



*High performance. Delivered.*

## Washington Aerospace Partnership Aerospace Competitiveness Study

The Boeing 737 MAX Opportunity FINAL

November 15, 2011

# Washington Aerospace Partnership

## Aerospace Competitiveness Study: Boeing 737 MAX Opportunity

### Situation

Boeing announced last August that the company will design and build a new version of its popular 737 aircraft. The plane, dubbed 737 MAX, will offer airlines lower operating costs compared to current versions of the 737, and affect thousands of aerospace jobs.

Boeing currently assembles 31 737s a month at its factory in Renton and has a huge backlog of orders. To keep up with demand, production is scheduled to ramp up to 42 aircraft a month by 2014, a rate which aviation observers feel may challenge Boeing's capacity and that of its extended supply chain. The issue is: Where will Boeing assemble the 737 MAX? Company officials have announced they are considering Renton, but also sites throughout the state and country.

### Opportunity and risk

One of the largest job opportunities of this decade for Washington lies in the Boeing 737 MAX siting decision. Facing intense competition from at least a handful of other states, Washington will need to take swift, bold action to ensure it lands the 737 MAX, and the tens of thousands of jobs that would accompany it.

Boeing's choice presents a huge economic opportunity for the people of Washington. At stake are not only the nearly 20,000 jobs and over \$5.5 billion of total economic activity tied to the 737 program, but also Washington's status as one of the world's preeminent aerospace hubs. The issue is bigger than Boeing – 89,000 people are employed at roughly 150 aerospace-focused companies in almost every county throughout Washington. Furthermore, roughly 650 additional machine shops, tooling firms, advanced materials, engineering and design firms, interiors specialists, electronics companies, and other firms with significant aerospace-related activities employ thousands more across the state.

If Boeing chooses to assemble the 737 MAX in Washington, the aerospace jobs and supplier companies are more likely to stay here, and the state's aerospace cluster will continue to grow and thrive for at least another generation. If Boeing chooses to assemble the aircraft in another state, Washington's aerospace cluster could weaken, creating a very uncertain future.

### Market demands on Boeing

Boeing must deliver the 737 MAX on time and at its promised level of performance. Airlines have based their future financial performance on the on time delivery of fuel-efficient aircraft that can improve their profitability by replacing aging legacy aircraft and/or expanding fleet capacity in emerging markets. Yet Boeing must also produce aircraft that will be cost competitive with those from emerging aerospace manufacturers. For a generation, Boeing's competition has largely been limited to Airbus. Today, companies/governments in at least five other countries – Brazil, Canada, China, Japan and Russia – will soon be able to offer alternatives to the Boeing-Airbus duopoly.

### Washington's recent history in supporting the aerospace industry

Aerospace is a fundamental thread in the fabric of Washington's economy. And the State has made recent investments to keep its competitive edge in this industry. The State enacted and the governor implemented the following:

- A preferential B&O tax rate for aerospace firms.
- B&O tax credit for aerospace product development.
- Sales and use tax exemption on computers, hardware, and peripherals used in aerospace manufacturing.
- B&O tax credit for property taxes/leasehold taxes paid on aerospace facilities.
- Changes to unemployment insurance and workers compensation programs.
- An allocation of \$3 million in discretionary federal funds to help veterans and unemployed workers for training to develop skills to work in the aerospace industry.
- An investment of more than \$20 million bi-annually in the Community and Technical colleges for training aerospace workers and just recently received a federal DOL \$20 million grant to double the state's investment in aerospace training.
- An effort with the federal delegation to help land the US Tanker contract for Boeing which will be built in Washington State.

# Washington Aerospace Partnership

## Aerospace Competitiveness Study: Boeing 737 MAX Opportunity

In addition, local governments, particularly Snohomish and Grant Counties, worked closely with state government in developing proposals for siting the 787. The Memorandum of Understanding that contains the commitments made to Boeing with respect to the siting of the 787 production facility in Everett contains multiple provisions that demonstrate the support of local governments, including:

- City of Everett: local B&O tax reduction, freezing of utility rates, road construction.
- Port of Everett: dock and rail construction.
- Snohomish County: Construction and rate reductions at Paine Field.

***While the state maintains some key components to support the 737 MAX production site, the competition for the program is especially strong and proactive. In order to win the 737 MAX and maintain the world's leading airplane design and manufacturing hub, the State of Washington needs to do more.***

### Washington Aerospace Partnership

The Washington Aerospace Partnership (WAP) is a business/government/labor collaboration that has been working for several years to improve Washington's competitiveness to attract and retain aerospace companies.

