions. The Orlando-Orange County Expressway Authority's toll transaction costs were 21 cents in conventional toll collection lanes. After implementing E-PASS, the authority's cost to collect tolls in electronic toll collection lanes is about a third of the cost to collect tolls in conventional toll lanes. Based on this, we estimate that with 15% of toll facility patrons using SunPass, the program's cost will be reduced by 5% or approximately \$3.8 million annually.²⁸

The benefits of SunPass will grow with increased levels of participation. Therefore, we recommend that the department seek ways to expand the use of SunPass beyond commuters. The program has marketed SunPass to commuters through brochures, drive time radio, outdoor boards, and signage at the toll plazas. However, program staff should continue in their discussions with the rental car industry to make SunPass readily available to tourists and other travelers.

²⁸ These figures are based on the cost to operate the program in Fiscal Year 1997-98.

Cost Savings and Recovery

Introduction

While the Toll Operations Program is generally efficient in performing its toll collection duties, opportunities for further cost reductions exist. The department could achieve cost savings through further privatization of its toll operations. In addition, state funding to the Orlando-Orange County area could be reduced.

Program Performance

The program could further reduce its costs by contracting out the remaining toll collector positions

The majority of staff who work in the Toll Operations Program are toll collectors. The program uses approximately 2,000 persons to collect tolls at its 138 toll plazas. In Fiscal Year 1993-94, the department began to contract out for private toll collectors to perform its toll collection duties. This privatization initiative has resulted in reduced program costs in the last year.

Privatization of toll collectors was intended to relieve toll facility management of time-consuming personnel responsibilities. Toll collector personnel have high turnover rates, and prior to the privatization effort toll facility managers spent much of their time on personnel issues such as continuously recruiting, hiring, and training toll collectors. As a result, less time was available for managing facility operations.

Use of private toll collectors has resulted in operational improvements

Contracting out for toll collector personnel has allowed toll facility managers to focus more on customer service, traffic and staffing levels in the toll lanes, and revenue accountability. The program has contracted with a staffing company, which is responsible for performing background checks and hiring toll collector personnel. Program staff supervise the toll collectors and are responsible for submitting employee performance reports to the contractor.

However, the staffing company is responsible for taking disciplinary action when needed.

The contractor is able to immediately fill staffing shortages due to its large pool of employees. Turnover remains high, but is less problematic due to the contractor’s ability to easily replace toll collectors. As a result, service levels at the toll facilities have improved.

Privatization of toll collectors has produced cost savings

Contracting out for toll collectors initially increased costs but has produced savings in the past year. As shown in Exhibit 4-1, it cost the program more to operate toll facilities with private collectors than with Florida Department of Transportation (FDOT) employees for the first three years of the privatization initiative. However, proviso language in the Fiscal Year 1996-97 General Appropriations Act required the department to rebid all contracts for toll collection services. Contract rebids resulted in significant reductions in the hourly rates charged for the contracted services. As a result, privatization resulted in a net cost savings of \$645,051 beginning in Fiscal Year 1997-98.

**Exhibit 4-1
Toll Collector Contracts Initially Increased Costs, but Produced Savings in Fiscal Year 1997-98**

Fiscal Year	Projected Expenses Without Contracted Collectors		Actual Expenses With Contracted Collectors		Cost Difference
	FDOT FTE	Salaries, Benefits, OPS	FDOT FTE	Salaries, Benefits, OPS, Contract	
1994-95	1,518	\$38,905,391	1,281	\$40,853,418	\$1,948,027
1995-96	1,664	44,459,347	1,236	46,507,967	2,048,620
1996-97	1,743	49,824,657	1,186	50,117,463	292,806
1997-98	1,927	53,937,806	1,181	53,292,755	(645,051)

Source: Florida Department of Transportation.

A few FDOT employees continue to perform toll collection activities

The program could realize additional cost savings by privatizing its remaining FDOT toll collector positions. While the program has eliminated over 700 state toll collector positions, 338 positions remain. To minimize potential reductions in employee’s benefits, the program plans to eliminate the remaining positions as they become vacant through attrition. The program projects that by using this approach, it will eliminate about 25 positions annually. Although it has stopped hiring toll collectors, it will take the department about 14 years to eliminate the remaining FDOT toll collector positions. However, privatizing all these positions within the next fiscal year would save an estimated \$2 million annually.

