Today’s Agenda

2:00 pm Welcome
Regional Demographics Cheryl Fambles

2:30 pm Targeted Industry Sectors Jason Robertson

3:50 pm Break

4:00 pm The Future of Work Joe Wilcox & Lewis McMurran

4:40 Next Steps
Population Growth in a Time of Recovery

Population Change in Four-Year Periods

Migration Drives PacMtn Population Growth

Components of Population Change
2002-2019

Grays Harbor
- Natural: 625
- Migration: 4,691
- 7% growth

Lewis
- Natural: 1,462
- Migration: 7,920
- 13% growth

Mason
- Natural: 287
- Migration: 13,712
- 28% growth

Pacific
- Natural: -1,969
- Migration: 2,736
- 4% growth

Thurston
- Natural: 17,120
- Migration: 54,541
- 34% growth

Where Do We Work?

Grays Harbor County Commuter Income Flows

- Income earned outside county: 1990: 9%, 2017: 13%
- Income earned inside county: 1990: 92%, 2017: 86%
- Income stays in county: 1990: 8%, 2017: 13%

Lewis County Commuter Income Flows

- Income earned outside county: 1990: 15%, 2017: 32%
- Income earned inside county going out: 1990: 68%, 2017: 16%
- Income stays in county: 1990: 17%, 2017: 16%

Mason County Commuter Income Flows

- Income earned outside county: 1990: 41%, 2017: 53%
- Income earned inside county going out: 1990: 15%, 2017: 15%
- Income stays in county: 1990: 18%, 2017: 18%

Pacific County Commuter Income Flows

- Income earned outside county: 1990: 16%, 2017: 21%
- Income earned inside county going out: 1990: 9%, 2017: 9%
- Income stays in county: 1990: 75%, 2017: 70%

Thurston County Commuter Income Flows

- Income earned outside county: 1990: 28%, 2017: 32%
- Income earned inside county going out: 1990: 12%, 2017: 15%
- Income stays in county: 1990: 60%, 2017: 53%

Source: PacMtn analysis of Bureau of Economic Analysis data
Among WA 12 Workforce Areas PacMtn is:

- 1\textsuperscript{st} in the percentage of homeless adults
- 1\textsuperscript{st} in the percentage of youth in foster care or aged out
- 3\textsuperscript{rd} in the percentage of low income disabled adults

In this region:

- 1,426 persons homeless
- 42,608 working age adults with a disability
- 726 youth disconnected

"Disconnected youth" are 16-19 year olds who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force. "Working age" is 18-64. "Low income" is annual income below 200% of the poverty line.

Sources: PacMtn analysis of 2013-2017 American Community Survey data; Washington Department of Commerce Point-In-Time Homeless Count, 2019; Washington Workforce Training and Coordinating Board draft estimates of barrier populations, 2019
An Aging Workforce

Employed Workforce by Age
PacMtn WDA
1990-2018

Median Age, 2018

<table>
<thead>
<tr>
<th>County</th>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>King</td>
<td>36.23</td>
</tr>
<tr>
<td>Pierce</td>
<td>37.52</td>
</tr>
<tr>
<td>Thurston</td>
<td>40.57</td>
</tr>
<tr>
<td>Kitsap</td>
<td>42.87</td>
</tr>
<tr>
<td>Lewis</td>
<td>43.53</td>
</tr>
<tr>
<td>Grays Harbor</td>
<td>44.00</td>
</tr>
<tr>
<td>Mason</td>
<td>45.94</td>
</tr>
<tr>
<td>Pacific</td>
<td>54.54</td>
</tr>
</tbody>
</table>


Source: PacMtn Analysis of U.S. Census Bureau data, Center for Economic Studies, LEHD
Unemployment Slowly Trending Up

New Unemployment Claims
PacMtn WDA

July 2018
1288

July 2019
1476

Unemployment Rate
July 2017 – July 2019

July 2017
5.3% PacMtn
4.6% US

July 2018
5.0% PacMtn
4.0% WA
3.7% US

July 2019
5.9% PacMtn
4.6% WA

Source: PacMtn analysis of Washington Department of Employment Security data
Labor Market: Supply-Demand

PacMtn WDA 2015-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Labor Supply</th>
<th>Employer Demand</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-15</td>
<td>7283</td>
<td>5058</td>
<td>-2225</td>
</tr>
<tr>
<td>Jan-16</td>
<td>6904</td>
<td>6117</td>
<td>-787</td>
</tr>
<tr>
<td>Jan-17</td>
<td>6517</td>
<td>5755</td>
<td>+767</td>
</tr>
<tr>
<td>Jan-18</td>
<td>6623</td>
<td>5384</td>
<td>+1239</td>
</tr>
<tr>
<td>Jan-19</td>
<td>6201</td>
<td>5430</td>
<td>+771</td>
</tr>
</tbody>
</table>

Source: Conference Board Help Wanted Online and Employment Security Dept. data
According to a State Workforce Board report, there are approximately **74,440** people:

**They are not in school and...**

- They are unemployed and are seeking work  
- Or-  
- They are working, but earning less than 200% below the poverty line

---

**Table: Geographic Area vs. Unemployment Rates**

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Unemployment (U-3) July 2019*</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>3.7%</td>
</tr>
<tr>
<td>Washington</td>
<td>4.5%</td>
</tr>
<tr>
<td>PacMtn</td>
<td>5.9%</td>
</tr>
<tr>
<td>Grays Harbor</td>
<td>7.1%</td>
</tr>
<tr>
<td>Lewis</td>
<td>6.7%</td>
</tr>
<tr>
<td>Mason</td>
<td>6.7%</td>
</tr>
<tr>
<td>Pacific</td>
<td>6.9%</td>
</tr>
<tr>
<td>Thurston</td>
<td>5.3%</td>
</tr>
</tbody>
</table>


*Not seasonally adjusted.

Sectors – Share of Total Employment

2019 Q1

- Wood Products: 3%
- Food Production: 4%
- Life Sciences: 10%
- IT & Telecom: 2%
- Chemicals and Plastics: 1%
- Hospitality and Food Service: 12%
- Other: 69%

Total employment data from Quarterly Census of Employment and Wages adapted to match PacMtn sector definitions.
What is “Other?”

- 65% of PacMtn’s manufacturing employment is represented by PacMtn sectors. “Other Manufacturing” represents the rest.
- FIRE is Finance, Insurance and Real Estate
- Non-Profits include non-governmental social assistance as well as religious and civic organizations
- Office Support Services are contractors that supply administrative office workers

Source: PacMtn analysis of QCEW data
Thoughts and observations?
Reference Slides
PacMtn Region

Over 7000 sq. miles
Total Population (2019) 526,060

20-yr Population Change (1999-2019) +22.6%
10-yr Population Change (2009-2019) +9.1%

<table>
<thead>
<tr>
<th>County</th>
<th>20-yr</th>
<th>10-yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grays Harbor</td>
<td>+10%</td>
<td>+2.1%</td>
</tr>
<tr>
<td>Lewis</td>
<td>+14.7%</td>
<td>+5.3%</td>
</tr>
<tr>
<td>Mason</td>
<td>+25.5%</td>
<td>+7.3%</td>
</tr>
<tr>
<td>Pacific</td>
<td>+3.8%</td>
<td>+3.5%</td>
</tr>
<tr>
<td>Thurston</td>
<td>+28.9%</td>
<td>+12.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WDA</th>
<th>Adult Homeless</th>
<th>Low Income Disabled</th>
<th>Foster Care (or aged out)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton-Franklin</td>
<td>1.1%</td>
<td>10.7%</td>
<td>0.4%</td>
</tr>
<tr>
<td>WF Central (Pierce)</td>
<td>2.2%</td>
<td>11.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Eastern</td>
<td>1.4%</td>
<td>13.0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>North Central</td>
<td>1.3%</td>
<td>10.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Northwest</td>
<td>1.9%</td>
<td>12.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Olympic</td>
<td>2.0%</td>
<td>12.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>Pacific Mountain</strong></td>
<td><strong>2.5%</strong></td>
<td><strong>12.6%</strong></td>
<td><strong>0.9%</strong></td>
</tr>
<tr>
<td>SeaKing</td>
<td>1.6%</td>
<td>9.2%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Snohomish</td>
<td>1.4%</td>
<td>10.5%</td>
<td>0.4%</td>
</tr>
<tr>
<td>South Central</td>
<td>1.8%</td>
<td>9.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Southwest</td>
<td>1.7%</td>
<td>11.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Spokane</td>
<td>2.2%</td>
<td>10.6%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>
# Trends in PacMtn Industry Sector Employment

