

Washington State Semiconductor Industry Analysis

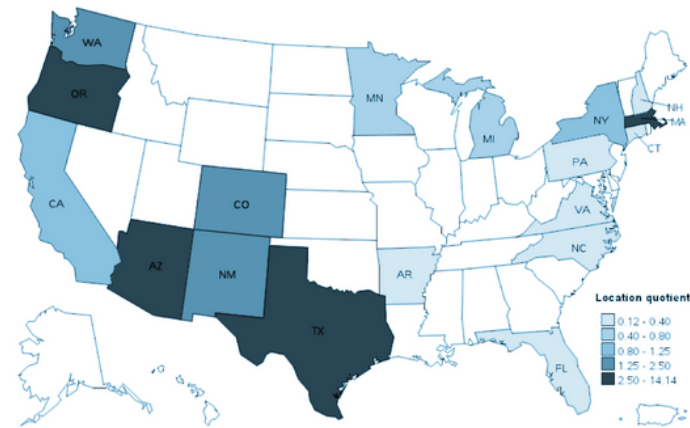


The Workforce that Powers the Modern World

- Semiconductors are the backbone of modern technology, essential for everything from smartphones to national security.
- To strengthen this critical US industry, the 2022 **CHIPS and Science Act** allocates **\$280 billion**, with \$39 billion for manufacturing.
- The semiconductor industry is substantial in Washington state, with **8,580 jobs** and an estimated total of **\$4.5 billion** economic impact from wages and taxes.
- Washington's semiconductor companies cover the entire semiconductor value chain, from R&D to Design, Manufacturing, Assembly/Testing/Packaging, and Distribution.
- Leaders include global names in semiconductors like TSMC, SEH America, and Honeywell Electronic Materials, as well as local entities nLIGHT, Moses Lake Industries, and Silicon Forest Electronics.
- Aerospace and cloud computing leaders Boeing, Microsoft, and Amazon drive demand through design and purchase of chips.

#6 Semiconductor Technician Concentration

Location quotient of semiconductor processing technicians, by state, May 2023

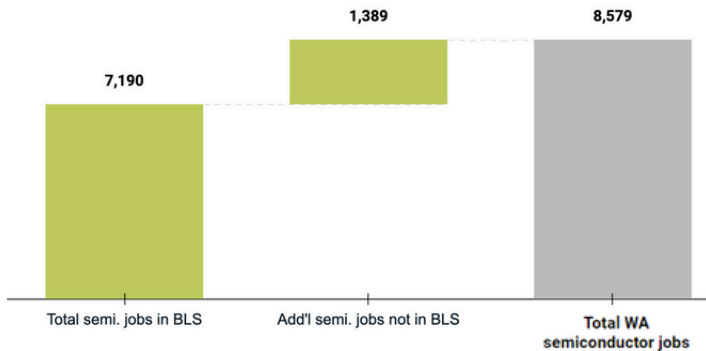


Blank areas indicate data not available

Source: [U.S. Bureau of Labor Statistics, Semiconductor Processing Technicians](#)

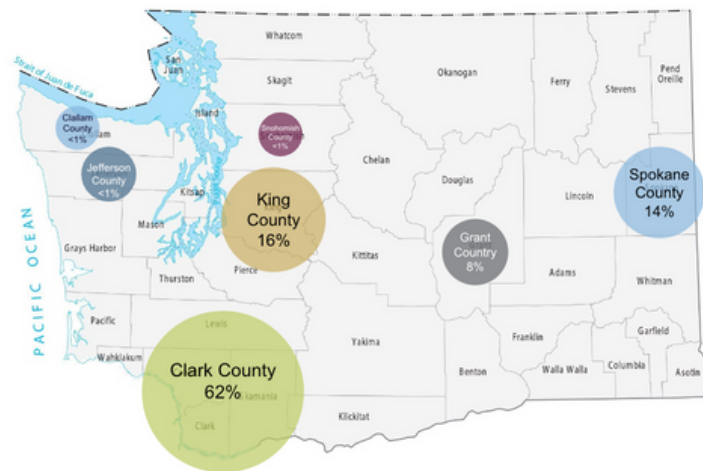
The Numbers: Washington's Semiconductor Industry

- #1 in tech** employment and **#10 for semiconductor** employment nationally
- 8,580** semiconductor jobs in Washington state
- \$4.5 billion** estimated direct and indirect economic impact from wages and taxes



Total Number of Semiconductor Jobs in Washington State. Sources: [2023 OEWS Research Estimates](#), [NAICS Association Company Lookup Tool](#) and interviews

Job Distribution Across WA State Counties



Relative proportion of jobs in each Washington state county. N=51 county-attributable companies. Source: [NAICS Association Company Lookup Tool](#).

