

# PB<sup>2</sup> Performance Report

No. 98-54

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## Motor Carrier Program Meets Most Standards; Accountability System in Need of Strengthening

*This report assesses the performance of the Florida Department of Transportation's (FDOT) Motor Carrier Compliance Program based on its 1997-98 performance-based program budgeting (PB<sup>2</sup>) measures and comments on the measures proposed by the department for 1999-2000.*

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### Summary

- The Legislature cannot use the program's current PB<sup>2</sup> measures to assess its effectiveness in preventing unsafe and overweight trucks from operating in Florida. The program does not currently know how prevalent these problems are in the state.
- The program exceeded one of its three performance standards for the level of services it provides (outputs). Using a new weigh-in-motion fixed scale facility, program staff weighed more vehicles in Fiscal Year 1997-98. However, the program did not meet expectations for conducting safety inspections or weighing vehicles with portable scales because it shifted its emphasis to commercial vehicle traffic enforcement and its officers spent more time on general law enforcement activities.
- The program needs additional PB<sup>2</sup> measures to provide greater accountability for its use of resources. The program needs to develop outcome measures for its commercial motor vehicle safety and weight enforcement activities. Measures are also needed to assess program traffic enforcement activities and to better tie program outputs to its budget request.
- The program's accountability system meets OPPAGA's expectations in three of four areas (*program purpose or goals, data reliability, and reporting of information and its use by management*). The program's *performance measures* need some modifications in order to adequately assess program outcomes and costs. The program will need to develop data to improve its current measures.
- We provided a copy of our report to the Secretary of the Florida Department of Transportation, who concurred, but with some exceptions. (See Appendix C.)

## Background

The Motor Carrier Compliance Program enforces the state and federal laws and agency rules that regulate: (1) the weight and size of vehicles operating on the state's highways and (2) the safety of commercial motor vehicles and their drivers. While performing these duties, program staff also verify that vehicle owners have properly registered their vehicles and paid applicable fuel taxes. The program's primary purpose is to protect highway system pavement and structures (e.g., bridges) from excessive damage due to overweight and oversize vehicles and to reduce the number and severity of crashes involving commercial vehicles. Program goals are to reduce occurrences of overweight commercial motor vehicles and eliminate hazards caused by defective or unsafe commercial motor vehicles.

The program uses both sworn law enforcement officers and non-sworn weight inspectors to enforce vehicle weight, size, fuel tax, and registration requirements. Weight inspectors weigh trucks and check registration and fuel tax compliance at 21 fixed scale locations along major highways. The program's law enforcement officers patrol the state's highways and use portable scales to weigh trucks that do not pass fixed scale stations. The state's weight and size limits were established to prevent heavy trucks from causing unreasonable damage to highway systems and thereby protect the public's investment in these roadways.

As part of their patrol duties on state highways, the program's law enforcement officers also perform commercial motor vehicle safety inspections and traffic enforcement. Safety inspections can include examination of vehicle parts such as brakes, lights, and safety equipment and, if carried onboard, the packaging and labeling of hazardous materials. Officers also determine whether commercial drivers are appropriately licensed, have maintained required logbooks of their hours of service, and are operating their vehicles in a safe manner (e.g., not speeding or operating under the influence of drugs or alcohol). Program officers are authorized to visit truck and bus terminals to examine company vehicles and maintenance records, personnel records, and safety procedures.

Program staff can impose applicable penalties for violations of commercial motor vehicle laws. If a fine is imposed, the penalty must be paid before the driver can proceed on the highway. These fines may be paid by the driver or by a valid surety bond posted by the trucking or bus company.

The department allotted the program an estimated \$20.8 million in operating costs and 385 positions for Fiscal Year 1998-99.<sup>1</sup> The program is funded from a federal grant for safety enforcement, a \$5 surcharge on commercial motor vehicle tags, and revenue from the monetary penalties assessed by program staff, which are placed in the State Transportation Trust Fund. The program also receives funding from the other

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<sup>1</sup> The Florida Department of Transportation's funds are not appropriated in the PB<sup>2</sup> program budget format. The program's allotment excludes fixed capital outlay costs for fixed weigh stations. Program staff include 212 sworn law enforcement officers.

transportation funding sources in the trust fund, such as state fuel taxes and motor vehicle fees.