## 15-year Employment Change by Sector

<table>
<thead>
<tr>
<th>Industry % Total</th>
<th>Total - All Industries</th>
<th>Wood Products 3%</th>
<th>Food Production &amp; Manufacturing 4%</th>
<th>Life Sciences 10%</th>
<th>IT &amp; Telecom 2%</th>
<th>Chemicals &amp; Plastics 1%</th>
<th>Hospitality Tourism 12%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2019 Q1</strong></td>
<td>199,306</td>
<td>5,421</td>
<td>7,025</td>
<td>20,243</td>
<td>4,619</td>
<td>1,315</td>
<td>23,410</td>
</tr>
<tr>
<td><strong>2-year change</strong></td>
<td>3%</td>
<td>-0.5%</td>
<td>-3%</td>
<td>5%</td>
<td>15%</td>
<td>-5%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>15-year change</strong></td>
<td>18%</td>
<td>-35%</td>
<td>21%</td>
<td>38%</td>
<td>55%</td>
<td>-6%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Total employment data from Quarterly Census of Employment and Wages adapted to match PacMtn sector definitions.
Local employers prefer hiring workers with at least some postsecondary experience.

Educational Attainment
Population aged 25-64
PacMtn WDA

- Less than high school: 12%
- High school or equivalent, no college: 34%
- Some college or Associate degree: 28%
- Bachelor's degree or advanced degree: 26%

Educational Attainment
Employed Workers aged 25-64
PacMtn WDA

- Less than high school: 9%
- High school or equivalent, no college: 25%
- Some college or Associate degree: 26%
- Bachelor's degree or advanced degree: 40%
Regional Employment Snapshot

6 Regional Sectors

Sector Statistical Report – Life Sciences

Example of Sector Overview - Life Sciences

Example of Career Pathway – Nursing Assistant

2018 Regional Impact Report and the Executive Summary
Approach

• “Two Track” vs. “Catch-All” (aka “Miss Some”)
  1. Industry (continued focus on building community wealth)
  2. Workforce (public sector back in play)

• Actionable Information
  • How to interpret at-a-glance
  • How to query-dig deeper
  • County-specific insights
  • Point to opportunities for colleges/non-profits partners

• Universal AND Customized Products
  • Regional workforce training bang for buck
  • EDC strategic advantages and untapped opportunities
  • Baseline for CEDS and EDA certification
Cluster Check

- General Alignment with Prior Study
- Evaluated for User Groups
  - LQ/Shift Share (major trends, emerging industries)
  - Industry Employment (don’t forget wood products, shellfish, ag)
  - Occupation Employment (best chance for WF customers)
- Considering Professional Services Swap with Chem-Plastic
  - Primary Manufacturing Remains Intact Via Other Clusters
  - Chem-Plastic Forecast to Decline, Already Small
  - Professional Services Provides 2 for 1 Workforce Training Benefit
- Several New Emerging Micro-Clusters
- Distinctions Across Counties (of course)
<table>
<thead>
<tr>
<th>Occupation: All Industries Private in PacMtn 2019</th>
<th>Empl</th>
<th>Regional Average Wage</th>
<th>5-Yr Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care Aides</td>
<td>3,181</td>
<td>$27,300</td>
<td>648</td>
</tr>
<tr>
<td>General and Operations Managers</td>
<td>3,429</td>
<td>$100,900</td>
<td>221</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>2,282</td>
<td>$76,000</td>
<td>196</td>
</tr>
<tr>
<td>Home Health Aides</td>
<td>821</td>
<td>$27,400</td>
<td>178</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>2,289</td>
<td>$36,900</td>
<td>137</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>2,727</td>
<td>$33,600</td>
<td>126</td>
</tr>
<tr>
<td>Nursing Assistants</td>
<td>1,597</td>
<td>$28,900</td>
<td>109</td>
</tr>
<tr>
<td>Medical Assistants</td>
<td>673</td>
<td>$38,100</td>
<td>103</td>
</tr>
<tr>
<td>Stock Clerks and Order Fillers</td>
<td>2,152</td>
<td>$34,400</td>
<td>90</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>1,141</td>
<td>$41,800</td>
<td>86</td>
</tr>
<tr>
<td>Financial Managers</td>
<td>598</td>
<td>$86,100</td>
<td>73</td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td>402</td>
<td>$99,800</td>
<td>69</td>
</tr>
<tr>
<td>Carpenters</td>
<td>1,346</td>
<td>$56,500</td>
<td>66</td>
</tr>
<tr>
<td>Medical Secretaries</td>
<td>514</td>
<td>$42,100</td>
<td>65</td>
</tr>
<tr>
<td>Dental Assistants</td>
<td>596</td>
<td>$44,400</td>
<td>65</td>
</tr>
<tr>
<td>Bus Drivers, School or Special Client</td>
<td>435</td>
<td>$34,100</td>
<td>62</td>
</tr>
<tr>
<td>Self-Enrichment Education Teachers</td>
<td>470</td>
<td>$49,100</td>
<td>61</td>
</tr>
<tr>
<td>Computer Network Architects</td>
<td>900</td>
<td>$87,000</td>
<td>58</td>
</tr>
<tr>
<td>Computer Systems Analysts</td>
<td>687</td>
<td>$76,400</td>
<td>52</td>
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<tr>
<td>Accountants and Auditors</td>
<td>763</td>
<td>$70,400</td>
<td>48</td>
</tr>
<tr>
<td>Financial Analysts</td>
<td>548</td>
<td>$58,400</td>
<td>46</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>302</td>
<td>$84,900</td>
<td>44</td>
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</table>
### Highest AAR % growth: 2014-19

