



STATE OF WASHINGTON

# FY 2019 WSDOT FERRIES DIVISION PERFORMANCE REPORT

COMPILED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

February 2020

Americans with Disabilities Act (ADA) Information: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise discriminated against under any of its programs, services, or activities. Any person who believes their Americans with Disabilities protection has been violated may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding ADA complaint procedures and/or information regarding our non-discrimination obligations, please contact Larry Watkinson, WSDOT ADA Compliance Manager, at [wsdotada@wsdot.wa.gov](mailto:wsdotada@wsdot.wa.gov) or by calling toll free 855-362-4ADA (4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

Request for Reasonable Modification: The Washington State Department of Transportation (WSDOT) will modify its policies, practices, and procedures to ensure individuals with disabilities have an equal opportunity to participate in the programs, services, or activities unless the modification fundamentally alters the program, service, or activity, creates a safety concern, or is not otherwise required by the ADA. Requests for modification can be made to any WSDOT employee or at [wsdotada@wsdot.wa.gov](mailto:wsdotada@wsdot.wa.gov) or by calling toll free 855-362-4ADA (4232).

Title VI Notice to the Public: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin, or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally-funded programs and activities. Any person who believes his /her Title VI protection has been violated may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at 360-705-7090.

---

**Visit our website at [www.wsdot.wa.gov](http://www.wsdot.wa.gov)**



STATE OF WASHINGTON  
**OFFICE OF FINANCIAL MANAGEMENT**

*Insurance Building, PO Box 43113 • Olympia, Washington 98504-3113 • (360) 902-0555*

Dear Governor, Legislators and Interested Readers,

I am pleased to comment on the 2019 Ferries Performance Report on the state of the ferry system prepared by the Washington State Department of Transportation Ferries Division.

This report is a concise, informative and timely summary of the goals and measures established in RCW 47.64.355 to monitor our progress in providing the people of Washington state with the best possible value for their transportation system dollars. It focuses on the key performance areas of safety performance, service effectiveness, cost containment and capital program effectiveness.

The data shows that continued investment in our ferry system has improved performance in many areas. It also indicates where additional analysis and potential investment may be needed.

Where improvements are showing:

- The percentage of completed ferry trips continues to exceed the department's goal.
- The number of crew injuries declined.
- Preliminary engineering costs for vessels continues to be below agency guidelines.

Where challenges remain:

- Passenger satisfaction with comfort of vessels and cleanliness of bathrooms remains a concern.
- Vessel out-of-service time continues to increase as the fleet ages.
- On-time performance continues to fall short of the set goal.

In closing, the state reiterates its commitment to maintaining safety on Washington ferries, managing rising ridership, improving the reliability of our ferry fleet, and maintaining rider satisfaction with employees, ferry vessels and terminals.

We look forward to working with you, the public and our transportation partners to maintain a world-class ferry system.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Schumacher".

David Schumacher  
Director  
Office of Financial Management

# FY 2019 Ferries Performance Measures

## CONTENTS

Executive Summary .....	5
Legislative Background.....	7
WSDOT Performance Reporting.....	7
Performance Targets.....	7
Capital Program.....	8
Operating Program.....	8
#1    Percent of Terminal Capital Projects Completed On Time .....	10
#2    Percent of Terminal Capital Projects Completed On Budget.....	12
#3a   Percent of Vessel Preservation and Improvement Projects On Time .....	14
#3b   Percent of New Vessels Complete On Time.....	16
#4a   Percent of Vessel Preservation and Improvement Projects On Budget .....	17
#4b   Percent of New Vessel Projects On Budget .....	19
#5    Passenger Injuries per Million Passengers .....	20
#6    Recordable Crew Injuries per 10,000 Service Hours .....	22
#7    Passenger Satisfaction with Interactions with Ferry Employees .....	24
#8    Passenger Satisfaction with Cleanliness and Comfort of Vessels and Terminals.....	26
#9    Passenger Satisfaction with Responses to Requests for Assistance .....	28
#10   Operating Cost Per Passenger Mile.....	30
#11   Operating Cost Per Revenue Service Mile.....	32
#12   Overtime as a percentage of Straight Time .....	34
#13   Gallons of Fuel Consumed Per Revenue Service Mile.....	36
#14   Terminal and Vessel Engineering costs as a percentage of total project costs.....	38
#15   Total Vessel Out-of-Service Time .....	40
#16   On-time Performance .....	42
#17   Service Reliability .....	44
Appendix A – WSF Capital Project Delivery .....	46
Glossary .....	48
Data Sources by Measure .....	49

## Executive Summary

This is the eighth annual comprehensive report on performance measures of the Washington State Department of Transportation Ferries Division (WSF). The report focuses on performance in Fiscal Year 2019 (FY 2019) from July 1, 2018, to June 30, 2019. The report is based on 2011 Washington state legislation (RCW 47.64.360), and requires its annual submittal to state level transportation committees.

This report provides an expanded list of 17 performance measures spanning four areas within WSF that includes the Capital Program, Safety, Operating Costs, and Service. WSF has historically reported performance in a variety of ways. This report supports and supplements those other published documents. In WSF's 2040 Long Range Plan, one of the recommendations is to review the performance measures in the report and propose changes as needed.

WSF's operating and capital programs are funded from different sources. The operating program is responsible for the day-to-day operations of the ferry system. This includes labor and non-labor such as materials, fuel, training, and maintenance costs that facilitate approximately 446 trips each day across ten ferry routes. The capital program is responsible for preserving and improving systems at the terminals, on vessels, and at the Eagle Harbor maintenance facility. Additionally, the capital program funds improvement projects, and emergency repairs. Performance elements from both programs are measured in this report.

In FY 2019, WSF met 10 of its 17 annual performance goals while transporting nearly 24.3 million passengers, a ridership amount that decreased slightly after several years of growth. Key measurement results include:

- Passenger satisfaction of interactions with WSF Staff at 94% exceeded the performance goal of 90% satisfaction.

The report also communicates challenges WSF faces moving forward in the upcoming years:

- Vessel out-of-service time continues to be higher than desired. This highlights the balance between completing required preservation and necessary maintenance work on an aging fleet with the need to keep vessels available for service.
- On-time performance decreased for the fifth consecutive year in a row to 90.0%, below the goal of 95%. Multiple construction projects at and near Colman dock (Seattle Ferry Terminal) presented challenges in loading and unloading the vessels in a timely manner, and this affected on-time performance for routes that use this facility.
- Fuel consumption continues to increase as new Olympic class vessels replace smaller vessels. Efforts began in FY 2018 to reduce consumption through changes to operating procedures. In January 2018, Governor Inslee issued Executive Order 18-01 State Efficiency and Environmental

Performance which included the following language: *The Secretary of the Department of Transportation (WSDOT) shall ensure that the Washington State Ferry system begins the transition to a zero-carbon-emission ferry fleet, including the accelerated adoption of both ferry electrification and operational improvements that will conserve energy and cut fuel use.* In response, in April 2018 WSF's operations staff were advised to run vessels at lower speeds as fuel consumption increases exponentially at higher speed.

This report also provides an appendix with capital project delivery details for FY 2019 terminal and vessel projects, a glossary of terms, and documentation of sources of data used to compile the report results.

## LEGISLATIVE BACKGROUND

RCW 47.64.360 set forth a process for establishing performance measures for WSF and listed areas in which performance measures were required. The legislation divided the measures into four categories: 1) Safety Performance, 2) Service Effectiveness, 3) Cost Containment, and 4) Capital Program Effectiveness. An ad hoc committee was created to develop performance targets for the measures and to present them for review to members of the transportation committees and the Joint Transportation Committee by December 31, 2011. During the 2016 legislative session, RCW 47.64.360 was amended to require the Office of Financial Management (OFM) to review and provide comment on the report prior to its submittal by WSDOT to the Legislature. The report is required to be submitted by December 31 of each year on the performance for the fiscal year ending June 30 of that year. This report has been prepared by WSF and reviewed by OFM.

During the 2019 legislative session, the house passed a bill to review these performance measures, incorporate the WSF 2040 Long Range Plan, and provide recommendations but it did not pass the senate. WSF decided to proceed with a comprehensive review in FY 2020, the most thorough review since 2011, and plans to submit recommendations during the 2021 legislative session.

## WSDOT PERFORMANCE REPORTING

WSDOT has an 18-year history of reporting the performance of its various programs. Specific to WSF, WSDOT has reported ridership and farebox revenue, service reliability, on-time trip performance, customer feedback, workplace and passenger injuries, and on time / on budget information for Nickel and Transportation Partnership Account (TPA) projects as part of quarterly Gray Notebook publications. In addition, annual articles on vessel and terminal preservation occur in WSDOT's Gray Notebook. The WSF website hosts quarterly and annual ridership data from 2003 to present, and since August 2011 WSDOT has posted reasons for late vessel departures on a monthly basis. This report complements the existing Gray Notebook and web based accountability reporting.

## PERFORMANCE TARGETS

The performance targets include:

- **Capital Program Effectiveness** - The capital and maintenance program measures include project delivery rate as measured as the number of projects completed on time and within budget, vessel and terminal design and engineering costs as measured as a percentage of the total capital program, and total vessel out-of-service time.

- **Safety Performance** - Safety performance as measured by passenger injuries per million passenger miles and by OSHA recordable crew injuries per 10,000 revenue service hours. This report applied the National Transit Database criteria to define passenger injuries as required by the Federal Transit Administration (FTA) for injury reporting. [NOTE: Due to a change by FTA, injuries are reported differently in FY 2019. See discussion on page 22.]
- **Cost Containment** - These budget and expense related measures include operating cost per passenger mile, operating cost per revenue service mile, discretionary overtime as a percentage of straight time, and gallons of fuel consumed per revenue service mile.
- **Service Effectiveness** - Service effectiveness measures reflect service experienced by WSF passengers. These include, service reliability and on-time performance as well as passenger satisfaction regarding interactions with ferry employees, cleanliness and comfort of vessels and terminals, and WSF's response to requests for assistance.

The ad hoc committee added two service effectiveness measures for the inaugural report: on time performance and service reliability. These are key operational priorities for WSF and quarterly performance for these measures is tracked and published in WSDOT's quarterly performance report, the *Gray Notebook*. These two measures are found at the end of this report.

## CAPITAL PROGRAM

WSF oversees the preservation and improvement of existing ferry terminals and vessels, as well as the construction of new vessels. The division is responsible for preserving 19 terminals, 22 active vessels, and the Eagle Harbor Maintenance Facility. Preservation and improvement projects fall into three major categories: terminals, vessels, and emergency repairs. The focus of preservation projects is to refurbish or replace terminal or vessel systems. These systems are itemized, and their conditions tracked in a Life Cycle Cost Model (LCCM) database. Improvement projects achieve a program goal, create a new asset through construction, improve conditions, or accommodate changes in service. Emergency repairs occur when vessels or terminals need immediate repairs that necessitate an unexpected service disruption.

## OPERATING PROGRAM

WSF is the world's second largest auto-carrying system in the world, and carries the most passengers of any ferry system in the United States. In FY 2019, the ferry system carried nearly 24.3 million riders, consisting of almost 13.7 million passengers and over 10.5 million vehicles/drivers. There were approximately 446 sailings each day on ten ferry routes across Puget Sound and through the San Juan Islands including an international route to Sidney, British Columbia.