The program is organized into a central office located in Tallahassee that provides overall coordination for the program and 10 field enforcement offices located in Pensacola, Tallahassee, Lake City, Jacksonville, Ocala, Orlando, Tampa, Fort Myers, Lake Worth, and Miami.

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## Performance

The program's PB<sup>2</sup> measures show mixed results. The program's output measures, which assess the level of services provided, show that staff weighed more vehicles than planned for Fiscal Year 1997-98. The program used a new weigh-in-motion facility that increased the number of vehicles weighed. However, staff did not meet output standards for conducting safety inspections or weighing vehicles with portable scales. Program managers reported that these standards were not met because: (1) the program shifted its emphasis to enforcing commercial vehicle traffic laws to help reduce crashes and thus increase highway safety, and (2) program officers spent more time on general law enforcement activities.

The program's outcome measures do not enable the Legislature to fully evaluate the program's effectiveness. Outcome measures are intended to assess the results or benefits provided by a program. However, the program's outcome measures cannot presently be used to assess performance because they are incomplete and can be interpreted in conflicting ways.

Overall, the percentage of trucks that were found to be overweight at fixed scales was lower than expected, while the percentage of trucks that were found overweight when weighed with portable scales was higher than expected. These results are ambiguous. A positive interpretation would be that fewer overweight vehicles are on the highways (and thus detected by the fixed scales), but program officers do a good job targeting the vehicles they weighed with portable scales. However, these results could also be interpreted negatively to mean that more trucks are overweight and are using by-pass routes to avoid the fixed scale locations and are only detected when officers use portable scales. To resolve this problem, the program needs information on the actual percentage of vehicles that are overweight. The program could collect this data by using the department's weigh-in-motion sensors (currently used for statistical reporting and planning purposes) or its portable scales to test a random sample of trucks.

The PB<sup>2</sup> measures do not provide information on the program's safety enforcement activities. Program staff did not report performance for the program's outcome measure for safety enforcement. This measure was deleted as of Fiscal Year 1998-99 due to definitional problems.

See Appendix A for a more detailed discussion of program performance for each of its

measures.

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## Proposed Performance Measures

The program needs to develop a more comprehensive accountability system. At present, the program lacks outcome measures for commercial motor vehicle safety enforcement, one of its two major functions. We recommend measures to fill this gap, as well as a measure to supplement the program's current outcome measures to better assess the intended results of commercial motor vehicle weight enforcement. We also recommend output measures to show program traffic enforcement activities and tie program measures to its budget. The program will need to develop data to implement our recommendations. One of the program's five proposed standards (for the number of safety inspections) should be changed to better reflect program priorities.

See Appendix B for a more detailed discussion of our recommendations for the program's measures.

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## Rating of Program Accountability

A key factor in PB<sup>2</sup> is that agencies need to develop strong accountability systems that enable the Legislature and the public to assess program performance. An *accountability system* consists of these key elements: program purpose or goals, performance measures, a process for valid and reliable data, and credible reports of performance that can be used to manage the program. OPPAGA's rating tells decision-makers whether they can rely on the program's performance information. We compared the components of the Motor Carrier Compliance Program's accountability system against our established criteria to determine its rating.

Accountability System Component	Meets Expectations	Needs Some Modifications	Needs Major Modifications
Program Purpose or Goals	X		
Performance Measures		X	
Data Reliability	X		
Reporting Information and Use by Management	X		

Source: OPPAGA analysis.

The Motor Carrier Compliance Program's accountability system meets OPPAGA's expectations in three of the four areas specified in the above table.