++/- 100 jobs
++/- $30K wage
Positive job forecast

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet Preparation Manufacturing</td>
<td>114</td>
<td>$49,986</td>
<td>112</td>
<td>123.4%</td>
<td>115</td>
</tr>
<tr>
<td>Other Food Crops Grown Under Cover</td>
<td>858</td>
<td>$29,491</td>
<td>819</td>
<td>86.0%</td>
<td>1,143</td>
</tr>
<tr>
<td>Administration of Veterans’ Affairs</td>
<td>139</td>
<td>$56,458</td>
<td>129</td>
<td>69.2%</td>
<td>127</td>
</tr>
<tr>
<td><strong>Motion Picture and Video Production</strong></td>
<td>324</td>
<td>$43,760</td>
<td>273</td>
<td>44.6%</td>
<td>390</td>
</tr>
<tr>
<td>Payroll Services</td>
<td>256</td>
<td>$39,342</td>
<td>214</td>
<td>43.8%</td>
<td>293</td>
</tr>
<tr>
<td>Other Nonresidential Building Equipment Contractors</td>
<td>130</td>
<td>$86,259</td>
<td>109</td>
<td>43.3%</td>
<td>162</td>
</tr>
<tr>
<td>Facilities Support Services</td>
<td>661</td>
<td>$62,055</td>
<td>544</td>
<td>41.2%</td>
<td>915</td>
</tr>
<tr>
<td><strong>Mattress Manufacturing</strong></td>
<td>130</td>
<td>$43,360</td>
<td>97</td>
<td>31.8%</td>
<td>132</td>
</tr>
<tr>
<td><strong>Engineered Wood Member (except Truss)</strong></td>
<td>101</td>
<td>$79,904</td>
<td>75</td>
<td>31.6%</td>
<td>107</td>
</tr>
<tr>
<td><strong>Tobacco Manufacturing</strong></td>
<td>103</td>
<td>$46,894</td>
<td>76</td>
<td>30.7%</td>
<td>52</td>
</tr>
<tr>
<td>All Other Miscellaneous Schools and Instruction</td>
<td>644</td>
<td>$66,758</td>
<td>454</td>
<td>27.6%</td>
<td>1,002</td>
</tr>
<tr>
<td><strong>Roofing, Siding, and Insulation Material</strong></td>
<td>103</td>
<td>$74,737</td>
<td>72</td>
<td>27.1%</td>
<td>120</td>
</tr>
<tr>
<td><strong>Metal Can Manufacturing</strong></td>
<td>92</td>
<td>$75,729</td>
<td>63</td>
<td>26.0%</td>
<td>97</td>
</tr>
<tr>
<td><strong>Internet Publishing and Broadcasting</strong></td>
<td>224</td>
<td>$129,510</td>
<td>151</td>
<td>25.2%</td>
<td>355</td>
</tr>
<tr>
<td><strong>Specialized Freight (except Used</strong></td>
<td>127</td>
<td>$50,690</td>
<td>84</td>
<td>24.2%</td>
<td>139</td>
</tr>
<tr>
<td><strong>Blood and Organ Banks</strong></td>
<td>102</td>
<td>$47,383</td>
<td>66</td>
<td>23.5%</td>
<td>142</td>
</tr>
<tr>
<td><strong>Breweries</strong></td>
<td>274</td>
<td>$29,871</td>
<td>171</td>
<td>21.8%</td>
<td>360</td>
</tr>
<tr>
<td><strong>Wood Window and Door Manufacturing</strong></td>
<td>322</td>
<td>$62,514</td>
<td>198</td>
<td>21.0%</td>
<td>299</td>
</tr>
<tr>
<td><strong>Office Administrative Services</strong></td>
<td>820</td>
<td>$68,457</td>
<td>491</td>
<td>20.0%</td>
<td>1,062</td>
</tr>
<tr>
<td><strong>Custom Computer Programming Services</strong></td>
<td>416</td>
<td>$97,816</td>
<td>246</td>
<td>19.5%</td>
<td>448</td>
</tr>
<tr>
<td><strong>Industrial Building Construction</strong></td>
<td>138</td>
<td>$89,939</td>
<td>81</td>
<td>19.5%</td>
<td>156</td>
</tr>
<tr>
<td><strong>Nonresidential Glass and Glazing Contractors</strong></td>
<td>148</td>
<td>$73,404</td>
<td>87</td>
<td>19.4%</td>
<td>184</td>
</tr>
<tr>
<td>Other Social Advocacy Organizations</td>
<td>217</td>
<td>$47,514</td>
<td>128</td>
<td>19.3%</td>
<td>277</td>
</tr>
<tr>
<td>Meat Processed from Carcasses</td>
<td>111</td>
<td>$35,943</td>
<td>65</td>
<td>19.3%</td>
<td>134</td>
</tr>
<tr>
<td><strong>Computer Systems Design Services</strong></td>
<td>1,180</td>
<td>$102,030</td>
<td>656</td>
<td>17.6%</td>
<td>1,265</td>
</tr>
<tr>
<td>Residential Poured Concrete Foundation and Structure Contractors</td>
<td>133</td>
<td>$34,930</td>
<td>74</td>
<td>17.5%</td>
<td>163</td>
</tr>
<tr>
<td>Psychiatric and Substance Abuse Hospitals</td>
<td>267</td>
<td>$48,268</td>
<td>148</td>
<td>17.5%</td>
<td>231</td>
</tr>
</tbody>
</table>
Emerging Industry: Motion Picture + Video Production
NAICS 51-2110

Olympia, WA
Corporate and wedding videography

324 workers in the PacMtn region
Average Annual Wage: $43,760
Average Annual Employment Growth: 45%

Typical Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Hourly Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producers and Directors</td>
<td>$33.12</td>
</tr>
<tr>
<td>Video and Audio Technicians</td>
<td>$23.95</td>
</tr>
</tbody>
</table>

In-Region Suppliers
- Postproduction Services
- Talent Agencies
- Insurance Agents

In-Region Buyers
- Business
- Government
- Nonprofits
- Consumers

Aberdeen, WA
Specializes in animated business presentations
Includes subsidiary Grays Harbor Video Productions
Emerging Industry: **Mattress Manufacturing**
NAICS 33-7910

200 workers in the PacMtn region
Average Annual Wage: $43,760
Average Annual Employment Growth: 32%

Typical Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assemblers and Fabricators</td>
<td>$17.00</td>
</tr>
<tr>
<td>Production Workers</td>
<td>$16.65</td>
</tr>
<tr>
<td>Sewing Machine Operators</td>
<td>$17.64</td>
</tr>
<tr>
<td>Hand Laborers/Freight, Stock &amp; Material Movers</td>
<td>$15.84</td>
</tr>
</tbody>
</table>

In-Region Suppliers
- Rubber Product Manufacturers
- Wood Product Manufacturers
- Broadwoven Fabric Mills
- Industrial Machinery Wholesalers

In-Region Buyers
- Furniture Stores
- Wholesalers
- Direct-to-Consumer Purchases

Factory in Winlock, WA
# of employees: est. 50
Hiring:
- Assemblers
- Production Workers
- Sewing Machine Operators

Parent company HQ in Dallas, TX
Privately-held
Acquired by Long Point Capital in 2016

Factory in Lacey, WA
# of employees: est. 150
Hiring:
- Loaders
- Mattress Builders
- Light Truck Drivers (non-CDL)

Parent company HQ in Dallas, TX
Privately-held
Emerging Industry: Engineered Wood Member Manufacturing
NAICS 32-1213

101 workers in the PacMtn region
Average Annual Wage: $79,904
Average Annual Employment Growth: 32%

Typical Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Hourly Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sawing Machine Setters/Operators &amp; Tenders, Wood</td>
<td>$18.63</td>
</tr>
<tr>
<td>Woodworking Machine Setters/Oprs &amp; Tenders, Except Sawing</td>
<td>$18.09</td>
</tr>
<tr>
<td>Millwrights</td>
<td>$28.19</td>
</tr>
</tbody>
</table>

In-Region Suppliers
• Sawmills
• Plastics and Resin Manufacturers
• Industrial Machinery Wholesalers

In-Region Buyers
• Residential Construction
• Plywood and Veneer Manufacturers
• Commercial Construction

Sound Wood Products, Inc.
Factory in Chehalis, WA
Manufactures structural composite lumber (SCL)

Shelton Lam & Deck
Factory in Chehalis, WA
Manufactures glulam products
Emerging Industry: **Breweries**  
**NAICS 31-2120**

- 274 workers in the PacMtn region  
- Average Annual Wage: $29,871  
- Average Annual Employment Growth: 22%

**Typical Occupations**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Hourly Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brewer's Assistants</td>
<td>$22.00</td>
</tr>
<tr>
<td>Sales Representatives</td>
<td>$25.00 + commission</td>
</tr>
<tr>
<td>Light Truck Drivers</td>
<td>$17.64</td>
</tr>
<tr>
<td>Hand Laborers/Freight, Stock &amp; Material Movers</td>
<td>$15.84</td>
</tr>
</tbody>
</table>

**In-Region Suppliers**
- Metal Can Manufacturing
- Glass Container Manufacturing
- Grain Wholesalers

**In-Region Buyers**
- Restaurants
- Drinking Establishments
- Grocers
Emerging Industry: Computer Systems Design Services
NAICS 54-1512

416 workers in the PacMtn region
Average Annual Wage: $43,760
Average Annual Employment Growth: 32%

Typical Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Hourly Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Systems Analysts</td>
<td>$37.95</td>
</tr>
<tr>
<td>Network &amp; Computer Systems Administrators</td>
<td>$39.29</td>
</tr>
<tr>
<td>Computer Network Support Specialists</td>
<td>$30.41</td>
</tr>
</tbody>
</table>

