



AGENDA NO: VII-A
DATE: February 13, 2020
COMMITTEE: MPO Board
STAFF: MPO Staff
SUBJECT: Approval of System Performance Report and Safety Targets for 2020
ACTION: Review and Approve

SUMMARY

MAP-21, the current federal transportation funding act, and the Code of Federal Regulations requires that MPOs adopt system performance measures for Safety by February 2020. MPOs can either adopt statewide targets used by FDOT (also per MAP-21 requirements) or adopt their own targets. Pasco MPO staff proposes performance measures for the five-year rolling average (2014-2018) to be the 2020 safety targets. However, not meeting the targets will not affect MPO funding.

Performance measures are assessment tools used to establish targets and objectives for the management of Pasco County's transportation system, and to evaluate our progress toward meeting those targets. Recent federal bills to fund transportation (the FAST ACT and MAP-21) included requirements to create a new framework to guide transportation planning and investment at the state and local levels. The intent was to ensure accountability when spending federal transportation dollars, and that the transportation system functions well for vehicle and freight movement.

Measures for safety include total fatalities and fatality rate, total serious injuries and serious injury rate, and total bicycle/pedestrian fatalities and serious injuries. Pasco County believes every life matters and is therefore recommending to support FDOT's Zero targets for all Safety Performance measures. The System performance Report is updated to include the 2020 safety performance measures and target is attached to the agenda packet.

Per federal funding requirements, both the county's Long-Range Transportation Plan and annual Transportation Improvement Program project list must discuss how recommended or listed projects advance progress toward meeting the targets.

RECOMMENDED ACTION (S)

Approve System Performance Report and Targets which includes the 2020 Safety Performance Targets

ATTACHMENT(S)

1. System Performance Report and Safety Targets dated February 2020
2. Safety Performance Measures Presentation

System Performance Report and Safety Targets

PASCO COUNTY

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February 2020



TABLE OF CONTENTS

BACKGROUND	2
SAFETY MEASURES (PM1)	3
PAVEMENT AND BRIDGE CONDITION MEASURES AND TARGETS (PM2)	4
FREIGHT AND PASSENGER VEHICLE TRAVEL TIME RELIABILITY AND TARGETS (PM3)	6
TRANSIT ASSET MANAGEMENT (TAM) MEASURES	8
APPENDIX A-SAFETY PERFORMANCE TREND ANALYSIS	11

BACKGROUND

Recent federal transportation funding bills -- the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act of 2012 and the Fixing America's Surface Transportation Act (FAST Act) of 2015, require state departments of transportation (DOTs) and metropolitan planning organizations (MPOs) to apply a transportation performance management approach in carrying out their federally required transportation planning and programming activities. The process requires a coordinated, performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule- Code of Federal Regulations at 23 CFR Part 450 and 49 CFR Part 613). Through revisions to the Code of Federal Regulations, this rule details how state DOTs and MPOs must implement a suite of related transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

In accordance with the Planning Rule, the Pasco County MPO must publish a System Performance Report for applicable performance measures. The System Performance Report presents the condition and performance of the transportation system with respect to required performance measures, documents performance targets, and reports on progress achieved in meeting the targets in comparison with previous reports.

Included in this document are system performance measures and targets for the required Highway Safety (PM1), Bridge and Pavement (PM2), and Travel Time Reliability (PM3) plus Performance and Targets for Transit Asset Management-State of Good Repair.

Except for the measures pertaining to transit and safety, all measures apply only to roads in the National Highway System (NHS). The NHS is made up of designated principal arterials in accordance with federal and state criteria on functional classification. Map 1 illustrates the adopted NHS for Pasco County.

MPOs can either support statewide targets adopted by their state's department of transportation or set their own local targets.

For more information about performance-based planning and requirements please visit <https://www.fhwa.dot.gov/fldiv/tpm.cfm>

SAFETY MEASURES (PM1)

Effective April 14, 2016, the FHWA established five highway safety performance measures (23 CFR Part 490, Subpart B) to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

FDOT publishes statewide safety performance targets in the HSIP Annual Report that it transmits to FHWA each year. FDOT has adopted a statewide target for all safety categories as zero fatalities and zero serious injuries – this is often referred to as “Vision Zero”.