- *Program purpose or goals.* The program's goals, purpose statements, and objectives cover its two major functions and are clearly stated and understandable. Its objectives are consistent with its purpose and goals, address the major aspects of the program, and are measurable. The program could improve its presentation of its goals, purpose statements, and objectives by compiling them into one document.
- *Data reliability.* The program has adequate internal controls over the source data used to determine performance results and set targets. The FDOT Inspector General has validated the reliability of the process used to collect data for performance measurement purposes. However, the program should improve its accountability system for data reliability by maintaining documentation indicating how staff calculate performance results using data from summary reports and the extent to which baseline data are used to set targets. If the program does not improve its documentation methods, future ratings may reflect this weakness in its accountability system.
- *Reporting information and use by management.* Program managers use information on performance and resources to make decisions. The program generally provides clear and understandable performance and resource information to outside parties in its Legislative Budget Requests. Performance information is available to the public on the department's web site.

The program's *performance measures* need some modifications to adequately assess program outcomes and costs. The program's outcome measures are too limited in scope to be meaningful and do not evaluate progress toward program goals to reduce occurrences of overweight commercial motor vehicles and eliminate safety hazards caused by commercial motor vehicles. Additional explanatory information is also needed to provide an appropriate context for interpreting outcome data. The program's measures do not include an outcome for safety enforcement, which is one of the program's two major functions, or provide information on program costs. Program managers are planning to implement an improved system for collecting information on officer activities and the time they spent on these activities. This type of information is needed to determine the cost of program outputs.

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## For More Information

Additional information about the Motor Carrier Compliance Program is available on the Internet. The program profile is in OPPAGA's Florida Government Accountability Report (FGAR) at <http://www.oppaga.state.fl.us/profiles/6053>. OPPAGA's staff contact for this program is Becky Vickers (850) 487-1316. Also, through the Internet, you may access the Department of Transportation at <http://www.dot.state.fl.us> or by calling (850) 488-7920.

## Appendix A

### Analysis of Program Performance for Each of Its Performance Measures

#### *Outcome Measures*

Performance		1997-98	Met	Comments
1996-97	1997-98	Standard	Standard?	
<b>Percentage of commercial motor vehicles weighed that were overweight</b>				
Fixed Scale Weighings				
0.4%	0.4%	0.5%	Yes	Results for these measures are ambiguous and can be interpreted either positively or negatively. The positive interpretation would be that a lower than expected percentage of vehicles are overweight and that program officers did well in choosing vehicles to weigh with portable scales, since officers are trained in how to visually detect overweight vehicles. The negative interpretation would be that more vehicles are in fact overweight and bypassed fixed scales and were only detected by portable scale weighing. As the program weighs relatively few trucks with portable scales, many overweight trucks would be undetected.  Program managers have interpreted the results for portable scale weighings positively and have said that this reflects a change in their directives to officers to not weigh vehicles unless they have a reason to suspect that the vehicles are overweight. However, results for this measure have shown a wide variation since Fiscal Year 1991-92, ranging from a low of 34% in Fiscal Year 1995-96 to a high of 45% in Fiscal Year 1994-95. Without knowing whether the overall percentage of overweight vehicles has gone up or down over this same time period, conclusions cannot be drawn about program performance using this measure.  To help interpret these performance results, information is needed on the overall percentage of overweight vehicles statewide. On page 10 we recommend that the department develop a measure that assesses the overall percentage of overweight vehicles.
Portable Scale Weighings				
39.0%	44.0% <sup>1</sup>	34.0%	Yes	

<sup>1</sup>The department's Fiscal year 1999-2000 Legislative Budget Request reports this result as 43%. However, the department's inspector general determined the number to be 44%.

## Outcome Measures

Performance		1997-98	Met	Comments
1996-97	1997-98	Standard	Standard?	
<b>Percentage of commercial motor vehicles that pass safety inspections</b>				
Unknown	Unknown	42.0%	Unknown	This measure was dropped as of Fiscal Year 1998-99 due to definitional problems. The program has not defined the concept of “passing” a safety inspection, nor has it collected data to track this outcome. As discussed on page 9, we have recommended a replacement measure that would address this problem.

