



WA STEM: FUTURE OF WORK

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WA STEM's VISION & GOAL



By 2030, Washington students will be career- and future-ready.

- **70%** of Washington youth will earn credentials by age 26.
- The number of students of color, students from low-income and rural families, and young women who are on track to earn high-demand credentials and thrive in our innovation economy will **triple**.



STEM BY THE NUMBERS

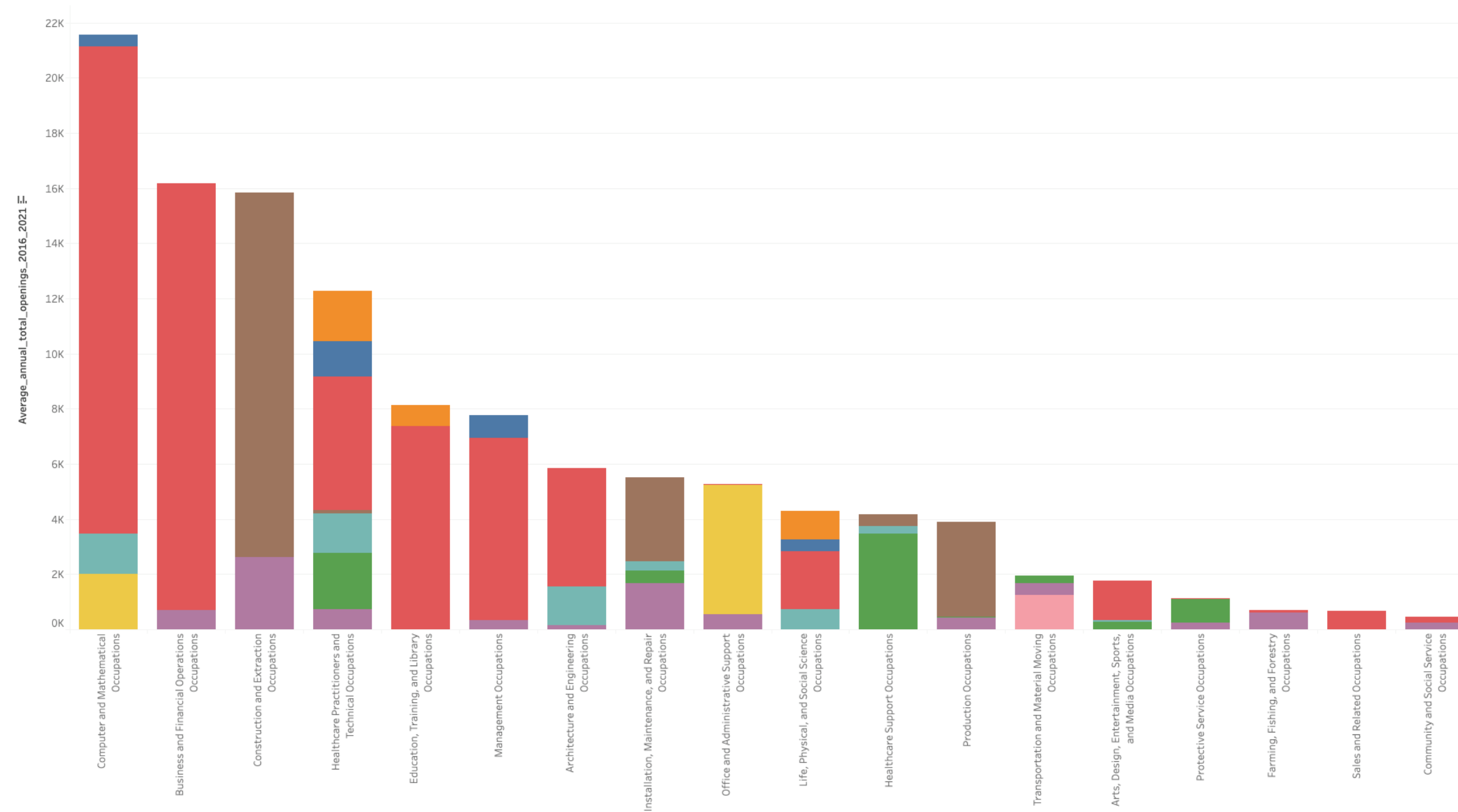
Big goal (70%) that is necessary to for our economy, necessary to close equity gaps, and necessary allow all students to have individual choice and opportunity given what we know about the future of work.