In-Region Suppliers
• Data Hosting Services
• Wired and Wireless Telecommunications Carriers
• Computer Equipment Retailers
• Temporary Help Agencies

In-Region Buyers
• Government
• Business

Corporate HQ in Lacey, WA
Satellite offices in Bellevue, Portland, Boise
# of employees: 52 in Lacey location
Hiring:
• EUC Engineer
• Inside Sales Administrator
• Tier 2 IT Support Technician

Lacey, WA
# of employees: est. 10
Integrates marketing and computer systems design
Highest AAR %
Growth Forecast: 2019-2030

+- $30K wage
100+ current emp
2%< growth forecast

<table>
<thead>
<tr>
<th>Industry</th>
<th>Emp</th>
<th>Avg Ann Wages</th>
<th>Total New Demand</th>
<th>10-yr Emp Growth</th>
<th>Avg Ann Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health Care Services</td>
<td>853</td>
<td>$50,042</td>
<td>1,505</td>
<td>432</td>
<td>4.2%</td>
</tr>
<tr>
<td>Libraries and Archives</td>
<td>301</td>
<td>$40,576</td>
<td>485</td>
<td>152</td>
<td>4.2%</td>
</tr>
<tr>
<td>Internet Publishing and Broadcasting and Web Search Portals</td>
<td>224</td>
<td>$129,510</td>
<td>355</td>
<td>110</td>
<td>4.1%</td>
</tr>
<tr>
<td>All Other Information Services</td>
<td>65</td>
<td>$121,726</td>
<td>102</td>
<td>32</td>
<td>4.1%</td>
</tr>
<tr>
<td>Services for the Elderly and Persons with Disabilities</td>
<td>3,827</td>
<td>$21,211</td>
<td>7,428</td>
<td>1,679</td>
<td>3.7%</td>
</tr>
<tr>
<td>HMO Medical Centers</td>
<td>229</td>
<td>$86,347</td>
<td>311</td>
<td>97</td>
<td>3.6%</td>
</tr>
<tr>
<td>Other Individual and Family Services</td>
<td>2,485</td>
<td>$42,544</td>
<td>4,198</td>
<td>1,020</td>
<td>3.5%</td>
</tr>
<tr>
<td>Offices of Physical, Occupational/Speech Therapists, Audiologists</td>
<td>687</td>
<td>$47,755</td>
<td>934</td>
<td>284</td>
<td>3.5%</td>
</tr>
<tr>
<td>Freestanding Ambulatory Surgical and Emergency Centers</td>
<td>411</td>
<td>$50,567</td>
<td>548</td>
<td>167</td>
<td>3.5%</td>
</tr>
<tr>
<td>Child and Youth Services</td>
<td>341</td>
<td>$32,718</td>
<td>576</td>
<td>140</td>
<td>3.5%</td>
</tr>
<tr>
<td>Kidney Dialysis Centers</td>
<td>112</td>
<td>$46,557</td>
<td>150</td>
<td>46</td>
<td>3.5%</td>
</tr>
<tr>
<td>Continuing Care Retirement Communities</td>
<td>367</td>
<td>$27,438</td>
<td>653</td>
<td>139</td>
<td>3.3%</td>
</tr>
<tr>
<td>All Other Outpatient Care Centers</td>
<td>264</td>
<td>$50,420</td>
<td>342</td>
<td>100</td>
<td>3.3%</td>
</tr>
<tr>
<td>Blood and Organ Banks</td>
<td>102</td>
<td>$47,383</td>
<td>142</td>
<td>37</td>
<td>3.2%</td>
</tr>
<tr>
<td>Assisted Living Facilities for the Elderly</td>
<td>1,068</td>
<td>$26,328</td>
<td>1,881</td>
<td>387</td>
<td>3.1%</td>
</tr>
<tr>
<td>All Other Transit and Ground Passenger Transportation</td>
<td>416</td>
<td>$25,204</td>
<td>674</td>
<td>143</td>
<td>3.0%</td>
</tr>
<tr>
<td>Offices of All Other Miscellaneous Health Practitioners</td>
<td>420</td>
<td>$37,713</td>
<td>551</td>
<td>134</td>
<td>2.8%</td>
</tr>
<tr>
<td>All Other Miscellaneous Schools and Instruction</td>
<td>644</td>
<td>$66,758</td>
<td>1,002</td>
<td>190</td>
<td>2.6%</td>
</tr>
<tr>
<td>Residential Property Managers</td>
<td>501</td>
<td>$34,705</td>
<td>691</td>
<td>135</td>
<td>2.4%</td>
</tr>
<tr>
<td>Solid Waste Collection</td>
<td>292</td>
<td>$49,378</td>
<td>442</td>
<td>78</td>
<td>2.4%</td>
</tr>
<tr>
<td>Outpatient Mental Health and Substance Abuse Centers</td>
<td>663</td>
<td>$40,731</td>
<td>894</td>
<td>169</td>
<td>2.3%</td>
</tr>
<tr>
<td>Computer Facilities Management Services</td>
<td>188</td>
<td>$82,782</td>
<td>208</td>
<td>49</td>
<td>2.3%</td>
</tr>
<tr>
<td>Offices of Physicians (except Mental Health Specialists)</td>
<td>2,575</td>
<td>$77,320</td>
<td>2,909</td>
<td>627</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
### Industry Wages

