



Florida Department of TRANSPORTATION

Office of Inspector General
Kristofer B. Sullivan, Interim Inspector General

Audit Report No. 18P-3001
Performance Measures FY16/17

July 9, 2018

What We Did

The Office of Inspector General (OIG) conducted an assessment of performance measures pursuant to Section 20.055(2)(b), Florida Statutes (F.S.). We assessed the validity and reliability of three performance measures reported in the 2018/2019 Department of Transportation's (department) Long Range Program Plan (LRPP) for the 2016/2017 Fiscal Year (FY).

What We Found

The three LRPP performance measures assessed were:

Responsible Office	LRPP Performance Measure Reviewed	Valid	Reliable
Office of Maintenance	1. Number of commercial vehicle weighings.	Yes	No ¹
Office of Freight, Logistics, and Passenger Operations (FLP)	2. Total annual revenue miles of urban fixed route public transit.	Yes	Yes
Safety Office	3. Number of motor vehicle fatalities per 100 million miles traveled.	Yes	Yes

We determined the performance measures and supporting data were valid and reliable; however, the Office of Maintenance performance measure "number of commercial vehicle weighings" finalized reporting figure was found to be unreliable due to inconsistent calculations of the yearly data published in the LRPP.

¹ Underlying supporting data was found to be reliable; however, finalized reporting calculations provided for the LRPP were found to be under reported and therefore, unreliable.

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In addition, we identified opportunities for improvement in the LRPP reporting within the Exhibit II for both the “total annual revenue miles of urban fixed route public transit” and “number of motor vehicle fatalities per 100 million miles traveled” measures.

What We Recommend

We recommend the Office of Maintenance Statewide Scale Operations Manager implement a quality control process to ensure all data is included in the annual reporting to prevent under reporting of the performance measure.

In addition, we recommend the FLP Office and Safety Office continue their efforts to ensure valid and reliable data is provided for these performance measures.

We identified the following opportunities for improvement for the above measure reporting:

1. Exhibit II for the “total annual revenue miles of urban fixed route public transit” used an estimated number for the Prior Year Actual for FY 2016-17 due to a reporting lag between the availability of the “closed-out”/finalized data in the National Transit Database (NTD) and the reporting deadline for the LRPP. We determined the FLP Office needs to add a footnote in the LRPP explaining this data reporting lag to properly explain the use of an estimated number in a “Prior Year Actual” field as is done with the “Number of passenger enplanements” measure.
2. Exhibit II for “number of motor vehicle fatalities per 100 million miles traveled” used a calculation for the 2015 period as the Prior Year Actual for FY 2016-17 due to a reporting lag between the availability of the crash data provided by the Department of Highway Safety and Motor Vehicles (DHSMV) and the reporting deadline for the LRPP. We determined the Safety Office needs to include a footnote in the LRPP to clarify the use of prior year data within a current year field.

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BACKGROUND AND INTRODUCTION

The Government Accountability and Performance Act of 1994 requires state agencies to implement performance-based program budgeting, which includes establishing legislatively-approved performance measures and standards. Additionally, Section 216.013, F.S., requires state agencies to develop a LRPP that is policy-based, priority driven, accountable, and developed through careful examination and justification of all agency programs. The statute requires the submission of the LRPP, including prior year performance data, no later than September 30 of each year.

Section 20.055(2)(b), F.S., requires the OIG to assess the validity and reliability of the performance measures information reported by the department and make recommendations for improvement. To comply with these requirements, we reviewed three legislatively-approved 2016/2017 FY performance measures reported in the department's 2018/2019 LRPP.

For this assessment, we used the following definitions from the 2018/2019 LRPP:

Validity - The appropriateness of the measuring instrument in relation to the purpose for which it is being used.

Reliability - The extent to which the measuring procedure yields the same results on repeated trials and data are complete and sufficiently error free for the intended use.

As part of our assessment, we reviewed each responsible office's performance measure procedures and the department's LRPP to identify the intended purpose for each measure under review. We also reviewed prior reports to determine when each measure was last assessed and the results of that assessment to conclude which performance measures will be reviewed for the current assessment.

