



Our Valley, Our Future

Transforming the community's vision into reality



WSU Emerging Tech Study
Chelan County PUD Commission
Nov. 4, 2019



Taking stock of the Wenatchee area's **TECH SECTOR**

A glance at key findings from WSU's Wenatchee Valley
Technology and Innovation Development Analysis Report

For the full report go to ourvalleyourfuture.org

- **The Greater Wenatchee Area is slowly emerging as a technology hub, as businesses employ more people in tech-related occupations.**
- **Big gaps remain if the community is to become a bonafide tech hub — including the need for more infrastructure, higher education, training, housing, and cultural offerings.**

Tech Sector as defined in WSU study

The tech sector is defined by occupations and not industries. For example, a farmworker harvesting apples will have almost no technological component in their job. However, a farmworker monitoring apple harvest yields will almost certainly be analyzing data via technology, and is thus in a tech-related occupation and part of the tech sector.



**The new
manufacturing
of the 21st
century**

Wenatchee: A rapidly growing economy

Job Growth Rate — 2008-2018



Between 2008 and 2018, the Wenatchee Metropolitan Area outperformed the state and nation in job growth rate, adding

9,136 jobs for a total of
74,527 jobs.



Industries in Wenatchee Performing Better Than Expected in Job Growth, 2008-2018

Agriculture
Manufacturing • Wholesale Trade
Government • Health Care
Accommodation and Food Services
Professional Services



Industries in Wenatchee Performing Worse Than Expected in Job Growth, 2008-2018

Construction
Real Estate
Arts Entertainment and Recreation
Retail Trade

Wenatchee: An emerging technology hub

Shift Share Analysis¹ of Tech Sector Job Growth by Peer Cities — 2008-18

Metropolitan Statistical Area	Jobs Added Due to National Trends	Jobs Added Due to Regional Advantages	Total Tech Jobs Added 2008-2018	Total Tech Jobs as of 2018	Metropolitan Statistical Area	Jobs Added Due to National Trends	Jobs Added Due to Regional Advantages	Total Tech Jobs Added 2008-2018	Total Tech Jobs as of 2018
Fort Collins, CO	1,368	1,288	2,656	9,468	Pueblo, CO	218	547	765	1,851
Ames, IA	391	873	1,264	3,211	Bend, OR	574	517	1,091	3,951
San Luis Obispo, CA	769	841	1,600	5,441	Wenatchee, WA	185	403	588	1,509
College Station, TX	510	639	1,149	3,689	Cheyenne, WY	267	257	524	1,854
St. George, UT	270	572	842	2,182	Boise, ID	2,998	(1,644)	1,354	16,282
Burlington, VT	1,139	570	1,709	7,382					

(1) Shift Share Analysis is a modeling method that determines how much of a region's growth is due to national trends and how much is due to unique regional factors, thus calling attention to a region's competitive or non-competitive advantages. In the chart above, the number of jobs listed in the column, 'Jobs Added Due to Regional Advantages,' can also be viewed as the number of jobs added in the tech-sector above what was expected.

Education gaps slowing tech sector growth

AN ISSUE OF EDUCATION



14%
Wenatchee Population has a Bachelor Degree

Educational attainment, tech skills and entrepreneurship are key to technological development and industry growth. The Wenatchee area's educational attainment rates lag far behind state, national and major tech hub levels.

Educational Level	2018 Wenatchee % Population	2018 State % Population	2018 National % Population	2018 Austin, SF, San Jose % Population
Less than 9th Grade	14%	5%	7%	8%
9th Grade-12th Grade	7%	5%	7%	5%
High School Diploma	27%	23%	28%	17%
Some College	21%	24%	21%	19%
Associate Degree	9%	10%	8%	7%
Bachelor Degree	14%	21%	19%	27%
Graduate Degree-Higher	8%	12%	11%	18%

Public Higher Educational Institutions by Peer Cities (2019)

Community	Primary Public Institution	Number of Public Institutions	Community	Primary Public Institution	Number of Public Institutions
Ames, IA	Iowa State University	1	Fort Collins, CO	Colorado State University	2
Bend, OR	Oregon State University-Cascades Campus	2	Pueblo, CO	Colorado State University-Pueblo	2
Boise City, ID	Boise State University	3	San Luis Obispo-Paso Robles, CA	California Poly State University-San Luis Obispo	2
Burlington-South Burlington, VT	University of Vermont	2			
Cheyenne, WY	Laramie County Community College	2	St. George, UT	Dixie State University	2
College Station-Bryan, TX	Texas A & M University	2	Wenatchee, WA	Wenatchee Valley College	1

Labor market gaps in the tech sector

25 of 50 tech occupations have no local training program.