Cost Savings and Recovery

FDOT employees supervise toll collectors

Privatization of the program's supervisory positions could also produce significant cost savings, but is not feasible at this time. Currently, the program employs 333 full-time and 54 OPS toll collector supervisors who are primarily responsible for managing the collection, traffic flow, and reporting functions for each toll collection shift. Contracting out these responsibilities could save the state an estimated \$1.8 million annually. However, the program's primary reason for retaining state employees in these positions is to ensure adequate controls for the security and accountability of the toll collections; these concerns are reasonable. Therefore, these concerns should be addressed prior to pursuing privatization of these positions.

Supervisory personnel may be needed less after SunPass is fully implemented

While privatization of supervisory staff may pose a risk to revenue security, greater use of electronic toll collection should reduce the program's overall need for toll collection staff, including supervisors. Electronic toll collection results in fewer cash transactions and increased automation of the toll collection process. As toll collectors are replaced by SunPass, the demand for services provided by supervisory staff will decrease, which should allow a reduction in program staffing over time.

The agreements with Orlando-Orange County Expressway Authority are atypical of the department's lease-purchase agreements

The department enters into lease-purchase agreements with expressway authorities, under which it agrees to pay operations and maintenance costs for new toll facilities. Under these agreements, the department usually will be reimbursed for operations and maintenance costs after debt service requirements are satisfied. These agreements are intended to help expressway authorities issue bonds to build needed roads, thereby reducing the gap that exists between transportation funding and needs.

Since 1965, FDOT has paid operations and maintenance costs to OOCEA

The department entered into lease-purchase agreements with the Orlando-Orange County Expressway Authority (OOCEA) beginning in 1965 to assist the authority in building needed roads in central Florida. Under these agreements, the department is responsible for paying operations and maintenance costs for portions of the authority's expressway system. The agreements provide that these payments will continue until provision has been made for the payment of all of the authority's outstanding bonds, including any refundings, and the department has been fully reimbursed for all previous expenditures for operations and maintenance. Once the agreements are terminated, the department would then obtain ownership of the leased roadways. Exhibit 4-2 shows the portions of the expressway system for which the department is responsible.

**Exhibit 4-2
Financial Responsibilities of the Department for Components
of the Orlando-Orange County Expressway System**

System Component	Operation	Maintenance
Bee Line Expressway (1965)	OOCEA	FDOT
East-West Expressway (1970)	FDOT	FDOT
Airport Interchange and Bee Line Expressway (1980)	FDOT	FDOT
Central Florida Greene Way (1986)	OOCEA	OOCEA
East-West Expressway Extensions (1986)	OOCEA	OOCEA
Southern Connector (1990)	OOCEA	OOCEA
Western Beltway (1998)	OOCEA	OOCEA

Source: OAG Report No. 13116 and Official Statement for 1998 OOCEA Revenue Bonds.

Since entering into a lease-purchase agreement for the Airport Interchange and Bee Line Expressway project in 1980, the department has not entered into any new agreements with the authority. The authority has continued to expand the expressway system, constructing four new projects since 1980, and is responsible for paying operations and maintenance costs for these facilities. However, the authority pledges revenues generated by the whole expressway system, including those facilities for which the department is responsible, to repay bonds issued to finance these recent additions. For example, the authority pays bonds for the Southern Connector with revenues generated on the Beeline and East-West expressways. Thus, funds that could have been used to repay the department have instead been obligated to finance the new expressway additions.

OOCEA's debt had risen to \$113 million in Fiscal Year 1997-98

Provisions of the lease-purchase agreements hold the department responsible for paying operations and maintenance costs to the expressway authority as long as the authority has outstanding bond principal and interest. The department reports that it transferred payments of \$11 million for operations and maintenance costs to the authority in Fiscal Year 1997-98. According to department staff, the original agreement (1965 Bee Line Expressway project) continues to obligate the department to pay these costs. Furthermore, department staff have stated that the agreement cannot be changed without the Orlando-Orange County Expressway Authority's consent, which is unlikely to happen given that the expressway authority intends to continue expanding the expressway system.