After Boeing announced its intention to consider alternative locations for assembly of the 737 MAX, the WAP commissioned Accenture to conduct a competitive analysis to determine what actions or policy initiatives could be taken to improve the state's attractiveness to Boeing for the final assembly of the 737 MAX, and to make long term investments for strengthening Washington state's aerospace cluster. Accenture examined Washington's competitiveness across a range of qualitative factors as well as a thorough quantitative analysis of Boeing's potential return on investment from selecting a 737 MAX assembly site in eight states with existing or emerging aerospace industries.

### Washington advantages

Accenture found Washington has inherent advantages in its competitive position to attract the 737 MAX. Washington currently holds an advantage

in the 737 MAX competition due to the high productivity and knowledge of its workforce. Over time the community and technical colleges have done a good job of training quality workers.

Additionally, the network of existing Boeing and supplier facilities in Washington that support 737 production are likely to provide Boeing a faster return on its 737 MAX manufacturing investment versus building brand new in-state or out of state assembly facilities.

### Washington disadvantages

Washington also has some disadvantages in comparison with competitive states. There are higher recurring long term costs such as base wages, benefits, pensions, and health care. Other states are making strategic investments in their STEM K-12 programs, and are working to integrate their research universities and aerospace industries, actions that threaten Washington's skills advantage. During this difficult economic time Washington's higher education system has suffered deeper cuts than other states, limiting the state's ability to produce the innovative, quality engineering talent that Boeing and others require to compete. Finally, there has been a recent history of strikes at Boeing that have affected airplane delivery schedules and the company's profitability. And there is a perceived greater risk of future work stoppages based on this history.

### Closing the gap

The Accenture report identified key actions that will help Washington State win the 737 MAX competition and strengthen its position in the emerging and increasingly global and cost competitive market for future airplane manufacturing. These are the steps which Washington could take to leverage its advantages and minimize its disadvantages.

#### *Immediate Actions for 737 MAX Competition*

1. Strengthen the state's existing post-high school aerospace certification and apprenticeship programs to accelerate the state's production of skilled manufacturing workers, with a particular focus on serving new high school graduates and veterans.

# Washington Aerospace Partnership

## Aerospace Competitiveness Study: Boeing 737 MAX Opportunity

2. Increase the number of high quality engineering graduates and expand aerospace-relevant research from the University of Washington and Washington State University.
3. Improve the readiness of current high school students to meet the new work force needs to enter the 737 MAX program or aerospace training programs upon graduation by focusing on STEM learning and building on programs such as Launch Year to increase aerospace career awareness.
4. Within the limits of the World Trade Organization, strengthen the current manufacturing and research base by extending state tax credits for investments in manufacturing and research while supporting targeted improvements to infrastructure that serves current 737 facilities.
5. Continue to pursue and promote government's role in developing positive relationships and facilitating the exchange of ideas and requirements between government, Boeing, its suppliers and organized labor. There is a need to support collaborative management/labor relations by recognizing that a skilled and dependable work environment is essential to maintaining production schedules, lowering costs, and ensuring quality products.

To strengthen Washington State's ability to compete for future planes and aerospace business in addition to implementing all work associated with the 737 MAX, the State must too enact the following recommendations in the next 12 to 24 months to remain.

6. . Based on the aerospace focused grade 9-12 educational initiatives, increase student engagement and performance in math and science in grades K-8 in order to secure the long term quality of the aerospace workforce.
7. Create within the Governor's office a robust role, led by an industry expert, to ensure and coordinate the state's ongoing support for the aerospace sector and its workforce.
8. Work with the Washington's U.S. senatorial and congressional delegations on funding and support for education, workforce development and training for returning veterans as well others, and research

### Summary

Washington is uniquely positioned to win the 737 MAX. But to win, Washington must move decisively and make immediate decisions to secure the advantages it has today and to address targeted investments to secure its aerospace future. The opportunity before Washington has far reaching economic consequences. Washington's ability to take advantage of this opportunity, in fact, has implications well beyond the 737, implications that will impact Washington's ability to compete for subsequent airplane programs (e.g. a 777 replacement, etc.). This decision by Boeing is an important one, perhaps one of the biggest industrial jobs siting decisions in the country for the next decade. Time is short. The 737 MAX decision may be made within six months. The choices for Washington during this tough economic time are not easy, but the investments made today will benefit Washington tomorrow and will pay huge dividends for the future.