**+/- 200 jobs**

**5-year growth**

**Positive forecast**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Emp</th>
<th>Avg Ann Wages</th>
<th>2014-19 Change</th>
<th>10-yr Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Publishing and Broadcasting and Web Search Portals</td>
<td>224</td>
<td>$129,510</td>
<td>151</td>
<td>355</td>
</tr>
<tr>
<td>Electric Bulk Power Transmission and Control</td>
<td>222</td>
<td>$114,794</td>
<td>123</td>
<td>194</td>
</tr>
<tr>
<td>Commercial and Industrial Machinery, Equipment Repair/Maintenance</td>
<td>204</td>
<td>$114,546</td>
<td>85</td>
<td>243</td>
</tr>
<tr>
<td>Computer Systems Design Services</td>
<td>1,180</td>
<td>$102,030</td>
<td>656</td>
<td>1,265</td>
</tr>
<tr>
<td>Wholesale Trade Agents and Brokers</td>
<td>739</td>
<td>$101,139</td>
<td>106</td>
<td>925</td>
</tr>
<tr>
<td>Software Publishers</td>
<td>192</td>
<td>$99,245</td>
<td>87</td>
<td>207</td>
</tr>
<tr>
<td>Custom Computer Programming Services</td>
<td>416</td>
<td>$97,816</td>
<td>246</td>
<td>448</td>
</tr>
<tr>
<td>Sign Manufacturing</td>
<td>208</td>
<td>$85,269</td>
<td>62</td>
<td>207</td>
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<tr>
<td>Engineering Services</td>
<td>602</td>
<td>$85,097</td>
<td>4</td>
<td>618</td>
</tr>
<tr>
<td>Administration of Air/Water/Solid Waste Management Programs</td>
<td>766</td>
<td>$82,400</td>
<td>23</td>
<td>742</td>
</tr>
<tr>
<td>Legal Counsel and Prosecution</td>
<td>540</td>
<td>$78,690</td>
<td>51</td>
<td>527</td>
</tr>
<tr>
<td>Wired Telecommunications Carriers</td>
<td>522</td>
<td>$78,258</td>
<td>66</td>
<td>418</td>
</tr>
<tr>
<td>Commercial and Institutional Building Construction</td>
<td>776</td>
<td>$77,604</td>
<td>333</td>
<td>875</td>
</tr>
<tr>
<td>Offices of Physicians (except Mental Health Specialists)</td>
<td>2,575</td>
<td>$77,320</td>
<td>159</td>
<td>2,909</td>
</tr>
<tr>
<td>Nonresidential Electrical Contractors, Wiring Installation Contractors</td>
<td>635</td>
<td>$76,766</td>
<td>295</td>
<td>803</td>
</tr>
<tr>
<td>Administrative Management / General Management Consulting Services</td>
<td>646</td>
<td>$75,550</td>
<td>240</td>
<td>801</td>
</tr>
<tr>
<td>Industry</td>
<td>Emp</td>
<td>Avg Ann Wages</td>
<td>LQ</td>
<td>Total New Demand</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----</td>
<td>---------------</td>
<td>-------</td>
<td>------------------</td>
</tr>
<tr>
<td>Shellfish Farming</td>
<td>484</td>
<td>$34,003</td>
<td>158.28</td>
<td>610</td>
</tr>
<tr>
<td>Other Food Crops Grown Under Cover</td>
<td>858</td>
<td>$29,491</td>
<td>36.68</td>
<td>1,143</td>
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<tr>
<td>Seafood Product Preparation and Packaging</td>
<td>1,294</td>
<td>$35,737</td>
<td>27.62</td>
<td>1,296</td>
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<tr>
<td>Forest Nurseries and Gathering of Forest Products</td>
<td>86</td>
<td>$66,431</td>
<td>26.65</td>
<td>117</td>
</tr>
<tr>
<td>Softwood Veneer and Plywood Manufacturing</td>
<td>460</td>
<td>$70,036</td>
<td>24.32</td>
<td>468</td>
</tr>
<tr>
<td>Sawmills</td>
<td>2,027</td>
<td>$68,106</td>
<td>18.26</td>
<td>2,184</td>
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<tr>
<td>Shellfish Fishing</td>
<td>396</td>
<td>$44,002</td>
<td>17.51</td>
<td>365</td>
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<tr>
<td>Mushroom Production</td>
<td>214</td>
<td>$39,791</td>
<td>15.13</td>
<td>296</td>
</tr>
<tr>
<td>Finfish Farming and Fish Hatcheries</td>
<td>78</td>
<td>$51,065</td>
<td>15.04</td>
<td>100</td>
</tr>
<tr>
<td>Logging</td>
<td>1,239</td>
<td>$59,963</td>
<td>14.18</td>
<td>1,092</td>
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<tr>
<td>American Indian Tribal Governments</td>
<td>1,989</td>
<td>$50,883</td>
<td>13.82</td>
<td>1,013</td>
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<tr>
<td>Newsprint Mills</td>
<td>69</td>
<td>$73,051</td>
<td>12.98</td>
<td>54</td>
</tr>
<tr>
<td>Support Activities for Forestry</td>
<td>429</td>
<td>$41,087</td>
<td>12.89</td>
<td>486</td>
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<tr>
<td>Crushed and Broken Stone Mining and Quarrying</td>
<td>117</td>
<td>$51,583</td>
<td>12.07</td>
<td>108</td>
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<tr>
<td>Engineered Wood Member Manufacturing</td>
<td>101</td>
<td>$79,904</td>
<td>11.55</td>
<td>107</td>
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<tr>
<td>Casinos (except Casino Hotels)</td>
<td>2,606</td>
<td>$39,319</td>
<td>11.02</td>
<td>4,004</td>
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<tr>
<td>Administration of Education Programs</td>
<td>957</td>
<td>$71,419</td>
<td>10.41</td>
<td>947</td>
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<tr>
<td>Administration of Human Resource Programs</td>
<td>5,170</td>
<td>$67,285</td>
<td>10.26</td>
<td>5,043</td>
</tr>
<tr>
<td>Industry Title</td>
<td>Actual Growth</td>
<td>National Growth</td>
<td>Industry Share Mix</td>
<td>Local Competitiveness</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>--------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Agriculture, Forestry, Fishing and Hunting</td>
<td>-131</td>
<td>558</td>
<td>-876</td>
<td>186</td>
</tr>
<tr>
<td>Mining, Quarrying, and Oil and Gas Extraction</td>
<td>-18</td>
<td>28</td>
<td>-89</td>
<td>43</td>
</tr>
<tr>
<td>Utilities</td>
<td>-13</td>
<td>97</td>
<td>99</td>
<td>-209</td>
</tr>
<tr>
<td>Construction</td>
<td>280</td>
<td>746</td>
<td>-1,088</td>
<td>622</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-2,490</td>
<td>1,057</td>
<td>-2,056</td>
<td>-1,492</td>
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<tr>
<td>Wholesale Trade</td>
<td>240</td>
<td>353</td>
<td>-473</td>
<td>360</td>
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<tr>
<td>Retail Trade</td>
<td>1,608</td>
<td>1,599</td>
<td>-797</td>
<td>806</td>
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<tr>
<td>Transportation and Warehousing</td>
<td>497</td>
<td>430</td>
<td>512</td>
<td>-445</td>
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<tr>
<td>Information</td>
<td>-541</td>
<td>229</td>
<td>-308</td>
<td>-462</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>-311</td>
<td>321</td>
<td>-325</td>
<td>-306</td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing</td>
<td>-253</td>
<td>207</td>
<td>-312</td>
<td>-148</td>
</tr>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>1,761</td>
<td>439</td>
<td>352</td>
<td>971</td>
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<tr>
<td>Management of Companies and Enterprises</td>
<td>185</td>
<td>63</td>
<td>141</td>
<td>-18</td>
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<tr>
<td>Admin/Support, Waste Management/Remediation</td>
<td>3,526</td>
<td>460</td>
<td>576</td>
<td>2,490</td>
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<tr>
<td>Educational Services</td>
<td>1,971</td>
<td>1,166</td>
<td>-647</td>
<td>1,452</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>6,474</td>
<td>1,612</td>
<td>4,051</td>
<td>811</td>
</tr>
<tr>
<td>Arts, Entertainment, and Recreation</td>
<td>1,006</td>
<td>381</td>
<td>-561</td>
<td>1,187</td>
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<tr>
<td>Accommodation and Food Services</td>
<td>2,316</td>
<td>1,107</td>
<td>2,104</td>
<td>-894</td>
</tr>
<tr>
<td>Other Services (except Public Administration)</td>
<td>-2,208</td>
<td>764</td>
<td>-1,734</td>
<td>-1,238</td>
</tr>
<tr>
<td>Public Administration</td>
<td>12</td>
<td>2,330</td>
<td>-2,529</td>
<td>211</td>
</tr>
<tr>
<td>Unclassified</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13,914</strong></td>
<td><strong>13,948</strong></td>
<td><strong>-3,962</strong></td>
<td><strong>3,928</strong></td>
</tr>
<tr>
<td>Industry</td>
<td>Empl</td>
<td>Avg Ann Wages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------</td>
<td>-------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary and Secondary Schools</td>
<td>13,257</td>
<td>$45,579</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Medical and Surgical Hospitals</td>
<td>6,766</td>
<td>$63,831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Service Restaurants</td>
<td>5,634</td>
<td>$23,306</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited-Service Restaurants</td>
<td>5,529</td>
<td>$17,105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration of Human Resource Programs</td>
<td>5,170</td>
<td>$67,285</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executive and Legislative Offices, Combined</td>
<td>5,019</td>
<td>$64,365</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services for the Elderly and Persons with Disabilities</td>
<td>3,827</td>
<td>$21,211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supermarkets and Other Grocery (except Convenience) Stores</td>
<td>3,355</td>
<td>$29,657</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warehouse Clubs and Supercenters</td>
<td>3,316</td>
<td>$33,510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulation and Administration of Transportation Programs</td>
<td>2,910</td>
<td>$72,235</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration of Public Health Programs</td>
<td>2,810</td>
<td>$65,810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary Help Services</td>
<td>2,801</td>
<td>$35,790</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casinos (except Casino Hotels)</td>
<td>2,606</td>
<td>$39,319</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offices of Physicians (except Mental Health Specialists)</td>
<td>2,575</td>
<td>$77,320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correctional Institutions</td>
<td>2,527</td>
<td>$60,086</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Individual and Family Services</td>
<td>2,485</td>
<td>$42,544</td>
<td></td>
<td></td>
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<tr>
<td>Administration of Conservation Programs</td>
<td>2,326</td>
<td>$64,331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotels (except Casino Hotels) and Motels</td>
<td>2,177</td>
<td>$23,929</td>
<td></td>
<td></td>
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<tr>
<td>Sawmills</td>
<td>2,027</td>
<td>$68,106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian and Alaska Native Tribal Governments</td>
<td>1,989</td>
<td>$50,883</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PacMtn Region: Ave. Annual Occupation Gaps 2019-2029, Two-Year Degree or Higher

