

Workforce Development

Focus on in-training plans

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September 2024

MAKE YOUR MARK ON THE FUTURE OF TRANSPORTATION!



3,300
BRIDGE
STRUCTURES
OWNED AND MAINTAINED

3 TALGO TRAIN SETS IN THE
AMTRAK CASCADES FLEET



WHILE MANAGING THE PALOUSE RIVER
AND COULEE CITY RAIL SYSTEM

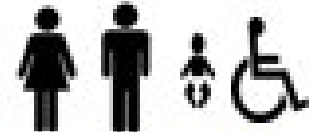


31 PUBLIC
TRANSPORTATION
SYSTEMS

18,600
LANE MILES OF STATE
HIGHWAYS OPERATED
AND MAINTAINED



RUNS THE LARGEST
FERRY SYSTEM IN
THE NATION WITH
24.2
MILLION
PASSENGERS A YEAR



7,000
EMPLOYEES

STRATEGIC PLAN

May 2023



VISION

Washington travelers have a safe, sustainable and integrated multimodal transportation system.

MISSION

We provide safe, reliable and cost-effective transportation options to improve communities and economic vitality for people and businesses.

VALUES

- Safety
- Engagement
- Innovation
- Integrity
- Leadership
- Sustainability

GOALS

- Diversity, Equity, Inclusion
- Resilience
- Workforce Development





Goal Definition

Be an employer of choice, creating a modern workforce while attracting and retaining quality workers to deliver our legislative, regulatory, and service requirements

Employee Engagement Focus



Encourage and act on employee feedback.

- Improved employee satisfaction in these areas over 2023
- Employee Engagement Survey - participation increases over 2023
- Increased engagement with new employees

Modern Work Environment Focus

Continue building a flexible and mobile work environment through technology and innovation.

- Maintain agency telework participation.
- Increase the number of mobile workstations.
- Improve or maintain employee overall work environment satisfaction scores for workplace flexibility and mobility.
- Review Telework Study, and strategies to determine and implement recommendations.



Talent Development Focus

Value our employees through training and other opportunities

- Improve employee satisfaction scores on question:

"I have opportunities to learn and grow."

- Increase staff learning opportunities for all levels.
- Increase mentorship opportunities statewide.



Workforce Analysis & Growth Focus



Understand market trends and work to offer competitive compensation to ensure succession.

- Resignation (turnover) rate is less than 10% per fiscal year.
- Fewer employees are leaving due to salary.
- Staffing levels across the agency are forecasted and consistent with operational needs.
- WSDOT jobs offer competitive salaries.
- Successfully implement classification proposals.
- WSDOT able to deliver core business services through attrition.



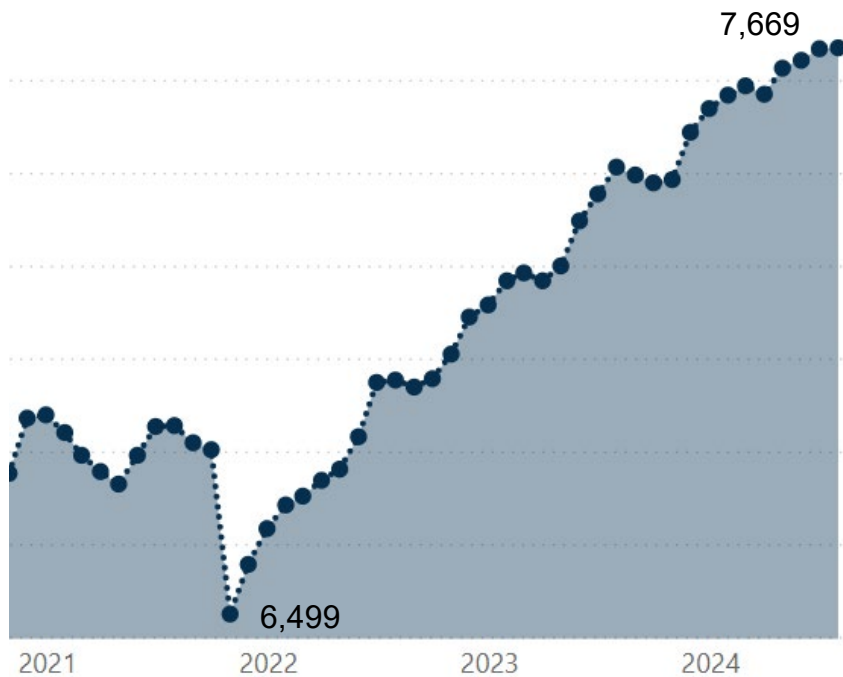
Talent Pipelines Focus

Analyze applicant pools and use varied recruiting methods to find exceptional talent