## Output Measures

Performance		1997-98	Met	Comments
1996-97	1997-98	Standard	Standard?	
<b>Number of commercial vehicles weighed</b>				
8,999,263	9,482,189	8,000,000	Yes	The addition of a weigh-in-motion fixed scale site enabled the program to weigh more vehicles over time and exceed the standard.
<b>Number of commercial vehicle safety inspections performed</b>				
75,837	65,450	88,000	No	Performance dropped over time and did not meet the standard. Program managers stated that the drop in performance was due to program officers performing more traffic enforcement and law enforcement activities than they anticipated. Program managers are placing more emphasis on traffic enforcement than in the past. Studies show that commercial motor vehicle crashes are more likely to be caused by driver error than faulty equipment. Program managers also said that program officers are performing more law enforcement activities, which are often directed or requested by other agencies. These activities include responding to state emergencies (e.g., fires, floods, and hurricanes) and providing assistance to state and local law enforcement agencies.
<b>Number of portable scale weighings performed</b>				
47,656	42,699	64,569	No	Performance decreased over time and did not meet the standard due to the program performing more traffic enforcement and law enforcement activities.

Source: FDOT Legislative Budget Requests and OPPAGA analysis

## Appendix B

### OPPAGA Recommendations for the Motor Carrier Compliance Program's Measures

#### *Outcome Measures, Fiscal Year 1999-2000*

Measures Proposed by FDOT	Proposed Standards	OPPAGA Recommendations/Comments
<b>Percentage of commercial motor vehicles weighed that were overweight:</b>		<b>We recommend adoption of these measures.</b> However, these measures provide only limited information to evaluate program performance. As discussed earlier, information is needed on the overall percentage of overweight vehicles statewide. This would help the Legislature assess the meaning of changes in performance results for these measures and performance against the standards. (See below for OPPAGA's recommendation to develop a measure assessing the overall percentage of overweight vehicles.)
<b>Fixed scale weighings</b>	0.4%	
<b>Portable scale weighings</b>	37%	

#### *Output Measures, Fiscal Year 1999-2000*

Measures Proposed by FDOT	Proposed Standards	OPPAGA Recommendations/Comments
<b>Number of commercial vehicles weighed</b>	10,400,000	<b>We recommend adoption of this measure.</b> Program managers expect that an additional weigh-in-motion fixed scale facility will become operational during the fiscal year. They have appropriately increased the standard for this measure to reflect this expectation.
<b>Number of commercial vehicle safety inspections performed</b>	75,000	<b>We recommend adoption of this measure.</b> However, the proposed standard is too high given the program's recent performance results and increased emphasis on traffic enforcement. The program also plans to shift more resources toward carriers with safety problems.
<b>Number of portable scale weighings performed</b>	50,000	<b>We recommend adoption of this measure.</b> The proposed standard is reasonable in light of shifting program priorities toward traffic enforcement and recent performance.



## OPPAGA Recommendations for Additional Measures

Measures	Comments
<p><b>Percentage of commercial vehicles traveling on state highways that exceed legal weight limits</b></p>	<p>This outcome measure would provide an assessment of how well the program is achieving its goal to reduce occurrences of overweight vehicles on the state’s highways. It would address both fixed and portable scale activities. As discussed above, the information provided by this measure is necessary to put the program’s current outcome measures into proper context.</p> <p>The data for this measure could be obtained from one of two sources: FDOT’s weigh-in-motion sensors currently used for statistical reporting and planning purposes or samples of randomly selected vehicles weighed by Motor Carrier Compliance employees. Each of these methods has advantages and disadvantages. If weigh-in-motion data are used, the error rate of the data (<math>\pm 20\%</math> to <math>30\%</math>) may make it necessary to set a target range for the standard rather than an exact number. Also, weigh-in-motion data would not account for vehicles that have been issued permits to legally exceed weight limits. This limitation would need to be disclosed when reporting results for the measure. Using program employees to randomly weigh samples of vehicles would reduce the error rate and account for legally overweight vehicles. However, it would require a greater use of resources than using weigh-in-motion data. In either case, the department will need to collect and analyze baseline data for this measure before a standard could be established.</p>
<p><b>Percentage of safety inspections resulting in placing the vehicle and/or driver out-of-service:</b></p> <p><b>Random inspections/</b></p> <p><b>Targeted inspections</b></p>	<p>The program’s current measures do not assess the outcome of program safety enforcement activities, which is one of the program’s two major functions. The proposed measure would assess the degree to which commercial motor vehicles and their drivers comply with the most serious of Florida’s safety regulations. Determining if vehicles and drivers are placed out-of-service is a clearer result than determining whether vehicles “pass” safety inspections. Thus, the proposed measure should not have the same definitional problems encountered with the program’s previous outcome measure for safety enforcement.</p> <p>The results of random inspections would show how well the commercial motor vehicle industry in Florida performs in complying with serious state safety regulations. The results of targeted inspections would provide an assessment of program performance in targeting its resources toward habitual offenders and those vehicles and drivers exhibiting the signs of serious violations. Program staff would need to collect and analyze baseline data to set standards and establish a methodology to distinguish between random and targeted inspections.</p>