# FY 2019 Washington State Ferries

PERFORMANCE MEASURES		FY 2018	FY 2019	Goal	Goal met?	
<b>CAPITAL EFFECTIVENESS</b>						
1	Percent of terminal projects completed on time. <sup>1</sup>	50%	100%	90%	✓	1 terminal project completed on time.
2	Percent of terminal projects completed on budget. <sup>1,3</sup>	100%	100%	90%	✓	1 terminal project completed within budget.
3a	Percent of contracts completed on time: <ul style="list-style-type: none"> <li>Existing Vessels<sup>2</sup></li> </ul>	82%	78%	75%	✓	7 of 9 contracts completed on time.
3b	<ul style="list-style-type: none"> <li>New Vessels</li> </ul>	N/A	100%	100%	✓	
4a	Percent of contracts completed on budget: <ul style="list-style-type: none"> <li>Existing Vessels<sup>2,3</sup></li> </ul>	73%	67%	75%	-	6 of 9 contracts within budget.
4b	<ul style="list-style-type: none"> <li>New Vessels<sup>3</sup></li> </ul>	N/A	100%	100%	✓	
14	Preliminary engineering costs: <ul style="list-style-type: none"> <li>As a percent of terminal capital project costs</li> <li>As a percent of vessel capital project costs</li> </ul>	2.2% 4%	19.3% 14%	24.2% 17%	✓ ✓	
15	Average vessel out-of-service time	9.8 weeks	11.9 weeks	8 weeks	-	
<b>SAFETY PERFORMANCE</b>						
5	Passenger injuries per million passengers	0.41	1.65	Less than 1.00	-	
6	OSHA recordable crew injuries per 10,000 revenue service hours	9.9	5.69	Less than 7.6	✓	
<b>COST CONTAINMENT</b>						
10	Annual operating cost estimate per passenger mile compared to budgeted cost	1.0%	0.36%	Within 5% of budget	✓	
11	Annual operating cost estimate per revenue service mile compared to budgeted cost	2.2%	-1.0%	Within 5% of budget	✓	
12	Overtime hours as a percentage of straight time hours compared to budgeted overtime hours	0.8%	1.2%	Within 1% of budget	-	
13	Gallons of fuel consumed per revenue service mile compared to budgeted fuel consumption	1.2%	0.1%	Within 5% of budget	✓	
<b>SERVICE EFFECTIVENESS</b>						
7	Passenger satisfaction with WSF Staff customer service	95%	94%	90%	✓	
8	Passenger satisfaction with cleanliness and comfort of WSF terminals, facilities and vessels	88%	85%	90%	-	
9	Passenger satisfaction with service requests made via telephone or WSF website	90%	88%	90%	-	
16	On-time performance level (percent of trips departing within 10 minutes of scheduled time).	91%	90%	95%	-	
17	Service reliability level (percent of scheduled trips completed).	98.9%	99.2%	99.0%	✓	

1. Includes completed preservation and improvement projects. 2. Includes completed preservation and improvement projects with the exception of new vessels. 3. Budget goal is expenditures at the vessel PIN level based on last approved legislative budget.

## #1 PERCENT OF TERMINAL CAPITAL PROJECTS COMPLETED ON TIME

### ***FY 2019 Results:***

WSF met the performance goal of 90% of terminal capital projects delivered on time in FY 2019, with 100% of projects delivered on time (1 of 1 project on time).

#### **WSF Goal: 90% of terminal capital projects on time**

<b>Preservation Project Data for FY 2016 - FY 2019</b>					
	<b>Goal</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Terminal Preservation Projects Completed		2	2	1	0
Terminal Preservation Projects Completed on Time*		2	2	0	0
% Delivered on time	90%	100%	100%	0%	-

<b>Improvement Project Data for FY 2016 - FY 2019</b>					
	<b>Goal</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Terminal Improvement Projects Completed		0	2	1	1
Terminal Improvement Projects Completed on Time*		0	1	1	1
% Delivered on time	90%	-	50%	100%	100%

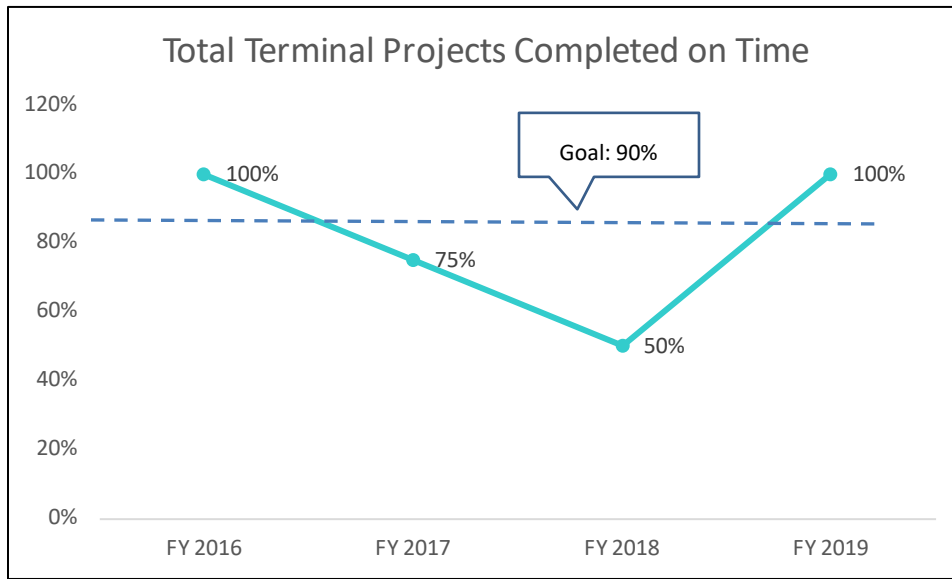
<b>Data for FY 2016 - FY 2019</b>					
	<b>Goal</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Total Terminal Projects Completed		2	4	2	1
Total Terminal Projects Completed on Time*		2	3	1	1
% Delivered on time	90%	100%	75%	50%	100%

\* - Delivered in same quarter as listed in last approved legislative budget (19WSFLFC).

### ***Trend Analysis:***

In FY 2019, WSF completed 100% of its terminal projects on time (1 of 1 project). This is an improvement from FY 2018 (50%). Terminal projects as a performance goal exceeded the goal in two of the last four years.

Currently significant resources within WSF's terminal engineering department are being dedicated to multi-year projects (Seattle and Mukilteo terminal replacements) so the number of annual projects has been relatively low as these multi-year projects are progressing. See discussion on the next page.



**Performance Factors:**

In FY 2019, terminal engineering completed the following project:

**SR 104/Edmonds Terminal – Olympic class dolphin modifications**

This provided for the improvement of the Edmonds Ferry Terminal in Snohomish County, Washington by relocating and repairing existing dolphins. Dolphins are the land aids that help guide the boat into the slips.

In addition, Terminal Engineering progressed on two multi-biennium projects:

**Mukilteo Multimodal Terminal Project:**

- July 2018: first Slab of Trestle poured on Trestle and Bridge Seat contract
- September 2018: the Trestle and Bridge Seat contract was completed with construction costs totaling approximately \$9.8 million
- October 2018: the Deep Stormwater contract was completed with construction costs totaling approximately \$4.2 million. Key archeological risks related to siting the terminal on former tribal land were not triggered
- December 2018: awarded the Terminal Uplands contract
- April/May 2019: pour terminal building walls, elevator shafts, and erect building’s steel structure
- May 2019: awarded the Marine Offshore contract
- June 2019: first working day of the Marine Offshore Contract

**Seattle Multimodal Terminal Project:**

- Continued project construction (year 2) scheduled through October 2022
- Crews installed 112 piles to support construction of the new trestle during in-water work window (August 2018 to February 2019)
- Crews fabricated and installed 99 Precast Deck Panels for new trestle construction
- Slip 1 re-opened in November 2018 that allowed closure of Slip 3 for new overhead loading construction
- Partial demolition of the existing terminal building adjacent to Slip 3
- Construction started on the Passenger Only Facility (POF), Elevated View Platform, and the first-third of the replacement Terminal Building
- Erection of 24 foot wide temporary pedestrian bridge to allow future demolition of the Marion Street overpass

## #2 % OF TERMINAL CAPITAL PROJECTS COMPLETED ON BUDGET

### **FY 2019 Results:**

WSF met the performance goal by completing 100 % of its terminal capital projects on budget in FY 2019 (1 of 1 project).

### **WSF Goal: 90% of terminal capital projects on budget**

<b>Preservation Project Data for FY 2016 - FY 2019</b>					
	<b>Goal</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Terminal Preservation Projects Completed		2	2	1	0
Terminal Preservation Projects Completed on Budget*		2	2	1	0
% Delivered on budget		100%	100%	100%	NA

<b>Improvement Project Data for FY 2016 - FY 2019</b>					
	<b>Goal</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Terminal Improvement Projects Completed		0	2	1	1
Terminal Improvement Projects Completed on Budget*		0	2	1	1
% Delivered on budget		-	100%	100%	100%

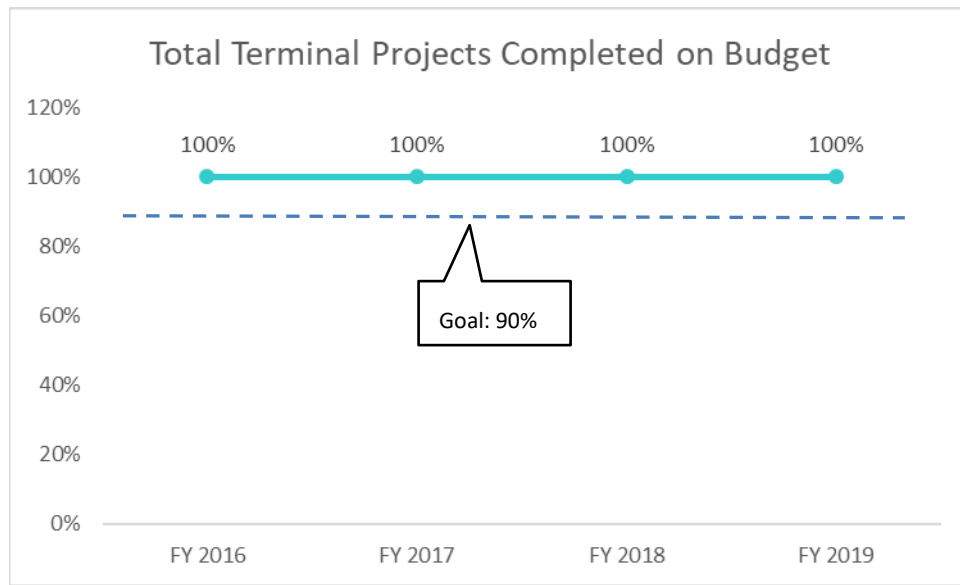
<b>Data for FY 2016 - FY 2019</b>					
	<b>Goal</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Total Terminal Projects Completed		2	4	2	1
Total Terminal Projects Completed on Budget*		2	4	2	1
% Delivered on budget	90%	100%	100%	100%	100%

\* Completed spending no more than 5% of the project budget listed in last approved legislative budget. (19WSFLFC).

### **Trend Analysis:**

There was one project completed in FY 2019: SR 104 Edmonds Ferry Terminal Dolphin Improvements. The cost of this completed project was \$476,563. WSF delivered this project within 90% of the authorized budget.

Over the last four years, terminal projects were completed at or below budget (9 projects).



***Performance Factors:***

The project completed in FY 2019 was delivered with total expenditures being 90%, or \$476,563, of the total authorized budget of \$527,227 for the project.

See Appendix A on page 47 for actual budget and expenditure amounts by project.

**#3A PERCENT OF VESSEL PRESERVATION AND IMPROVEMENT PROJECTS COMPLETED ON TIME**

**FY 2019 Results:**

WSF exceeded the performance goal of 75%, delivering 78% of capital projects for vessels on time in FY 2019 (7 of 9 projects).

**WSF Goal: 75% of vessel capital projects on time**

Preservation Project Data for FY 2016 - FY 2019		Goal	FY 2016	FY 2017	FY 2018	FY 2019
Vessel Preservation Projects Completed			3	7	11	4
Vessel Preservation Projects Completed on Time*			3	7	9	3
% Delivered on time			100%	100%	82%	75%

Improvement Project Data for FY 2016 - FY 2019		Goal	FY 2016	FY 2017	FY 2018	FY 2019
Vessel Improvement Projects Completed			2	9	0	5
Vessel Improvement Projects Completed on Time*			2	6	0	4
% Delivered on time			100%	67%	N/A	80%

Data for FY 2016 - FY 2019		Goal	FY 2016	FY 2017	FY 2018	FY 2019
Total Vessel Projects Completed			5	16	11	9
Total Vessel Projects Completed on Time*			5	13	9	7
% Delivered on time			100%	81%	82%	78%

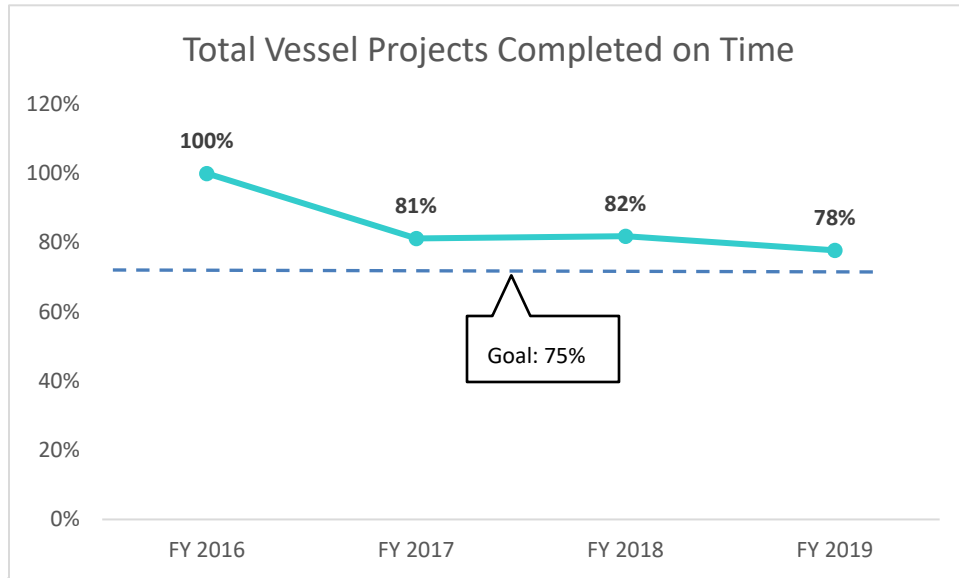
\* Projects delivered in same quarter as listed in the Vessel Engineering Layup Schedule Plan dated July 3, 2018

**Trend Analysis:**

For the last four years, WSF met the on-time delivery goal of 75% for vessel capital projects.