- Registered Nurses ($78,200) - 40
- Software Developers, Applications ($112,300) - 19
- General and Operations Managers ($100,100) - 19
- Accountants and Auditors ($68,900) - 12
- Managers, All Other ($102,100) - 11
- Business Operations Specialists, All Other ($67,600) - 11
- Management Analysts ($63,200) - 9
- Child, Family, and School Social Workers ($51,600) - 9
- Secondary School Teachers ($65,900) - 8
- Financial Managers ($89,300) - 8
Occupation Staffing
Regional Patterns by Industry, Wage and Demand
SAMPLE ONLY – SEE RESOURCE SLIDES AT END
Combined, Prof. Services to add +/- 7k jobs over next decade.
Prof. Services, Health, Tourism, Info Up

Wood Products, Manufacturing Down
Employment Turnover

By Industry
PacMtn Region: Job Turnover by Industry, % per Quarter and Total Employment (4 quarters ending Q2 2016)

*Region Average = 9.5%*
<table>
<thead>
<tr>
<th>Industry</th>
<th>Emp</th>
<th>New Hires</th>
<th>Separations</th>
<th>Turnover</th>
<th>Average Annual Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Security and International Affairs</td>
<td>130</td>
<td>28</td>
<td>50</td>
<td>39.7%</td>
<td>$71,523</td>
</tr>
<tr>
<td>Foundation, Structure, Building Exterior Contractors</td>
<td>1,128</td>
<td>429</td>
<td>439</td>
<td>16.9%</td>
<td>$39,267</td>
</tr>
<tr>
<td>Residential Building Construction</td>
<td>1,399</td>
<td>454</td>
<td>462</td>
<td>15.6%</td>
<td>$32,586</td>
</tr>
<tr>
<td>Greenhouse, Nursery, and Floriculture Production</td>
<td>1,425</td>
<td>541</td>
<td>510</td>
<td>15.0%</td>
<td>$33,516</td>
</tr>
<tr>
<td>Seafood Product Preparation and Packaging</td>
<td>1,226</td>
<td>424</td>
<td>516</td>
<td>14.3%</td>
<td>$35,567</td>
</tr>
<tr>
<td>Nondepository Credit Intermediation</td>
<td>296</td>
<td>39</td>
<td>39</td>
<td>14.3%</td>
<td>$66,654</td>
</tr>
<tr>
<td>Other Specialty Trade Contractors</td>
<td>604</td>
<td>173</td>
<td>187</td>
<td>13.8%</td>
<td>$39,042</td>
</tr>
<tr>
<td>Specialized Freight Trucking</td>
<td>627</td>
<td>155</td>
<td>171</td>
<td>12.8%</td>
<td>$41,027</td>
</tr>
<tr>
<td>Accounting, Tax Prep, Bookkeeping, Payroll Services</td>
<td>593</td>
<td>138</td>
<td>155</td>
<td>12.8%</td>
<td>$46,063</td>
</tr>
<tr>
<td>Management, Scientific, Technical Consulting</td>
<td>894</td>
<td>146</td>
<td>161</td>
<td>12.6%</td>
<td>$53,886</td>
</tr>
<tr>
<td>Automotive Repair and Maintenance</td>
<td>1,129</td>
<td>228</td>
<td>200</td>
<td>11.7%</td>
<td>$35,338</td>
</tr>
<tr>
<td>Building Equipment Contractors</td>
<td>1,556</td>
<td>349</td>
<td>323</td>
<td>11.0%</td>
<td>$48,881</td>
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<tr>
<td>Automobile Dealers</td>
<td>1,446</td>
<td>248</td>
<td>272</td>
<td>10.6%</td>
<td>$49,191</td>
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<tr>
<td>Offices of Other Health Practitionans</td>
<td>1,301</td>
<td>203</td>
<td>211</td>
<td>10.4%</td>
<td>$32,819</td>
</tr>
<tr>
<td>Health and Personal Care Stores</td>
<td>930</td>
<td>142</td>
<td>132</td>
<td>10.2%</td>
<td>$35,801</td>
</tr>
<tr>
<td>Cattle Ranching and Farming</td>
<td>262</td>
<td>43</td>
<td>52</td>
<td>10.0%</td>
<td>$35,158</td>
</tr>
</tbody>
</table>
PacMtn: Turnover by Age/Total Employment (4 Quarters ending Q2, 2016)
Supply Chain Gaps

High-Level Snapshot
PacMtn: Supply Chain Employment Gaps by Volume, with Total Employment and Existing Location Quotient (2019)
RESOURCE SLIDES

Occupation Staffing

Regional Patterns by Industry, Wage and Demand
PacMtn: Top 20 Industries for Architecture/Engineering Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Architectural, Engineering Services, 503
- Admin. of Human Resource Prog, 340
- Exec, Leg, Gen Gov Support, 223
- Admin. of Economic Prog, 143
- Justice, Public Safety Activities, 137
- Power Generation, Transmission, Dist., 69
- Admin. Env.l Quality Prog, 114
- Employment Services, 47
- Wired/Wireless Telecom Carriers, 17
- Ship/Boat Building, 23
- Nonresidential Building Construction, 36
- Residential Building Construction, 24
- Wired/Wireless Telecom Carriers, 17
- Management, Sci, Tech Consulting, 41
- Computer Systems Design, Services, 41
- Power Generation, Transmission, Dist., 69
- Management, Sci, Tech Consulting, 41
- Computer Systems Design, Services, 41
- Management of Companies/Enterprises, 27
PacMtn: Top 20 Industries for Life, Physical, Social Science Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Offices of Other Health Practitioners, 78
- Scientific Research and Development Services, 61
- Individual/Family Services, 41
- Elementary and Secondary Schools, 52
- Medical and Surgical Hospitals, 72
- Management, Scientific, Technical Consulting, 95
- Admin. of Environmental Quality Programs, 238
- Executive, Legislative, General Government Support, 449
- Admin. of Economic Program, 291
- Justice, Public Order, Safety Activities, 278
- Admin. of Human Resource Programs, 690
- Support Activities for Forestry, 62
- Colleges, Universities, Professional Schools, 99
- Admin. of Economic Program, 291
- Loging, 17
- Architectural, Engineering, Related Services, 54
- Social Advocacy Organizations, 35
PacMtn: Top 20 Industries for Legal Occupations by Employment/Annual Average Wage + 10-yr demand forecast, 2019
PacMtn: Top 20 Industries for Education/Training/Library Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Elementary and Secondary Schools, 8,803
- Junior Colleges, 649
- Colleges, Universities, Professional Schools, 533
- Child Day Care Services, 681
- Individual and Family Services, 458
- Religious Orgs, 223
- Civic/Social Orgs, 56
- Technical/Trade Schools, 46
- Exec, Leg, General Government Support, 280
- Admin. of Human Resource Programs, 140
- Justice, Public Order, Safety Activities, 71
- Educational Support Services, 96
- Museums, Similar Institutions, 134
- Emplmt Services, 80
- Admin. Economic Prog., 58
- Other Schools and Instruction, 1,049
- Civic/Social Orgs, 56
- Religious Orgs, 223
- Individual and Family Services, 458
- Technical/Trade Schools, 46
- Exec, Leg, General Government Support, 280
- Admin. of Human Resource Programs, 140
- Justice, Public Order, Safety Activities, 71
- Educational Support Services, 96
- Museums, Similar Institutions, 134
- Emplmt Services, 80
- Admin. Economic Prog., 58
- Other Schools and Instruction, 1,049
PacMtn: Top 20 Industries for Healthcare Practitioners/Technical Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Offices of Physicians, 820
- Offices of Dentists, 448
- Home Health Care Services, 233
- Admin. Human Resource Programs, 183
- Outpatient Care Centers, 578
- Offices of Other Health Practitioners, 564
- Professional, Scientific, Technical Services, 268
- Admin. Economic Program, 79
- Admin. Environmental Quality Prog., 68
- Psych/Substance Abuse Hospitals, 57
- Justice, Public Order, Safety Activities, 77
- Nursing Care Facilities, 250
- Exec, Leg, General Government Support, 165
- Health/Personal Care Stores, 255
- Elementary/Secondary Schools, 148
- Assisted Living Facilities, 128
- Other Ambulatory Health Care Services, 106
- Individual/Family Services, 160
- Admin. Environmental Quality Prog., 68