By the end of Fiscal Year 1997-98, the authority's debt had risen to \$113 million. To date, the authority has not reimbursed the department for any of these costs, and authority officials indicate that there are no plans to reimburse the department in the near future due to planned expansions to the expressway system.

Cost Savings and Recovery

Currently, the authority's reimbursement of the department's costs is the lowest funding priority.

FDOT clearly defines its expectations for reimbursement under new agreements

To prevent other situations like this from occurring, the department changed the way it handled subsequent lease-purchase agreements. To provide more bonding capacity to pay for capital costs needed to construct the facility, the department is willing to assume a repayment position that is subordinate to an authority's debt service obligation. The department now prefers new toll facility projects to be responsible for paying their own operations and maintenance costs after they have been open to traffic for at least 10 years.

Options for Improvement

Privatization of toll collector positions has resulted in operational improvements and cost reductions. In Fiscal Year 1997-98, the program's privatization efforts resulted in estimated cost reductions of \$645,051. Due to concerns for the remaining FDOT toll collectors, the department plans to eliminate the remaining 338 toll collector positions as vacancies occur, which could take about 14 years.

Privatization of FDOT toll collectors could reduce program costs by an estimated \$2 million

We recommend that the department not delay privatization of these positions. The department could minimize the impact of privatization on its employees by requiring contractual provisions that give FDOT toll collectors priority for vacancies in contracted toll collector positions. Contracted and career service toll collectors have comparable average annual salaries. In addition, the current contractor offers a benefits package for its full-time collectors, including medical, dental, and life insurance, as well as the 401K retirement option. Contracted employees contribute a portion of these costs. The contractor is able to provide toll collection services at less cost than the state because it does not have the extensive leave policies that the state offers, such as paid sick days. In addition, the contractor has aggressive workers' compensation and unemployment compensation programs, which helps to keep these costs relatively low. If the department pursues immediate privatization of the remaining toll collector positions, the program's cost would be reduced by an estimated \$2 million.

Supervisory staff cost may be reduced with SunPass implementation

Privatization of toll collection supervisory staff would further reduce the program's cost by an estimated \$1.8 million annually, but is not feasible at this time due to financial and program risks. However, the need for toll collectors and supervisory personnel will decrease as more people use electronic toll collection. Therefore, we recommend that the department monitor and assess the program's utilization of supervisory services after SunPass is fully implemented. If the program is not fully utilizing all available

toll collector supervisory staff after SunPass is fully implemented, we recommend that the Legislature consider reducing the number of supervisory staff by an appropriate amount. Based on the program's estimates, the state would save approximately \$965,000 by reducing the number of its supervisory staff by 10%.²⁹

The authority's debt will double by the year 2010

Since 1965, the department continues to pay operations and maintenance costs for certain portions of the expressway system managed by the Orlando-Orange County Expressway Authority under the terms of lease-purchase agreements. At the current rate of \$11 million in department payments per year, the authority's accumulated debt of \$113 million will increase by more than 100% by the year 2010, unless provisions for repayment are made.

An official policy for terminating operations and maintenance payments should be adopted

Currently, the department has an informal practice that calls for the toll facilities it assists under new lease-purchase agreements to begin to pay their own operations and maintenance costs after 10 years of operation. We recommend that the department adopt an official policy to discontinue paying these costs after a facility has been in operation for 10 years. This would prevent situations similar to that involving the Orlando-Orange County Expressway Authority from recurring in future years.

Modification to the lease-purchase agreement is unlikely

Regarding the lease-purchase agreement between the department and the Orlando-Orange County Expressway Authority, the ideal outcome would be for the expressway authority to modify the agreement to release the department of its infinite responsibility to pay operations and maintenance costs. Furthermore, the expressway authority would change the department's reimbursement position to one of a higher priority with annual repayment in order to begin reimbursing the department for its costs. However, these modifications are unlikely to occur given that any change to the agreement may not be in the best interest of the bondholders.