**Performance Factors:**

In FY 2019, seven of nine projects were operationally completed and delivered on time (78%) to achieve the goal of 75%.



The following preservation projects were on time:

- *M/V Yakima* Commercial Drydock complete on November 30, 2018
- *M/V Walla Walla* Commercial Drydock complete on February 22, 2019
- *M/V Salish* Commercial Drydock complete on April 15, 2019

The following preservation project was not on time:

- *M/V Kitsap* Commercial Drydock complete on April 22, 2019

The following improvement projects were on time:

- *M/V Yakima* Improvement (17-19) complete on August 31, 2018
- *M/V Kittitas* Improvement (17-19) complete on November 2, 2018
- *M/V Puyallup* improvement (17-19) complete on November 21, 2018
- *M/V Tacoma* improvement (17-19) complete on May 24, 2019

The following improvement project was not on time:

- *M/V Kitsap* improvement (17-19) complete on April 22, 2019

## #3B PERCENT OF NEW VESSELS COMPLETED ON TIME

### **FY 2019 Results:**

There was one new vessel delivered in the first quarter of FY 2019, the *M/V Suquamish*. The vessel began revenue service in October 2018.

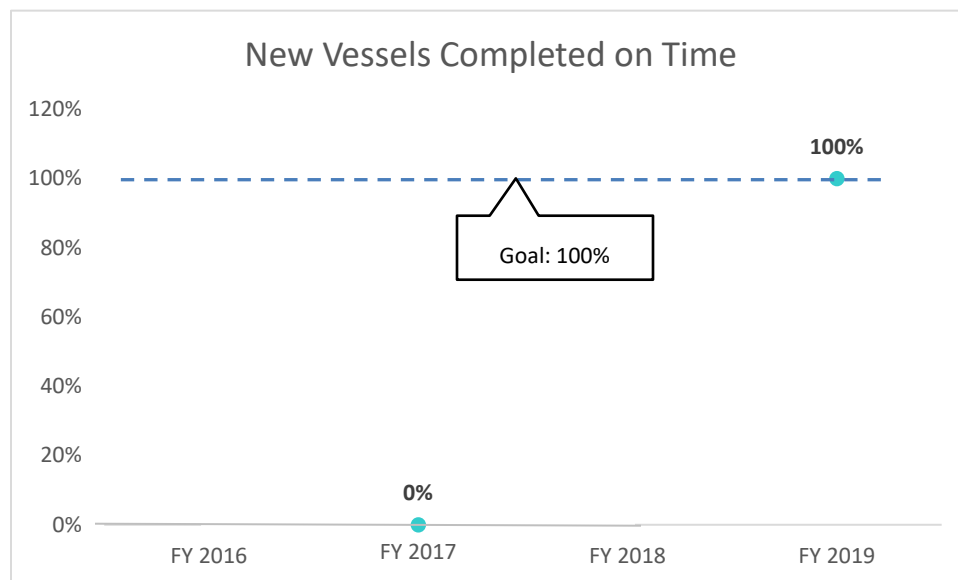
### **WSF Goal: 100% of new vessels completed on time**

Data for FY 2016- FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
New Vessel Projects Completed		0	1	0	1
New Vessel Projects Completed on Time*		0	0	0	1
% Delivered on time		-	0%	-	100%

\*Delivered same quarter as delivery date documented in the new vessel construction contract

### **Trend Analysis:**

The new Olympic Class vessel, *M/V Suquamish* was delivered on time in FY 2019. The first three Olympic Class vessels were delivered late (FY 2014, FY 2015, and FY 2017).





## #4A PERCENT OF VESSEL PRESERVATION AND IMPROVEMENT PROJECTS ON BUDGET

### **FY 2019 Results:**

WSF did not meet the performance goal of 75% of combined vessel preservation and improvement projects completed on budget (6 of 9 projects), with 67% of vessel projects completed on budget.

#### **WSF Goal: 75% of vessel capital projects on budget**

Preservation Project Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Vessel Preservation Projects Completed		3	7	11	4
Vessel Preservation Projects Completed on Budget*		3	7	8	4
% Delivered on Budget		100%	100%	73%	100%

Improvement Project Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Vessel Improvement Projects Completed		2	9	0	5
Vessel Improvement Projects Completed on Budget*		0	7	0	2
% Delivered on Budget		0%	78%	N/A	40%

Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Total Vessel Projects Completed		5	16	11	9
Total Vessel Projects Completed on Budget*		3	14	8	6
% Delivered on Budget		60%	88%	73%	67%

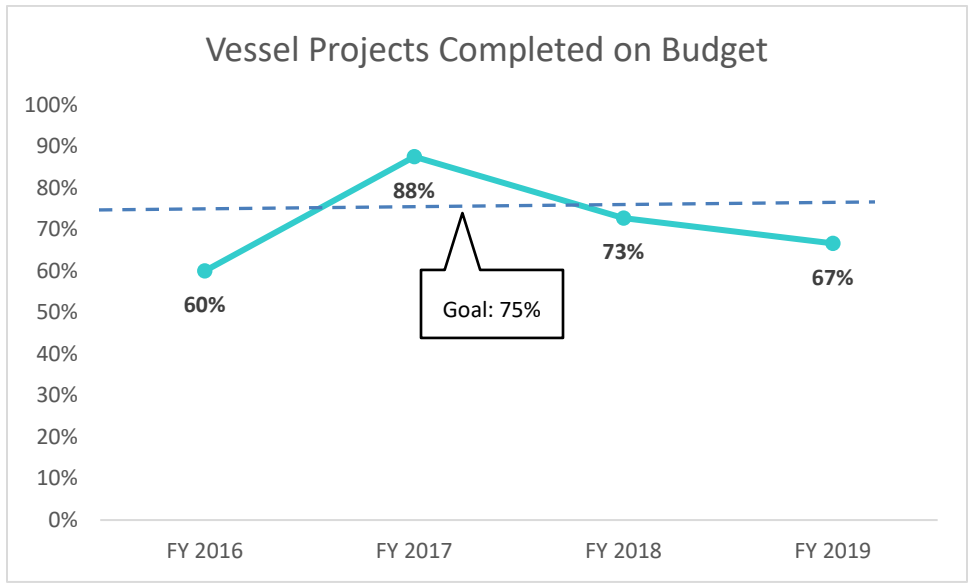
\* - Completed spending no more than 5% more than the project PIN budget listed in last approved legislative budget (19WSFLFC).

### **Trend Analysis:**

Vessel preservation projects met the goal of 75% on budget in three of the last four years, with four of four projects on budget (100%) in FY 2019. This is an improvement from FY 2018, when WSF delivered 73% of its preservation projects on budget.

In FY 2019, Improvement projects did not meet the goal of 75% with two of the five projects completed on budget (40%). Of the past four years, there were no improvement projects in FY 2018 and only in FY 2017 did WSF meet the goal with 78% on budget.

WSF did not meet the combined goal of 75% for preservation and improvement projects, and has met the goal once in the past four years, in FY 2017.



**Performance Factors:**

In FY 2019, WSF completed nine vessel projects with a combined budget of \$15 million; the actual expenditures on those projects was \$10.7 million, or 71% of the total combined budget. Three projects were over budget, with six delivered at or below budget.

Underspent budget authority on these projects was used for other critical vessel preservation activities.

See Appendix A on page 47 for actual budget and expenditure amounts by project.

## #4B PERCENT OF NEW VESSELS ON BUDGET

### ***FY 2019 Results:***

There was one new vessel completed in FY 2019. The budget was \$122 M and the total cost of the vessel was \$122.8 M, within 5% of the original budget.

### **WSF Goal: 100% of new vessels on budget**

Data for FY 2016- FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
New Vessel Projects Completed		0	1	0	1
New Vessel Projects Completed on Budget*		0	1	0	1
% Delivered on Budget	100%	-	100%	-	100%

\* - Completed spending no more than 5% more than the project PIN budget listed in last approved legislative budget.

### ***Trend Analysis:***

All Olympic Class vessels were delivered on budget in FY 2014, FY 2015, FY 2017, and FY 2019.



## #5 PASSENGER INJURIES PER MILLION PASSENGERS

### ***FY 2019 Results:***

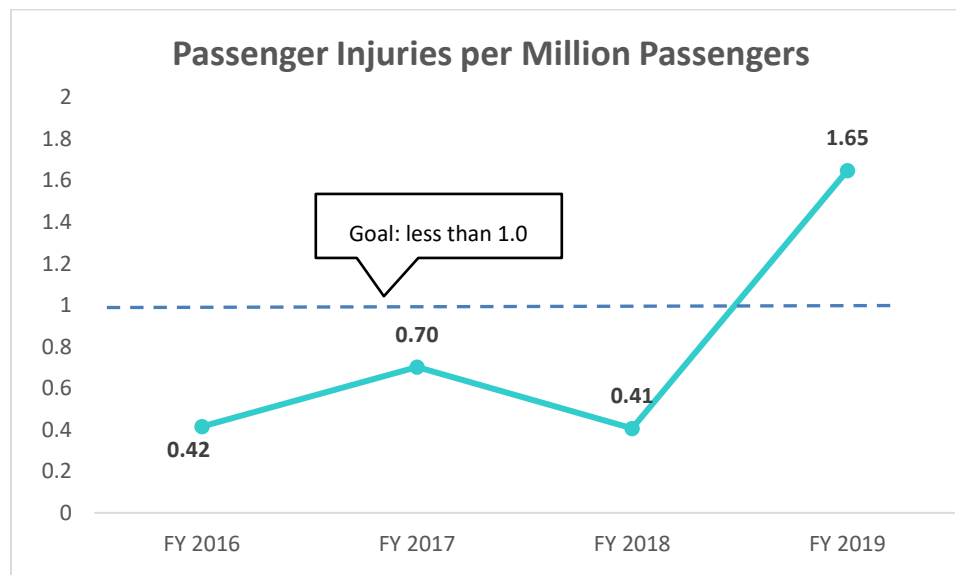
WSF missed the performance goal of having less than one passenger injury per million passengers. WSF documented 40 passenger injuries during FY 2019, WSF carried nearly 24.3 million passengers during this time, resulting in 1.65 passenger injuries per million passengers. This was due to a change in the methodology of what injuries are reported (see discussion below).

### **WSF Goal: Injury rate at or below one injury per million passengers**

Data for FY 2016 - 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Million Passengers		24.1	24.2	24.6	24.3
NTD Passenger Injuries		10	17	10	40
Injuries per Million Passenger		0.42	0.70	0.41	1.65

### ***Trend Analysis:***

The passenger injury rate of 1.65 injuries per million passengers in FY 2019 increased as compared to the rate of 0.41 in FY 2018. Previously passenger injuries were only reported when the passenger was transported to a medical facility via an aid car. As of July 1, 2018, all passengers transported to a medical facility regardless of the method of transport are counted as a passenger injury. Passenger injuries are reported monthly to the Federal Transit Administration through the National Transit Database (NTD).



***Performance Factors:***

A high percentage of passenger injuries come from slips, trips, and falls. Injuries can occur on stairs and ramps as well as on flat surfaces. Wet surfaces and vessel motion increase the chances of an injury. WSDOT continually evaluates the causes of injuries to determine new injury prevention methods and strategies.

