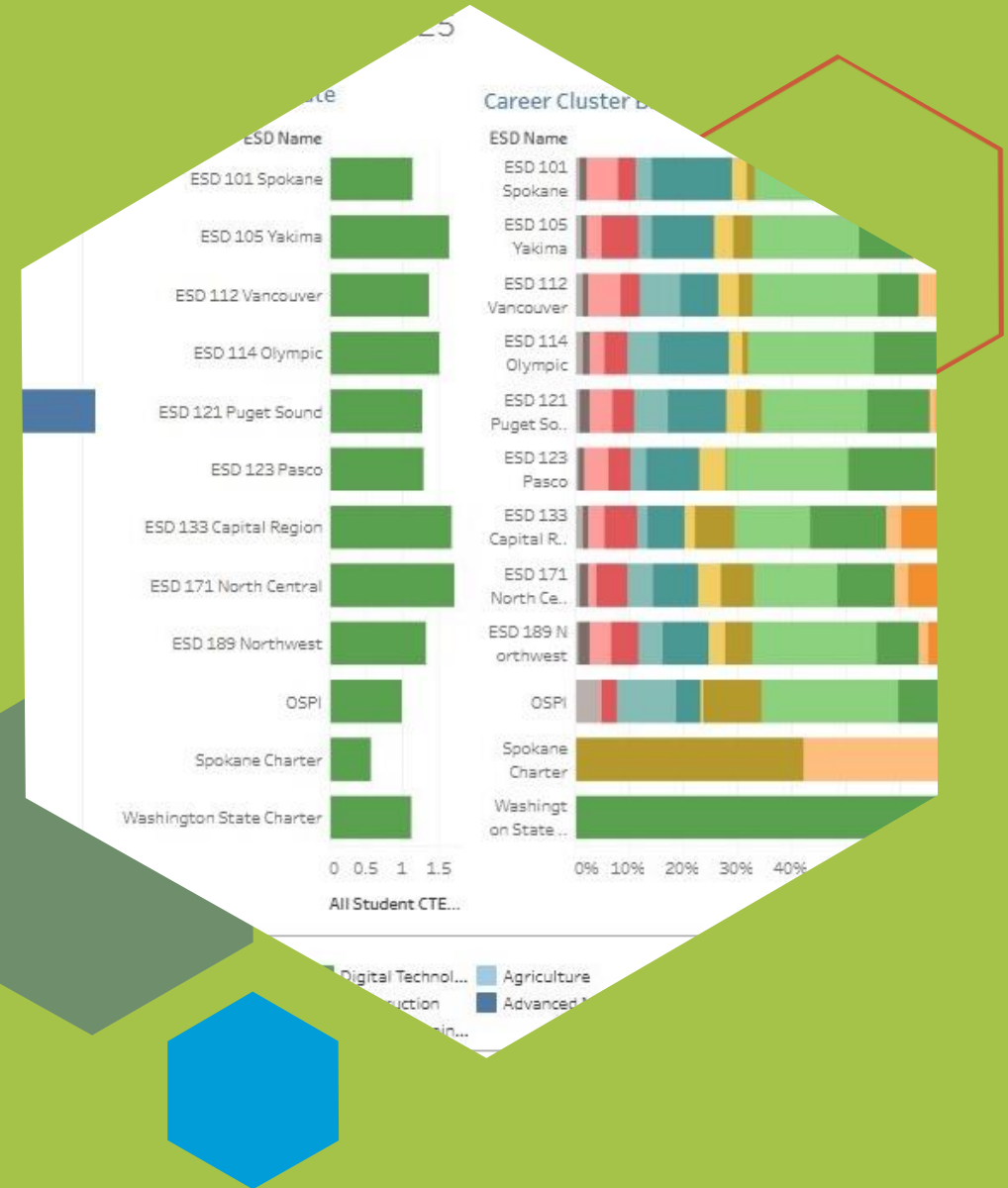


Using Data to Improve Your District's CTE Course Catalog

WA-ACTE Summer Conference
August 2026

Lawrence Tanimoto
CSTA Washington



Lawrence Tanimoto

- VP Communications, CSTA Washington
- Retired
- Teacher (CTE) at Ingraham High School in north Seattle from 2014-2021
- 28 years in international computer industry last 18 with Microsoft
- lawrence.tanimoto@outlook.com Or [LinkedIn](#)



Washington

- Computer Science Teachers Association
- Merger of 4 CSTA chapters in Washington (Nov 2024)
 - Puget Sound
 - Central Washington
 - Mid-Columbia
 - Spokane
- Unified Membership and Association Management System migration (Mar 2025)
- <https://cstawa.org>



Provide community, professional development, and advocacy for Washington educators to help them deliver equitable, engaging, high-quality CS education for all K-12 students that ensures responsible technology creation and use so that everyone can thrive in a world powered by computing

Sign Up As a Friend of CSTA Washington (Free)

<https://tinyurl.com/cstawa-friend>



And [Membership](#) is only \$10 (limited time offer!)