This goal is daunting, so we are doing four major things with data in order to future proof our kids:

STEM BY THE NUMBERS

1. Getting & advocating for better data that tells us about both job projections *and* student outcomes across transitions
2. Breaking it down (focusing on the students historically furthest from opportunity) by region & demographic
3. “Backwards mathing and mapping” by region and by demographic to make highly-localized analyses
4. Supporting our partners in using this data to set goals, make plans, start new pathways, and chip away at the opportunity gaps in their own backyard

Job Projections - Groups



State or Regional Data

- Regions
- Washington State

Region [WDA]

Washington State

Wage Range

Family Wage

Average Wage

\$38,467 \$308,671

Occupation Demand

(All)

STEM/Not STEM Jobs

(Multiple values)

Occupation Group - Sel...

(All)

Typical Credential Need...

(All)

Typical On The Job Trai...

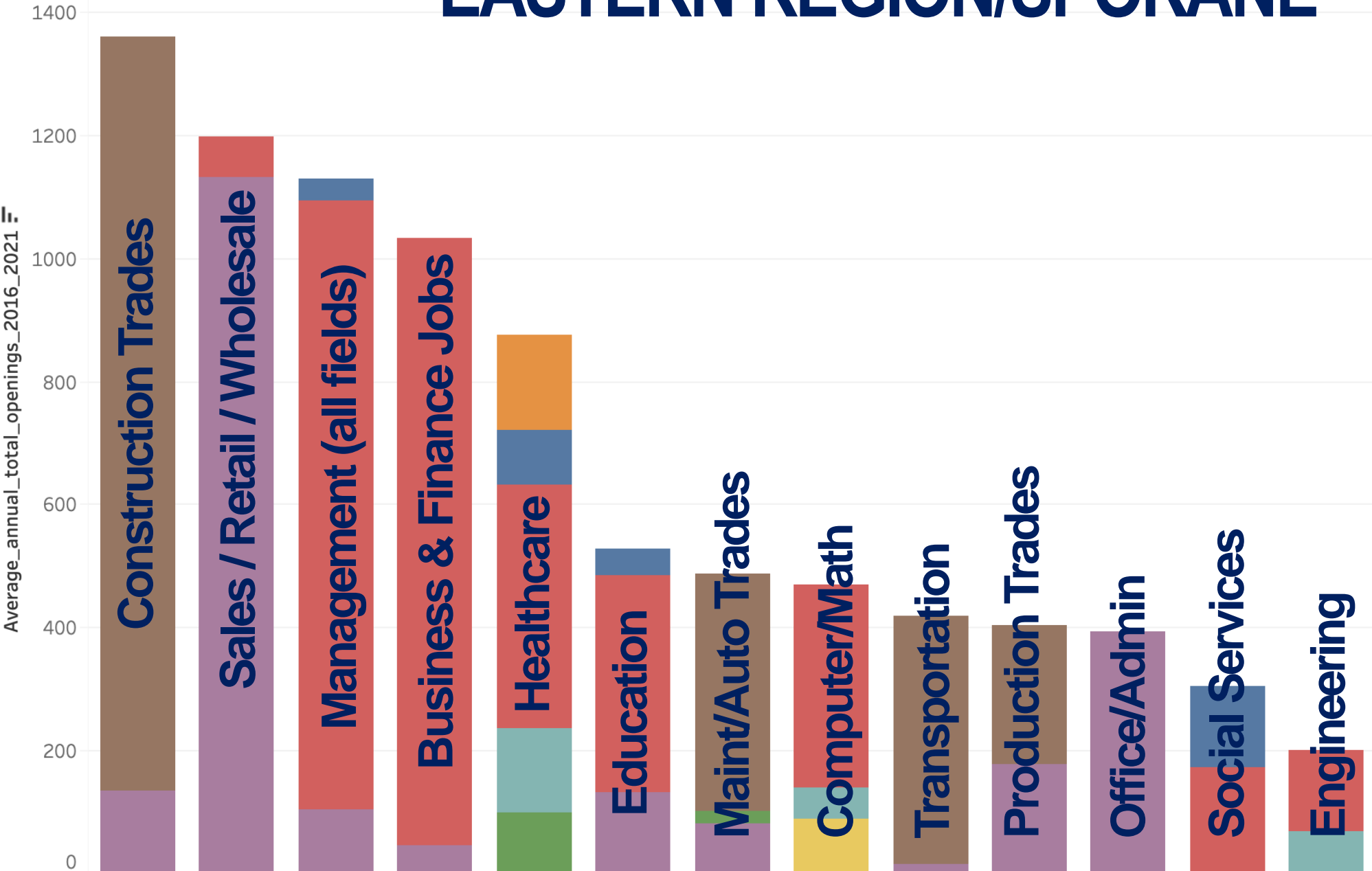
(All)