Funding to the Orlando-Orange County area could be reduced by approximately \$11 million

If it believes that the expressway authority is receiving an unfair funding advantage over other Florida counties, we recommend that the Legislature consider reducing transportation funding to the Orlando-Orange County area by an amount equal to the funds appropriated to the department for its share of the expressway authority's operations and maintenance costs. These costs amounted to \$11 million in Fiscal Year 1997-98.

²⁹ Because the program does not currently contract out for supervisory staff, this estimate is based on 1,846 annual work hours for contract supervisors and assumes the hourly contract rate for supervisors will exceed the toll collector contract rate by 20%.

Appendix A

Statutory Requirements for Program Evaluations and Justification Reviews

Section 11.513(3), F.S., provides that OPPAGA Program Evaluation and Justification Reviews shall address nine issue areas. Our conclusions on these issues as they relate to the Toll Operations Program are summarized below.

Table A-1
Summary of the Program Evaluation and Justification Review of the Toll Operations Program

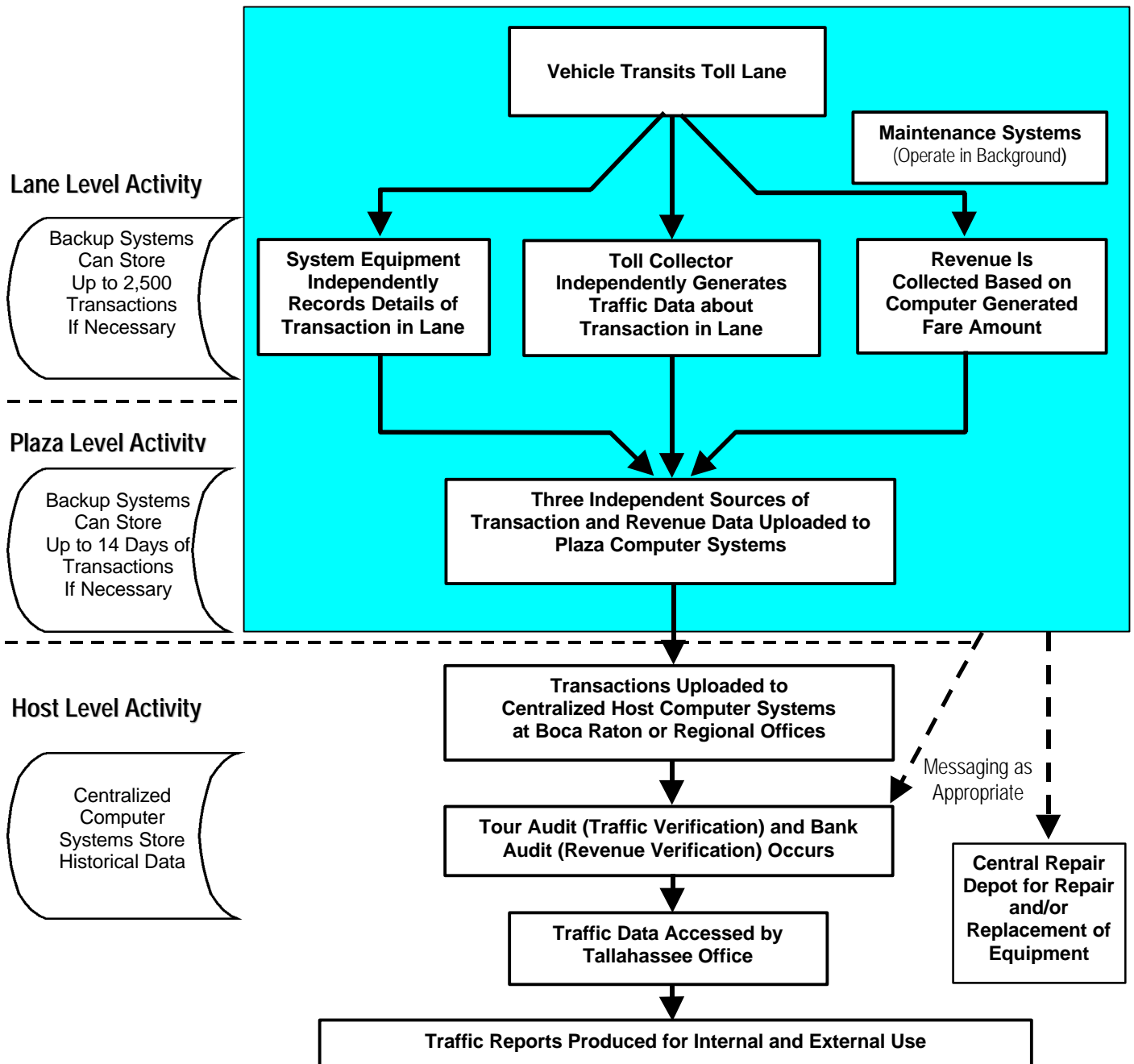
Issue	OPPAGA Conclusions
The identifiable cost of the program	For Fiscal Year 1999-2000, the Toll Operations Program was allotted \$118,058,174 to carry out its toll collection activities. The program received \$92,801,806 for operations. The program also received funding of \$25,256,368 for capital improvements and maintenance; however, these maintenance activities are performed by the FDOT district in which the facility is located. The program's Fiscal Year 1999-2000 funding represents a 51% increase in funding since Fiscal Year 1996-97 due to the addition of new toll facilities and increased payments to the Orlando-Orange County Expressway Authority.
The specific purpose of the program, as well as the specific public benefit derived therefrom	The program's purpose is to efficiently operate and maintain state-owned and state-operated toll facilities. To achieve this purpose, program staff collect and deposit toll revenues and, on non-turnpike facilities, review plans for initial design and improvement of toll plazas, as well as administer contracts for maintenance. Toll roads provide funding that would not otherwise be available to build and maintain roads and bridges needed to meet traffic demands. In Fiscal Year 1997-98, the program generated \$361.5 million in toll revenue. Toll roads have made a significant contribution to the state's transportation capacity needs, contributing nearly one-third of all lane miles added to the Intrastate Highway System from 1990-91 to 1995-96. This level of contribution is expected to continue through Fiscal Year 2000-01.
Progress towards achieving the outputs and outcomes associated with the program	The program's effectiveness at limiting wait times and improving customer satisfaction is not currently being measured. We have recommended measures to address this problem in our first performance-based program budgeting report for the Toll Operations Program. The program's performance measures indicate that it is containing its cost to collect toll revenues while increasing the number of toll transactions it processes.
An explanation of circumstances contributing to the state agency's ability to achieve, not achieve, or exceed its projected outputs and outcomes, as defined in s. 216.011, F.S., associated with the program	The program exceeded expectations for the number of toll transactions that it processed in Fiscal Year 1997-98 due to the addition of new toll facilities. The number of transactions processed has increased over the years. The program met expectations and contained its cost to process toll transactions to less than 16 cents in Fiscal Year 1997-98. Performance was about the same in Fiscal Year 1996-97.
Alternative courses of action that would result in administering the program more efficiently and effectively	To improve the program's operations and efficiency, the department should <ul style="list-style-type: none"> ▪ monitor toll facilities with transaction costs greater than 20 cents to identify instances and sources of cost increases and identify ways to reduce their costs and ▪ seek ways to expand the use of SunPass beyond commuters, such as continuing discussions with representatives of rental car companies to make