Pasco County MPO firmly believes every life matter, therefore supports FDOT’s adopted Targets of all five categories to be zero deaths and zero serious injuries for calendar year 2020 as shown in Table 1. While some of the data in Table 2 from the 2014-2018 period has improved from the 2013-2017 period, the data forecast in Appendix A indicates Pasco County’s five-year rolling average for fatalities and serious injuries could continue to trend upward. Pasco County MPO expects an eventual trend downward for all categories by implementation of safety projects and programs. Re-thinking of MPO’s project prioritization process and possible allocation of additional funds toward safety projects and programs are examples of future efforts by Pasco County MPO to ultimately achieve the goal of vision Zero.

MPO safety targets for calendar year 2020 are the same as the performance measures for the five-year rolling average (2014-2018). MPO safety targets adoption date by the MPO Board is February 2020. The 2020 Targets are shown in Table

Table 1: Highway Safety (PM1) Targets

Performance Target	2020 Pasco MPO has adopted a target specific to the MPO Planning Area	2020 Pasco MPO Supports FDOT Statewide Target
Number of fatalities	87	0
Rate of fatalities per 100 million vehicle miles traveled (VMT)	1.86	0
Number of serious injuries	1,127	0
Rate of serious injuries per 100 million vehicle miles traveled (VMT)	24.45	0
Number of combined non-motorized fatalities and non-motorized serious injuries.	120	0

Statewide and Pasco MPO metropolitan planning area system conditions for each performance measure are included in Table 2. System conditions reflect baseline performance (2013-2017), and (2014-2018). The safety performance conditions will be updated on a rolling 5-year window and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 2. Highway Safety/PM1, System Conditions and Performance

Performance Measures	Florida Statewide Five-Year Rolling Average			Pasco MPO Five Year Rolling Average		
	Baseline (2013-2017)	(2014-2018)	Difference %	Baseline (2013-2017)	(2014-2018)	Difference %
Number of Fatalities	2,824	2,979	5.5	78	87	11.5
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.36	1.40	2.7	1.74	1.86	7.0
Number of Serious Injury	20,915	20,654	-1.3	1,146	1,127	-1.6
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	10.13	9.73	-3.9	25.78	24.45	-5.2
Number of Combined Pedestrian and Bicycle Fatalities and Serious Injury	3,251	3,267	0.5	121.6	120	-1.3

Source: FDOT

Appendix A contains trend line analysis based on historical rolling 5 year averages to estimate future Safety performance for 2016-2020 time periods in Pasco County MPO planning area.

PAVEMENT AND BRIDGE CONDITION MEASURES AND TARGETS (PM2)

In January 2017, USDOT published the Pavement and Bridge Condition Performance Measures Final Rule. This rule establishes the following six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
4. Percent of non-Interstate NHS pavements in poor condition;

5. Percent of NHS bridges by deck area classified as in good condition; and
6. Percent of NHS bridges by deck area classified as in poor condition.

For the pavement measures, five pavement metrics are used to assess condition: International Roughness Index (IRI); Cracking Percent; Rutting; Faulting; and a Present Serviceability Rating (PSR) . The bridge measure assesses the condition of a bridge’s deck, superstructure, substructure, and culverts. Good condition suggests that no major investment is needed, and poor condition suggests major reconstruction investment is needed.

MPOs must set four-year targets for all six measures. MPOs can either agree to program projects that will support the statewide targets, or set their own quantifiable targets for the MPO’s planning area. Table 3 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT. These Targets were adopted by the MPO board on November, 8th 2018

Statewide and Pasco MPO metropolitan area system conditions for each performance measure are included in Table 3. System conditions reflect baseline performance (2017). The latest conditions will be updated on a biannual basis and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 3. Pavement and Bridge/PM2, System Conditions and Performance/Targets

Performance Measures	Florida Statewide Baseline Performance (2017)	Pasco MPO Baseline Performance (2017)	4-year Statewide Target (Jan. 1, 2018 to Dec. 31, 2021)
Percent of Interstate pavements in good condition	66%	91.6%	60%
Percent of Interstate pavements in poor condition	0.1%	0%	5%
Percent of non-Interstate NHS pavements in good condition	45%	66%	40%
Percent of non-Interstate NHS pavements in poor condition	0.4%	0.1%	5%
Percent of NHS bridges by deck area in good condition	72%	99.16%	50%
Percent of NHS bridges by deck area in poor condition	1%	0%	10%

Source: FDOT

FREIGHT AND PASSENGER VEHICLE TRAVEL TIME RELIABILITY AND TARGETS (PM3)

In January 2017, USDOT published the System Performance/Freight/CMAQ Performance Measures Final Rule to establish measures to assess passenger and freight performance on the Interstate and non-Interstate National Highway System (NHS), and traffic congestion and on-road mobile source emissions in areas that do not meet federal National Ambient Air Quality Standards (NAAQS). The rule, which is referred to as the PM3 rule, requires MPOs to set targets for the following six performance measures:

1. Percent of person-miles on the Interstate system that are reliable, also referred to as Level of Travel Time Reliability (LOTTR);
2. Percent of person-miles on the non-Interstate NHS that are reliable (LOTTR);
3. Truck Travel Time Reliability index (TTTR);
4. Annual hours of peak hour excessive delay per capita;
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Total emissions reduction of on-road mobile source emissions.