- Medical and Surgical Hospitals, 2,261

Average Annual Wage:
- $20,000
- $40,000
- $60,000
- $80,000
- $100,000
- $120,000
- $140,000
- $160,000

2019 Employment Volume:
- -1,000
- -500
- 0
- 500
- 1,000
- 1,500
- 2,000
- 2,500
- 3,000
- 3,500
- 4,000
- 4,500
PacMtn: Top 20 Industries for Healthcare Support Occupations by Employment/Annual Average Wage + 10-yr demand forecast, 2019

- Medical and Surgical Hospitals: 1,019
- Nursing Care Facilities: 915
- Offices of Dentists: 863
- Offices of Health Practitioners: 772
- Offices of Physicians: 692
- Individual/Family Services: 766
- Assisted Living Facilities: 664
- Home Health Care Services: 570
- Professional, Scientific, Technical Services: 405
- Outpatient Care Centers: 256
- Exec, Leg, General Gov Support: 101
- Employment Services: 74
- Admin. Human Resource Programs: 142
- Personal Care Services: 129
- Justice, Public Order Activities: 58
- Admin. Economic Program: 60
- Intellectual/Developmental Disability, Mental Health, Substance Abuse Facilities: 77
- Admin. of Environmental Quality Prog.: 48
- Elementary/Secondary Schools: 46
- $10,000
- $20,000
- $30,000
- $40,000
- $50,000
- $60,000
- 2019 Employment Volume
- $10,000 $20,000 $30,000 $40,000 $50,000 $60,000
PacMtn: Top 20 Industries for Protective Service Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Exec, Leg, General Gov Support, 1,897
- Justice, Public Order, Safety Activities, 1,097
- Admin. Human Resource Programs, 717
- Investigation/Security Services, 559
- Elementary/Secondary Schools, 410
- Traveler Accommodation, 74
- Museums/Similar Institutions, 49
- Other Support Services, 43
- Admin. Environmental Quality Prog, 241
- Admin. Economic Program, 307
- Admin. Human Resource Programs, 717
- Gambling Industries, 257
- Facilities Support Services, 125
- Medical/Surgical Hospitals, 65
- Biz, Prof, Labor, Political Orgs, 46
- Drinking Places, 29
- Civic/Social Orgs, 91
- Warehouse Clubs/Supercenters, 80
- Admin Housing, Urban Planning Progs, 20
- Admin. Economic Program, 307
- Admin. Human Resource Programs, 717
- Justice, Public Order, Safety Activities, 1,097

2019 Employment Volume

- $50,000
- $60,000
- $70,000
- $80,000
- $90,000
- $10,000
- $20,000
- $30,000
- $40,000
- $50,000
- $60,000
- $70,000
- $80,000
- $90,000

Average Annual Wage

- $20,000
- $30,000
- $40,000
- $50,000
- $60,000
- $70,000
- $80,000
- $90,000

-500 0 500 1,000 1,500 2,000 2,500 3,000

10-yr demand forecast, 2019
PacMtn: Top 20 Industries for Building/Grounds/Maintenance Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

$45,000

Services to Buildings/Dwellings, 3,173

Traveler Accommodation, 1,007

Elementary/Secondary Schools, 836

Exece, Leg, Genl Gov Support, 322

Medical/Surgical Hospitals, 315

Amusement/Rec Industries, 263

Gambling Industries, 242

Facilities Support Services, 276

Religious Orgs, 167

Crop Production, 124

Nursing Care Facilities, 141

Assisted Living Facilities, 173

Admin. Human Resource Programs, 120

Justice, Public Order, Safety Activities, 67

Lessors of Real Estate, 90

Activities Related to Real Estate, 80

Private Households, 110

Facilities Support Services, 276

Employment Services, 111

Nursing Care Facilities, 141

Assisted Living Facilities, 173

Admin. Human Resource Programs, 120

Justice, Public Order, Safety Activities, 67

Crop Production, 124

Lessors of Real Estate, 90

Activities Related to Real Estate, 80

Private Households, 110

Facilities Support Services, 276

Employment Services, 111

Nursing Care Facilities, 141

Assisted Living Facilities, 173

Admin. Human Resource Programs, 120

Justice, Public Order, Safety Activities, 67

Crop Production, 124

Lessors of Real Estate, 90

Activities Related to Real Estate, 80

Private Households, 110

Facilities Support Services, 276

Employment Services, 111

Nursing Care Facilities, 141

Assisted Living Facilities, 173
PacMtn: Top 20 Industries for Sales/Related Occupations by Employment Volume/Average Annual Wage + 10-yr demand forecast

Warehouse Clubs/Supercenters, 4,311
Grocery Stores, 2,473
Gasoline Stations, 1,957
Building Material/Supplies Dealers, 1,564
Clothing Stores, 976
Other Misc Retailers, 1,139
Department Stores, 883
Sporting Good, Hobby, Instrument Stores, 1,148
Auto Dealers, 917
Office Supplies, Stationery, Gift Stores, 475
Direct Selling Establishments, 464
Used Merchandise Stores, 476
Electronics/Appliance Stores, 432
Auto Parts, Accessories, Tire Stores, 532
Beer, Wine, and Liquor Stores, 516
Restaurants and Other Eating Places, 753
Health/Personal Care Stores, 751

Average Annual Wage:
$10,000
$20,000
$30,000
$40,000
$50,000
$60,000
$70,000
$80,000
$90,000
$100,000

10-yr demand forecast:
$-500
0
500
1,000
1,500
2,000
2,500
3,000
PacMtn: Top 20 Industries for Office/Admin Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Exec, Leg, Gen Gov Support, 1,788
- Admin. Human Resource Programs, 1,576
- Depository Credit Intermediation, 947
- Warehouse/Supercenters, 1,198
- Medical/Surgical Hospitals, 889
- Grocery Stores, 1,047
- Offices of Physicians, 1,135
- Business Support Services, 1,104
- Individual/Family Services, 873
- Traveler Accommodation, 695
- Employee Services, 589
- Employment Services, 530
- Other Health Practitioners, 681
- Offices of Dentists, 654
- Justice, Public Safety Activities, 695
- Admin. Economic Program, 654
- Health Care and Social Assistance, 654
- Admin. Environmental Quality Prog, 518
- Agencies/Brokerages/Insurance Activities, 530

Average Annual Wage:
- $20,000
- $25,000
- $30,000
- $35,000
- $40,000
- $45,000
- $50,000
- $55,000
- $60,000
PacMtn: Top 20 Industries for Farming/Fishing/Forestry Occupations by Employment/Annual Average Wage + 10-yr demand forecast, 2019