The Office of Freight, Logistics, and Passenger Operations LRPP performance measure was a new measure for the period included in the scope of this audit. As such, it was chosen to provide an initial assessment of its validity and reliability as a performance measure.

The Office of Maintenance LRPP performance measure was last assessed in 2006. In the 2006 OIG Advisory Memorandum 06P-0009, the measure was determined to be under reported by an average of 3.47% at the facilities tested; however, the measure was determined to be valid and reliable with a few recommendations for process improvements.

The Safety Office LRPP performance measure was last assessed in 2007. In the 2008 OIG Advisory Memorandum 08P-0001, the measure was determined to be valid and

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reliable with no recommendations for improvements. It should be noted this measure examines the fatality rate, not the number of fatalities.

RESULTS OF REVIEW

LRPP Performance Measures

Responsible Office	LRPP Performance Measure Reviewed	Valid	Reliable
Office of Maintenance	1. Number of commercial vehicle weighings.	Yes	No ²
Office of FLP	2. Total annual revenue miles of urban fixed route public transit.	Yes	Yes
Safety Office	3. Number of motor vehicle fatalities per 100 million miles traveled.	Yes	Yes

Number of commercial vehicle weighings

We determined the performance measure, “*number of commercial vehicle weighings*,” is valid and the underlying supporting data is reliable. However, the final reported figure is unreliable due to inconsistent calculations of supporting data. Four years of data was tested which revealed annual reporting errors in three of the years, see Table 1.

Table 1 – Supporting Data Testing Results

FY	WIM Weighings	Vehicle Weighings	Total Actual Weighings	Reported on LRPP	% Under Reported
FY 13-14	15,810,129	7,972,464	23,782,593	23,782,593	0
FY 14-15	16,603,130	7,033,699	23,636,829	23,030,259	2.5%
FY 15-16	16,853,404	6,717,441	23,570,845	16,853,404	28.5%
FY 16-17	17,725,963	6,713,395	24,439,358	23,937,358	2%

Testing consisted of a comparison between raw data files and performance measure reporting on the LRPP.

We recommend the Statewide Scale Operations Manager implement a quality control process to ensure all data is included in the annual reporting to prevent under reporting of performance. In addition, links to the monthly data in the annual spreadsheet could prevent errors in the final calculations.

² Underlying supporting data was found to be reliable; however, finalized reporting calculation provided for the LRPP was found to be under reported and therefore, unreliable.

Total annual revenue miles of urban fixed route public transit

This measure is a valid indicator of the total miles of operation by rail and non-rail transit in active service to the public on urban fixed routes. The data collection methodology for this measure is consistent and the measure reports what it claims to measure. The data is supplied by the Federal Transit Administration (FTA). We reviewed FTA procedures and found they provide guidance for ensuring the reliability of transit data. The Center for Urban Transportation Research (CUTR) pulls the FTA's finalized data from the National Transit Database (NTD) to provide the department with the necessary data to report the measure. We concluded there is reasonable assurance the data is reliable.

Number of motor vehicle fatalities per 100 million miles traveled

This measure is a valid indicator of the rate of fatalities per 100 million miles traveled. The measure is reporting what it claims to measure and the data collection process is consistent. The vehicle miles traveled is supplied by the Transportation Data and Analytics Office and is based on data collected using traffic monitoring devices. The number of fatalities is provided by crash reports completed by law enforcement officials to the DHSMV³ who reviews and analyses for accuracy. Data is then provided to the Safety Office to provide additional review and feedback. Final calculations are made to determine the fatality rate by DHSMV personnel and posted in their annual Traffic Crash Facts publication. We concluded there is reasonable assurance the data is reliable.