Pop Quiz





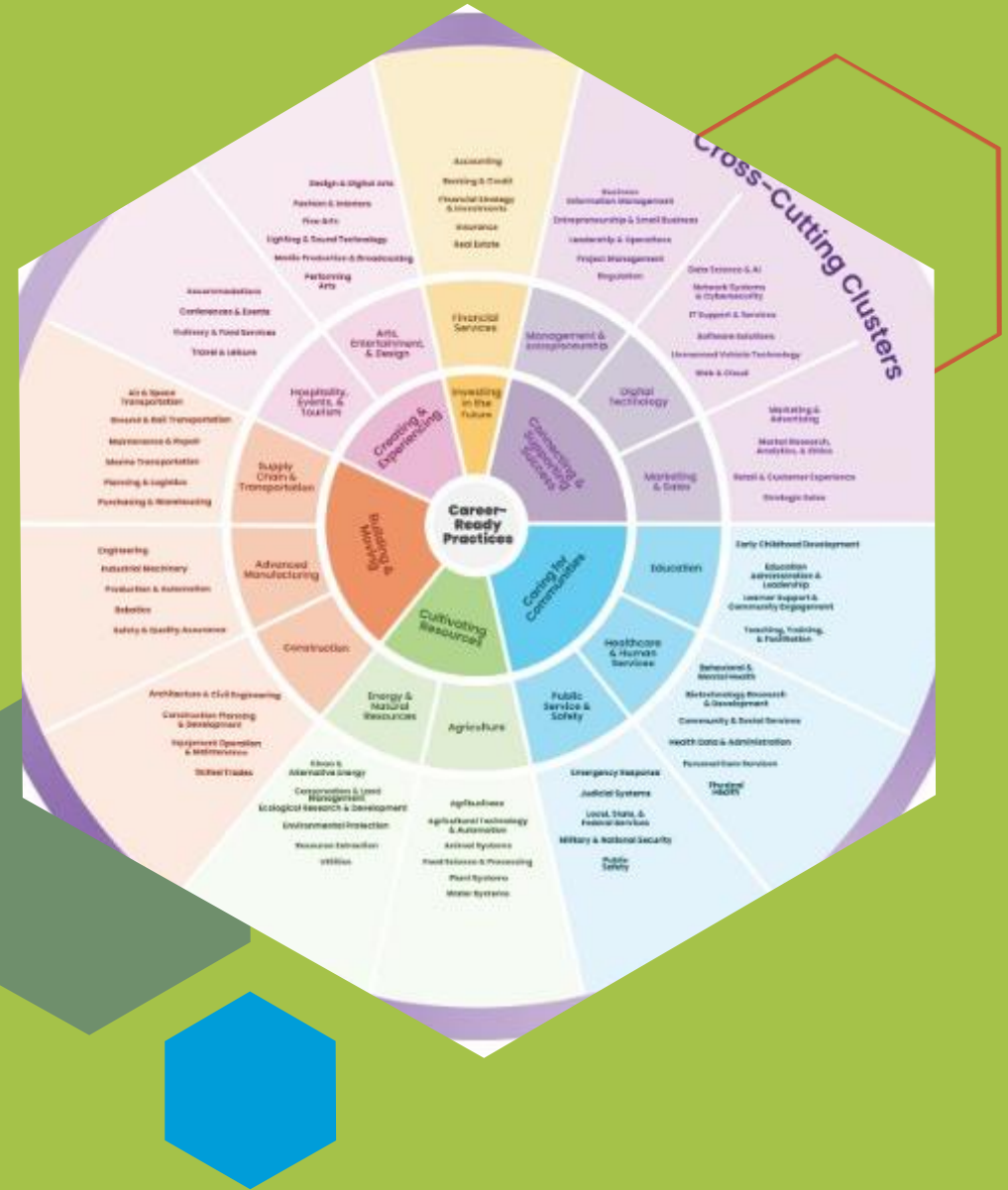
**How many career clusters in the new
(2024) version of the National
Career Clusters Framework?**

- A) 12
- B) 14
- C) 16
- D) 18

Answer: B) 14

Advanced Manufacturing; Agriculture; Arts, Entertainment and Design; Construction; Digital Technology; Education; Energy and Natural Resources; Financial Services; Healthcare and Human Services; Hospitality, Events and Tourism; Management and Entrepreneurship; Marketing and Sales; Public Service & Safety; Supply Chain and Transportation

Management & Entrepreneurship, Digital Technology, and Marketing & Sales are considered cross-cutting clusters



What was the annual CAGR of CTE Enrollments in Washington from SY2019-20 to SY2024-25?

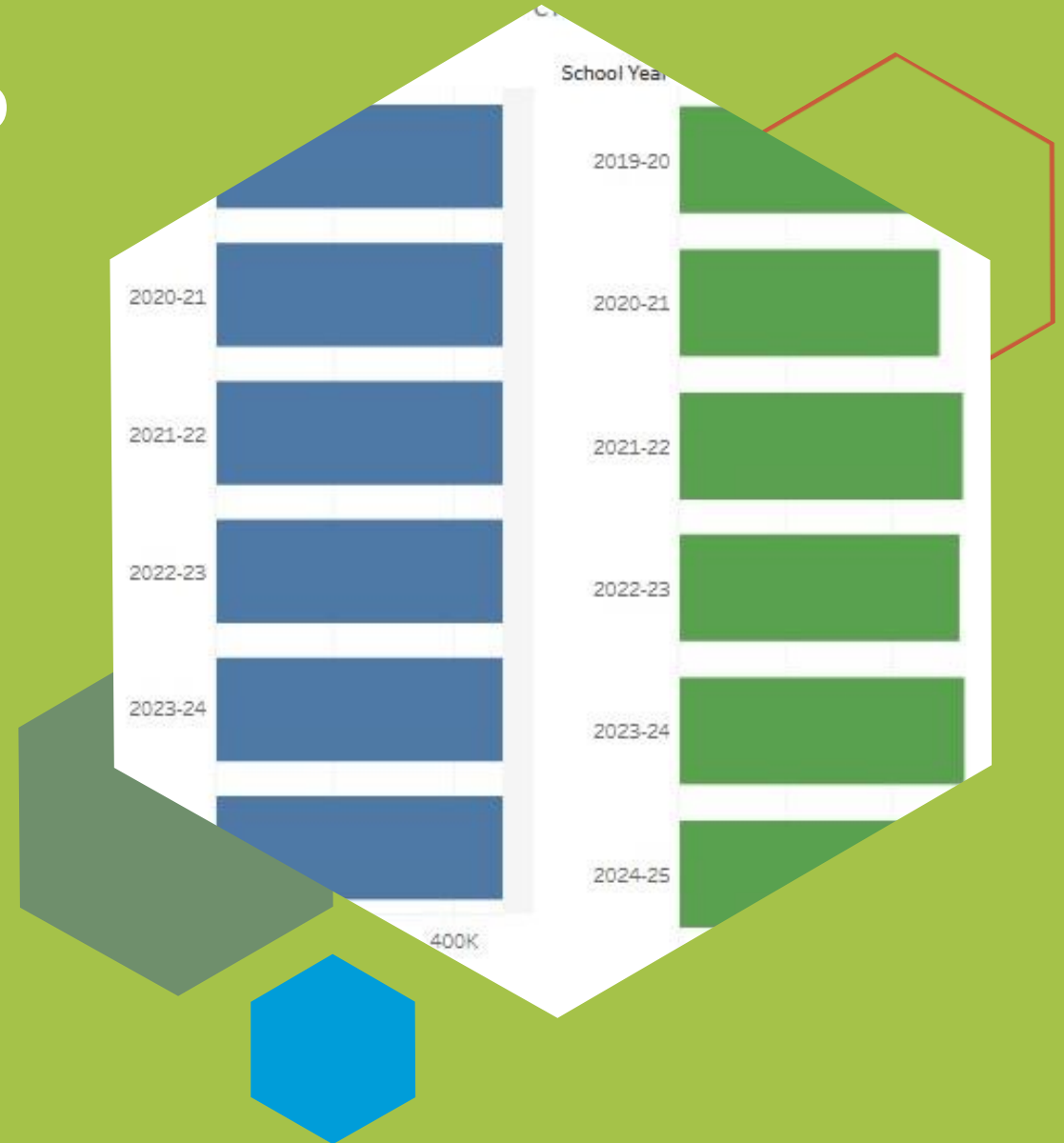
- A. 0.5%
- B. 1.3%
- C. 2.4%
- D. 3.1%



Answer: D) 3.1%

CTE Enrollments in SY2019-2020 were 643K and in SY2024-25 were 748K for an annual growth rate of 3.1%.