Work experience in a re...

(All)

- Typical Credential Need...**
- Doctoral or profess...
 - Master's degree
 - Bachelor's degree
 - Apprenticeship
 - Associate's degree
 - Some college, no de...
 - Certificate
 - High school diplom...
 - No formal educatio...

EASTERN REGION/SPOKANE



- Doc/Prof. Degree
- Masters Degree
- Bachelors Degree
- Apprenticeship
- Associates Degree
- Cert./Voc Cred.
- HS Diploma



EASTERN REGION/SPOKANE

HEALTHCARE PROFESSIONAL REGISTERED NURSE & MEDICAL ASSISTANT

Annual # of Openings: 1,347
Credential: Certificate → Bachelor's
Average Regional Wage: \$37,000 → \$79,875

TRADES PROFESSIONAL

Annual # of Openings: 990
Credential: Apprenticeship
Average Regional Wage: \$55,190

K-12 TEACHER

Annual # of Openings: 604
Credential: Bachelor's
Average Regional Wage: \$60,700

INFORMATION TECHNOLOGY

Annual # of Openings: 374
Credential: Bachelor's
Average Regional Wage: \$78,304

BUSINESS & FINANCE PROFESSIONAL

Annual # of Openings: 362
Credential: Bachelor's
Average Regional Wage:
\$64,000 → \$72,000