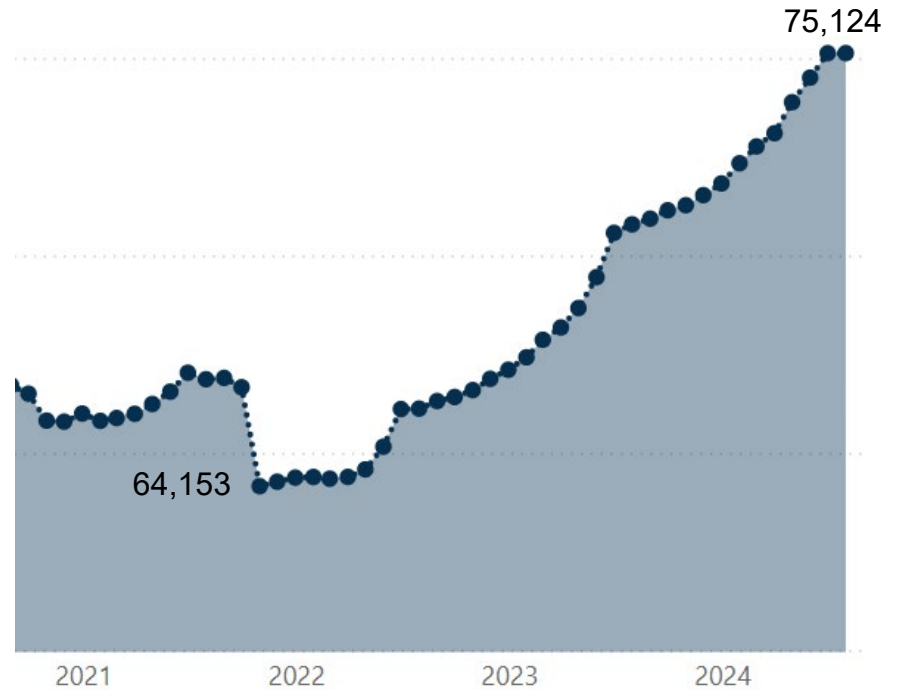
- Build an employer brand that positions WSDOT as a desirable place to work for future generations in the labor force.
- Build Diverse pools of qualified applicants; maintain diversity throughout the recruitment process.
- Increase employee retention in key entry level classifications, to include TE2, HMW2, OS/AB.

Workforce Levels

WSDOT



Enterprise



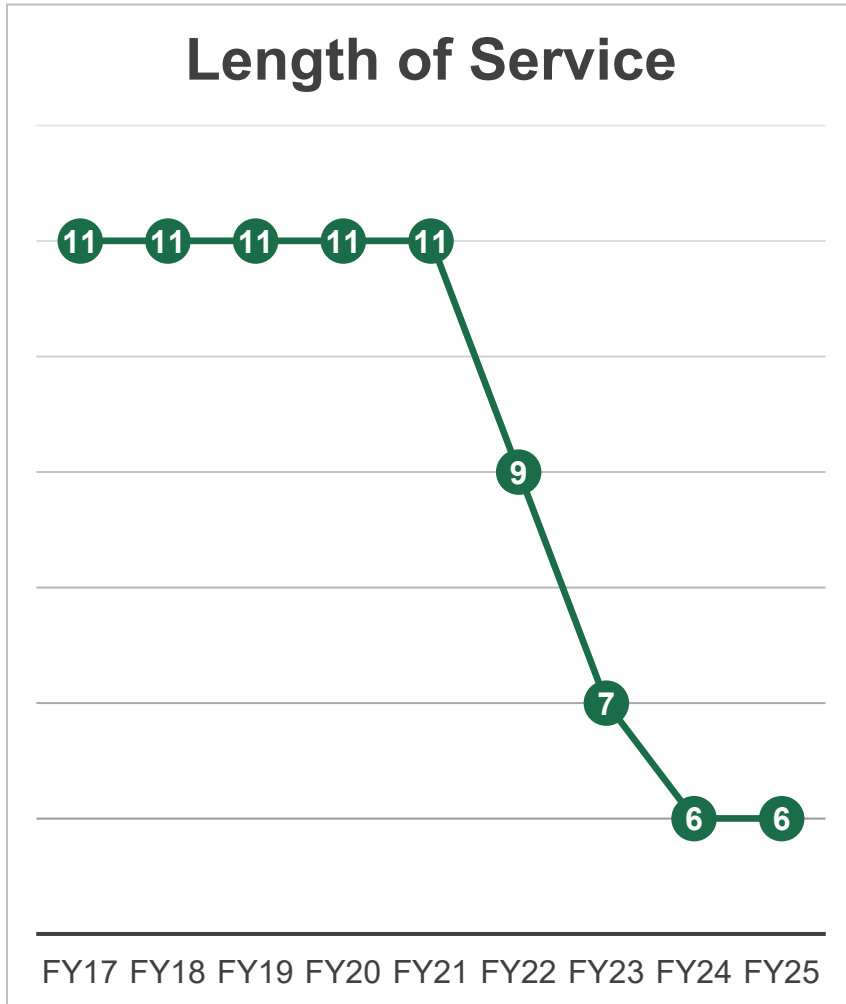
From October 2021 to June 2024, WSDOT workforce increased by 18% and the Enterprise increased by 17%.