Meanwhile, the 6-12 Washington public school student population was essentially flat during this time period.





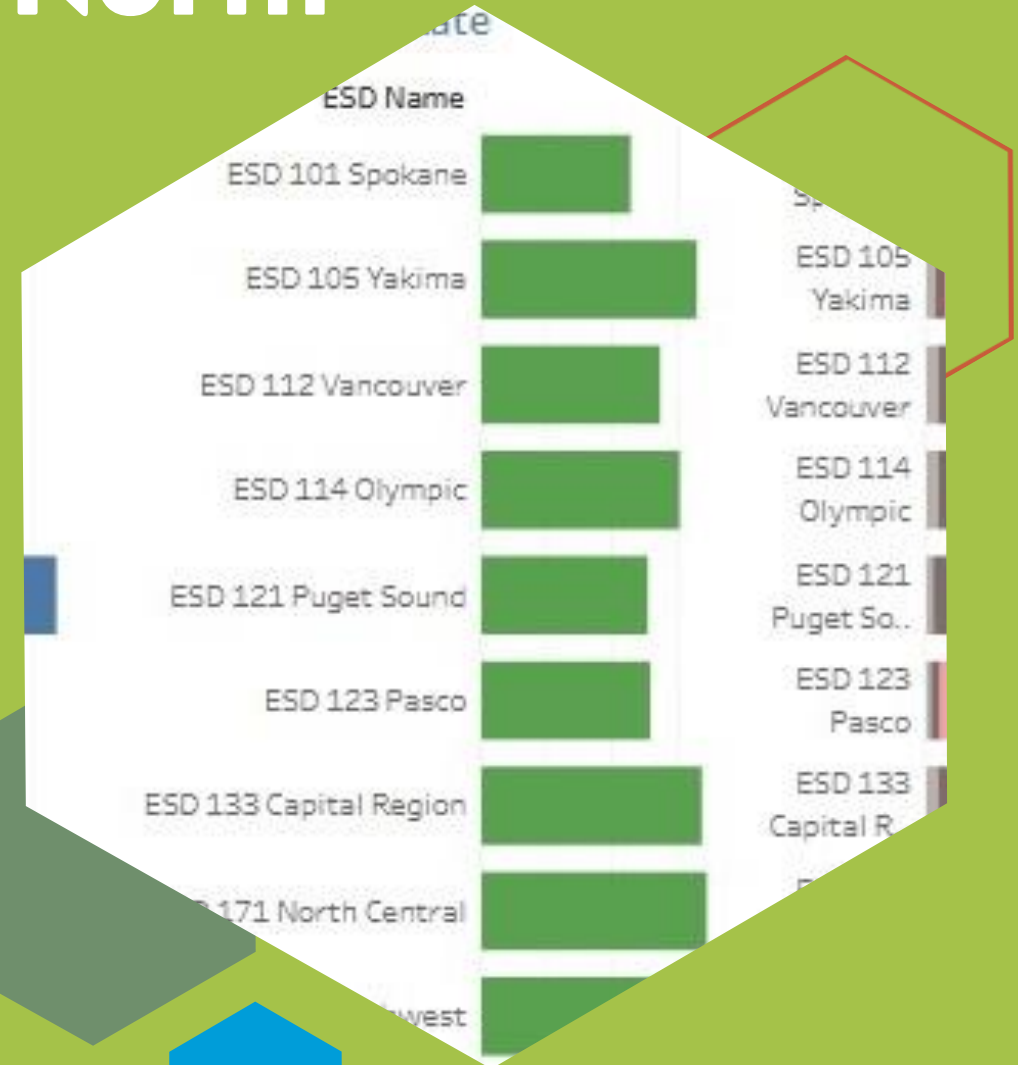
Which of the following ESD had the highest CTE Enrollment rate in SY 2024-25?

- A) ESD 171 North Central
- B) ESD 105 Yakima
- C) ESD 133 Capital Region
- D) ESD 121 Puget Sound

Answer: A) ESD 171 North Central

The CTE Enrollment Rate (CTE Enrollments / Students) was 1.73 in ESD 171 in SY2024-25. ESD 133 Capital Region (1.70) and ESD 105 Yakima (1.64) closely trailed.

The overall CTE Enrollment Rate for Washington in SY2024-25 was 1.37.





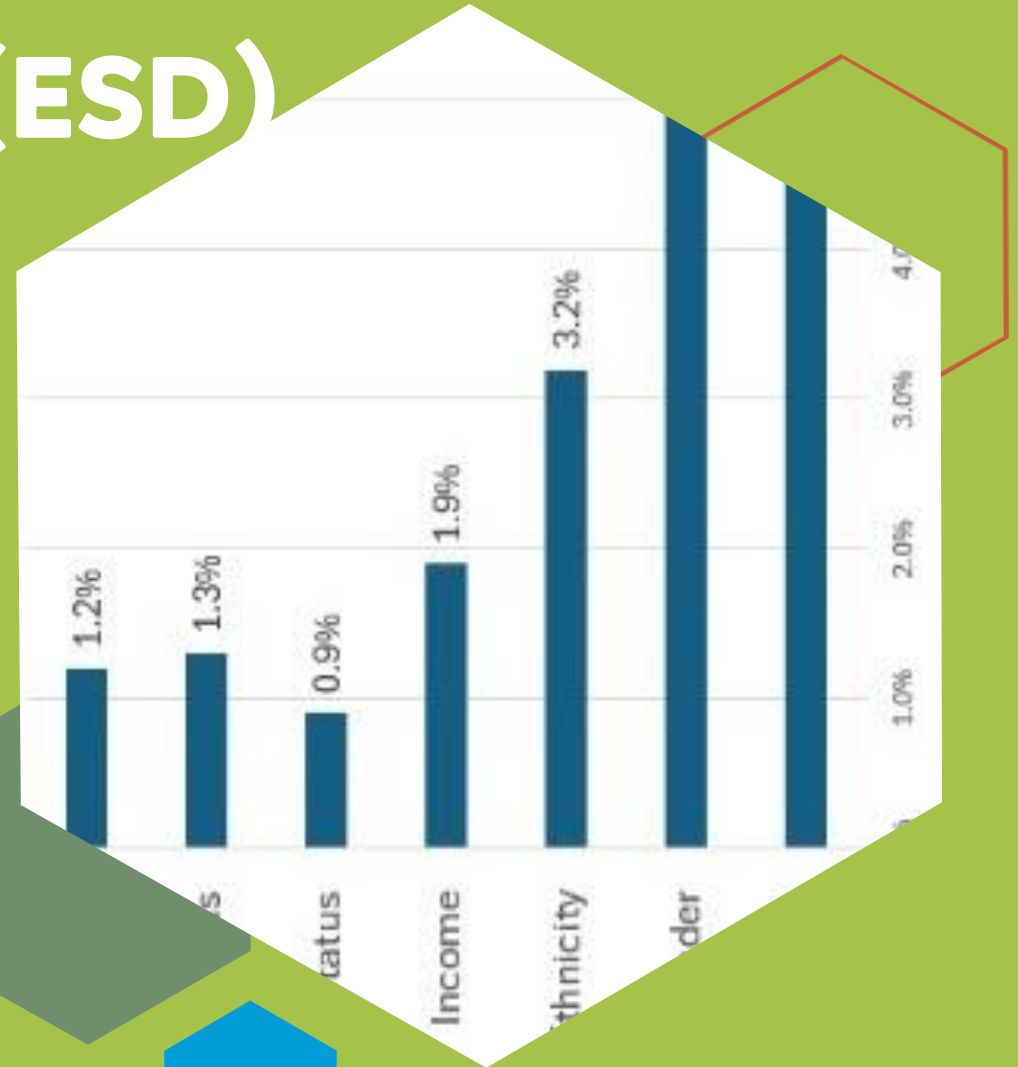
Which of the following demographic distributions had the highest heterogeneity in career cluster enrollments in SY2023-24?