Issue	OPPAGA Conclusions
	<p>SunPass available to tourists and other travelers. We estimate that with 15% of toll facility patrons using SunPass, the program's cost will be reduced by 5% or approximately \$3.8 million annually.</p> <p>The program's cost could be reduced if</p> <ul style="list-style-type: none"> ▪ the department contracted out the work performed by the remaining FDOT toll collectors, reducing the program's cost by an estimated \$2 million annually; ▪ the department contracted out the responsibilities of toll collection supervisory staff, which could save the state an estimated \$1.8 million annually (prior to pursuing privatization of these positions, the Legislature should consider the program's concerns about financial and program risks due to privatization of supervisory personnel); ▪ the Legislature reduced the program's supervisory positions by 10% over time due to the implementation of electronic toll collection, saving an estimated \$965,000 annually. <p>In addition, if the Legislature determines that the Orlando-Orange County Expressway Authority is receiving an unfair funding advantage, it could reduce the transportation funding to the Orlando-Orange County area by an amount equal to the funds appropriated to the department for its share of the expressway authority's operations and maintenance costs. These costs amounted to \$11 million in Fiscal Year 1997-98.</p>
<p>The consequences of discontinuing the program</p>	<p>New road and bridge construction would likely decrease if this program were discontinued. A loss of toll collection revenues and bonding capacity would likely result in the need for additional funding to meet annual debt service requirements and to provide maintenance on existing toll facilities. Department studies reported that transportation officials may become increasingly reliant on motor fuel taxes to fund new road projects, and that traffic volumes on previously tolled roads may increase if toll collections ceased.</p>
<p>Determination as to public policy, which may include recommendations as to whether it would be sound public policy to continue or discontinue funding the program, either in whole or in part</p>	<p>Program funding should continue as currently implemented. It would be sound public policy to continue funding the program with revenues collected from toll facility users.</p> <p>We have recommended that the Legislature consider reducing the transportation funding to the Orlando-Orange County area by an amount equal to the funds appropriated to the department for the Orlando-Orange County Expressway Authority's operations and maintenance costs. This is intended to resolve any funding inequities that may be occurring.</p>
<p>Whether the information reported pursuant to s. 216.03(5), F.S., has relevance and utility for the evaluation of the program</p>	<p>The program's performance-based program budgeting measures are inadequate for assessing the performance of the program beyond the collection of toll revenue. The program needs additional measures to assess its efforts at improving wait times and customer satisfaction at toll facilities. Additional measures will assist the Legislature in assessing the program's overall effectiveness and provide important policy information.</p>
<p>Whether state agency management has established control systems sufficient to ensure that performance data are maintained and supported by state agency records and accurately presented in state agency performance reports</p>	<p>The program has adequate controls over the data used to determine performance results. The department's inspector general has validated the reliability of the process used to collect data for performance measurement purposes. In addition, the Auditor General and an independent auditor have examined the program's internal control processes and found no material weaknesses.</p>