In Florida, only the two LOTTR performance measures and the TTTR performance measure apply. Because all areas in Florida meet current NAAQS, the remaining three measures do not currently apply in Florida.

For passenger vehicle travel time, LOTTR is calculated by dividing 80th percentile average annual daily travel time over 50th percentile average annual daily travel time. If the ratio is more than 1.5 then roadway travel time is unreliable. For truck travel, the TTTR is calculated by dividing 95th percentile average annual daily travel time by the 50th percentile average annual daily travel time. If the ratio is more than 1.5 then the roadway travel time is not reliable.

Federal rules require MPOs to establish four-year performance targets for the LOTTR and TTTR performance measures, within 180 days of FDOT setting statewide targets. MPOs can either agree to program projects that will support the statewide targets, or set their own quantifiable targets for the MPO's planning area. Table 4 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT. These Targets were adopted by the MPO Board on November 8th, 2018

Statewide and Pasco MPO metropolitan area system conditions for each performance measure are included in Table 5. System conditions reflect baseline performance (2017). The latest system performance conditions will be updated on a biennial basis and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 4. Freight and Travel Time Reliability and Targets/PM3

Performance Measures	Florida Statewide Baseline Performance (2017)	Pasco MPO Baseline Performance (2017)	4-year Statewide Target (Jan. 1, 2018 to Dec. 31, 2021)
Percent of person-miles on the Interstate system that are reliable (Interstate LOTTR)	82%	100%	70%
Percent of person-miles on the non-Interstate NHS that are reliable (Non-Interstate NHS LOTTR)	84%	88%	50%
Truck travel time reliability (TTTR)	1.43	1.15	2.00

Source: FDOT

TRANSIT ASSET MANAGEMENT (TAM) MEASURES

The Transit Asset Management (TAM) rule is the first performance rule from the Federal Transit Administration and became effective on October 1, 2016. This rule applies to all agencies receiving Chapter 53 federal funds to develop a TAM Plan to guide investments for their public transportation assets, including revenue vehicles, facilities, equipment, and infrastructure. The TAM Plan includes four required elements:

- An inventory of capital assets;
- A condition assessment of inventoried assets;
- A description of an analytical process that assists in investment prioritization to estimate capital needs over time; and
- A prioritized list of projects to manage the condition of capital assets.

The TAM Plan also presents PCPT’s performance targets for revenue vehicles, non-revenue vehicles, and facilities, which must be reported to the National Transit Database (NTD) on an annual basis. The performance targets are related to asset Useful Life Benchmark (ULB) and asset condition. Table 6 contains the performance targets for the MPO’s planning area in consultation with transit providers and the FDOT. These Targets were adopted by MPO board on November, 8th 2018

Table 5. PCPT 2018 Performance and Future Targets (2019-2023)

Asset Class	2018 Performance	2019 Target	2020 Target	2021 Target	2022 Target	2023 Target
Revenue Vehicles						
Buses - Percent of fixed route buses that have met or exceeded their ULB	10%	18%	0%	0%	10%	20%
Cutaways - Percent of paratransit buses that have met or exceeded their ULB	40%	0%	0%	0%	0%	30%
Equipment						
Non-Revenue Vehicles - Percent of non-revenue vehicles that have not exceeded their ULB	86%	7%	7%	0%	0%	86%
Facilities						
Administrative/Maintenance - Percent of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	N/A	N/A	N/A	0%	0%	0%

N/A – Expected completion date for PCPT’s new Administrative facility will be by late 2020

Note: Infrastructure assets are not applicable for PCPT

ULB refers to the expected lifecycle or the acceptable period of use in service for a capital asset. The ULB’s for the revenue vehicle and non-revenue vehicle assets can be found in the Table below;