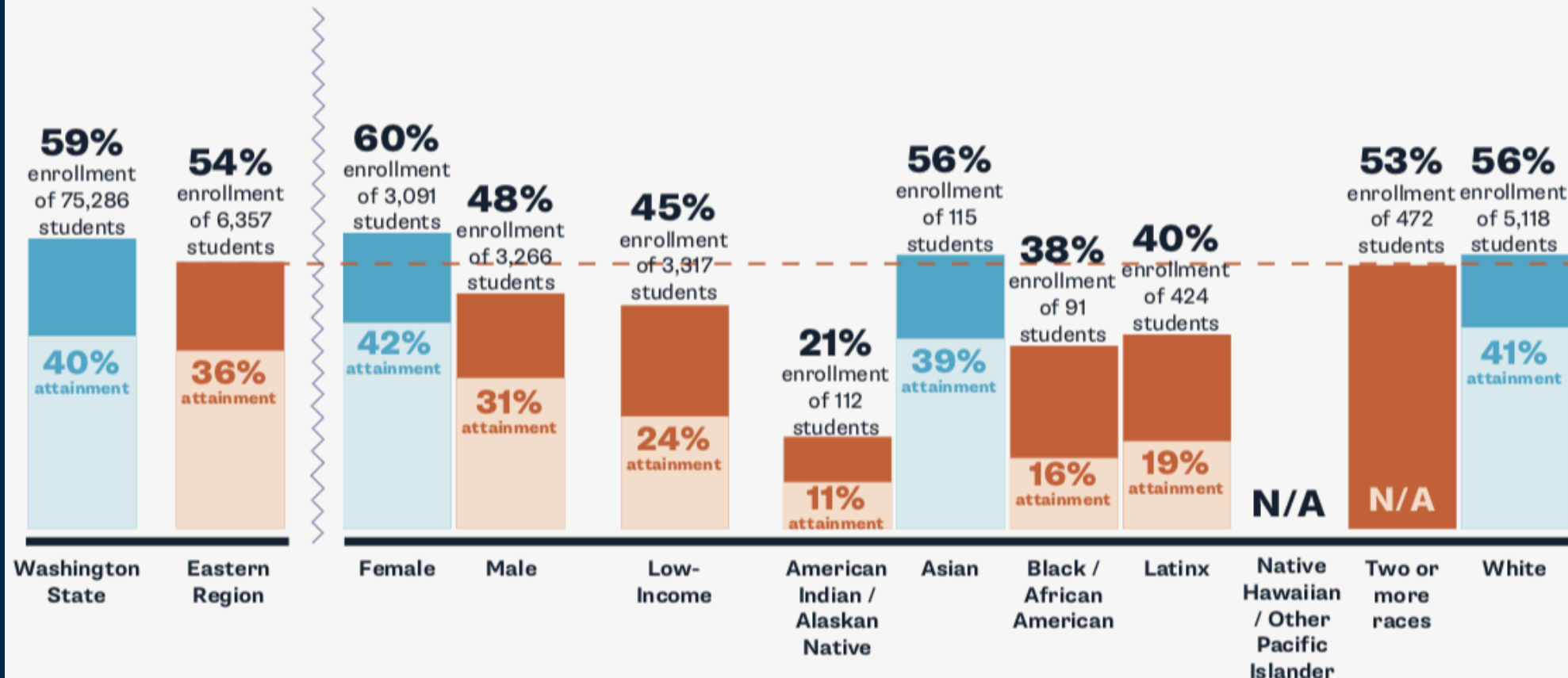
ENGINEERING

Annual # of Openings: 200
Credential: Bachelor's
Average Regional Wage:
\$80,000 - \$106,000