The Safety Systems Office led WSF's efforts to further develop the agency's emergency preparedness materials, including the Continuity of Operations Plan, and Emergency Action Plans for all terminals and vessels. Each terminal and vessel have been provided updated plans that delve into each potential emergency with a keen focus on enhancing cross-training between the vessels and terminals that had previously been lacking. All plans have been written following WSDOT, U. S. Department of Homeland Security (DHS), and U. S. Coast Guard (USCG) guidance, tools, and policies.

WSF supported a partnership for improving passenger safety for our school age children on the Fauntleroy – Vashon - Southworth route. The partnership consisted of Washington State Patrol, Vashon School District, WSF Customer Service and Planning department, WSF Operations, and WSF Safety Systems Office. The partnership creates a relationship and collaborative approach to monitor and address safety related concerns.

**NOTE:**

In FY 2019, the NTD changed how it counted passenger injuries. In the past, only an injury where the passenger was transported by an aid car to a medical facility was counted as a passenger injury. As of FY 2019, any injury that resulted in the passenger seeking medical treatment was counted, regardless of the method of transport to the medical facility. WSF may revisit the goal for this measure based on the change in methodology for reported injuries.

**#6 RECORDABLE CREW INJURIES PER 10,000 SERVICE HOURS**

**FY 2019 Results:**

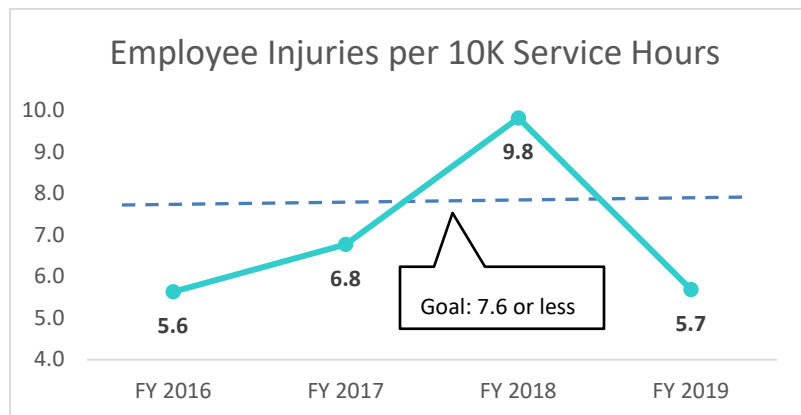
WSF met the performance goal in FY 2019 with 5.7 incidents per 10,000 service hours. The goal is no more than 7.6 employee injuries per 10,000 service hours. Injuries are defined by Occupational Safety and Health Administration (OSHA) standards.

**WSF Goal: At or below 7.6 incidents per 10,000 Service Hours**

Data for FY 2016 -2019		Goal	FY 2016	FY 2017	FY 2018	FY 2019
OSHA Recordable Incidents			72	86	124	72
10,000 Total Service Hours			12.8	12.7	12.6	12.7
Incidents per 10,000 Total Service Hours			5.6	6.8	9.8	5.7

**Trend Analysis:**

IN 2016, WSF lowered the goal to the industry standard of 7.6 injuries per 10,000 service miles. The FY 2019 injury rate of 5.7 injuries per 10,000 service hours was 42% lower than FY 2018. In FY 2019, there were 72 total incidents with the most common reported injury of pain and soreness with 28 incidents, followed by sprains/strains and hearing loss 21 incidents each.



***Performance Factors:***

WSF has a robust training program to keep its employees current on safety procedures and safety risks. Once a year, WSF goes through a hiring process to fill seasonal vacancies ensuring there are proper staffing levels available for the busy summer sailing season. All new hires take an intensive 13-day training and safety course that covers personal survival and safety, firefighting, first aid, deck duties, emergency procedures and U. S. Coast Guard requirements. This training is an important part of keeping injuries low in the challenging marine transportation environment that WSF employees work.

WSF's Safety Systems Office streamlined the hazardous chemical ordering process to ensure employees were ordering chemicals that were properly vetted for the safety of the crews and the general public. This new process also offered an opportunity to identify the current chemical needs of the fleet and provide environmentally friendly options wherever possible.

The Safety Systems Office led a program overhaul for the fall protection program at Eagle Harbor Maintenance Facility. All fall protection gear and equipment have been inspected, inventoried, and replaced by a person trained in fall protection. This in-house person now manages and enforces the annual inspection program to ensure compliance is met and evaluated at all required levels.

**#7 PASSENGER SATISFACTION WITH INTERACTIONS WITH FERRY EMPLOYEES**

**FY 2019 Results:**

The performance goal was met, with 94% of passengers surveyed being satisfied with their interactions with ferry employees. The annual goal is 90%.

**WSF Goal: 90% or more satisfied or neutral**

FY 2016 - FY2019 WSTC Survey Results		Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Tollbooth Staff is Friendly		97%	96%	97%	95%
Vehicle Loading Crew is Friendly		94%	93%	93%	93%
Unloading Crew is Friendly		97%	96%	98%	98%
WSF Vessel Crew is Friendly		96%	97%	96%	96%
WSF Vessel Crew is Helpful		97%	96%	96%	96%
Terminal Staff is Helpful		92%	92%	93%	91%
Assistance from Vessel Staff		91%	96%	89%	86%
Passenger Satisfaction of Interactions with Ferry Employees	90%	95% <sup>4</sup>	95% <sup>3</sup>	95% <sup>2</sup>	94% <sup>1</sup>

- 1 - Results from 2019 WSTC Winter Performance Survey.
- 2 - Results from 2018 WSTC Winter Performance Survey.
- 3 - Results from April/May 2017 WSTC Winter Performance Survey.
- 4 - Results from March/April 2016 WSTC Winter Performance Survey.

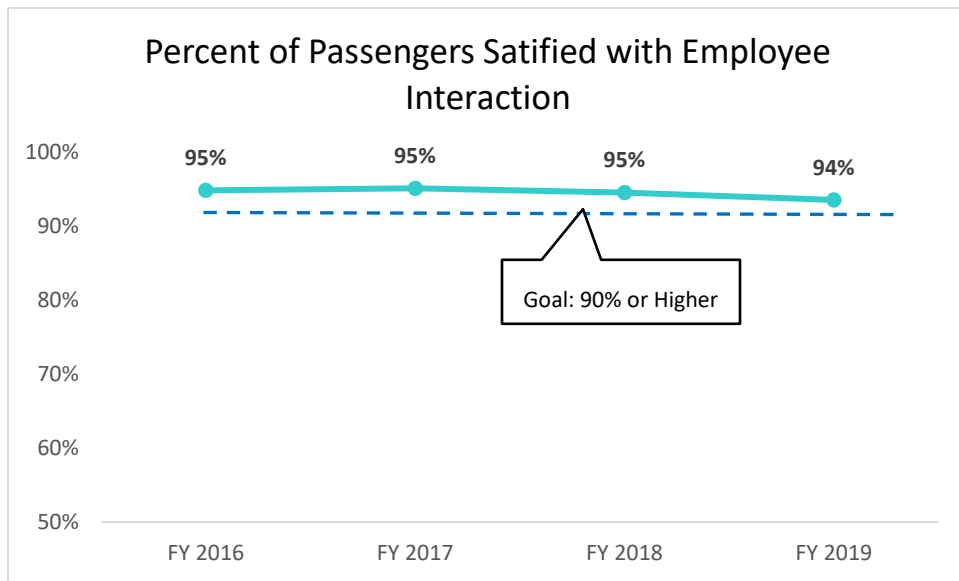
Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

The Washington State Transportation Commission (WSTC) provides an open public forum for transportation policy development. WSF partners with the WSTC to perform jointly funded surveys related to WSF passenger satisfaction.

**Trend Analysis:**

Over the last four years, passenger satisfaction with their interactions with WSF employees has met the performance goal of 90% every year. Between FY 2016 and FY 2019, the satisfaction rate varied by 1 percentage point, ranging from 95% to 94%. The rating for a friendly vessel crew remained constant at 96% in FY 2019 when compared to FY 2016: and the rating for friendly unloading crew improved by 1% to 98% as compared to FY 2016. The only criteria that did not exceed 90% each year was assistance from vessel staff at 89% in FY 2018 and 86% in FY 2019.





**Performance Factors:**

WSDOT tracks customer complaints and sorts them into over 40 categories. The results are reported quarterly in WSDOT’s Gray Notebook. Customer complaints that involve employee interactions are tracked and reviewed, with feedback given to employees, including disciplinary action for inappropriate or unprofessional behavior.

## #8 PASSENGER SATISFACTION WITH CLEANLINESS AND COMFORT OF VESSELS AND TERMINALS

### ***FY 2019 Results:***

WSF did not meet the passenger satisfaction performance goal of 90% with 85% of passengers surveyed being satisfied with cleanliness and comfort of vessels and terminals in FY 2019.

#### **WSF Goal: 90% or more satisfied or neutral**

FY 2016 - FY2019 WSTC Survey Results		Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Terminal Cleanliness		93%	92%	91%	86%
Terminals are Comfortable		83%	83%	77%	67%
Terminal Bathrooms are Clean & Well Maintained		80%	80%	79%	74%
Ferry Passenger Seating areas Clean and Comfortable		95%	96%	95%	97%
Vessel Bathrooms are Clean & Well Maintained		92%	93%	92%	92%
Vessels are Well Maintained		92%	95%	95%	92%
Passenger Satisfaction of Cleanliness and Comfort	90%	89% <sup>4</sup>	90% <sup>3</sup>	88% <sup>2</sup>	85% <sup>1</sup>

1 - Results from 2019 WSTC Winter Performance Survey.

2 - Results from 2018 WSTC Winter Performance Survey.

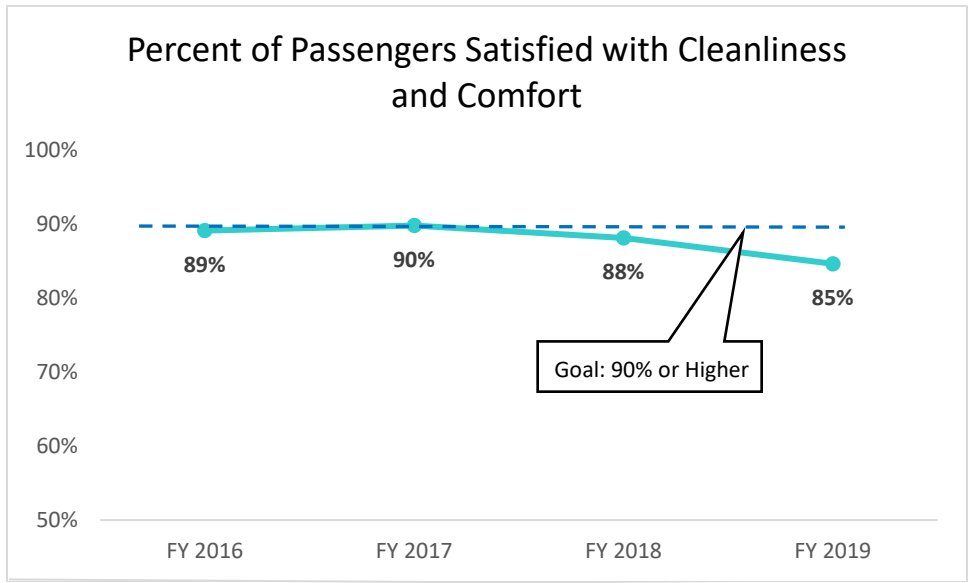
3 - Results from April/May 2017 WSTC Winter Performance Survey.

4 - Results from March/April 2016 WSTC Winter Performance Survey.

Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

### ***Trend Analysis:***

Overall satisfaction with cleanliness and comfort has declined over the past three years, from 90% to 85%. Performance of three of the six questions over the last four years has varied up to 3%, and all three were related to vessels. The three questions that varied outside this range are all related to terminals, and are terminal cleanliness (7%), comfort of terminals (16%), and terminal bathrooms are clean and well maintained (6%). The drop in comfort of terminals was mainly due to construction at Colman Dock, as riders on the routes that use this terminal rated their dissatisfaction with comfort at 50%.