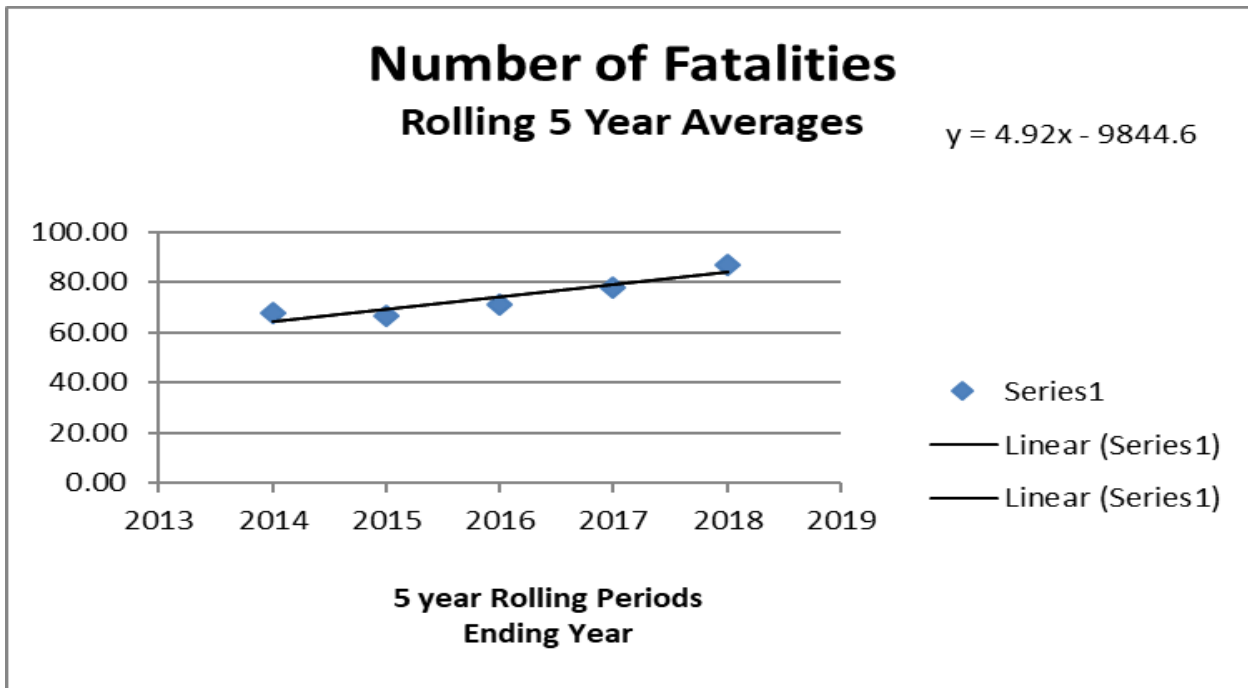
Table 6. Useful Life Benchmarks

Asset Class	ULB (Years)
Buses	12
Cutaways	7
Non-Revenue Vehicles	5

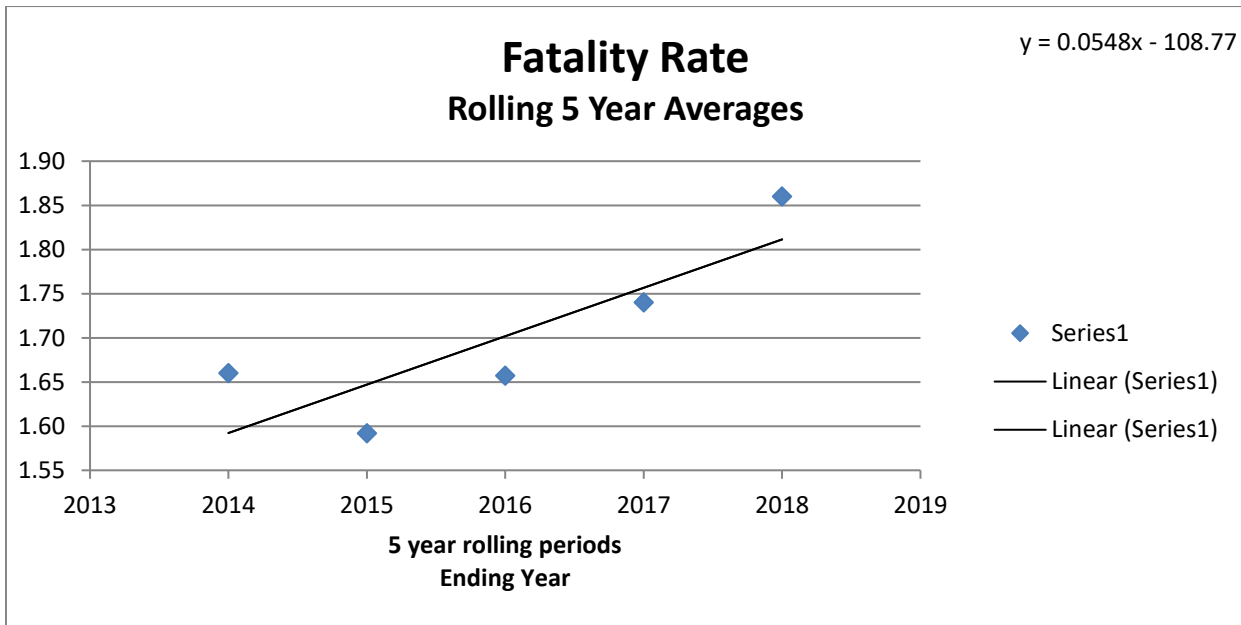
The TAM Plan dated September 2018 assists with improving PCPT's assets management practices and serves as the foundation to build upon, and continually improve, the agency's asset management systems and programs. The TAM Plan was completed by the October 1, 2018 deadline, and must be updated at least once every four year.