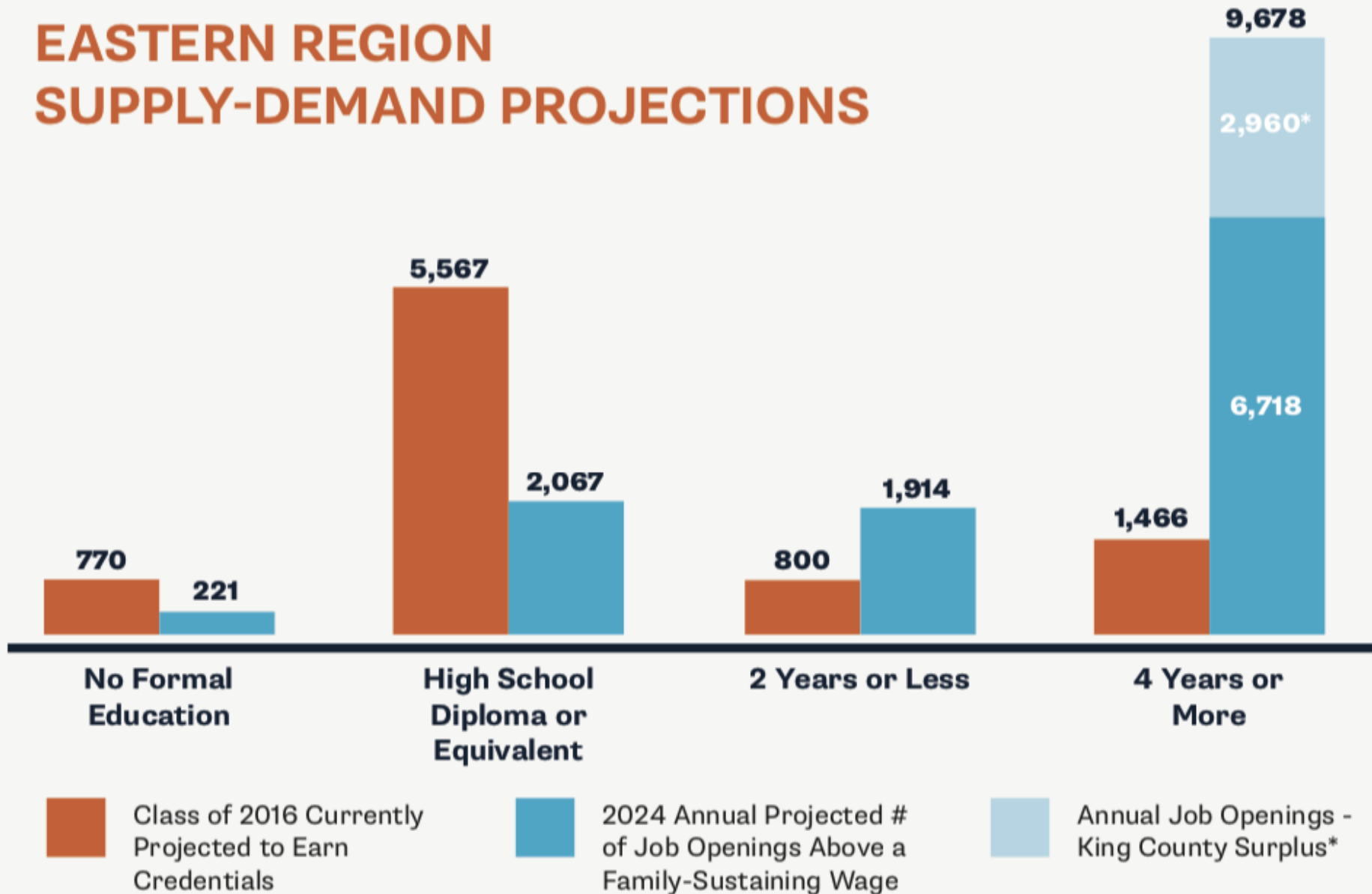
EASTERN REGION/SPOKANE

CREDENTIAL ENROLLMENT/ATTAINMENT

54% of 6,357 of the originating ninth graders in the Eastern Region enroll in a postsecondary program and 36% of those originating ninth graders earn a credential by age 26.

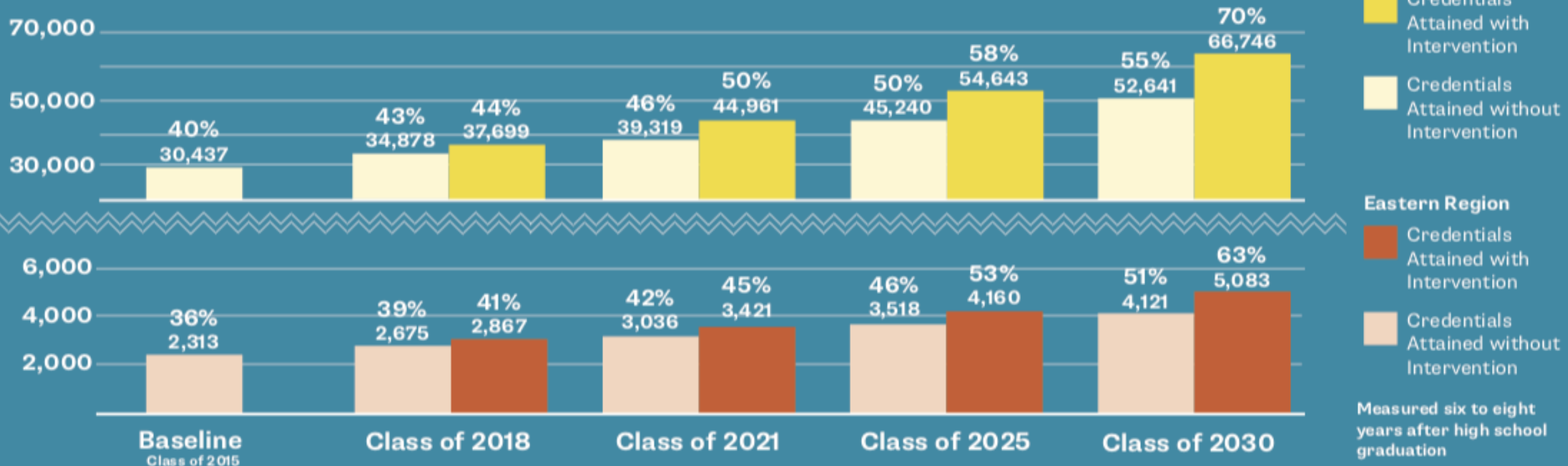


EASTERN REGION SUPPLY-DEMAND PROJECTIONS



EASTERN REGION/SPOKANE

185 MORE CREDENTIALS PER YEAR = REGION ON TRACK



CREDENTIAL OPPORTUNITIES BY REGION & INDUSTRY MATRIX (CORI)