WSDOT Workforce Growth

- Looking back several fiscal years, there is no precedent matching the rate of workforce growth we have experienced.
- As a result, we have seen significant shifts in our workforce profile with respect to:
 - Years of Service
 - People of Color
- Remaining the same is the percentage of males to females (approximately 25% of staff identify as female).



WSDOT Median Length of Service

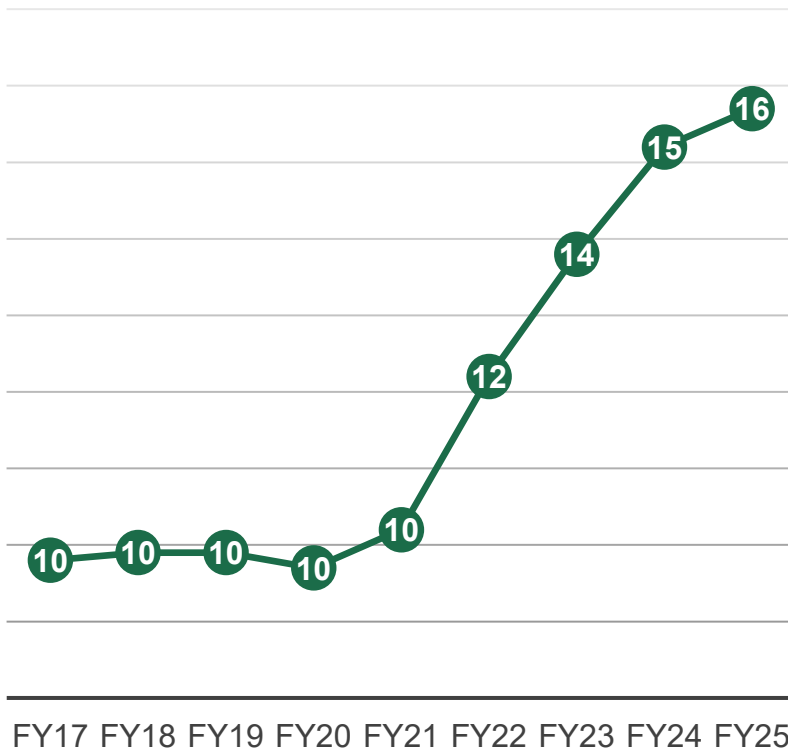


As of August 2024:

- 37% of our workforce have been in their current appointment for one year or less.
- 57% of our workforce have been in their current appointment for two years or less.
- 20% of our workforce have been in their current appointment for five years or more.

