A study by the Puget Sound Regional Council analyzes the space economy in Washington state, identifying the region’s competitive strengths and the actions needed to help grow the space sector.

**Economic Impact**

The space economy of Washington state is largely concentrated in the Puget Sound region. However, small and large companies are based elsewhere, such as Vancouver, Spokane, Moses Lake and Bremerton.

**Actions Needed to Support the Local Space Economy**

- Assist with venture capital for smaller space companies
- Support space-related startups with business incubators and other services
- Expand supplier relationships between companies within the region
- Grow local talent to fill workforce including boosting number of students in STEM programs
- Support state tax credits for spacecraft and satellite manufacturing

**Washington State’s Competitive Position**

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
<th>OPPORTUNITIES</th>
<th>CHALLENGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term investment</td>
<td>Restrictions on available labor</td>
<td>Growing industry</td>
<td>Few opportunities for lower-skilled workers</td>
</tr>
<tr>
<td>Historic local supply chains</td>
<td>Limited state tax incentives</td>
<td>High value-add activities</td>
<td>National an international competition</td>
</tr>
<tr>
<td>Strong representation of private firms</td>
<td>Strong competition from other sectors for labor</td>
<td>High quality of life in state</td>
<td>Vertical integration creates supply chain issues</td>
</tr>
<tr>
<td>Support from universities</td>
<td>No vertical launch facilities in the state</td>
<td>Collaboration with tech firms</td>
<td></td>
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<tr>
<td>Large, skilled labor pool</td>
<td></td>
<td>Space sector supports economic diversity</td>
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</tbody>
</table>
**National Competition**
In addition to Washington state, the space economy is expanding across the US. Other regions with their own specializations also compete with Washington for jobs in the space economy.

**Growing Commercialization of Space**
The space economy has typically been the domain of governments. However, technological and policy advancements have opened the door to increased commercialization.
- Lower production costs
- Fewer barriers to entry
- Greater range of applications
- Increasing private investment
- Opportunities for tourism

**Growth of Space Economy**
Analysts estimate that the industry could grow by more than six times by 2045.

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>$447 billion</td>
</tr>
<tr>
<td>2040</td>
<td>$1.1 trillion</td>
</tr>
<tr>
<td>2045</td>
<td>$2.7 trillion</td>
</tr>
</tbody>
</table>

**Lower-Tier Suppliers**
Provide key raw materials, parts and services used for space-related applications:
- Power systems
- Communication systems
- Structural components
- Machined parts
- Support services

**Upper-Tier Suppliers**
Create the major components for spacecraft launch vehicles and satellites:
- Launch vehicle engine manufacturing
- Structural assemblies
- Spacecraft manufacturing
- Satellite manufacturing

**Space Launch Service Providers**
Provide for the launch of spacecraft and satellites, and their ongoing management and operation:
- Launch facilities
- Private launch services
- Spacecraft and satellite mission managements

**Space-Related Goods and Services**
Provided directly by firms via operating spacecraft, satellites, and other space-based equipment:
- Global Positioning Systems (GPS)
- Satellite tele communications
- Earth observation
- Space exploration and colonization
- Asteroid mining

**Space-Supported Businesses**
Incorporate the output of satellites and spacecrafts into a range of goods and services:
- Satellite TV
- Weather forecasting
- Vehicle fleet management
- Space-supported research
- Defense applications