APPENDIX A
SAFETY PERFORMANCE TREND ANALYSIS

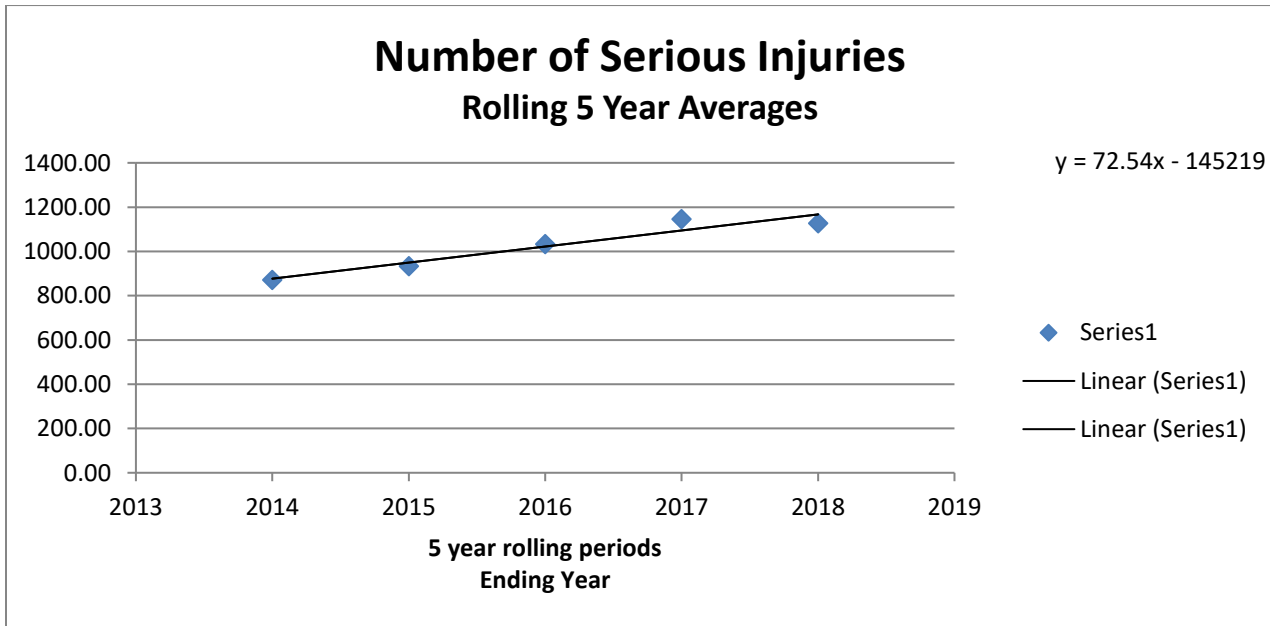
Number of Fatalities Rolling 5 Year Averages		
5 Year Rolling Ending Year	Fatalities	5 Year Rolling Periods
2014	68	2010-2014
2015	67	2011-2015
2016	71	2012-2016
2017	78	2013-2017
2018	87	2014-2018
2019 Future Trends	89	2015-2019
2020 Future Trends	94	2016-2020