***Performance Factors:***

Comfort of terminals and cleanliness of bathrooms had the lowest satisfaction ratings of the survey. WSF’s Colman Dock terminal in Seattle had the highest dissatisfaction rate for cleanliness of bathrooms at 39% from Seattle – Bainbridge Island riders and 48% from Seattle – Bremerton riders. Colman Dock faces unique challenges due to heavy passenger traffic, close proximity to a large population center, and being under construction while is in the process of being replaced. WSF employs custodians to keep terminals and bathrooms clean at Colman terminal.

## #9 PASSENGER SATISFACTION WITH RESPONSES TO REQUESTS FOR ASSISTANCE

### **FY 2019 Results:**

WSF did not meet the goal of 90% passenger satisfaction with 88% of the passengers surveyed satisfied with responses to their requests for assistance in FY 2019.

### **WSF Goal: 90% or more satisfied or neutral**

FY 2016 - FY2019 WSTC Survey Results		Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Satisfied with experience using the WSF website		94%	95%	94%	93%
Satisfied with your experience calling WSF on the Phone		87%	86%	85%	83%
Passenger Satisfaction of Responses to Requests for Assistance	90%	91% <sup>4</sup>	91% <sup>3</sup>	90% <sup>2</sup>	88% <sup>1</sup>

1 - Results from 2019 WSTC Winter Performance Survey.

2 - Results from 2018 WSTC Winter Performance Survey.

3 - Results from April/May 2017 WSTC Winter Performance Survey.

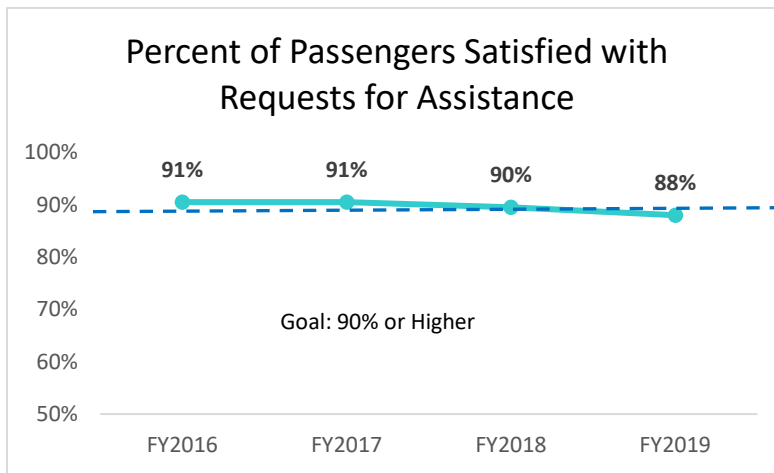
4 - Results from March/April 2016 WSTC Winter Performance Survey.

Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

### **Trend Analysis:**

Passenger satisfaction with responses to requests for assistance ranged from a high of 91% in FY 2016 to 88% in FY 2019, and marks the first time in four years that WSF did not meet the goal.

Satisfaction with WSF's website remains high (93%) while satisfaction with phone calls decreased each of the past four years, with a 2 percentage point drop to 83% from FY 2018 to FY 2019.



***Performance Factors:***

In FY 2019, WSF received over 215,000 phone calls, with more than 150,000 requiring operator assistance. Calls requesting operator assistance and the overall number of phone calls was slightly less than in FY 2018, most likely due to increased use of the internet for information. With over 37.9 million website views, WSF’s views were up by nearly 1.7 million from FY 2018, and comprise over 26% of WSDOT’s total web views. Schedule information, reservations, vessel watch, and fares were the most frequently viewed pages on the WSF website.

Twitter has become a popular method of customer communication, with nearly 4,000 new followers in FY 2019. WSF’s tweets appeared on someone’s feed over 19 million times. And there were over 201,000 times where a user interacted with a WSF tweet.

## #10 OPERATING COST PER PASSENGER MILE

### ***FY 2019 Results:***

WSF met the performance goal of operating costs per passenger mile being within 5% of plan, with cost per passenger mile being 0.36% more than planned.

#### **WSF Goal: Cost per Passenger Mile within 5% of the budgeted plan**

Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Planned WSF Operating Expenses		\$ 240.92 M	\$ 243.22 M	\$ 255.89 M	\$ 269.20 M
Planned Passenger Miles		187.66 M	190.65 M	192.99 M	195.44 M
Cost Per Passenger Mile		\$1.28	\$1.28	\$1.33	\$1.38

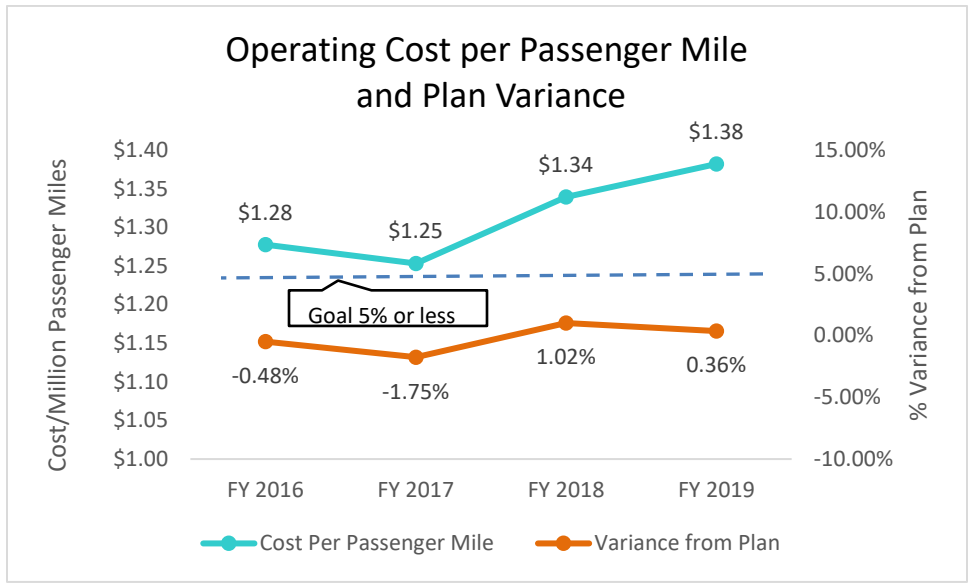
Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Actual WSF Operating Expenses		\$ 242.35 M	\$ 241.24 M	\$ 258.64 M	\$ 264.00 M
Actual Passenger Miles		189.68 M	192.46 M	193.09 M	190.97 M
Cost Per Passenger Mile		\$1.28	\$1.25	\$1.34	\$1.38

Variance from Plan	5% or less	-0.48%	-1.75%	1.02%	0.36%
--------------------	------------	--------	--------	-------	-------

### ***Trend Analysis:***

The cost per passenger mile remained relatively stable over the past four years, with costs ranging between \$1.25 and \$1.38 per passenger mile.

For FY 2019, operating expenses were 0.36% more than the planned expenses. There were fewer passenger miles in FY 2019 as compared to plan, which kept the cost per passenger mile equal to the planned per passenger mile at \$1.38. This trend is partially due to the addition of four new vessels that replaced smaller vessels and the subsequent increased labor and fuel costs.



**Performance Factors:**

Growth in ridership will reduce the cost per passenger miles as more riders means more passenger miles traveled. For operating costs, a fuel hedging program is helping minimize the potential effects of market fluctuations on fuel prices.

## #11 OPERATING COST PER REVENUE SERVICE MILE

### ***FY 2019 Results:***

WSF met its performance goal of operating cost per revenue service mile by being within 5% of plan, with cost per revenue service mile at one percent below plan. In FY 2019 both the operating cost, and the revenue service miles were lower than planned.

### **WSF Goal: Cost per Revenue Service Mile within 5% of the budgeted service plan**

Data for FY 2016-2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Planned WSF Operating Expenses		\$ 240.92 M	\$ 243.22 M	\$ 255.89 M	\$ 269.20 M
Planned Revenue Service Miles		914,782	910,270	912,193	911,371
Planned Operating Cost per Revenue Service Mile		\$263.36	\$267.20	\$280.52	\$295.38

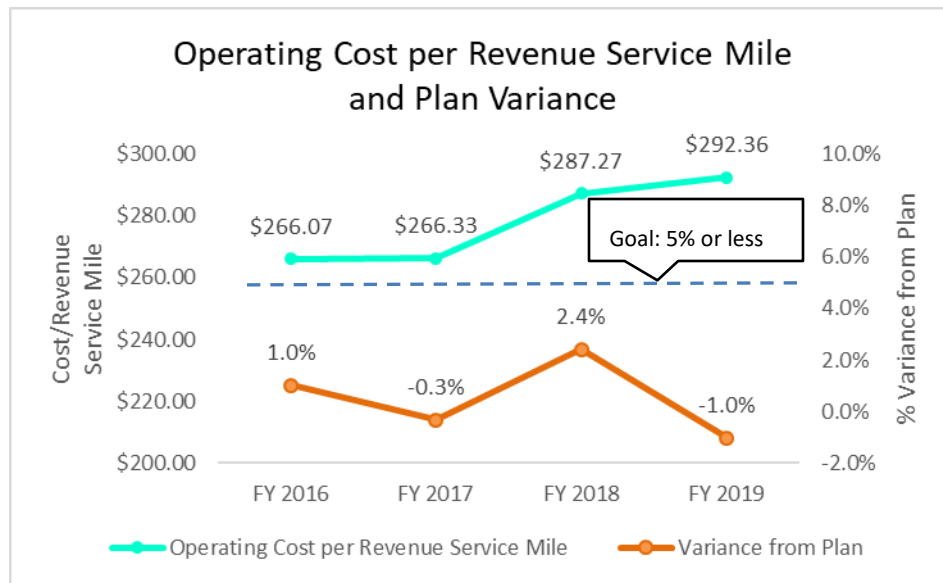
Data for FY 2016-2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Actual WSF Operating Expenses		\$ 242.35 M	\$ 241.24 M	\$ 258.64 M	\$ 264.00 M
Actual Revenue Service Miles		910,842	905,802	900,329	903,012
Actual Operating Cost per Revenue Service Mile		\$266.07	\$266.33	\$287.27	\$292.36

Variance from Plan	5% or less	1.0%	-0.3%	2.4%	-1.0%
--------------------	------------	------	-------	------	-------

### ***Trend Analysis:***

Cost per revenue service mile over the past four years has risen from \$266 to \$292 per revenue service mile. This trend is partially due to the addition of four new vessels that replaced smaller vessels and subsequently increased labor and fuel costs.





**Performance Factors:**

With a high service reliability achievement (99.2% of trips completed), more revenue service miles are delivered which helps to lower the cost per revenue service mile. For operating costs, a fuel hedging program is helping to minimize effects of the potential market fluctuations on fuel prices.

## #12 OVERTIME AS A PERCENTAGE OF STRAIGHT TIME

### ***FY 2019 Results:***

WSF did not meet the performance goal with overtime as a percentage of straight time being within 1% of plan for FY 2019. Planned overtime as a percentage of straight time was 6.30% with an actual of 7.46%, the variance is 1.16% higher than planned.

### **WSF Goal: Overtime as a percentage of straight time within 1% of the budgeted plan**

Data for FY 2016-2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Planned Overtime Hours		168,494	164,481	165,059	159,997
Planned Straight Time Hours		2,567,333	2,532,754	2,496,750	2,538,124
Planned Overtime as a percent of Straight Time		6.56%	6.49%	6.61%	6.30%

Data for FY 2016-2019					
	Goal	FY 2016			
Actual Overtime Hours		187,249	183,996	183,334	187,431
Actual Straight Time Hours		2,559,918	2,516,280	2,488,209	2,512,612
Actual Overtime as a percent of Straight Time		7.31%	7.31%	7.37%	7.46%

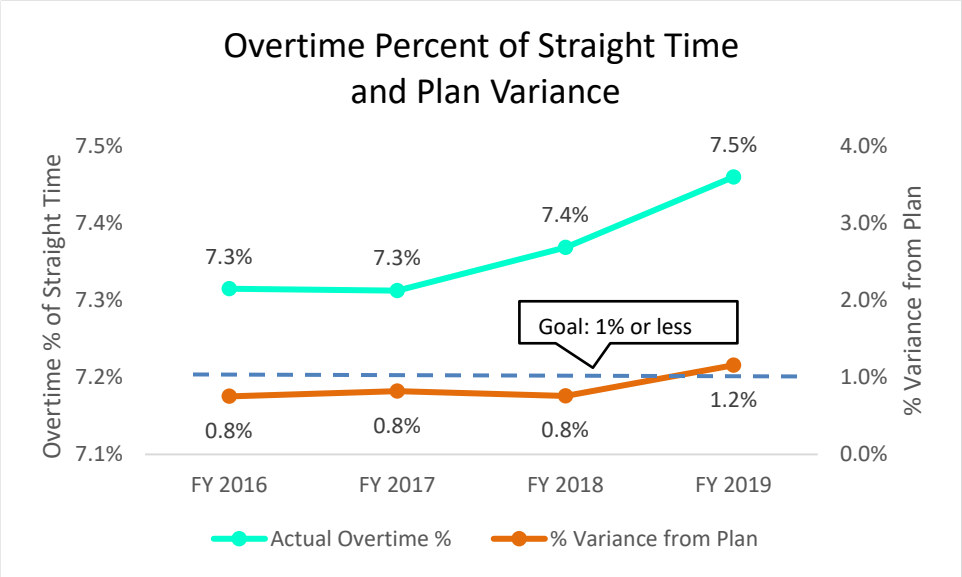
Variance from Plan	1% or less	0.75%	0.82%	0.76%	1.16%
--------------------	------------	-------	-------	-------	-------

WSF Note: Overtime hours include TA10 (overtime) and TA19 (holiday worked) hours

### ***Trend Analysis:***

The increased use of overtime has been due, in great part, to the use of regular employees to fill additional shifts on overtime when other employees are on leave or otherwise not able to fill their regularly assigned shifts. A U. S. Coast Guard decision in FY 2013 required additional deck crew on ferry vessels, which put additional strain on personnel resources and has continued to affect overtime since FY 2014. WSF continues to recruit and train employees to meet these challenges.