Source: OPPAGA Analysis.

Appendix B

Traffic and Revenue Verification Process for Internal Controls



Source: Florida Department of Transportation.

Responses from the Florida Department of Transportation and the Orlando-Orange County Expressway Authority

In accordance with the provisions of s. 11.45(7)(d), F.S., a draft of our report was submitted to the Secretary of the Florida Department of Transportation and to the Executive Director of the Orlando-Orange County Expressway Authority for each to review and respond.

Written responses were received from both entities and have been reproduced herein beginning on page 31. Where necessary and appropriate, OPPAGA comments have been inserted into the body of each response.



Florida Department of Transportation

**JEB BUSH
GOVERNOR**

**THOMAS F. BARRY, JR.
SECRETARY**

September 2, 1999

Mr. John W. Turcotte, Director
Office of Program Policy Analysis
and Government Accountability
111 West Madison Street, Room 312
Tallahassee, Florida 32301

Dear Mr. Turcotte:

As requested in your August 18, 1999 letter, attached is our response to the findings and recommendations contained in the revised Justification Review of the Department's Toll Operations Program.

Sincerely,

/s/

Christine W. Speer
Assistant Secretary for
Finance and Administration

Attachment

**JUSTIFICATION REVIEW
TOLL OPERATIONS PROGRAM**

1. REPORT INTRODUCTION - PURPOSE AND BACKGROUND

This section finds that the Toll Operations Program uses private toll collectors to perform its collection duties and that its costs make up 2.6% of the Department's budget. It also finds that the program is largely self-supporting.

We agree that the above statements are generally accurate as applied to the Toll Operations Program.

2. PROGRAM BENEFIT AND PERFORMANCE

A. Toll Roads provide needed transportation resources.

We agree that toll roads fill vital transportation needs for the State of Florida.

B. Revenue bonds are an important finance tool.

We agree that the additional revenue produced by Road and Bridge Bonds, make vital transportation facilities available to the public which could not be funded by other financing methods.

C. The program's current organizational placement is an efficient way to ensure that toll facilities throughout the state are being operated and maintained in a consistent manner.

We agree.