- Logging, 748
- Greenhouse, Nursery, Floriculture Production, 1,575
- Cattle Ranching/Farming, 221
- Fruit/Tree Nut Farming, 192
- Vegetable/Melon Farming, 120
- Poultry/Egg Production, 177
- Aquaculture, 504
- Sawmills/Wood Preservation, 179
- Support Activities for Forestry, 53
- Support Activities for Animal Production, 44
- Justice, Public Safety Activities, 39
- Admin. Economic Program, 41
- Admin. Human Resource Programs, 100
- Forest Nurseries/Gathering of Forest Products, 56
- Seafood Preparation/Packaging, 34
- Exec, Lege, Gen Gov Support, 45
- Other Crop Farming, 47
- Vegetable/Melon Farming, 120
- Poultry/Egg Production, 177
- Sawmills/Wood Preservation, 179
- Justice, Public Safety Activities, 39
- Admin. Economic Program, 41
- Admin. Human Resource Programs, 100
- Forest Nurseries/Gathering of Forest Products, 56
- Seafood Preparation/Packaging, 34
- Exec, Lege, Gen Gov Support, 45
- Other Crop Farming, 47
- Vegetable/Melon Farming, 120
PacMtn: Top 20 Industries for Distribution/Production Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Sawmills/Wood Preservation, 938
- Seafood Preparation/Packaging, 742
- Employment Services, 790
- Wood Product Manufacturing, 420
- Veneer, Plywood, Engineered Wood Manufacturing, 347
- Grocery Stores, 403
- Furniture/Kitchen Cabinet Manufacturing, 317
- Fruit/Vegetable Preserving/Specialty Food Manufacturing, 327
- Ship/Boat Building, 152
- Exec, Leg, Genl Govt Support, 153
- Miscellaneous Manufacturing, 167
- Plastics Manufacturing, 156
- Motor Vehicle Parts Manufacturing, 156
- Beverage Manufacturing, 194
- Medical Equipment/Supplies Manufacturing, 145
- Architectural/Structural Metals Manufacturing, 122
- Glass/Glass Product Manufacturing, 121
- Animal Slaughtering/Processing, 147
- Water, Sewage, Other Systems, 115
- Veterinary Services, 153
- Miscellaneous Manufacturing, 167
- Veneer, Plywood, Engineered Wood Manufacturing, 347
- Wood Product Manufacturing, 420
- Employment Services, 790
- Sawmills/Wood Preservation, 938

2019 Employment Volume

- $65,000
- $60,000
- $55,000
- $50,000
- $45,000
- $40,000
- $35,000
- $30,000
- $25,000
- $20,000
- $15,000
- $10,000
- $5,000
- $0
- $200
- $400
- $600
- $800
- $1,000
- $1,200
PacMtn: Top 20 Industries for Transportation/Material Moving Occupations by Employment/Average Annual Wage + 10-yr demand forecast, 2019

- Employment Services, 1,314
- General Freight Trucking, 973
- Warehousing and Storage, 1,067
- Specialized Freight Trucking, 703
- Sawmills and Wood Preservation, 613
- Transit Transportation, 739
- Couriers/Express Delivery Services, 585
- Exec, Leg, Gen Gov Support, 430
- Grocery/Product Merchant Wholesalers, 481
- Grocery Stores, 317
- Elementary/Secondary Schools, 502
- Restaurants/Eating Places, 294
- Automotive Repair/Maintenance, 442
- Automobile Dealers, 375
- Building Material and Supplies Dealers, 264
- Warehouse Clubs/Supercenters, 296
- Seafood Preparation/Packaging, 256
- Waste Collection, 323
- Logging, 163

2019 Employment Volume

- $20,000
- $25,000
- $30,000
- $35,000
- $40,000
- $45,000
- $50,000
- $55,000
Fourth Industrial Revolution
Million Dollar Question

How can Washington’s workers and businesses prosper together?
In the summer of 2018, Washington’s Legislature created and funded the Future of Work project to investigate this future.

It’s the first of its kind in the U.S. and puts Washington in the spotlight as a thought leader. This included the creation of a Task Force made up of legislators, business and labor leaders.

The Task Force was charged with developing a set of policy recommendations that will benefit both Washington’s workers and businesses.
Final Report: 2019

By December 1, 2019 final report due to Governor and Legislature that:

- Describes Task Force activities
- Presents a set of recommendations
- Includes a recommendation for research and activities the Task Force would complete if it were to continue beyond sunset date of June 30, 2020.
Almost half of US jobs are susceptible to computerization, according to Oxford University.

Only 9 percent of jobs are at risk of being completely displaced.

- OECD 2016
Preparing Washington’s Businesses and Workforce for the future.

- The global economy is consistently generating more jobs, but not necessarily prosperity.

- When shifts occur, it’s usually lower skilled, less educated workers that lose out.

- Our talent pipeline development systems (education, training, supports) are designed for a bygone industrial economy.

- Government must transform itself to align with transformations in the economy. Preparing businesses and citizens to compete in any economy by seizing opportunities to reskill through a flexible/customizable lifelong career pathway.
Supporting Workers

- Incumbent workforce at most risk of automation, displacement.
- Upskilling, reskilling, retraining, education, entrepreneurship.
- Rethinking the safety net in an era of “gig” and nontraditional work.
Partnering with Businesses

- Businesses must be incentivized to innovate.
- Businesses have to adopt modern technology to stay competitive.
- Businesses must increase resources devoted to people development.
Which Jobs Have the Greatest Capacity for Automation in Washington?

<table>
<thead>
<tr>
<th>Completely Automatable</th>
<th>Mostly Automatable</th>
<th>Mostly Not Automatable</th>
<th>Not at All Automatable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>Office &amp; Admin. Support</td>
<td>Construction &amp; Extraction</td>
<td>Inst., Maint., &amp; Repair</td>
</tr>
<tr>
<td>Ed., Training, &amp; Library</td>
<td>Legal</td>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Labor Statistics (2017) and Oxford University, analyzed by Washington’s Workforce Board

Note: Bubble size indicates relative size of occupations in terms of number of employees. Orange bubbles illustrate occupations with highest levels of activities most likely to be automated within the occupational group.
Washington Labor Force Composition
by generational cohort

Source: U.S. Census Bureau and WA Office of Financial Management, analyzed by the Washington Workforce Board
Wealth disparity

Washington real annual earnings per person, 2000-2017
by income quartile (in 2017 $)

Source: U.S. Census Bureau, analyzed by the Washington Workforce Board
Regional **Inequity**

Washington unemployment rate, October 2018
by county urbanization (not seasonally adjusted)

Source: U.S. Census Bureau and Washington State Employment Security Department, analyzed by the Washington Workforce Board
Where Are We Now?
5 Policy Areas

1. Incumbent Worker Training
2. Use and Adoption of Technology in the Workplace
3. Modernized Worker Support System
4. Improved Labor Market Information and Credentialing Transparency
5. Equal Access to Economic Development Resources
Policy Area – Incumbent Workers

- Seeking $25 mil for 2 years for incumbent worker training – retraining and upskilling current workforce is most critical factor in “future of work” scenarios. Public resources necessary.

- Extend customized training program/tax credit/job skills program – helps business offset costs of training.

- Allow those seeking adult basic education to be eligible for state financial aid.
Policy Area – Use/Adoption of Advanced Technology

- AI, automation, and robots are coming quickly and will be disruptive.

- Use of AI in the workplace has many implications across organizations that will require all kinds of adaptation.

- Workers need to be prepared and brought into the conversation, from both a “cultural” and implementation standpoint.
Modernized Worker Support System

- Public and private worker support and benefit systems created during previous industrial eras.
- “Event” based public benefits system; eligible if one loses job or gets injured.
- Nothing seamless or portable that helps manage life’s ebbs and flows.
- Lifelong learning accounts and portable benefit structures emerging to support workers throughout work/life cycles.
Improved Labor Market Data/Credential Transparency

- Businesses use college degrees as “proxies” for qualifications.
- Workers need better “signals” to know what skills and education are really required and in demand.
- Labor market data much improved but scattered.
- Credential standardization is one way to create better labor market data and signals to business and workers.
- Adding occupation field to unemployment reporting improves data collection, ability to report.
Equal Access to Economic Development Resources

- Rural areas of Washington have steeper barriers to economic/workforce development than urban areas.
- Robust broadband internet still not ubiquitous across state but moving in right direction.
- Employee ownership and cooperatives are proven methods to keep businesses viable.
- Use libraries more for community training/education hubs.
- Develop networks and capacity for businesses to adopt new tech/processes with engineering/business depts. of state’s colleges.
Thank you!

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360-709-4631

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360-709-4628