WSDOT People of Color

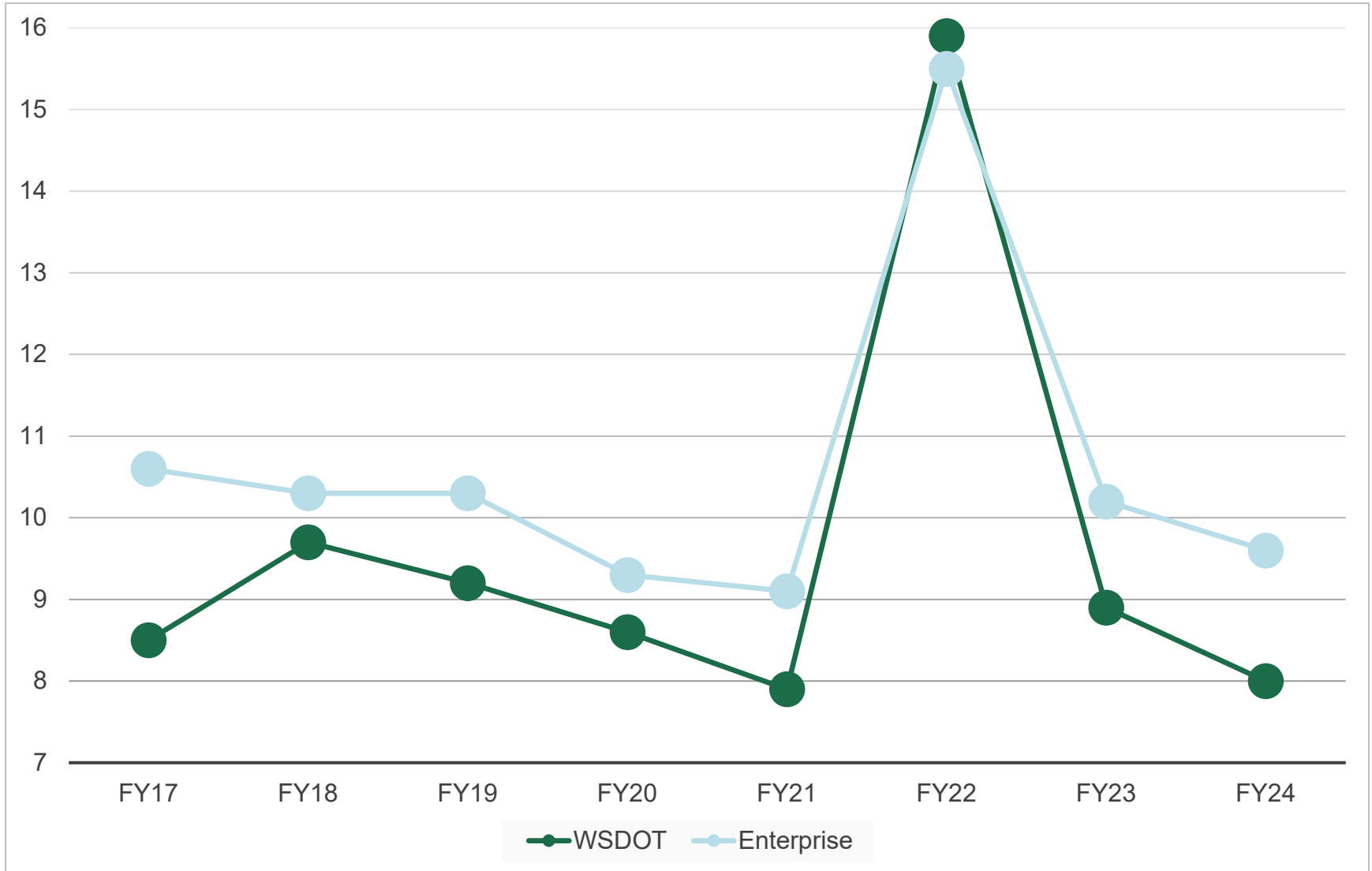
Percent of Workforce



For WSDOT employees with two or less years experience, 1 of 4 identify as a person of color.

For WSDOT employees with five or more years state service, 1 of 7 identify as a person of color.

Turnover Rates by Fiscal Year



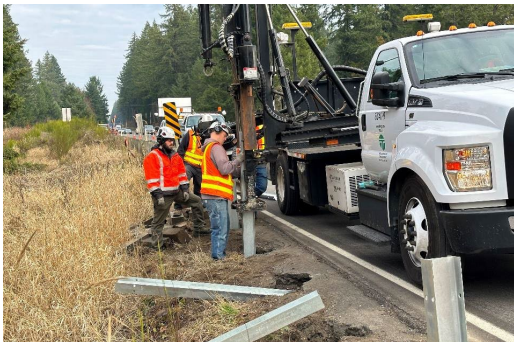
In-training Programs



- Permanent positions WSDOT uses to define training steps to train employees to successfully perform the full-scope and responsibilities of the position.
- Each “in-training” position must have an approved in-training plan.
- Offers flexibility and career path development.
- Two career paths:
 - Qualified applicant (with requisite knowledge and experience) hired at goal class
 - Applicant (with partial requisite knowledge and experience) hired at a lower level and into an in-training plan