D. Based on its performance-based program budgeting measures and standards, the program is containing its cost to collect toll revenues.

We agree.

E. We recommend that the program establish outcome measures to assess its progress in limiting wait times at toll facilities and increasing customer satisfaction.

As we have stated previously, while wait time and customer satisfaction are ongoing concerns to us from a management standpoint, it is difficult and costly to quantify them for use as valid outcome measures for evaluating program performance. While it is true that there was one study conducted on the Dade County Expressway System and that the Turnpike District has some limited information on traffic delays and customer satisfaction at service plazas, this data is far from being comprehensive enough to develop any type of performance measures. The Toll Operations Program is currently in the process of developing standards and methods for the outcome measures for the newly adopted standards approved by the 1999 legislature including wait time and customer satisfaction.

Appendix C

- F. Recent audits show no material weaknesses in the program's internal control structure.

We agree, although the Toll Operations Program is continuously looking ways to enhance internal control and accountability of toll revenue.

- G. Although some toll facilities have not produced the expected levels of revenue, forecasting models have been improved.

This section deals mostly with the bonding, design and construction of toll facilities. Although there is a footnote that the Toll Operations Program is not involved in traffic and revenue forecasting and does not develop toll feasibility studies, we do not believe that this section should be included in a Justification Review of the Toll Operations Program. It has been pointed out to us that feasibility studies are conducted during the design phase but prior to construction.

OPPAGA Comment

It is our responsibility to provide the Legislature with such information, whether it is fully in the purview of the Office of Toll Operations or not. Given the department's current program structure, an evaluation of the department's performance in revenue forecasting was most appropriately addressed in the review of the Toll Operations Program.

3. PROGRAM OPERATIONS AND EFFICIENCY

- A. The program generally performed well in containing collection costs and is more efficient than most states' programs.

We agree with finding.

- B. Electronic toll collection should improve the program's operations and efficiency.

While we agree that the implementation of SunPass will improve customer convenience and increase capacity at the toll plaza, it should be pointed out that reduction in operating costs at toll facilities are minimal except when previously manned lanes are converted into dedicated SunPass Lanes. Where SunPass is added to existing manned or automatic lanes, there will be no actual reduction in operating costs. Most savings resulting from SunPass will be from deferred capital costs, i.e., avoiding the need to expand toll plazas because of the increased throughput made possible through electronic toll collection.

- C. We recommend that the department identify ways to reduce these (Operational) costs, such as by installing the electronic toll collection system sooner than planned and reducing toll facility staff accordingly.

The Toll Operations Program is already diligently pursuing the most immediate implementation of SunPass state-wide and will be completed by the end of year 2000. Facility staff will be reduced as appropriate.

4. COST SAVINGS AND RECOVERY

- A. The program could further reduce its costs by contracting out the remaining toll collector positions.

Toll Operations plans to eliminate the remaining positions as they become vacant through attrition. It is believed that by using this approach, a minimum of 25 positions can be eliminated annually.

- B. The agreements with Orlando-Orange County Expressway Authority are atypical of the department's Lease-Purchase Agreements.

This is a correct statement; however, we believe that this section on the OOCEA Agreements should not be included in the Justification Review of the Toll Operations Program.

OPPAGA Comment

As mentioned previously, we believe that the Orlando-Orange County Expressway Authority (OOCEA) situation should be brought to the Legislature's attention, regardless of whether the situation is fully within the control of the Office of Toll Operations.

- C. We Recommend that the Department not delay privatization of the remaining 338 FTE toll collector positions.

We disagree with this recommendation. It has always been the Department's policy to privatize the toll collection function through attrition without adversely impacting career service employees. This position is rooted in our view of the employees as valuable human resources and a priority concern of this agency. The remaining FTE toll collectors have an average of 10.98 years of State service. They are vested in the system, and many will be looking toward retirement over the next several years.

- D. If the program is not fully utilizing all available toll collector supervisory staff after SunPass is fully implemented, we recommend that the Legislature consider reducing the number of supervisory staff by an appropriate amount.