It should be noted the impending retirement of Baby Boom generation employees is an emerging challenge in this area. In the next year 9% of employees are eligible to retire, and within the next five years, 30% are eligible to retire. It can take up to 10 years for an entry level Ordinary Seaman to earn a Master's license.



**Performance Factors:**

WSF is in a continual process of recruiting and training personnel who can work when regular employees are on leave or otherwise unable to work, which can lower the rate of overtime.

## #13 GALLONS OF FUEL CONSUMED PER REVENUE SERVICE MILE

### **FY 2019 Results:**

WSF met the performance goal with fuel consumption per revenue service mile (20.8 gallons per mile) being within 5% of plan (0.1%) for FY 2019.

#### **WSF Goal: Fuel consumed per revenue service mile within 5% of the budgeted plan**

Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Planned Fuel Consumed (gallons)		18,233,702	18,233,702	18,885,742	18,929,582
Planned Revenue Service Miles		914,782	910,270	912,913	911,371
Planned Fuel Consumed per Revenue Service Mile (gallons)	TBD	19.9	20.0	20.7	20.8

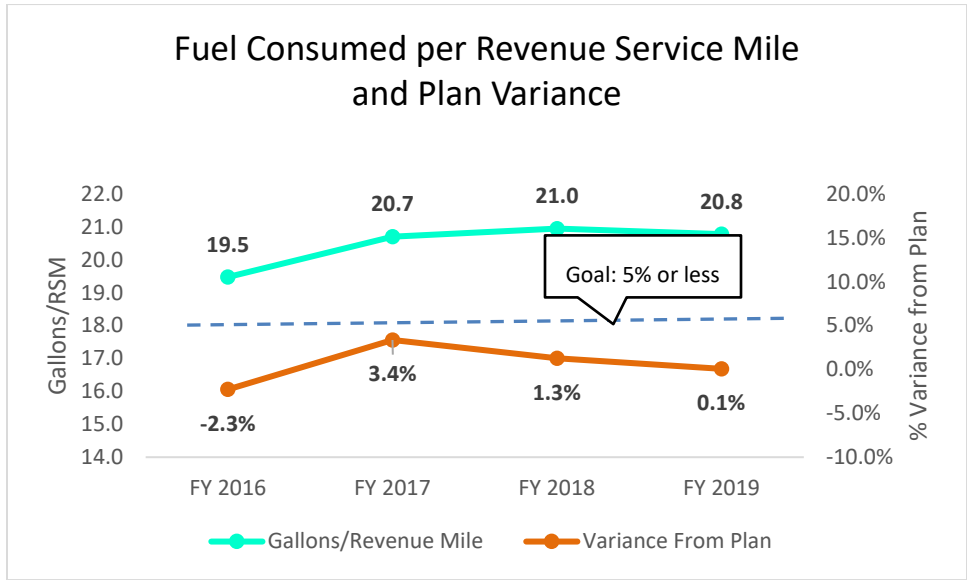
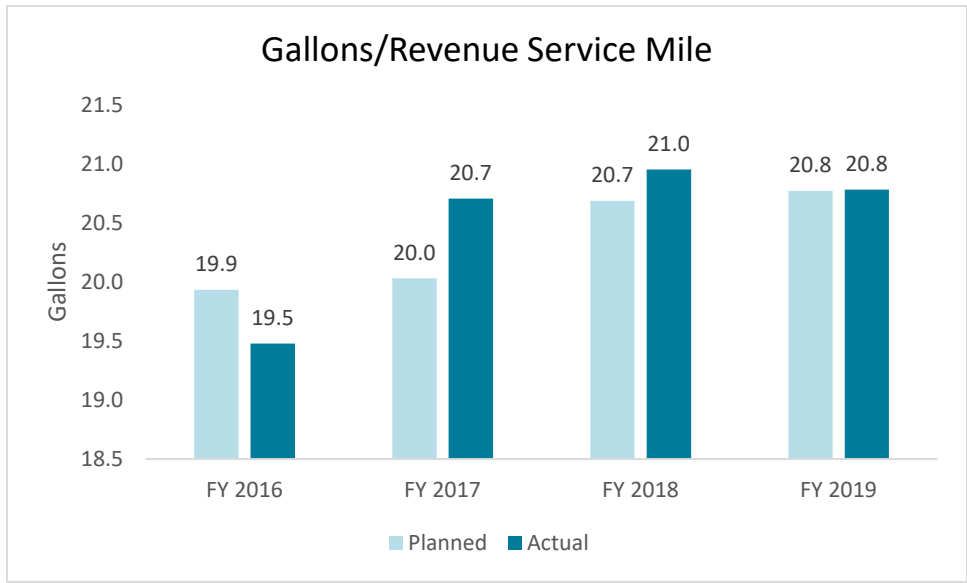
Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Actual Fuel Consumed (gallons)		17,741,292	18,754,812	18,863,387	18,766,723
Actual Revenue Service Miles		910,811	905,802	900,329	903,012
Actual Fuel Consumed per Revenue Service Mile (gallons)	TBD	19.5	20.7	21.0	20.8

Variance from Plan	5% or less	-2.3%	3.4%	1.3%	0.1%
--------------------	------------	-------	------	------	------

### **Trend Analysis:**

Fuel consumption has ranged from 17.74 million gallons in FY 2016 to 18.77 million gallons in FY 2019. The four new Olympic Class vessels, *M/V Chimaquam*, *M/V Samish*, *M/V Tokitae*, and *M/V Suquamish* placed in service since FY 2014 consume more fuel than the smaller ferries they replaced.

Actual fuel consumed in FY 2019 was 162,859 gallons less than planned, in part due to Governor Inslee's Executive Order 18-01 State Efficiency and Environmental Performance which included the following language: *The Secretary of the Department of Transportation (WSDOT) shall ensure that the Washington State Ferry system begins the transition to a zero-carbon-emission ferry fleet, including the accelerated adoption of both ferry electrification and operational improvements that will conserve energy and cut fuel use.* In response, ferries were operated at lower speeds as fuel consumption increases exponentially at higher speed.



**Performance Factors:**

When regularly assigned vessels are taken out of service for maintenance, fuel consumption can remain relatively stable as long as the planned mix of ferries serving the route continues. WSF continues to make fuel conservation efforts through vessel modifications and changes in operating procedures.

## #14 TERMINAL AND VESSEL ENGINEERING COSTS AS A PERCENTAGE OF TOTAL PROJECT COSTS

### FY 2019 Results:

For terminal engineering, WSF's performance goal is to have preliminary engineering (PE) costs for FY 2019 to be no more than 24.2% of total project costs. In FY 2019, WSF met the goal with PE costs being 19.3% of total project costs.

For vessels, WSF's performance goal is to have PE costs be no more than 17% of total project costs. In FY 2019, WSF met the goal with PE costs at 14% of total project costs.

### WSF Goal: Preliminary Engineering percent below guidelines - Terminals

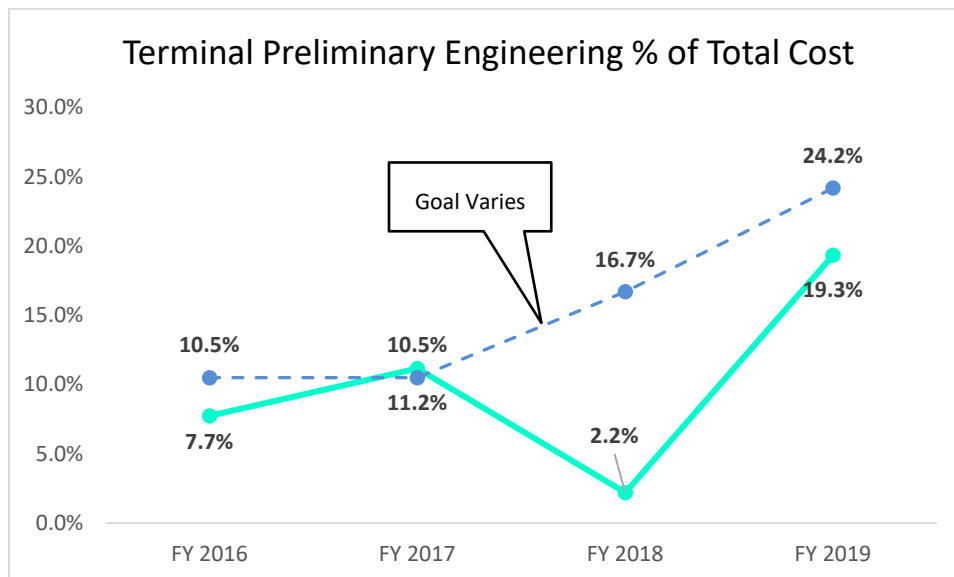
Terminals Data for FY 2016-2019				
Terminal Engineering	FY 2016	FY 2017	FY 2018	FY 2019
Preliminary Engineering Costs	\$ 441,603	\$ 1,911,648	\$ 8,074	\$ 92,185
Total Project Costs	\$ 5,704,579	\$ 17,132,504	\$ 367,452	\$ 476,563
PE% of Total Project Costs	7.7%	11.2%	2.2%	19.3%

Goal (Weighted average by project type per WSDOT Estimating Manual)	10.5%	10.5%	16.7%	24.2%
---	-------	-------	-------	-------

### Trend Analysis - Terminals:

Terminal PE costs as a percentage of total project costs met the goal three of the last four years. The 19.3% in FY 2019 was significantly higher than the 2.2% in FY 2018. The goal varies each year based on WSDOT Estimating Manual guidelines; the guidelines establish expected PE costs depending on the complexity of each project. The terminal project tracked for this measure in FY 2019 is the same project reported on in the on-time and on-budget measures (#1 and #2).