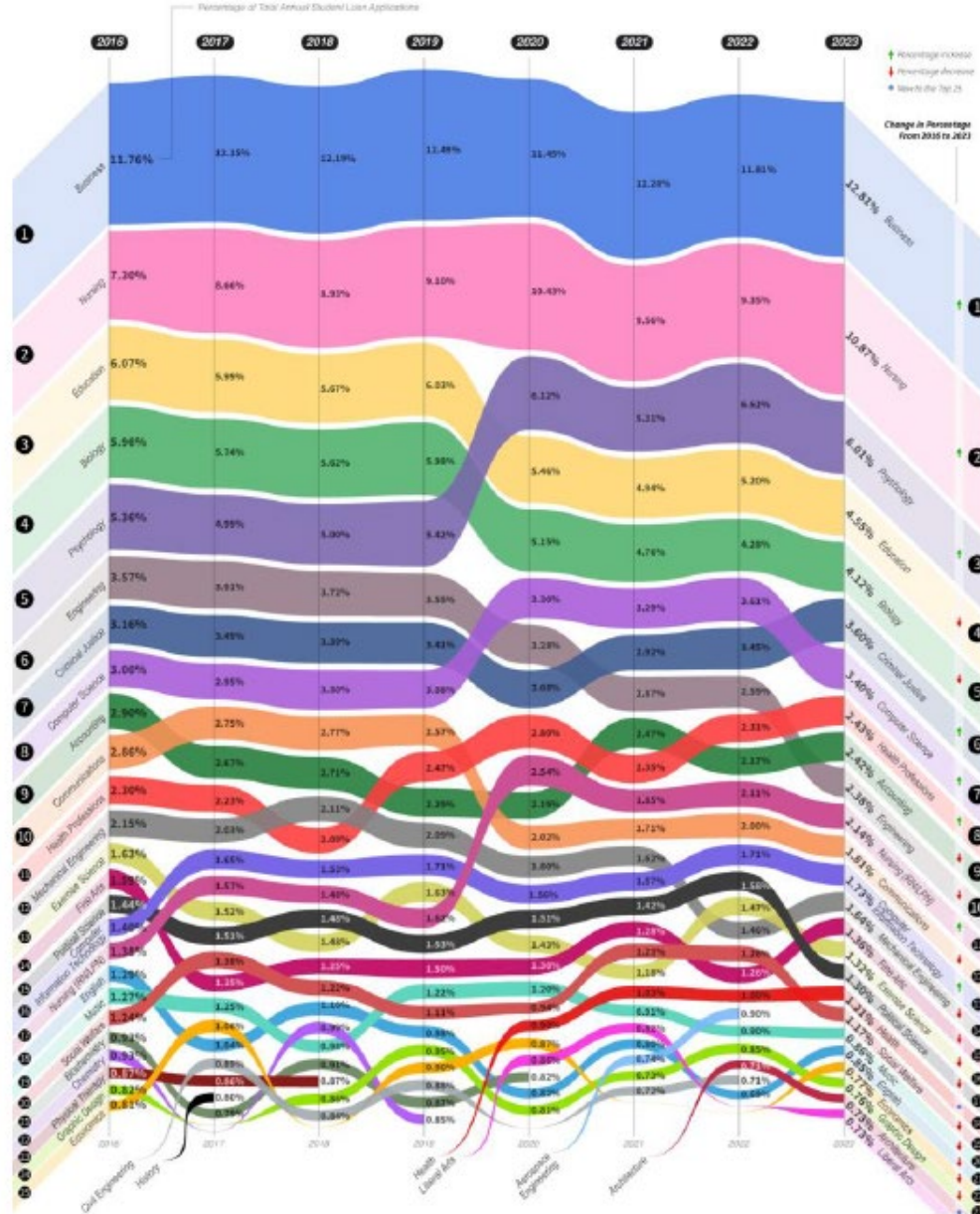
A highway maintenance worker *in-training* opportunity for individuals who have completed high school, ideally within the last two years. Upon hire, each individual is paired with a mentor to help guide and support them toward obtaining the experience and licensure required for career progression through the maintenance series.

High school to HIGHWAYS



HOW HAVE THE TOP 25 MOST POPULAR COLLEGE MAJORS CHANGED OVER TIME?

Based on an analysis of 121,862 undergraduate student loan applications submitted from 2016 to 2023.



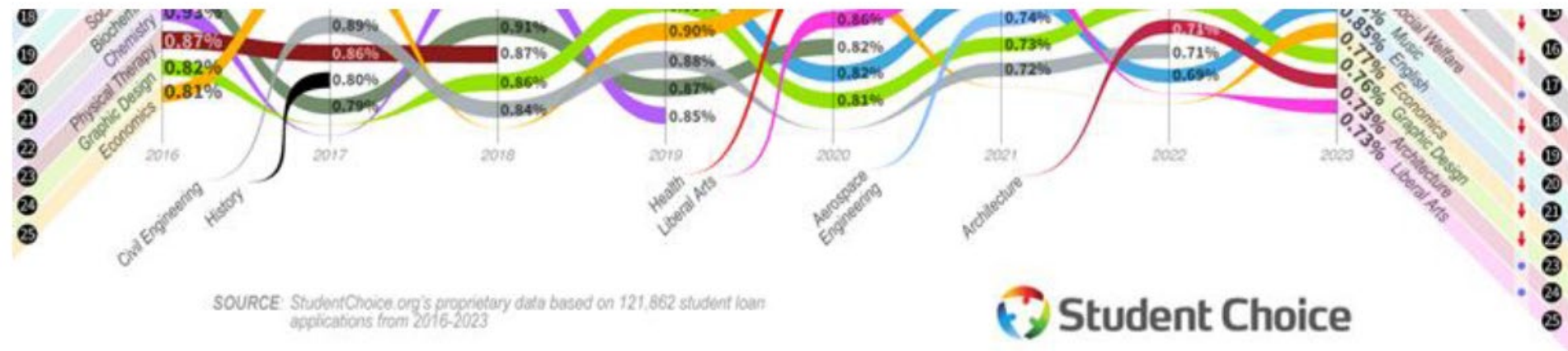




Table 1: Undergraduate Program Enrollment Growth.