It is the Department's policy to eliminate any position not necessary to effectively and efficiently carry out the Department's mission. This would certainly extend to any toll collector supervisor positions which might be considered excess, as a result of SunPass implementation. Reduction in Supervisor staff will come first from OPS positions prior to any request for deletion of career service positions.



ORLANDO - ORANGE COUNTY

525 SOUTH MAGNOLIA AVENUE, ORLANDO, FLORIDA 32801-4414
TELEPHONE (407) 316-3800 • FAX (407) 316-3801 • WWW.OOCEA.COM

September 3, 1999

Mr. John W. Turcotte
Director
The Florida Legislature
Office of Program Policy Analysis
& Government Accountability
Post Office Box 1735
Tallahassee, Florida 32302-1735

Dear Mr. Turcotte:

Please accept this letter as representing the comments of the Orlando-Orange County Expressway Authority to the findings contained in the draft report entitled "Florida Department of Transportation's Toll Operations Program Justification Review."

- 1) Loans from the Florida Department of Transportation (FDOT) to the Orlando-Orange County Expressway Authority (OOCEA) through lease-purchase agreements and the accumulated debt to the department should be terminated.

Comment # 1 - the OOCEA believes that this finding should be removed from this report.

The scope of the report included a program evaluation and justification review of the Toll Operations Program of the FDOT. As defined in the Introduction to the report, justification reviews assess agency performance measures and standards, evaluate program performance, and identify policy alternatives for improving services and reducing costs.

The lease-purchase agreements currently in place between the OOCEA and the FDOT have no impact on any performance aspect or expenditures of the FDOT Toll Collection Program. Rather, the lease-purchase agreements were made between the department and the Expressway Authority with the Office of

Toll Operations becoming the financial conduit for the transfer of funds. Further, the funds loaned to the OOCEA are transferred from the State Transportation Trust Fund (STTF) and do not impact the Toll Operations Program or the finances of the Turnpike District.

Additionally, if this report scope did include the review of lease-purchase arrangements, other expressway authorities should have been reviewed as well, including the Turnpike District which has all of its maintenance expenses guaranteed by the STTF.

OPPAGA Comment

Given the department's current program structure for performance-based program budgeting, the department's lease-purchase agreements are most appropriately addressed under the review of the Toll Operations Program. Whether or not it is within the control of the Office of Toll Operations, we believe that the Legislature should be informed of the terms of the lease-purchase agreement between the department and the Orlando-Orange County Expressway Authority (OOCEA).

Comment # 2 - the OOCEA does not agree that the current lease-purchase agreement should be terminated. Instead the use of state funds to leverage local funds through lease-purchase agreements should be increased to support other Florida expressway authorities.

The OOCEA recommends that the Florida Legislature conduct an follow-up study specifically on the subject of lease-purchase agreements and the underlying concept of leveraging state and local funds to maximize the delivery of new expressway alignments.

The funds loaned to the OOCEA through the lease-purchase agreements have helped the Authority to construct more than \$1 billion of transportation infrastructure in Central Florida. In the early years of the Authority, the funds were critical to the solvency of the agency. In later years, the loans have assisted the Authority to improve its financial capacity resulting in the construction of the major segments of the network of limited access expressways that serve Central Florida. Without this financial support from the FDOT and the subsequent financial capacity of the OOCEA to issue toll revenue bonds and construct new roadways, the State of Florida through the FDOT would have been responsible for the delivery of this transportation infrastructure at a cost exceeding \$1 billion.

Appendix C

The OOCEA recommends that the Florida Legislature consider expanded use of the lease-purchase concept to support other expressway authorities operating in Florida. By utilizing this approach, limited state and local transportation funds can be leveraged to advance much needed transportation projects at the local level.

OPPAGA Comment

We do not take issue with the concept of lease-purchase agreements in general, but rather the terms of the agreement between the department and the Orlando-Orange County Expressway Authority (OOCEA).

Please feel free to contact me at (407) 316-3800 if I can be of further assistance on this or any other transportation related subject.

Sincerely,

/s/
Harold W. Worrall, P.E.
Executive Director

Cc: A. Wayne Rich, Chairman

Appendix D

**OPPAGA [Report No. 98-57](#), Toll Program
Meets Performance Standards; Accountability
System Needs Strengthening**