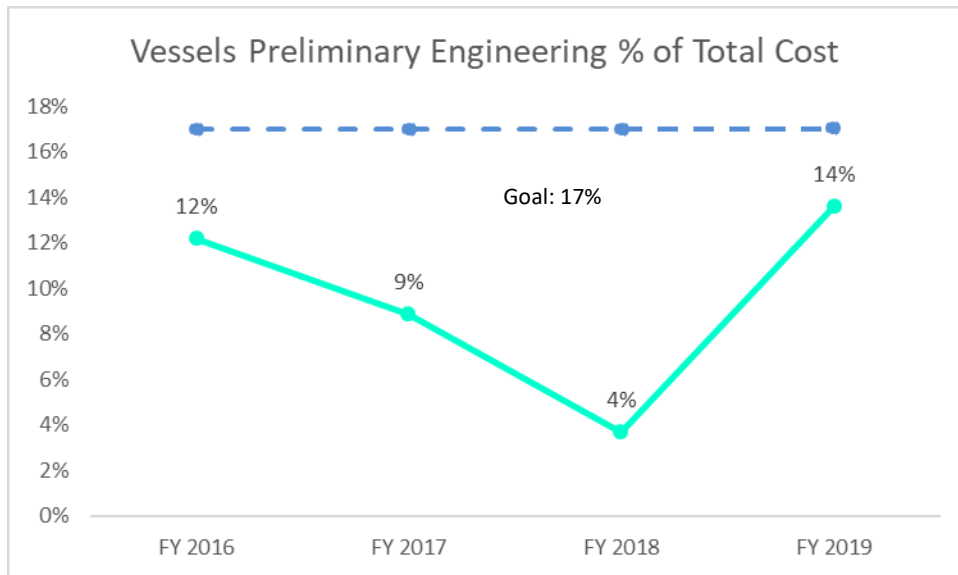


**WSF Goal: Preliminary Engineering percent below guidelines - Vessels**

Vessels Data for FY 2016-2019				
Vessel Engineering - Existing Vessels	FY 2016	FY 2017	FY 2018	FY 2019
Preliminary Engineering Costs	\$ 611,814	\$ 1,409,993	\$ 1,253,741	\$ 1,458,485
Total Project Costs	\$ 5,021,965	\$ 15,906,109	\$ 34,352,317	\$ 10,731,032
PE% of Total Project Costs	12%	9%	4%	14%
Goal	17.0%	17.0%	17.0%	17.0%

**Trend Analysis - Vessels:**

Vessel PE costs on preservation projects in FY 2019 have continued the trend of spending below the goal since FY 2015. The 14% PE costs in FY 2019 was an increase from the 4% in FY 2018. Vessel projects tracked for this measure in FY 2019 are the same 9 projects reported in the on-time and on-budget measures (#3 and #4). Typically the larger the total project costs are in a year the lower the PE percentage will be for vessel work.



**Performance Factors:**

Work in FY 2019 continued to replace fire suppression sprinkler systems on several vessels, and completed structural preservation by painting and replacing steel on multiple vessels.

## #15 TOTAL VESSEL OUT-OF-SERVICE TIME

### ***FY 2019 Results:***

In FY 2019, WSF missed the goal of having vessels out-of-service for less than 8.0 weeks per vessel, with vessels averaging 11.9 weeks of out-of-service time per vessel.

### **WSF Goal: Eight weeks out of service time per vessel per year**

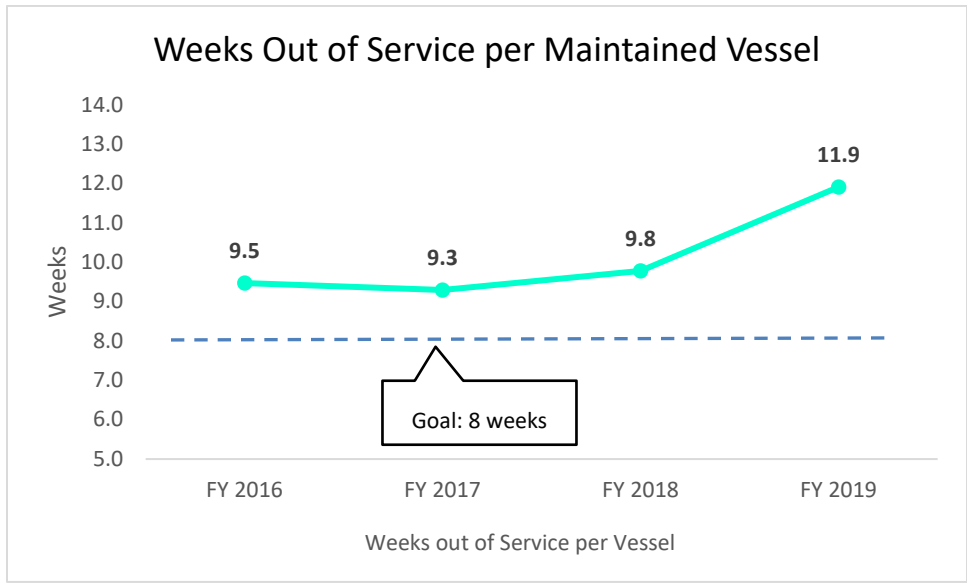
Data for FY 2016 - FY 2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Jumbo Mark II (3 vessels)		313	125	138	156
Jumbo (2 vessels)		79	248	232	57
Evergreen State (3 vessels in FY16, 1.5* vessels in FY17, 1 vessel in FY18 & FY19))		509	31	54	21
Issaquah (6 vessels)		160	391	402	688
Super (4 vessels)		213	329	308	430
Kwa-di Tabil (3 vessels)		37	175	193	220
Olympic (2 vessels in FY16 & FY17, 3 in FY18, 3.75 in FY19)		147	100	179	325
Total Days Out of Service		1,458	1,399	1,506	1,897
Total Number of Maintained Vessels		22	21.5	22	22.75
Weeks Out of Service per Maintained Vessel	8.0	9.5	9.3	9.8	11.9

\* 1.5 vessels means one of the vessels was in service for only half the year.

### ***Trend Analysis:***

There was an increase in average vessel out-of-service time from FY 2017 at 9.3 weeks per year to FY 2019 at 11.9 weeks per year. FY 2019 was the fifth year in a row that the performance goal was not met. Given the average age of the fleet, annual maintenance exceeding eight weeks per vessel is likely to continue.





**Performance Factors:**

During routine maintenance in FY 2018, deteriorated steel was found on the passenger deck of the *M/V Elwha* that necessitated an extended period of shipyard time that continued into FY 2019 for 18 weeks with a cost of \$23 million that caused other preservation work to be deferred.

The *M/V Issaquah* was out for more than eight months due to emergency reduction gear work when the parts were delayed.

The *M/V Hyak* was out for 9.5 weeks due to unexpected drive motor repairs.

The *M/V Salish* was out for 8.5 weeks of unplanned maintenance due to a grounding damage, which was not related to any equipment failures.

Two vessels had their sprinkler systems replaced in FY 2019. This was based on annual fleet wide inspections of fire suppression sprinkler systems nearing the end of their usable life.

## #16 ON-TIME PERFORMANCE

### **FY 2019 Results:**

WSF did not meet the performance goal (95% on-time) for FY 2019 with 90.0% of trips on time.

**WSF Goal: On-Time annual performance of 95 percent or greater**

Data for FY 2016-2019									
	Goal	FY 2016		FY 2017		FY 2018		FY 2019	
Route	On-Time %	Actual On-Time Trips	On-Time %	Actual On-Time Trips	On-Time %	Actual On-Time Trips	On-Time %	Actual On-Time Trips	On-Time %
San Juan Domestic*		24,124	89.7%	23,199	87.1%	20,482	80.5%	20,648	78.7%
San Juan International		715	94.2%	650	88.9%	580	84.0%	464	72.7%
Edmonds - Kingston		16,980	98.4%	16,572	96.7%	16,332	95.3%	16,205	94.6%
Fauntleroy-Vashon-Southworth		36,015	90.5%	36,542	91.8%	35,819	91.5%	36,110	91.6%
Port Townsend - Coupeville		8,011	94.4%	8,189	95.2%	7,526	93.4%	7,648	93.8%
Mukilteo - Clinton		25,971	96.9%	25,506	96.0%	25,372	95.9%	25,059	94.7%
Point Defiance - Tahlequah		13,797	99.0%	13,541	99.0%	13,114	98.3%	13,360	96.9%
Seattle - Bainbridge Island		15,179	91.8%	15,167	92.2%	14,738	89.8%	13,763	84.9%
Seattle - Bremerton		10,701	98.2%	10,388	96.0%	9,889	92.4%	9,936	91.2%
<b>On-Time Totals</b>	<b>95.0%</b>	<b>151,504</b>	<b>93.9%</b>	<b>149,754</b>	<b>93.4%</b>	<b>143,853</b>	<b>91.4%</b>	<b>143,194</b>	<b>90.0%</b>

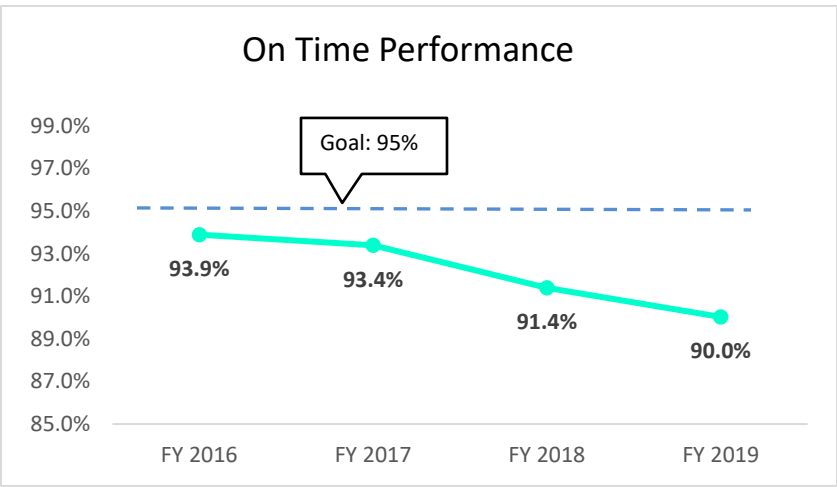
\* Includes Anacortes - San Juan Island and the San Juan inter-island routes.

### **Trend Analysis:**

In FY 2019, on-time performance (90.0%) continued a trend where the goal (95%) was not met. This was the fourth year in a row where the performance declined as compared to the previous year.

All but two routes had a decline in on-time performance, with the largest drop on the San Juan International Route (12.2%) and Seattle – Bainbridge route (4.9%). For significant periods of time, vessels that were placed on the San Juan Inter-Island route were either not capable of keeping the ferry schedule or had to run at slower speeds due to maintenance issues. This affected both the International and San Juan Island routes. Other routes had reductions in on-time performance when vessels that were placed on a route due service disruptions on other routes were not able to keep up with the sailing schedule.

Lastly, in April 2018, WSF initiated a fuel savings program whereby vessels on certain routes would run at lower speeds in order to reduce fuel consumption. The initiative resulted in lower fuel costs and lower emissions but also affected on-time performance.



**Performance Factors:**

On-time performance for the WSF system is closely related to ridership. Peak travel periods including the summer months, prime travel weekends in spring and fall, and holidays can affect on-time performance as additional time is needed to load and unload vessels.

**FY 2019 Results:**

WSF met the service reliability performance goal with only 99.2% of planned trips completed, which exceeded the goal (99.0%) by 0.2% for FY 2019.

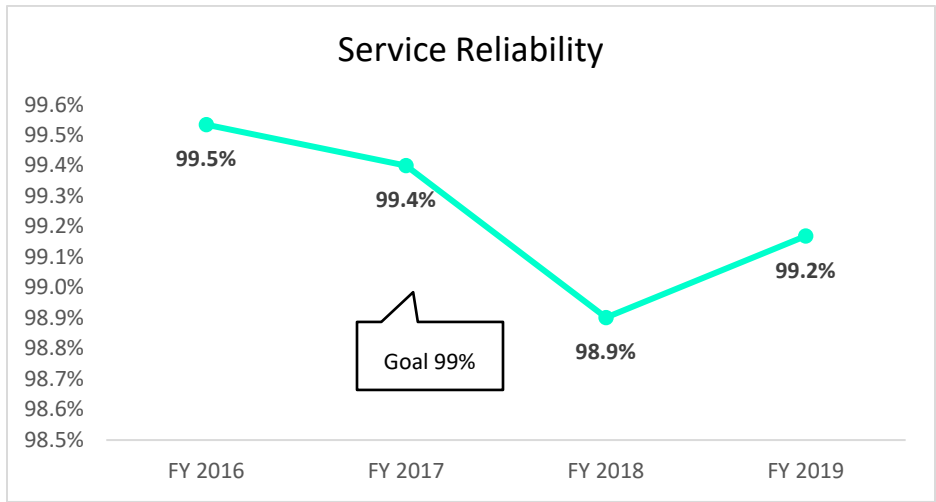
**WSF Goal: Annual average trip reliability of 99 percent or greater**

Data for FY 2016-2019					
	Goal	FY 2016	FY 2017	FY 2018	FY 2019
Route	% Completed Trips	% Completed Trips	% Completed Trips	% Completed Trips	% Completed Trips
San Juan Domestic*		99.7%	99.7%	98.9%	99.6%
San Juan International		99.7%	100.0%	96.3%	93.7%
Edmonds - Kingston		99.8%	99.9%	99.9%	99.8%
Fauntleroy-Vashon-Southworth		99.5%	99.7%	99.0%	99.2%
Port Townsend - Coupeville		96.0%	96.5%	91.4%	92.2%
Mukilteo - Clinton		99.9%	99.7%	99.7%	99.7%
Point Defiance - Tahlequah		99.9%	98.0%	99.7%	99.8%
Seattle - Bainbridge Island		99.9%	99.7%	99.8%	99.8%
Seattle - Bremerton		99.8%	99.6%	98.8%	99.7%
<b>Trip Reliability Totals</b>	<b>99%</b>	<b>99.5%</b>	<b>99.4%</b>	<b>98.9%</b>	<b>99.2%</b>

\* Includes Anacortes - San Juan Island and the San Juan inter-island routes.