Bachelor's Program	2013	2019	2020	2021	Growth 2021-2013
Bioengineering	153	159	159	157	4
Chemical Engineering	267	204	178	158	-109
Civil Engineering	601	461	424	368	-233
Construction Engineering		57	63	47	47
Electrical Engineering	333	207	206	210	-123
Computer Engineering	148	119	110	126	-22
Computer Science (BA and BS)	415	696	737	781	366
Software Engineering		83	74	78	78
Data Analytics		63	74	76	76
Materials Science and Engineering	59	100	80	59	0
Mechanical Engineering	780	706	712	702	-78
Engineering-Undecided	187	102	85	69	-118
Data Analytics - Global Campus		56	85	81	81
Mechanical Engineering - Bremerton	26	61	64	48	22
Electrical Engineering - Bremerton		32	25	19	19
Mechanical Engineering - Everett	60	92	72	58	-2
Electrical Engineering - Everett		21	44	41	41
Software Engineering - Everett		58	63	56	56
Data Analytics - Everet		20	21	11	11
Civil Engineering - Tri-Cities	19	65	58	52	33
Engineering-Undecided - Tri-Cities			13	12	12
Electrical Engineering - Tri-Cities	71	66	74	65	-6
Computer Science - Tri-Cities (BA and BS)	49	105	92	91	42
Mechanical Engineering - Tri-Cities	92	125	111	93	1
Data Analytics - Vancouver		15	18	30	30
Engineering-Undecided - Vancouver		26	31	14	14
Electrical Engineering - Vancouver	125	119	103	99	26
Computer Science - Vancouver	126	250	272	278	152
Mechanical Engineering - Vancouver	186	181	200	185	-1
Total Bachelor's	3697	4249	4248	4064	367

Table 1 summarizes the Fall 2013 baseline numbers for undergraduate students by discipline and campus and compares them to Fall 2019, Fall 2020, and Fall 2021 enrollment. The overall growth in undergraduate students enrolled in engineering or computer science programs at WSU from Fall 2013 to Fall 2021 is 367, or approximately 9.9%.



Undergraduate statistics

Undergraduate enrollment

UW enrollment

autumn quarter

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Enrollment	27,647	27,868	27,838	28,754	29,468	30,022	29,990	30,475	31,078	31,041	31,158

BSCCE enrollment

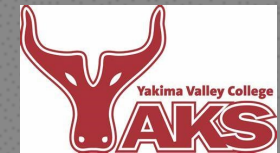
Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Enrollment	256	238	209	266	317	356	351	365	340	331	325

H2H

Civil Engineering Technician



 Eastern Washington University



High school
to **HIGHWAYS**



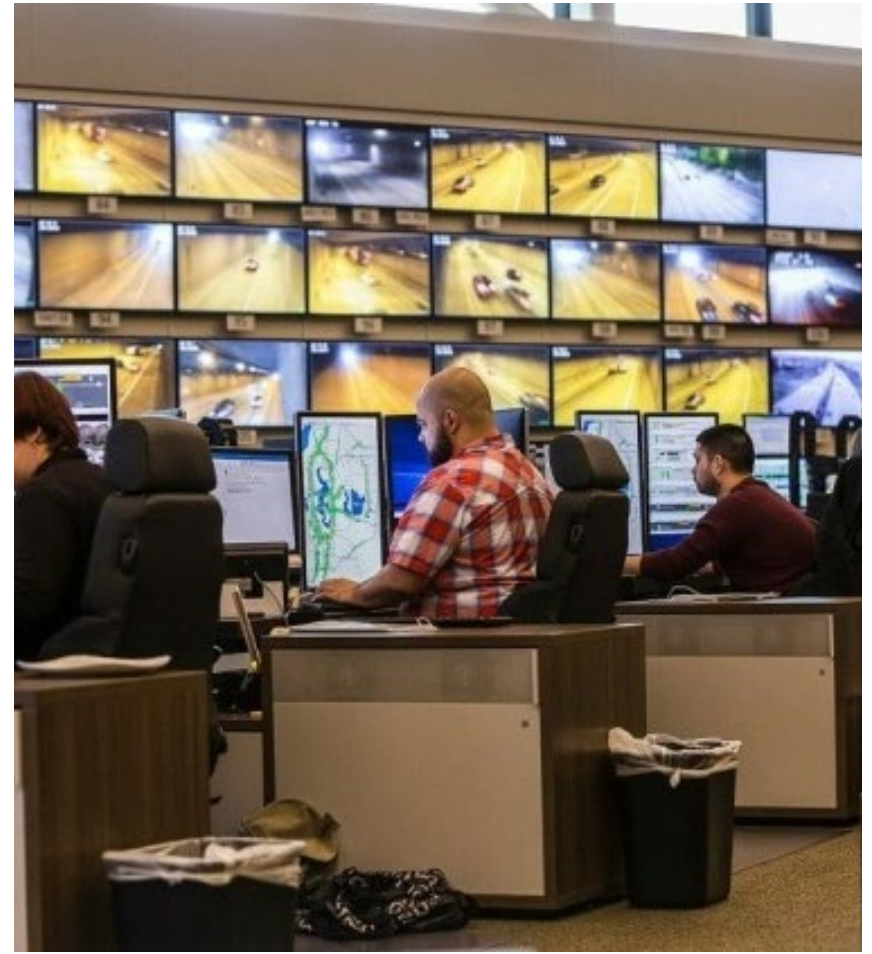
Civil Engineering Technicians Program in partnership with Bellingham Technical College