Economic Impact of the Semiconductor Industry



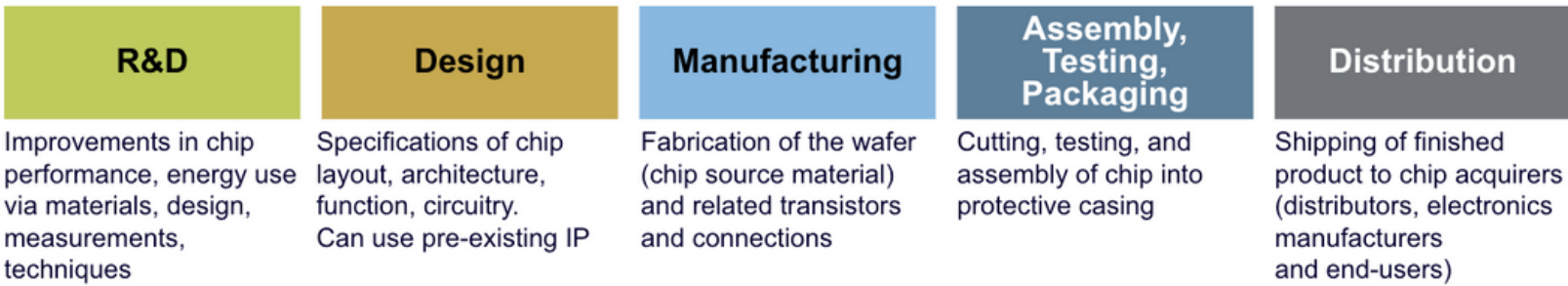
Total economic impact of the Washington semiconductor industry
\$4.5 Billion

A Home to Global Leaders

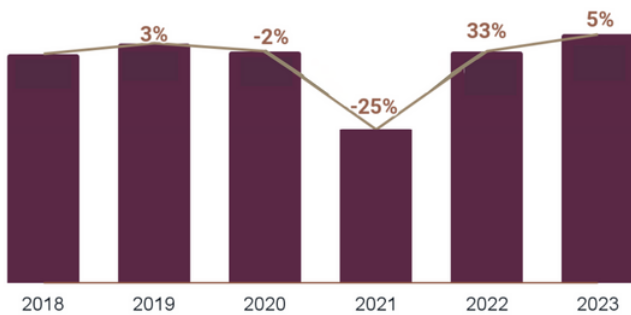


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Semiconductor Industry Value Chain



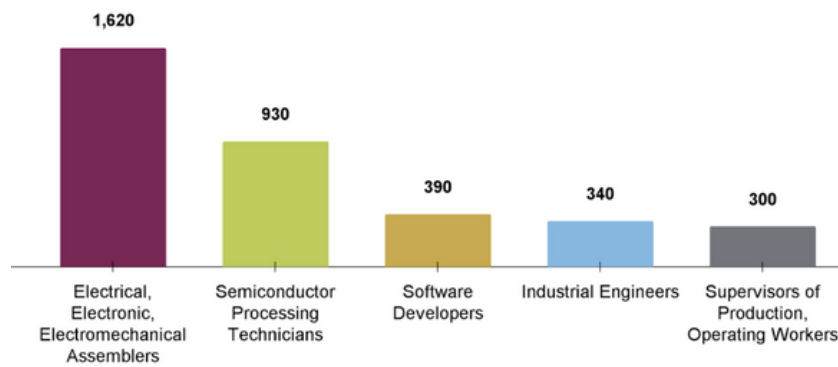
Semiconductor Job Growth



Year on year jobs growth 2018-2023, [2023 OEWS Research Estimates](#)

- Jobs growth before COVID-19 was moderate, but since 2021 growth has been strong
- CHIPS funding and related co-investments are expected to drive semiconductor job growth, especially around clusters
- Oregon's planned proposal for a semiconductor hub would also generate Clark County jobs given the WA cluster

Top 5 Semiconductor Job Occupations



Top 5 Detailed Occupation Jobs within NAICS "334400". Sources: [2023 OEWS Research Estimates](#), [NAICS Association Company Lookup Tool](#)

Semiconductor Company Segments

Integrated Device Manufacturers (IDMs)	Offers the full-cycle semiconductor production process, from design to distribution	<ul style="list-style-type: none"> Analog Devices Micron Infineon
R&D	Institution collaboration and research partners	<ul style="list-style-type: none"> UW- WA Nanofab WSU
Fabless Design	Specialized chip design, outsourcing manufacturing to foundries	<ul style="list-style-type: none"> Nvidia AMD
Foundry	Semiconductor manufacturing provided on contract basis	<ul style="list-style-type: none"> TSMC Washington Honeywell Aerospace
Materials	Materials used in the manufacturing process	<ul style="list-style-type: none"> Moses Lake Ind. Shin-Etsu Handotai America
Equipment, Tools, and Services	Specialized machinery, tools and services used in manufacturing	<ul style="list-style-type: none"> Onto Innovation InLight
Assembly, Test, and Packaging	Attaching, performance testing, casing of chip	<ul style="list-style-type: none"> Silicon Forest Electronics UL Solutions
Distribution	Shipping to distributors or customers	<i>[no dedicated companies identified]</i>

Semiconductor Ecosystem

Apart from the value chain itself, important stakeholder segments include