**Trend Analysis:**

WSF met the service reliability goal of 99% three of the past four years. Service reliability declined on two of nine routes, with all other routes improving or maintaining status quo as compared to FY 2018. The largest increase was in service reliability was on the Port Townsend – Coupeville route with an increase of 0.8%.



***Performance Factors:***

A well-maintained ferry fleet is vital for reliable vessel service. In addition, ferry terminals must be maintained so drivers and passengers can access ferries for travel. The reliability of service, particularly in the reliability of vessel condition, is attributable to the work of WSF’s engineering and maintenance programs.

## FY 2019 Washington State Ferries Capital Project Delivery

<b>Terminal Projects Completed On-Time and On-Budget</b>			
<b><u>WSF Goal: 90% of Completed Projects</u></b>			
<b>Schedule and Budget Summary (Completed Projects)</b>	<b>Preservation</b>	<b>Improvement</b>	<b>Total</b>
July 01, 2018 through June 30, 2019			
Total Number of Projects Completed	0	1	1
Percent of Projects Completed Early or On-Time		100%	100%
Percent of Projects Completed Under or On-Budget		100%	100%

<b>Vessel Projects Completed On-Time and On-Budget</b>			
<b><u>WSF Goal: 75% of Completed Projects</u></b>			
<b>Schedule and Budget Summary (Completed Projects)</b>	<b>Preservation</b>	<b>Improvement</b>	<b>Total</b>
July 01, 2018 through June 30, 2019			
Total Number of Projects Completed	4	5	9
Percent of Projects Completed Early or On-Time	75%	80%	78%
Percent of Projects Completed Under or On-Budget	100%	40%	67%

## Project Details – Terminals

FY 2019 Terminal Projects - Improvement							
PIN	Project Title	Original OC *	Actual OC	Original Budget *	Cost at Completion	On Time	On Budget
903843A	SR 104/Edmonds Terminal - Olympic Class Dolphin Modifications	4/1/2019	2/7/2019	\$ 527,227	\$ 476,563	√	√

\* - Original OC and Original Budget data are from the last approved legislative budget & detail plan (19WSFLFC)

## Project Details – Vessels

FY 2019 Vessel Projects - Improvement							
PIN/WO	Project Title/Work Description	Original OC *	Current OC	Original Budget *	PIN Cost at Completion	On Time	On Budget
981031G	MV Tacoma Improvement	5/24/2019	5/24/2019	1,055,000	1,063,952	√	√
9351	Install IBA; Main propulsion work; switchboard						
981051K	MV Puyallup Improvement (17-19)	11/16/2018	11/21/2018	721,000	840,852	√	-
9316	vehicle deck steel inspection/renewal; rudder inspections and repairs; propeller and shaft bearing inspections; hull coatings; potable water tank coating						
982031J	MV Yakima Improvement (17-19)	8/31/2018	8/31/2018	592,000	416,371	√	√
9271	Anode renewal, rudder inspections and repairs; void steel repairs; hull coating renewal; shaft seal inspection; bilge/void coatings						
983021F	MV Kittitas Improvement (17-19)	11/4/2018	11/2/2018	265,000	282,656	√	-
9314	Life raft installation and sprinkler system						
983031G	MV Kitsap Improvement (17-19)	3/22/2019	4/22/2019	150,000	253,936	-	-
9337	USCG credit drydock and sprinkler system						

\* - Original Budget data are from the last approved legislative budget (19WSFLFC) and Original OC data are from the July 20, 2018 Vessel Maintenance Lay-up Schedule

FY 2019 Vessel Projects - Preservation							
PIN/WO	Project Title/Work Description	Original OC *	Actual OC	Original Budget *	PIN Cost at Completion	On Time	On Budget
982030F	MV Yakima Commercial Drydock	11/21/2018	11/30/2018	2,168,000	1,757,331	√	√
9303	IBA install and PA system						
981020F	MV Walla Walla Commercial Drydock	2/22/2019	2/22/2019	2,988,000	2,456,252	√	√
9322	Anode renewal; rudder, propeller and sea chest inspections; inner and outer shaft seal element renewal; hull steel renewal; bilge, topside and hull paint preservation; non-skid deck surface renewal						
983030F	MV Kitsap Commercial Drydock	3/22/2019	4/22/2019	3,575,000	2,758,271	-	√
9337	Sprinklers pipe relacement; sea valve inspection; IBA installation; anode renewal; rudder inspections; hub replacement and overhaul; propeller inspections; painting below waterline						
992020F	MV Salish Commercial Drydock	5/3/2019	4/3/2019	1,787,000	9,011,412	√	√
9334	Sea valve, propeller, rudder, bearing and void inspections; vent and fire main piping modifications; anode renewal underwater hull plater and structural repairs; bilge preservation; preparationa dn apainting of the hull, curtain plate, vehicle deck and other topside areas						

\* - Original Budget data are from the last approved legislative budget (19WSFLFC) and Original OC data are from the July 20, 2018 Vessel Maintenance Lay-up Schedule

## GLOSSARY

Attainment Report - published by the Department of Transportation (by the Office of Financial Management prior to 2017) in even-numbered years, the attainment report provides a high-level assessment of the state's progress in achieving its transportation goals using key performance measures and data.

Automated Operating Scheduling System (AOSS) - WSF's application used for marine crew dispatch. The system tracks employees who work on vessels and monitors various vessel information such as number of trips, vehicle miles traveled, cancellations, etc.

Federal Transit Administration (FTA) - FTA is a part of the United States Department of Transportation and administers the National Transit Database.

Ferry Riders Opinion Group (FROG) Survey - the FROG Survey is performed by the State Transportation Commission and surveys ferry riders. The findings from the survey are reported to the Legislature and to the Governor.

Gray Notebook (GNB) - the *Gray Notebook* is the Washington State Department of Transportation's primary quarterly performance report for the department's program and project activities.

Improvement - an improvement project increases the capacity of the ferry system to move people and vehicles, provide ferry riders with connections to alternative modes of travel, and generate revenue and cost savings to support capital investments and service delivery.

National Transit Database (NTD) - recipients or beneficiaries of grants from the Federal Transit Administration (FTA) under the Urbanized Area Formula Program (\$5307) or Other than Urbanized Area (Rural) Formula Program (\$5311) are required by statute to submit data to the NTD which is the national source for information and statistics on the transit systems of the United States. Over 660 transit providers in urbanized areas report to the NTD and NTD performance data are used to apportion over billions of FTA funds to transit agencies.

Operationally Complete - the transportation capital milestone that occurs when the public has free and unobstructed use of the facility. In some cases, the facility will open as minor work items remain to be completed. Once completed and the contract punch list (list of work items) satisfied, the project becomes substantially or physically complete.

Passenger Mile - a passenger mile is one passenger moving over one mile of a ferry route.

Preservation - a preservation project refurbishes or replaces systems that make up a terminal or vessel.

Revenue Service Mile - a revenue service mile is the number of miles a ferry moves while carrying passengers on a particular ferry route. The number of revenue service miles does not account for the number of riders being carried and only measures the distance that the ferry travels when carrying passengers.



**#1 Percent of Terminal Capital Projects Completed On Time**

- a. Milestones: 19WSFLFC (Detailed version of Legislative budget)
- b. Actual Milestones: Terminal Engineering Confidence Reports

**#2 Percent of Terminal Capital Projects Completed On Budget**

- a. Milestones: 19WSFLFC (Detailed version of Legislative budget)
- b. Expenditures: COGNOS (Financial Datamart query)

**#3a Percent of Vessel Preservation and Improvement Projects Completed On Time**

- a. Milestones: 19WSFLFC (Detailed version of Legislative budget) & Vessel Layup Schedule (July 3, 2018) & WSF Green Sheet (July 20, 2018)
- b. Actual Milestones: WSF Vessel Position Reports, Vessel Layup Schedule (June24, 2019) & WSF Green Sheet (July 29, 2019)

**#3b Percent of New Vessels Completed On Time**

- a. Milestones: Based original vessel delivery date from new vessel contracts.
- b. Actual Milestones: Washington State Ferries Vessels Engineering.

**#4a Percent of Vessel Preservation and Improvement Projects On Budget**

- a. Budget: 19WSFLFC (Detailed version of Legislative budget)
- b. Expenditures: COGNOS (Financial Datamart query)

**#4b Percent of New Vessel Projects On Budget**

- c. Budget: 19WSFLFC (Detailed version of Legislative budget)
- d. Expenditures: COGNOS (Financial Datamart query)

**#5 Passenger Injuries per Million Passenger Miles**

- a. Ridership: FY 2019 Rider Segment Report
- b. Passenger Injuries: WSF Safety Systems Office

**#6 Recordable Crew Injuries per 10,000 Service Hours**

- a. Actual Service Hours: Automated Operations Support System (AOSS)
- b. Employee Injuries: WSF Safety Systems Office

**#7 Passenger Satisfaction with Interactions with Ferry Employees**

- a. Washington State Transportation Commission (WSTC) 2019 WSF Winter Ferry Performance FROG Survey Report.

**#8 Passenger Satisfaction with Cleanliness and Comfort of Vessels and Terminals**

- a. Washington State Transportation Commission (WSTC) 2019 WSF Winter Ferry Performance FROG Survey Report.

**#9 Passenger Satisfaction with Responses to Requests for Assistance**

- a. Washington State Transportation Commission (WSTC) 2019 WSF Winter Ferry Performance FROG Survey Report.

**#10 Operating Cost per Passenger Mile**

- a. Planned Operating Expenses: WSF FY 2019 Budget (June 2018)
- b. Actual Operating Expenses: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)
- c. Planned Passenger Miles
  - i. FY 2019 Ridership Forecast (June 2018)
  - ii. Route Miles: WSF Operations Department
- d. Actual Passenger Miles:
  - i. FY 2019 Rider Segment Report (Ridership by route from WSF Planning)
  - ii. Route Miles: WSF Operations Department

**#11 Operating Cost per Revenue Service Mile**

- a. Planned Operating Expenses: WSF FY 2019 Budget (June 2018)
- b. Actual Operating Expenses: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)
- c. Planned Revenue Service Miles:
  - i. Scheduled Trips: WSF Planning Office (AOSS Service Scorecard by Terminal Report)
  - ii. Route Miles: WSF Operations Department
- d. Actual Revenue Service Miles:
  - I. Actual Trips: AOSS 'Service Scorecard by Terminal' Report
  - II. Route Miles: AOSS 'Mileage by route' Report

**#12 Overtime as a Percentage of Straight Time**

- a. Planned Straight Time and Overtime Hours: WSF FY 2019 Budget (June 2018)
- b. Actual Straight Time and Overtime Hours: WSDOT Labor Datamart

**#13 Gallons of Fuel Consumed per Revenue Service Mile**

- a. Planned Fuel Gallons: WSF FY 2019 Budget (June 2018)
- b. Actual Fuel Gallons: WSF Vessel Maintenance Department
- c. Planned Revenue Service Miles:
  - i. Scheduled Trips: WSF Planning (AOSS Service Scorecard by Terminal Report)
  - ii. Route Miles: WSF Operations Department
- d. Actual Revenue Service Miles:
  - i. Actual Trips: AOSS 'Service Scorecard by Terminal' Report
  - ii. Route Miles: AOSS 'Mileage by route' Report

**#14 Terminal & Vessel Engineering costs as a percent of total project costs**

- a. Expenses: COGNOS (Financial Datamart query)

**#15 Total Vessel Out-of-Service Time**

- a. Actual Out-of-Service Dates: WSF Vessel Position Reports, Vessel Layup Schedule (June 24, 2019) & WSF Green Sheet (July 29, 2019)

**#16 On Time Performance**

- a. On time Percent: WSF Operations (On Time Performance Datamart query)

**#17 Service Reliability**

- a. Reliability data: AOSS 'Service Scorecard by Terminal' Report