- A) Gender
- B) Race/Ethnicity
- C) Income
- D) Region (ESD)

Answer: D) Region (ESD)

Heterogeneity in career cluster enrollments in SY2023-24 was 9.7% among regions (ESD), 7.1% among genders, and 3.2% among race/ethnicities.

For more details on heterogeneity in Washington career cluster enrollments, please visit [CTE Enrollment Demographic Variation in Washington 2023-24 - CSTA Washington](#)





Which of the following career clusters has the highest CAGR from SY2019-20 to SY2024-25?

- A) Financial Services
- B) Digital Technology
- C) Management and Entrepreneurship
- D) Hospitality, Events, and Tourism

Answer: C) Management and Entrepreneurship

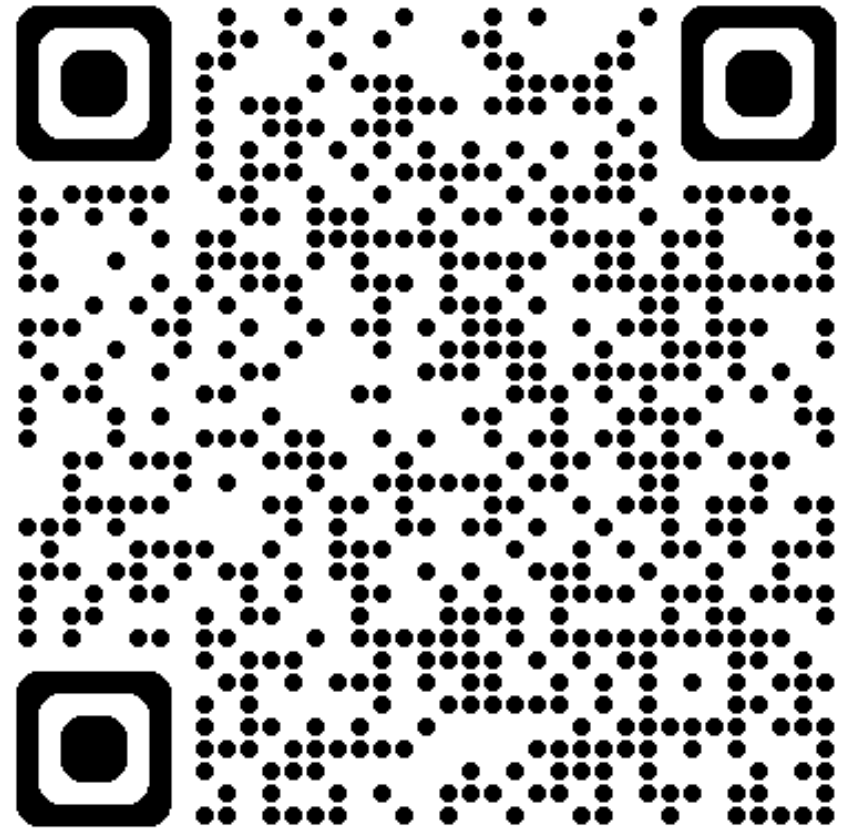
From SY2019-20 to SY2024-25, the Management and Entrepreneurship (8.2%), Financial Services (6.6%), and Hospitality, Events, and Tourism (6.4%) had the highest CAGR.

Digital Technology was the only career cluster to see shrinking enrollments with a CAGR of -2.2%



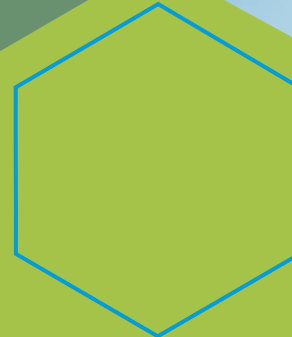
**For the latest
version of this
presentation and
dashboard...**

**[https://tinyurl.com/
cstawa-cte-26b](https://tinyurl.com/cstawa-cte-26b)**



CTE Analytics 2026

Backstory



CS Education Analytics

- [HB 1577 / SB 5574](#) (2019) “Concerning K-12 computer science education data.” OSPI publishes a [yearly report](#) on enrollments in computer science courses.
- CSTA Washington has published dashboards on these reports since 2022. Decided to expand coverage in 2025. See [Washington CS and CTE Analytics 2025](#).
- Public Github repository: <https://github.com/lgtanimoto/WAStateCSEd>
- In SY 2023-24, over 85% of CS sections were taught as CTE. The % of students in CS sections taught as CTE likely in the low 90%