North Central									
Supply and Demand Estimates for <u>Family Wage Occupations in Demand</u>									
Health Science Composite Sector in North Central Region							All Remaining Sectors in North Central Region		
SOC Code	Top Occupations	Typical Credential Needed	Demand		Supply		SOC Code	Top Occupations	Supply Shortage
			Estimated Annual Openings	Other Job Openings seeking same credential (s)	Credentials Awarded	Supply Shortage			
43-6013	Medical Secretaries	High school diploma or equivalent	42	20	-	(62)	43-9061	Office Clerks, General	(268)
11-9111	Medical and Health Services Managers	Bachelor's degree	32	15	-	(47)	25-2022	Middle School Teachers, Except Special and Career/Technical Education	(217)
31-9091	Dental Assistants	Postsecondary nondegree award	42	-	-	(42)	25-2021	Elementary School Teachers, Except Special Education	(155)
29-2052	Pharmacy Technicians	High school diploma or equivalent	27	-	-	(27)	41-4012	Manufacturing, Except Technical and Scientific Products	(126)
29-1071	Physician Assistants	Master's degree	12	10	-	(22)	13-2011	Accountants and Auditors	(79)
29-1123	Physical Therapists	Doctoral or professional degree	14	-	-	(14)	39-9031	Fitness Trainers and Aerobics Instructors	(70)
29-1051	Pharmacists	Doctoral or professional degree	12	(0)	-	(12)	41-3021	Insurance Sales Agents	(70)
29-2041	Emergency Medical Technicians and Paramedics	Postsecondary nondegree award	12	-	-	(12)	11-9141	Property, Real Estate, and Community Association Managers	(66)
29-2021	Dental Hygienists	Associate's degree	10	-	-	(10)	41-9022	Real Estate Sales Agents	(66)
29-2099	Health Technologists and Technicians, All Other	Postsecondary nondegree award	7	0	-	(7)	41-1012	First-Line Supervisors of Non-Retail Sales Workers	(59)
29-1127	Speech-Language Pathologists	Master's degree	6	-	-	(6)	15-1151	Computer User Support Specialists	(37)
29-2081	Opticians, Dispensing	Apprenticeship	6	-	-	(6)	11-3031	Financial Managers	(37)
29-1021	Dentists, General	Doctoral or professional degree	5	-	-	(5)	21-1093	Social and Human Service Assistants	(33)
29-1141	Registered Nurses	Bachelor's degree	154	5	66	(93)	25-2032	Career/Technical Education Teachers, Secondary School	(31)
31-9092	Medical Assistants	Postsecondary nondegree award	78	24	58	(55)	31-9011	Massage Therapists	(21)

- Region**
- Eastern WA
 - Eastern WA (Spokane)
 - King County
 - North Central**
 - North Olympic
 - Northwest
 - Pierce County
 - Snohomish County
 - South Central
 - South Olympic

- Composite Sector**
- Arts, A/V Technology and...
 - Business Management and...
 - Education and Training
 - Finance
 - Health Science**
 - Hospitality and Tourism
 - Human Services
 - Information Technology
 - Law, Public Safety, Corrections,...
 - Life Sciences
 - Manufacturing/Advanced Mfg
 - Marketing
 - Port

Supply Shortages

NORTH CENTRAL REGION PROJECT

- Anecdotal information about innovation & automation in Agriculture and Manufacturing
- Concern that these pending changes are not captured in ESD or local economist data
- Potential for thousands of displaced workers as well as a lack of skilled computer trained workers
- PhD student regional project

THANKS!

1. Jenée Myers Twitchell: jenee@washingtonstem.org
2. Labor Market Dashboard & STEM by the Numbers: washingtonstem.org/STEMbytheNumbers
3. CORI Matrix (by request to email above + get invited to our CORI overview webinar *this* Wed. April 3, 4-5pm [recorded])