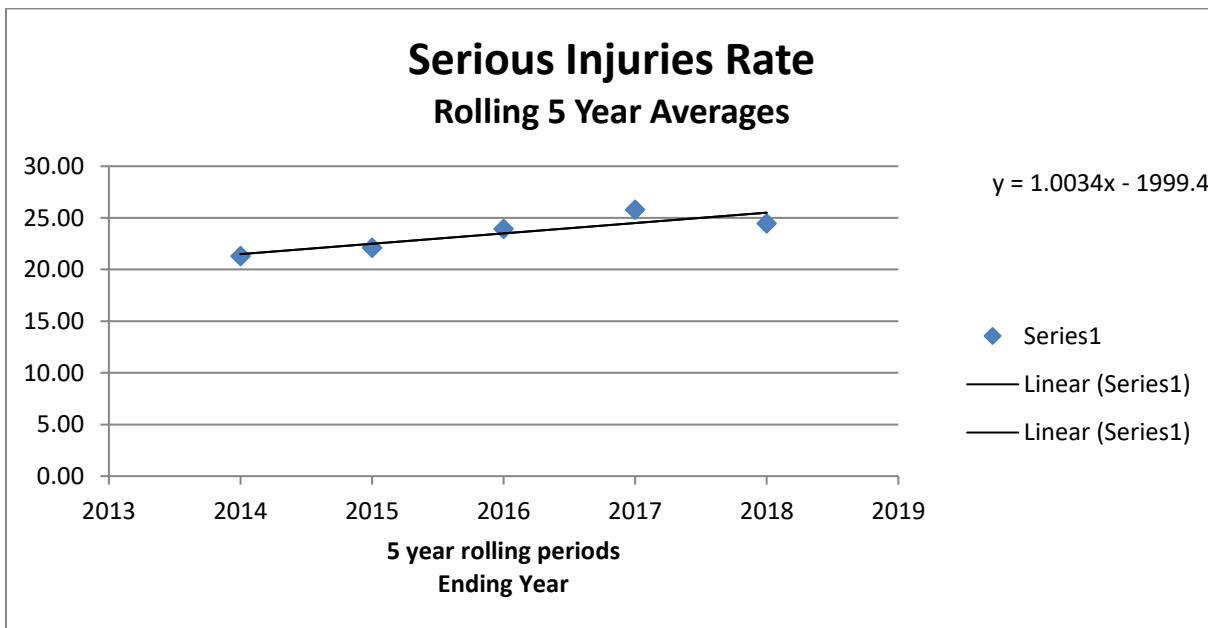
Fatality Rate Rolling 5 Year Averages		
5 Year Rolling Ending Year	Fatalities Rate	5 Year Rolling Periods
2014	1.66	2010-2014
2015	1.59	2011-2015
2016	1.66	2012-2016
2017	1.74	2013-2017
2018	1.86	2014-2018
2019 Future Trend	1.87	2015-2019
2020 Future Trend	1.93	2016-2020