CTE Education Analytics

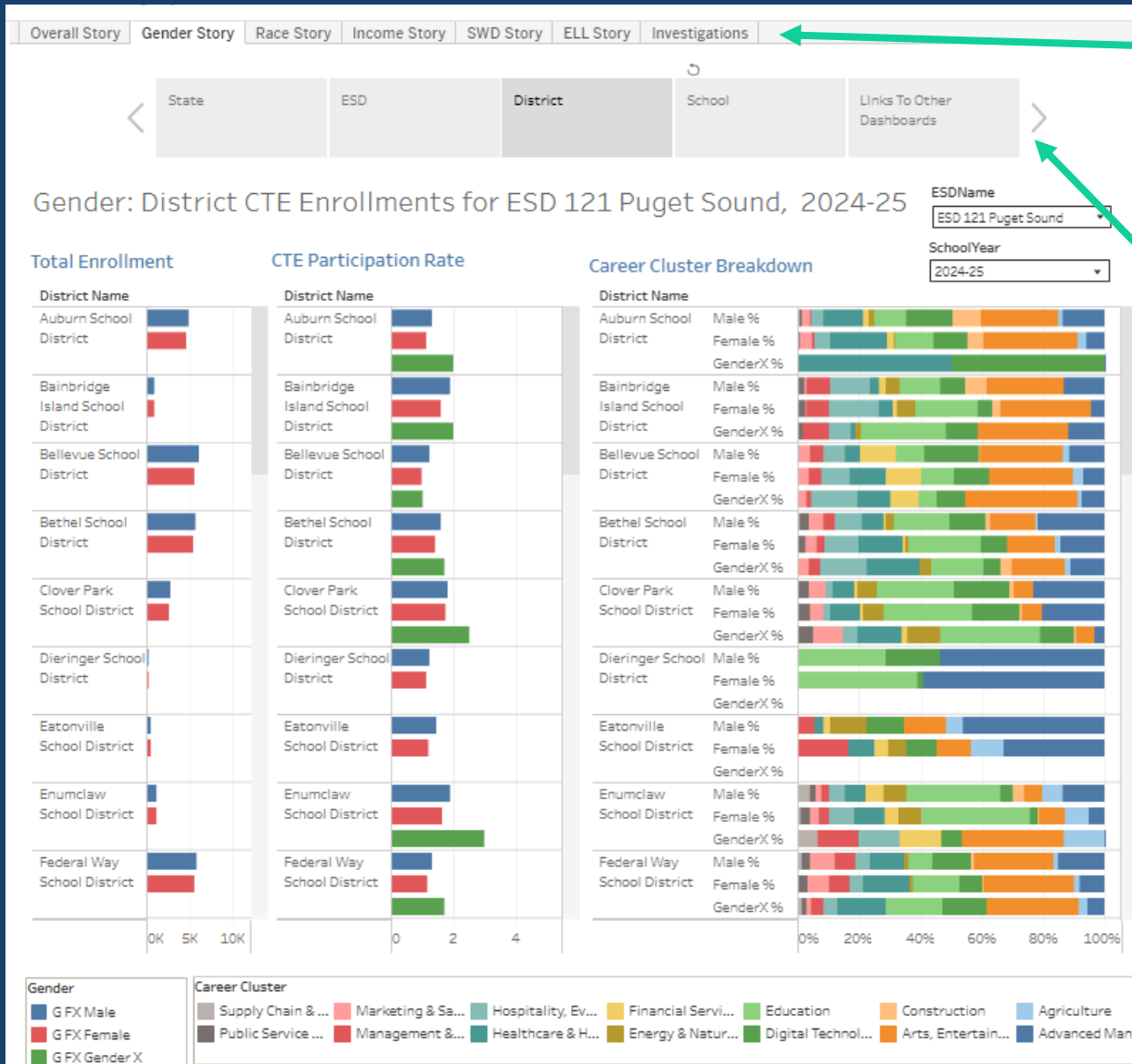
- In 2021, OSPI published [Enrollment in CTE Courses by CIP Code](#) showing how many 9-12 students participated in CTE Courses in SY 2018-2019 and SY 2019-20
- Similar data for 6-12 students from SY 2019-20 to SY 2023-24 were obtain through two public records request –2025 Spring, 2026 Spring
- Giant Excel tables
- Combined with report card data, directory data from OSPI data portal
- CIP Code to new Career Cluster mapping is best effort
- Because of WA-ACTE, CTE Analytics release first this year