## OPPAGA Recommendations for Additional Measures

Measures	Comments
<b>Number of crashes caused by commercial motor vehicles or drivers</b>	<p>This outcome measure would address the overall purpose of program safety enforcement activities to reduce the number and severity of crashes involving commercial vehicles.</p> <p>FDOT managers are concerned about the accuracy of currently available information to calculate this measure. The department has entered into an agreement with the Department of Highway Safety and Motor Vehicles (DHSMV) using funding from the U.S. Department of Transportation to improve data quality for crashes involving commercial motor vehicles. (DHSMV collects the crash data.)</p> <p>Once the data quality is improved, this measure should be considered for the program. Program managers do not expect the data quality to be improved in the short-term. Program staff would need to collect and analyze baseline data to set a standard.</p>
<b>Number of traffic stops</b>	<p>This output measure would show the shift in use of program resources toward more traffic enforcement in order to help improve highway safety. Program staff would need to collect and analyze baseline data to set a standard.</p>
<b>Cost per inspection: Portable scale weighings Safety inspections</b>	<p>The program's current performance measures are not helpful for making budget decisions. Unit cost information on the cost for major program activities would better tie the program's measures to its budget. Currently, the program does not have a means to link performance to program costs. For example, the program does not have a way to determine its cost per inspection because program officers do not track their time in a detailed manner. Program managers acknowledge the need for a better tracking system and are developing a system. They expect to have the tracking system in place by the summer of 1999 and plan to begin collecting baseline data at that time.</p> <p>Once the program finishes implementation of an improved time and activity tracking system, unit cost measures should be developed and implemented for the program. Program staff would need to collect and analyze baseline data to set standards.</p>

Source: FDOT Legislative Budget Request and OPPAGA analysis

## Appendix C

### Response from the Florida Department of Transportation

The Secretary of the Florida Department of Transportation provided a detailed response to our report. The Secretary generally agreed with our comments and recommendations, with the exceptions noted below.

- Motor Carrier Compliance Office management believes that since the program has "limited resources and a limited enforcement role," it would be misleading to establish a measure of the number of crashes caused by commercial motor vehicles or drivers. They noted that many things outside the control of the program influence the number of crashes.

#### **OPPAGA Director's Comments**

**The purpose of program safety enforcement activities is to reduce commercial motor vehicle crashes. Although high-level outcomes are often affected by outside factors, agencies should accept responsibility for the results of their programs. Outcome measures such as crash rates allow the Legislature to determine whether programs are fulfilling the purposes for which they were established.**

- Motor Carrier Compliance Office management believes that collecting data on the incidental costs needed to determine the cost per inspection may be a waste of resources. They agreed to keep this recommendation under consideration until the program's proposed time and activity tracking system is implemented and resultant data can be reviewed.

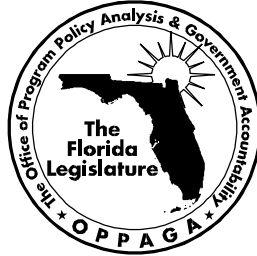
#### **OPPAGA Director's Comments**

**Unit costs, such as the cost per safety inspection, identify the resources needed to produce significant outputs. The Legislature needs unit cost information to review program efficiency and assess the relationship between changes in funding and program services.**

A complete copy of the department's response is available upon request.

# The Florida Legislature

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