Opportunities for Improvement

While we determined the data for the Office of FLP and Safety Office performance measures to be valid and reliable, we identified an opportunity for improvement for each responsible office in the reporting of the final data:

1. Exhibit II for the "total annual revenue miles of urban fixed route public transit" used an estimated number for the Prior Year Actual for FY 2016-17 due to a reporting lag between the availability of the "closed-out"/finalized data in the NTD and the reporting deadline for the LRPP. We determined the FLP Office needs to add a footnote in the LRPP explaining this data reporting lag to properly explain the use of an estimated number in a "Prior Year Actual" field as is done with the "Number of passenger enplanements" measure.
2. Exhibit II for "number of motor vehicle fatalities per 100 million miles traveled" used a calculation for the 2015 period as the Prior Year Actual for FY 2016-17 due to a reporting lag between the availability of the crash data provided by DHSMV and the reporting deadline for the LRPP. We determined the Safety Office needs to include a footnote in the LRPP to clarify the use of 2015 data within the FY 2016-17 field.

³ We contacted the DHSMV OIG office regarding accuracy of crash data. An audit was completed in May 2016 which indicated two findings. One finding has been closed out and the second is still open; however, they will be conducting a follow-up in the future.

APPENDIX A – Purpose, Scope, and Methodology

The **purpose** of this engagement was to meet the statutory requirement in Section 20.055, F.S., to assess the validity and reliability of legislatively-approved performance measures and make recommendations for improvements, if needed.

The **scope** of the assessment included all information and documentation related to the following three performance measures reported in the department’s 2018/2019 LRPP for the 2016/2017 FY:

1. Number of commercial vehicle weighings.
2. Total annual revenue miles of urban fixed route public transit.
3. Number of motor vehicle fatalities per 100 million miles traveled.

The scope was increased to include FY 2013/2014, FY 2014/2015, and FY 2015/2016 for the “number of commercial vehicle weighings” to perform additional testing on the reliability of the data due to inconsistencies found in the measure reporting.

The **methodology** included:

- reviewing applicable statutes, rules, and procedures;
- reviewing prior advisory reports and working papers;
- interviewing appropriate department management and staff regarding the performance measure processes;
- reviewing data sources, data collection, measure definitions, and methodologies; and
- testing of available data.

APPENDIX B – Management Response

Paul Clark, Statewide Scale Operations Manager from the Motor Carrier Size and Weight Office, provided the following response by email on June 22, 2018:

Finding: We determined the performance measure, “*number of commercial vehicle weighings*,” is valid and the underlying supporting data is reliable. However, the final reported figure is unreliable due to inconsistent calculations of supporting data.

Recommendation: We recommend the Statewide Scale Operations Manager implement a quality control process to ensure all data is included in the annual reporting to prevent under reporting of performance. In addition, links to the monthly data in the annual spreadsheet could prevent errors in the final calculations.

Response to Finding: We concur with the finding and recommendation.

Corrective Action: MCSAW will develop a quality control process to ensure data accuracy in future reporting. MCSAW is already in the process of automating reporting which should resolve calculation errors in the future.

Estimated Completion Date: July 2018

Ed Coven, State Transit Manager from the Office of Freight, Logistics, and Passenger Operations, concurred with the report by email on June 7, 2108.

Joseph Santos, State Safety Engineer from the Safety Office, concurred with the report by email on July 5, 2018.

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DISTRIBUTION

Responsible Manager:

Rudy Powell, Jr. P.E., Director, Office of Maintenance
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Lora Hollingsworth, Chief Safety Officer
Gerard O'Rourke, FLP Administrator
Ed Coven, State Transit Manager, FLP

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PROJECT TEAM

Engagement was conducted by:
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Under the supervision of:
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Approved by:
Kristofer B. Sullivan, Interim Inspector General

STATEMENT OF ACCORDANCE

The department's mission is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities.

The Office of Inspector General's mission is to promote integrity, accountability, and process improvement in the Department of Transportation by providing objective, fact-based assessments to the DOT team.

This work product was prepared pursuant to section 20.055, Florida Statutes, in accordance with the Association of Inspectors General *Principles and Standards for Offices of Inspector General*, and conforms with The Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

Please address inquiries regarding this report to the department's Office of Inspector General at (850) 410-5800.