Washington CTE Analytics Dashboard Overview



<https://tinyurl.com/cstawa-cte-26b>

Click on Tableau Public link

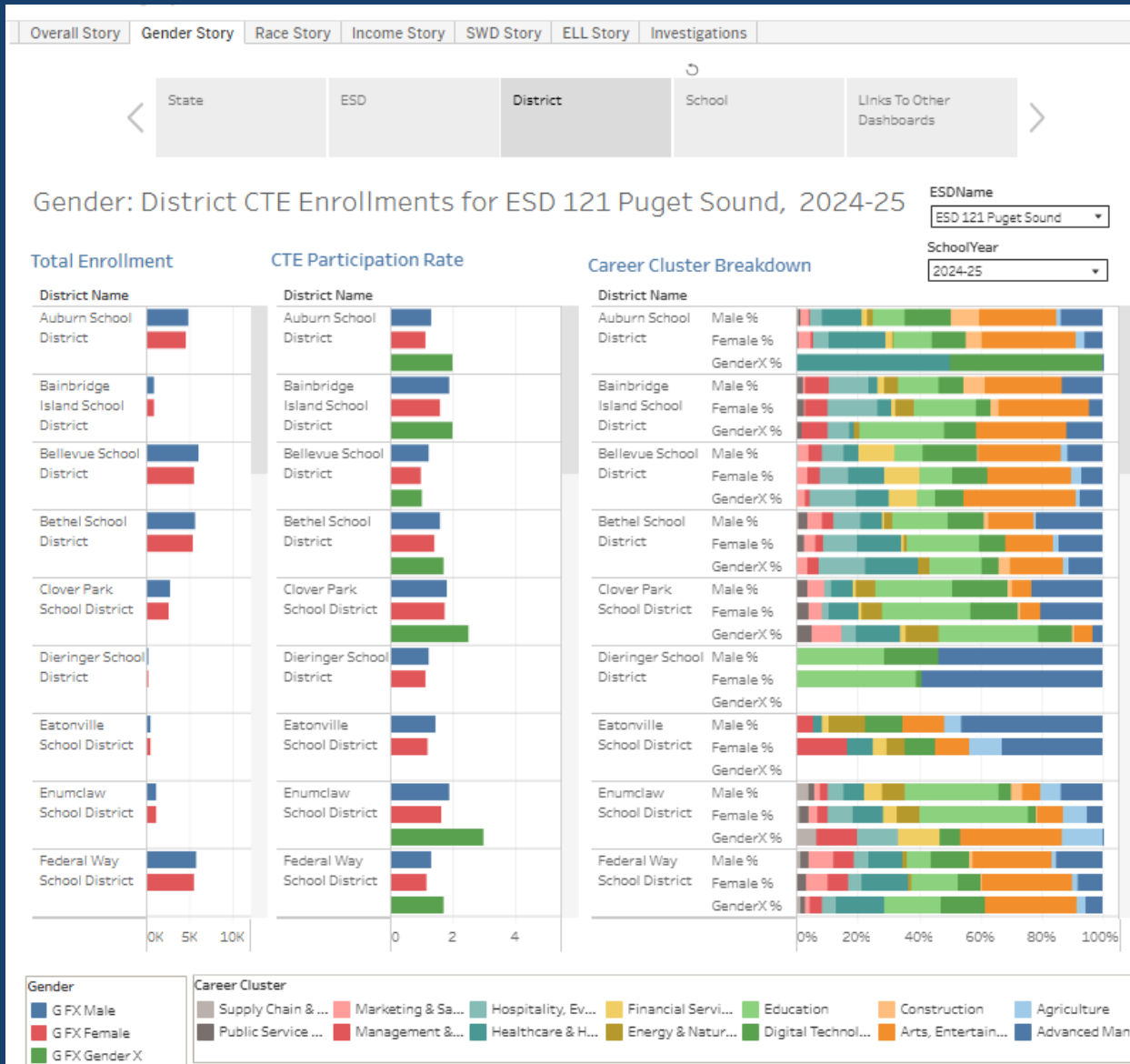


Stories

- Overall
- Gender
- Race/Ethnicity
- Income
- Disability Status
- ELL
- Investigations (*)

Tabs

- State
- ESD
- District
- School
- Other(*)



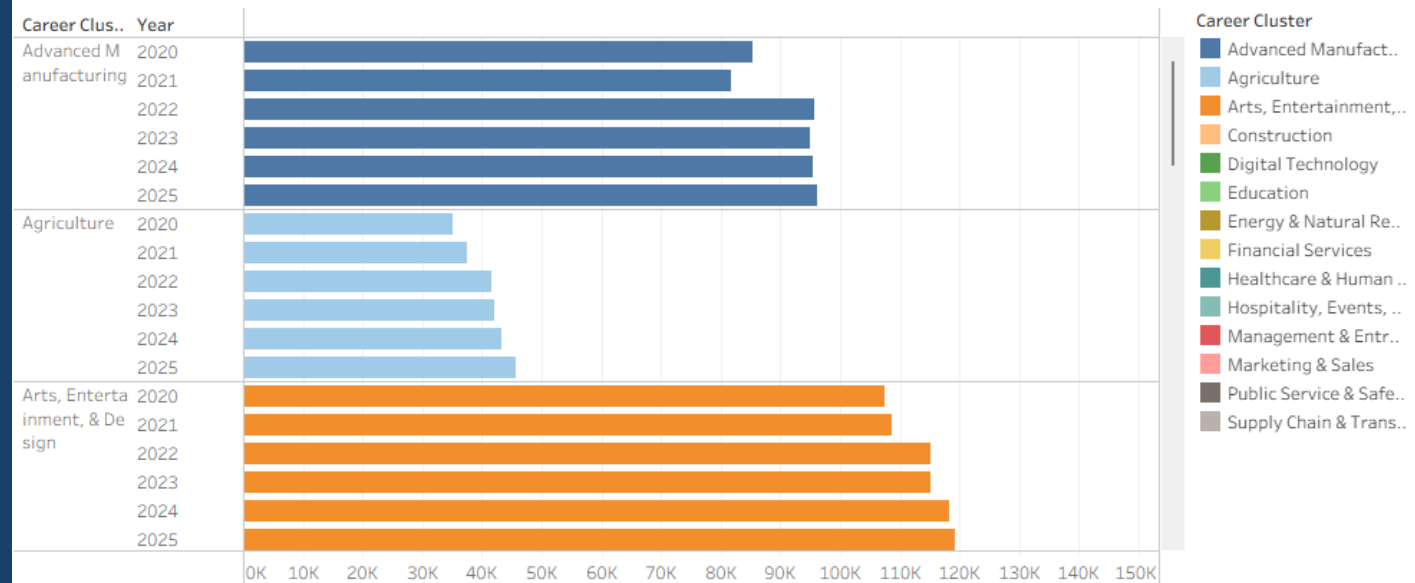
Parsing out raw numbers from enrollment data

- Total Enrollment - # Students in Each Demographic Group
- CTE Participation Rate - # CTE Enrollments / # Students in Demographic Group
- Career Cluster Breakdown - % of enrollments in cluster among all CTE Enrollments for demographic group.

Investigations: Growth by Career Cluster, CIP Code

Growth by Career Cluster

Career Cluster	2019-20 CTE Enrollments	2024-25 CTE Enrollments	Avg CTE Yearly Enrollments	CAGR CTE Enrollments
Advanced Manufacturing	85,309	96,087	91,530	2.4%
Agriculture	35,205	45,604	40,895	5.3%
Arts, Entertainment, & De..	107,366	119,162	113,963	2.1%
Construction	11,597	14,244	12,768	4.2%
Digital Technology	90,412	80,830	89,656	-2.2%
Education	126,244	146,055	135,354	3.0%
Energy & Natural Resourc..	19,181	25,109	22,311	5.5%
Financial Services	18,755	25,786	23,046	6.6%
Healthcare & Human Servi..	60,223	74,858	66,433	4.4%
Hospitality, Events, & Tou..	27,013	36,769	32,587	6.4%
Management & Entrepren..	22,517	33,382	27,080	8.2%
Marketing & Sales	24,416	30,661	27,406	4.7%
Public Service & Safety	8,389	11,332	9,592	6.2%