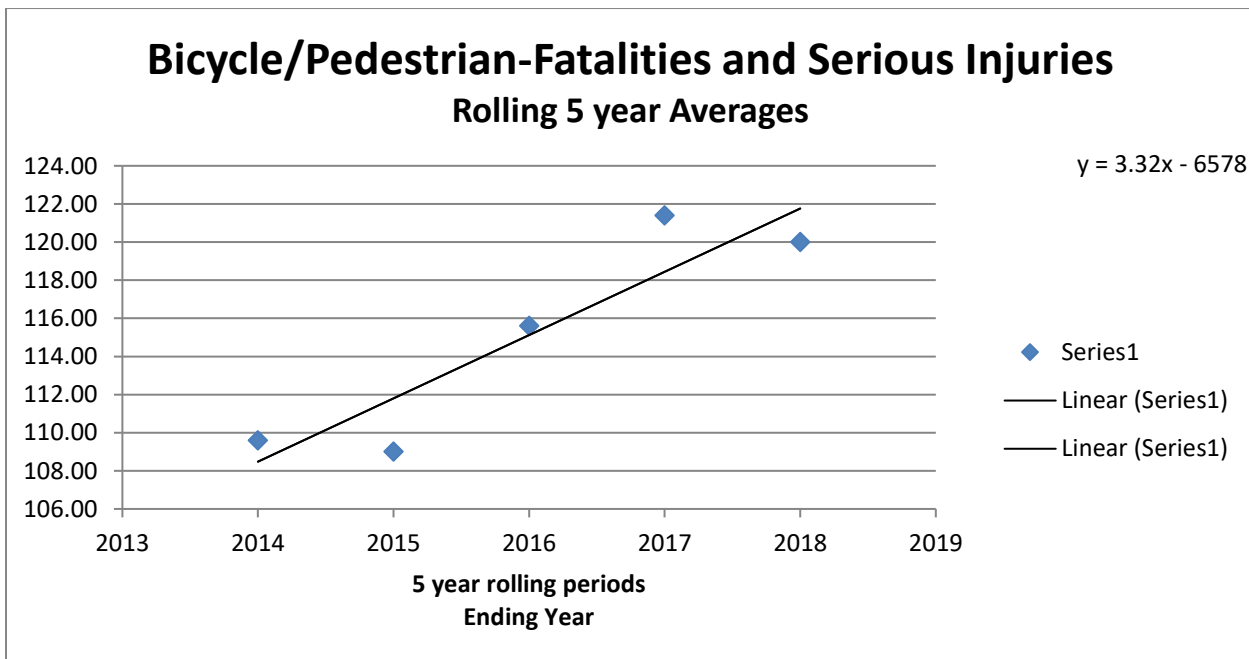
Number of Serious Injuries Rolling 5 Year Averages		
5 Year Rolling Ending Year	Serious Injuries	5 Year Rolling Periods
2014	871.00	2010-2014
2015	933.00	2011-2015
2016	1032.60	2012-2016
2017	1145.60	2013-2017
2018	1127.40	2014-2018
2019 Future Trend	1239.26	2015-2019
2020 Future Trend	1311.8	2016-2020



Serious Injury Rate Rolling 5 Year Averages		
5 Year Rolling Ending Year	Serious Injury Rate	5 Year Rolling Periods
2014	21.28	2010-2014
2015	22.08	2011-2015
2016	23.91	2012-2016
2017	25.78	2013-2017
2018	24.45	2014-2018
2019 Future Trend	26.46	2015-2019
2020 Future Trend	27.47	2016-2020



Bicycle/Pedestrian-Fatalities and Serious Injury Rolling 5 Year Averages		
5 Year Rolling Ending Year	Bicycle/Pedestrian -Fatalities/Serious Injuries	5 Year Rolling Periods
2014	109.60	2010-2014
2015	109.00	2011-2015
2016	115.60	2012-2016
2017	121.60	2013-2017
2018	120.00	2014-2018
2019 Future Trends	125.08	2015-2019
2020 Future Trends	128.40	2016-2020



SOURCE OF DATA: FDOT

NOTES:

1-FUTURE TREND ESTIMATES BASED ON TREND LINE ANALYSIS USING ACTUAL DATA FROM 2010 THROUGH 2018

2-FUTURE TREND ESTIMATES DO NOT TAKE INTO ACCOUNT SHIFT IN FUNDING STRATEGIES OR IMPACT OF MORE AGGRESSIVE SAFETY PROGRAMS AND PROJECTS.



SAFETY PERFORMANCE MEASURES

PASCO MPO, FEBRUARY 2020

1

Important Facts and Statistics

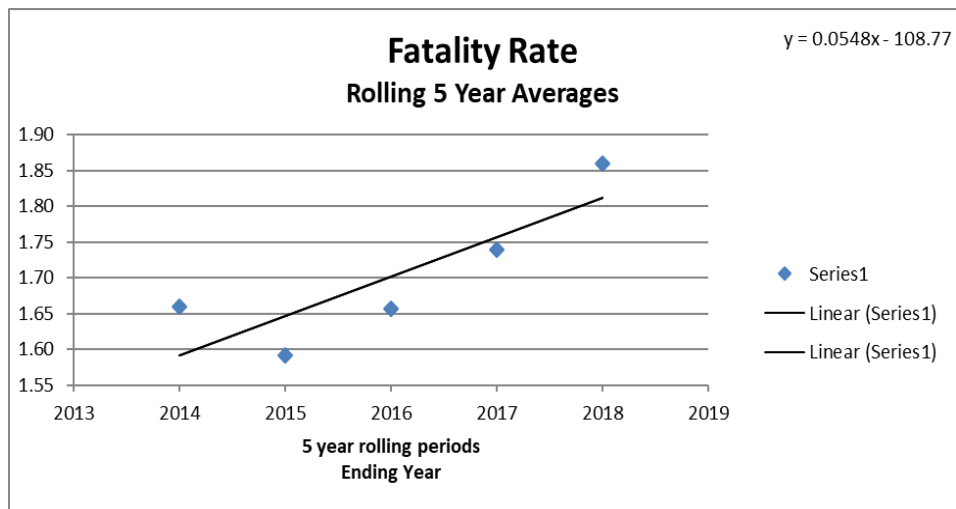
- Around 100 people die every day in the US from motor vehicle crashes, CDC
- Motor vehicle crashes are the leading cause of death in the first three decades of Americans' lives, CDC
- Pedestrians are 1.5 times more likely than passenger vehicle occupants to be killed in a car crash on each trip in 2015, CDC
- U.S.'s traffic fatality rate is about 50 % higher than similar nations in Western Europe, plus Canada, Australia and Japan, StreetsblogUSA (about WHO report)
- Continued implementation of proven strategies can save thousands of lives and hundreds of millions of dollars, CDC