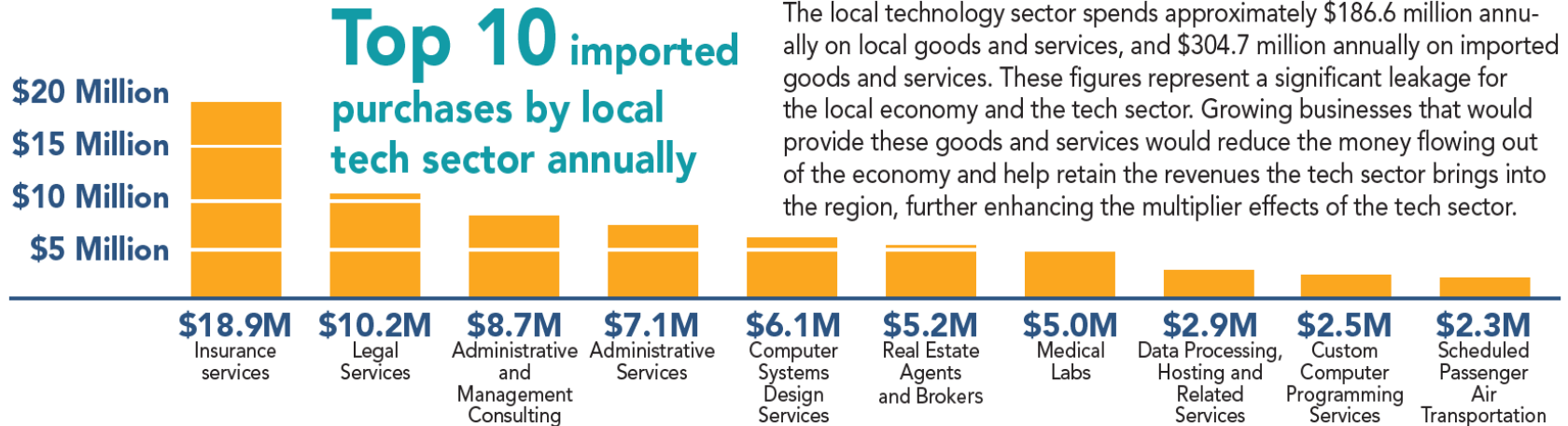
8 of 50 tech occupations have local training programs turning out a surplus of workers.

The unfortunate reality is that the local labor force is not being trained to grow and enhance the local technology sector, and any home grown talent is likely going to occur through on-the-job-training and employers who are willing to give uncredentialed talent a chance to prove themselves."

— *Wenatchee Valley Technology and Innovation Development Analysis Report*

Opportunities coming from the tech sector

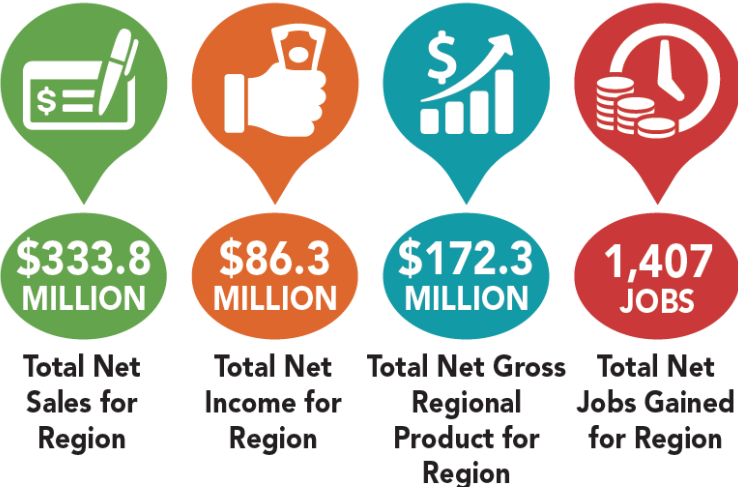
UNDERREPRESENTED SUPPLY CHAIN BUSINESSES



Diverting more power to the tech sector

Lower-Bound Assumption

In this modeling assumption, while the PUDs will see a loss in net revenues — \$1.9 million — from selling more electricity locally, overall there will be a net gain in the community due to sales by the local tech sector and other industries.




Upper-Bound Assumption

In this modeling assumption, the PUDs see no loss in net revenues from reduced electricity exports thanks to the local tech sector paying higher rates. The local tech sector and other industries also gain more sales.



WSU Emerging Tech Study conclusions

- Growing the tech sector will not require a large deviation in electricity from the wholesale to local retail markets, nor large revenue losses for the PUDs.
 - The biggest obstacle is coming up with the money to upgrade infrastructure, higher education, training programs, air service, and amenities.
 - Partnerships will be necessary to tackle these gaps.
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