Investigations: Growth by ESD, by District, and By School

CTE Growth by District								
District Name	ESD Name	2025 Total E..	Avg Total Ye..	CAGR Total E..	2025 CTE Enr..	Avg CTE Year..	CAGR CTE En..	2025 CTE Par..
Aberdeen School District	ESD 133 Capital Region	1,778	1,791	-0.9%	3,094	3,037	-2.7%	174.0%
Adna School District	ESD 133 Capital Region	376	381	-0.8%	614	539	0.7%	163.3%
Almira School District	ESD 101 Spokane	83	83		33	33		39.8%
Anacortes School District	ESD 189 Northwest	1,406	1,407	-0.1%	1,449	1,299	4.2%	103.1%
Arlington School District	ESD 189 Northwest	3,040	3,047	-0.8%	3,349	3,219	2.8%	110.2%
Asotin-Anatone School Di..	ESD 123 Pasco	346	325	-0.4%	396	416	-4.1%	114.5%
Auburn School District	ESD 121 Puget Sound	9,594	9,415	0.7%	11,826	11,517	2.3%	123.3%
Bainbridge Island School ..	ESD 121 Puget Sound	1,852	1,953	-2.5%	3,263	3,299	-1.5%	176.2%
Battle Ground School Dist..	ESD 112 Vancouver	6,125	5,789	1.3%	9,520	8,526	1.2%	155.4%
Bellevue School District	ESD 121 Puget Sound	11,762	11,473	0.3%	13,117	12,934	0.2%	111.5%
Bellingham School District	ESD 189 Northwest	3,762	5,884	-10.1%	8,882	9,097	1.8%	236.1%
Bethel School District	ESD 121 Puget Sound	11,180	10,871	1.5%	16,958	17,082	1.6%	151.7%
Blaine School District	ESD 189 Northwest	1,065	1,027	-2.1%	1,176	1,198	3.4%	110.4%
Boistfort School District	ESD 133 Capital Region	21	25		12	15		57.1%
Bremerton School District	ESD 114 Olympic	2,139	2,236	-2.6%	2,075	3,441	-12.0%	97.0%
Brewster School District	ESD 171 North Central	565	337	16.4%	1,021	801	7.2%	180.7%
Bridgeport School District	ESD 171 North Central	392	414	-1.7%	270	309	-0.9%	68.9%
Burlington-Edison School ..	ESD 189 Northwest	1,051	1,624	-11.5%	798	2,887	-24.2%	75.9%
Camas School District	ESD 112 Vancouver	4,295	4,165	-0.2%	3,617	3,444	1.0%	84.2%
Cape Flattery School Distr..	ESD 114 Olympic	270	204	7.5%	91	70	2.9%	33.7%
Cascade School District	ESD 171 North Central	664	684	-2.1%	1,372	1,132	7.3%	206.6%
CASHMERE SCHOOL DIST..	ESD 171 North Central	927	894	1.2%	1,357	1,348	2.3%	146.4%
Castle Rock School District	ESD 112 Vancouver	747	656	10.5%	725	866	-4.2%	97.1%
Central Kitsap School Dist..	ESD 114 Olympic	6,221	6,305	-0.9%	7,706	7,372	0.2%	123.9%
Central Valley School Dist..	ESD 101 Spokane	8,093	7,156	3.8%	8,971	6,573	13.3%	110.8%
Centralia School District	ESD 133 Capital Region	1,565	1,540	0.5%	4,370	3,213	12.7%	279.2%
Chehalis School District	ESD 133 Capital Region	1,145	1,101	-0.1%	2,145	1,516	5.9%	187.3%
Cheney School District	ESD 101 Spokane	2,838	2,738	2.3%	4,634	4,257	10.2%	163.3%
Chewelah School District	ESD 101 Spokane	326	327	0.2%	530	594	-6.0%	162.6%
Chief Leschi Tribal Compact	OSPI	335	323	3.1%	557	394	22.6%	166.3%
Chimacum School District	ESD 114 Olympic	255	285	-4.9%	270	223	-2.4%	105.9%
Clarkston School District	ESD 123 Pasco	1,107	903	3.9%	1,508	1,731	-2.8%	136.2%
Cle Elum-Roslyn School Di..	ESD 105 Yakima	522	489	2.7%	807	629	12.5%	154.6%
Clover Park School District	ESD 121 Puget Sound	5,502	5,625	0.2%	9,895	8,331	8.1%	179.8%
Colfax School District	ESD 101 Spokane	263	263	-1.0%	423	434	-5.3%	160.8%

Investigations: Search for Schools by CIP Code

Search for Schools By CIP Code

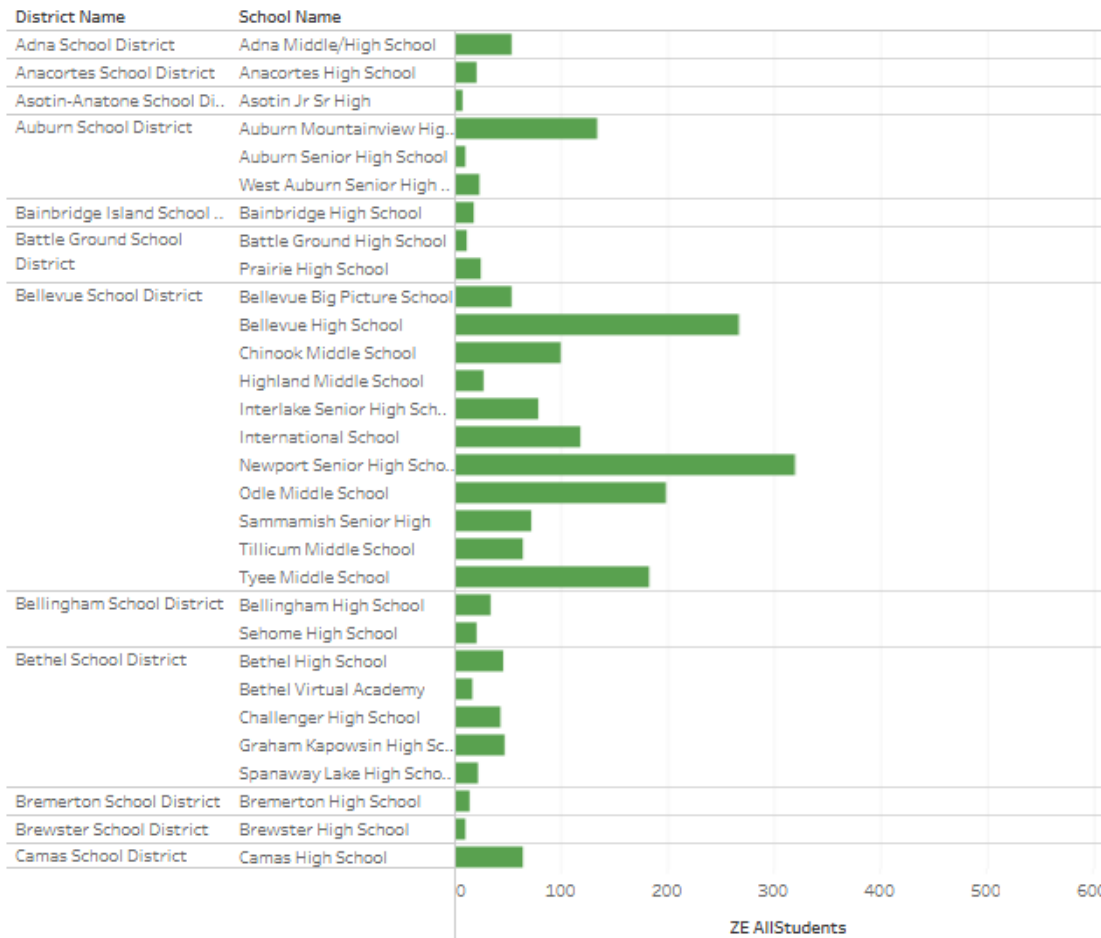
2024-25 School Search : 110201 - Computer Programming

CIP Code

110201 - Computer Pr...