PROGRAM HIGHLIGHTS:

- For those in permanent Transportation Technician positions (in-training), or working towards permanent status in a probationary or trial service period
- Enrollment in the 2-year degree program through Bellingham Technical College
- WSDOT pays tuition for each class, prior to classes beginning
- Employee pays for non-tuition fees associated with coursework (such as books and tech fees)
- Employee works full-time in the summer and is eligible to reduce working hours while school is in session to balance coursework
- Employee agrees to continue working at WSDOT for 2 years post-graduation

Electronical and Electronic Systems Specialist (EESS)



Has transportation operations technology changed over the years?

A mechanical controller runs a few lamps



Modern traffic signal cabinet with UPS, Ethernet, etc.



What has changed in 20 years?

- **Utilization of computers**
- **Communication systems**
 - Ethernet
 - Wireless
 - Dedicated short range communications (DSRC)
 - Fiber optics
- **Operating Systems**
 - Adaptive traffic signal systems
 - Tolling
 - Active Traffic Management
 - Automated Express Lanes gates
- **Devices**
 - Vehicle detection
 - Dynamic message signs
 - License plate readers
 - Ramp meters



Advanced Traffic Control (ATC) Cabinet

- Shift from 40-yr legacy



APPRENTICESHIP PROGRAM STANDARDS
adopted by

INSERT NAME

(sponsor name)

<u>Occupational Objective(s):</u>	<u>SOC#</u>	<u>Term [WAC 296-05-015]</u>
GENERAL ELECTRICIAN (01)	47-2111.00	8000 HOURS
LIMITED ENERGY ELECTRICIAN (06)	49.2022.03	4800 HOURS
RESIDENTIAL ELECTRICIAN (02)	47-2111.00	4000 HOURS
<i>(INSERT ADDITIONAL OCCUPATIONS)</i>	<i>(Insert SOC)</i>	<i>(Insert Hours)</i>



APPROVED BY
Washington State Apprenticeship and Training Council
REGISTERED WITH
Apprenticeship Section of Fraud Prevention and Labor Standards
Washington State Department Labor and Industries
Post Office Box 44530
Olympia, Washington 98504-4530

APPROVAL:

Provisional Registration

Standards Last Amended

Permanent Registration

By: _____
Chair of Council

By: _____
Secretary of Council

WSATC10202022 – (Prog. #)
01 MGS, 06 MGS, 02 MGS

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Challenges:

- Ratio of apprentices to journey-level workers
- Related Supplemental Instruction
- Responsibilities and governing structure