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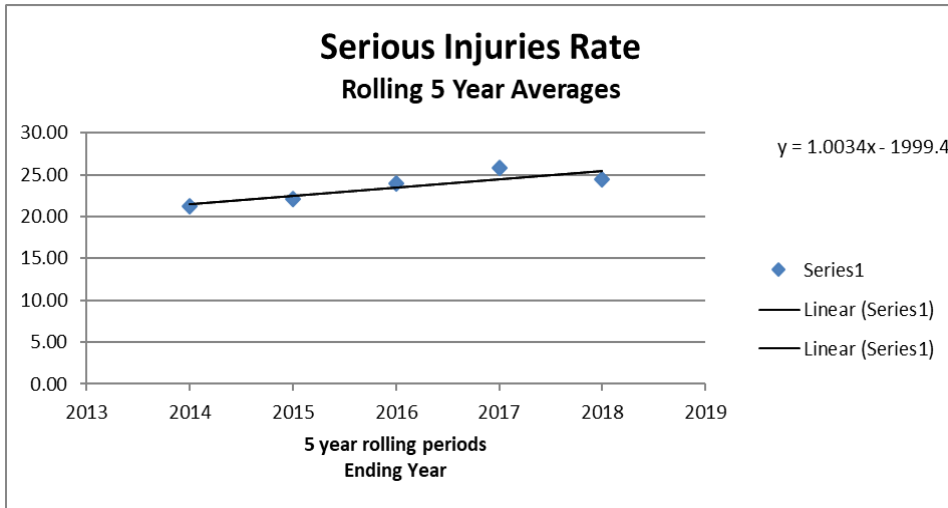
Safety Performance Measures

Performance Measures	Florida Statewide 5-yr Average			Pasco MPO 5-yr Average	2020 Targets	
	Baseline (2013-2017)	(2014-2018)	Difference %	Baseline (2013-2017)	(2014-2018)	Difference %
Number of Fatalities	2,824	2,979	5.5	78	87	11.5
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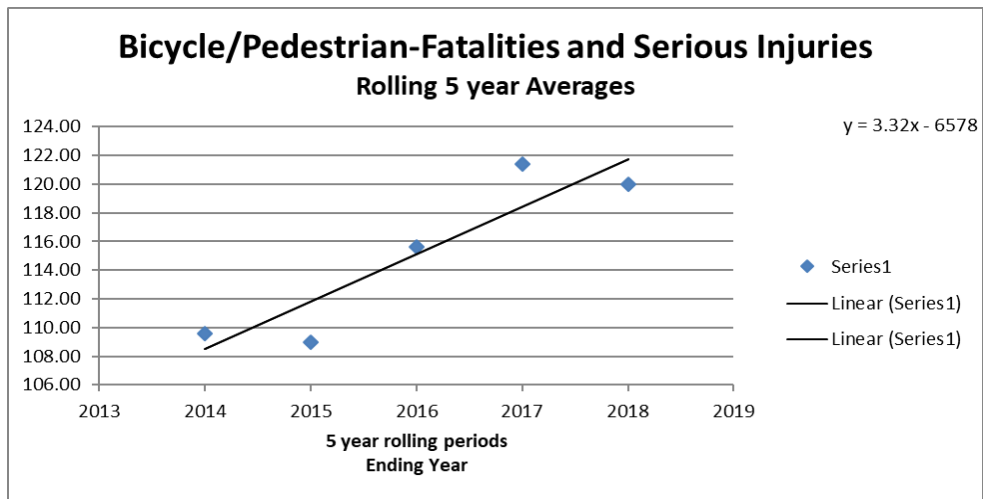
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