SchoolYear

2024-25



Investigations: CIP To Career Cluster Mapping

Career Clus..	CIP Code	Course Name
Advanced Manufacturing	10205	Agricultural Mechanics and Equipment/Machine Technology
	140102	Pre-Engineering Technologies
	140501	Biotechnical Engineering and Biomedical Engineering
	141001	Electronics, Engineering and Design
	141801	Introduction to Materials Engineering
	144201	Mechatronics and Industrial Automation
	148888	Engineering Cooperative Worksite Experience
	149991	Engineering Design 1
	149992	Engineering Design 2
	149993	Engineering Design 3
	149994	Introduction to Science Research in Engineering
	149995	Introduction to Engineering Technology
	149996	Introduction to Computer Integrated Manufacturing
	149998	Introduction to Aerospace Engineering
	150405	Industrial Robotics Technology/Technician
	150406	Robotics Foundations
	150613	Manufacturing Technology/Technician
	150801	Aeronautical and Aerospace Engineering Technology
	151305	Electrical/Electronics Drafting and CAD/CADD
	151306	Mechanical Drafting and CAD/CADD
	151601	Nanotechnology
	158888	Engineering Technologies Cooperative Worksite Experience
	401099	Materials Science Technology Applied
	470000	Manufacturing Foundations
	470101	Electrical Equipment Installation and Repair
	470495	Computer Integrated Manufacturing
	480000	Precision Production Trades Foundations
	480503	Machine Shop Technology/Technician
	480506	Sheet Metal Technology/Technician
	480511	Metal Fabricator
	480701	Woodworking Foundations
	480703	Cabinetmaking and Millwork/Mill Wright
	488888	Precision Production Cooperative Worksite Experience
Agriculture	10000	Agriculture, General
	10001	Supervised Agricultural Experience
	10101	Agricultural Business and Management, General
	10102	Agribusiness/Agricultural Business Operations
	10103	Agricultural Economics



It looks great...

**Why Is This Still
in Beta?**



Beta to “RTM” Version

- CIP Code to Career Clusters Mapping
- Complete Work on CS Education Dashboards (end of August)
- Lack of Feedback
- District PDFs?
- Search for strategic partners and sponsors

Strech Run



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<https://tinyurl.com/cstawa-friend>

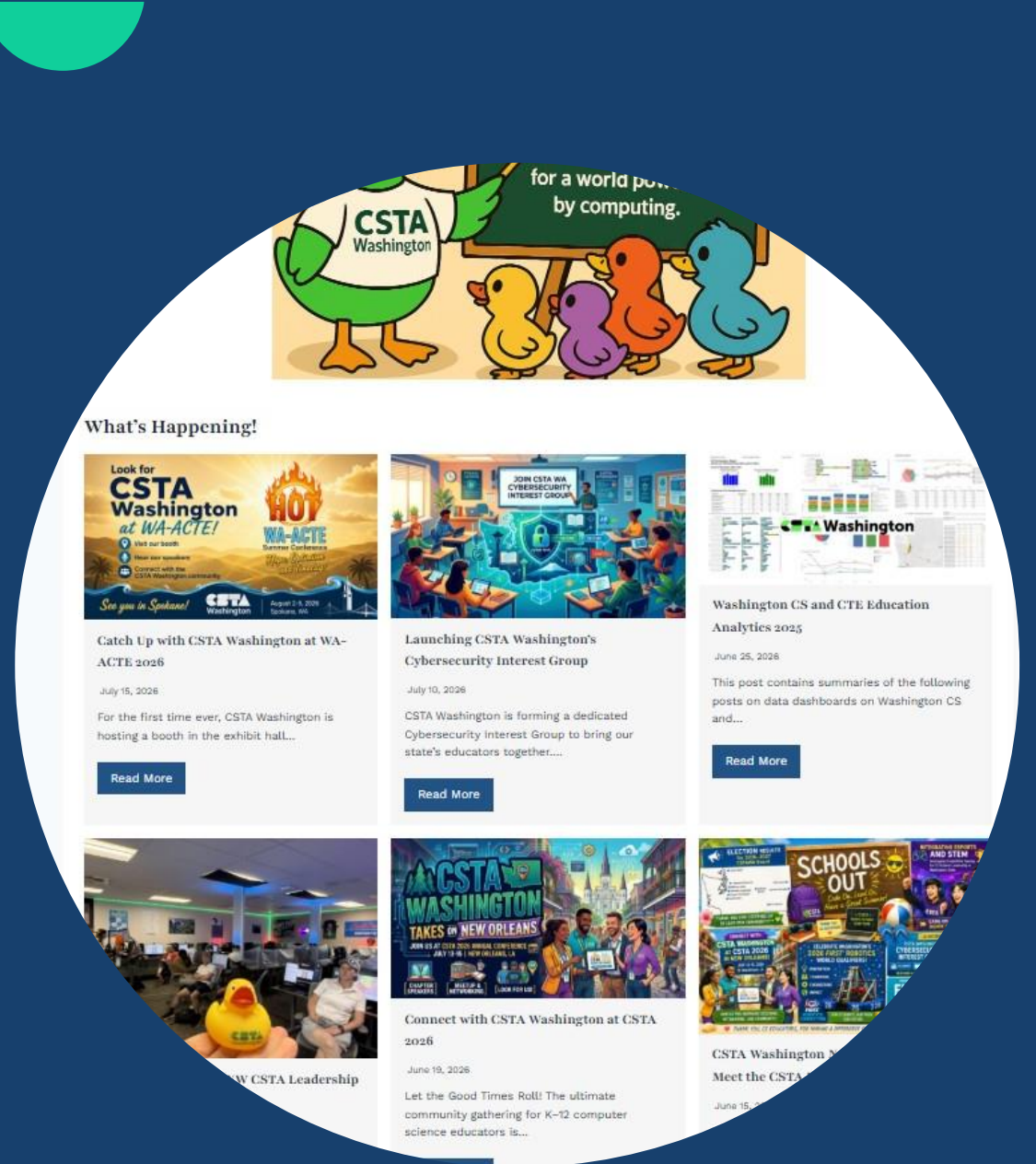


And [Membership](#) is only \$10 (limited time offer)

Visit the CSTA Washington Website

<https://cstawa.org>

And follow us on LinkedIn and Facebook



Questions?



A decorative pattern of hexagons in various colors (blue, green, light blue, and dark blue) arranged in a honeycomb-like structure, located on the left side of the slide.

Thank you

Lawrence Tanimoto

lawrence.tanimoto@outlook.com

www.cstawa.org