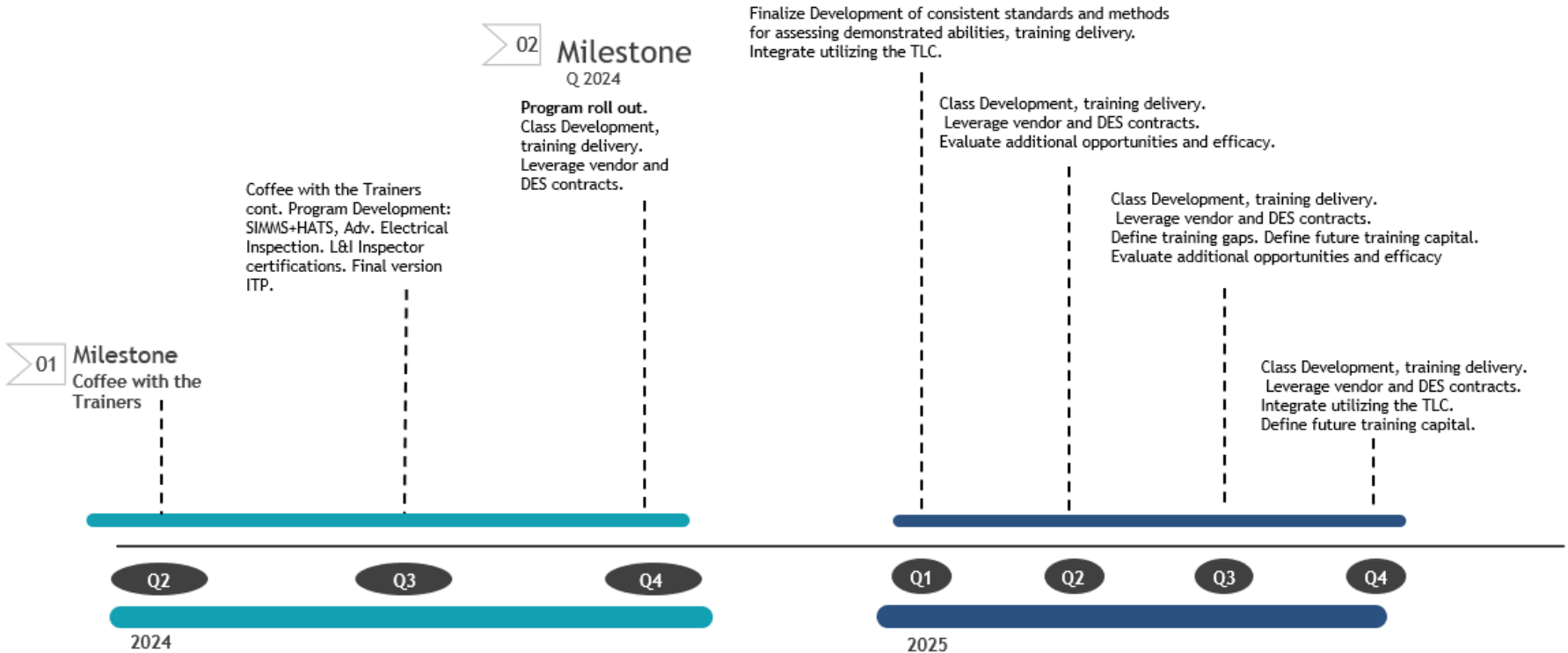
In-Training Plan for EESS Series

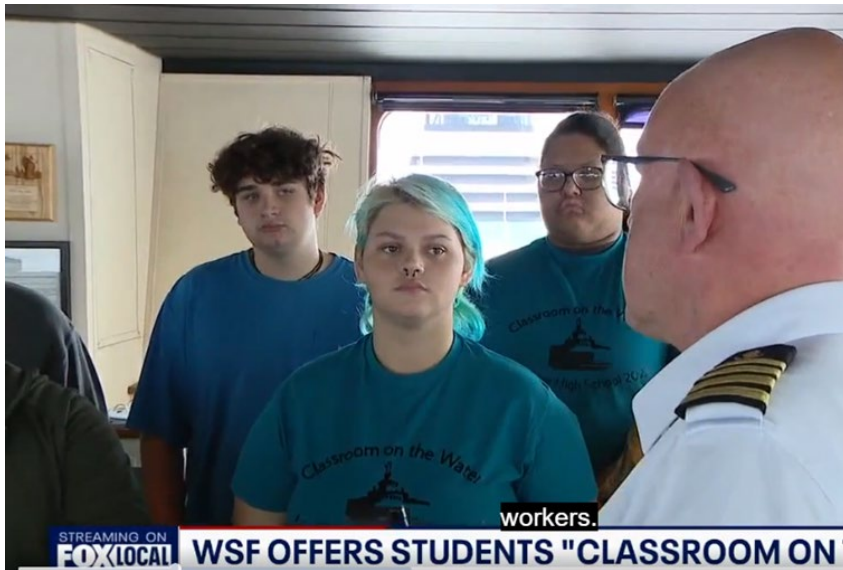
Incumbent: _____ **Position number(s):** _____

CLASS LEVELS AND DURATION (may enter position at any level if requirements have been met):

CLASS LEVEL	CLASS CODE	CLASS TITLE	SALARY RANGE	DURATION OF IN-TRAINING PERIOD
Trainee	594M	EESS Trainee		24 months and completion of training plan. Completion may be accelerated to minimum 12 months.
Entry	594N	EESS 1		24 months and completion of training plan. Completion may be accelerated to minimum 12 months.
Journey	594O	EESS 2		12 months and completion of training plan. May not be accelerated.
Goal Class: Lead/Senior Specialist	594P	EESS 3		NOTE: Position classification and goal class must match.

EESS program year in review





Classroom on the Water

- Partnership with Maritime Highschool
- Allows students to expand their knowledge they are learning from their coursework – map and navigational skills, engine room, crew operations, emergency situations

UW Fellowship Program

W CIVIL & ENVIRONMENTAL ENGINEERING
UNIVERSITY of WASHINGTON

 **WSDOT**





YOU BELONG HERE

WSDOT CULTURE OF BELONGING