# Success Factors for Boeing and the 737 MAX

---

**Boeing's customers expect the 737 MAX to be delivered on time, to support the growth of their businesses, and to help them operate more efficiently.**

## **What Boeing's customers require from the 737 MAX program**

- For airplanes to be delivered according to Boeing's **promised production schedule**
- For the aircraft to provide its **promised operational benefits**, e.g. fuel efficiency
- For Boeing to effectively increase its rate of 737 MAX production to **meet demand**

## **What Boeing must do to meet customer expectations**

- **Avoid program delays** due to design challenges, supply shortages, manufacturing issues, testing, or work stoppage
- Seamlessly transition from producing the 737 NG to producing the 737 MAX
- **Manage program cost** to preserve the profitability of the 737 program
- Effectively integrate the **innovations and engineering changes** that will distinguish the 737 MAX from its competition

## **What a 737 MAX manufacturing site must be able to provide to support Boeing**

- **A stable manufacturing workforce** that can quickly move up the production learning curve
- **Labor rates that are competitive** relative to the productivity and output of the workforce
- A pipeline of new, quality **engineering and manufacturing talent** to support the program as it grows
- Continued access to **leading research** to increase efficiency and reduce cost
- A plant, property, and equipment investment that supports a **rapid return on investment**
- Rapid and seamless integration into the existing **network of 737 NG suppliers**

# The Position of Competitive States for the 737 MAX

---

**Other states have made significant investments to emerge as formidable competitors for a 737 MAX.**

## How competitive states have approached aerospace investments

- Competitive states have made the strategic and difficult decision to **prioritize investments in aerospace**, manufacturing incentives, and economic development
- Many competitive states have demonstrated the ability to **use direct monetary incentives** as a competitive tool
- Leading competitive states such as Texas and Kansas have developed integrated aerospace and manufacturing educational and **workforce development programs** with significant input and resources from the aerospace industry
- Leading competitive states have state level officials responsible for **coordinating state aerospace policy**

## Primary strengths of competitive states in attracting new investment

- All competitive states present a lower **labor cost** than Washington including wage, insurance, benefits, etc.
- Leading competitive states have demonstrated the ability to **perform complex airplane structure work for Boeing**
- Leading competitive states have made more **focused investments in workforce development** and lead Washington in the production of **engineering talent**
- All competitive states have greater flexibility in providing **direct financial support** to industrial investments

## Key challenges for competitive states

- Developing a **quality workforce at the scale required** to effectively manage activities such as aircraft final assembly
- Overcoming the significant chance of **disruption to 737 MAX delivery** during the transition to a new final assembly site
- Incurring **significant new construction cost** to support a 737 MAX final assembly site
- Managing the complexity and risk in moving final assembly further away from **wing and other fabrication activities in Washington**

# Washington's Position for the 737 MAX

**Washington's strengths in the 737 MAX competition derive from its workforce and existing in-state 737 facilities, but these strengths are under threat.**

## How Washington has approached aerospace investments

- From building Boeing Field to winning the 767 tanker program, Washington has a long **history of supporting aerospace**, but investments have typically been **event-driven** rather than based on a long term vision for aerospace in Washington
- Washington has recently taken important steps to **invest in education and workforce development and advance policies that encourage aerospace industry investment**

## Washington's primary strengths in a 737 MAX competition: workforce and supply chain network

- The quality and productivity of the **current Washington workforce** strongly support 737 MAX program objectives
  - The workforce's **current** learning curve supports 737 MAX launch and production more quickly and cost effectively
- The location of **major Boeing fabrication and back shop facilities** in Washington and their integration with the Renton 737 final assembly operation, enhances 737 manufacturing productivity and supports on-time delivery to customers
- The **in-state supplier network** to the 737 program, supports Boeing's goals for efficient and cost-effective manufacturing

## Washington's primary weaknesses in a 737 MAX competition

- A significant portion of Washington's aerospace engineering and manufacturing workforces are nearing retirement, but Washington is not prepared to **provide quality engineers, manufacturing workers and industry relevant research** at the scale needed to support the 737 MAX across its production lifetime
  - A reduction in workforce quality and productivity would increase 737 MAX **program risk and cost** to Boeing
- The **cost of building and staffing new manufacturing facilities** in Washington is significantly higher than in other states, placing a premium upon supporting improvements and investment in 737 facilities currently in Washington
- The outcome of **ongoing Boeing labor contract negotiations** is outside of the state's direct control, but may cause 737 MAX program risk in Boeing's eyes that could outweigh economic and other considerations in a site decision

# To Win the 737 MAX

## Immediate Actions within Six Months

---

**To win the 737 MAX, Washington must preserve its workforce advantage and reinforce the state's existing manufacturing locations.**

### **Immediate Actions to Win the 737 MAX**

1. Strengthen the state's existing post-high school aerospace certification and apprenticeship programs to accelerate the state's production of skilled manufacturing workers, with a particular focus on serving new high school graduates and veterans
2. Increase the number of high quality engineering graduates and expand aerospace- relevant research from the University of Washington and Washington State University
3. Improve the readiness of current high school students to meet the new work force needs to enter the 737 MAX program or aerospace training programs upon graduation by focusing on STEM learning and building on programs such as Launch Year to increase aerospace career awareness
4. Within the limits of the World Trade Organization, strengthen the current manufacturing and research base by extending state tax credits for investments in manufacturing and research while supporting targeted improvements to infrastructure that serves current 737 facilities
5. Continue to pursue and promote governments' role in developing positive relationships and facilitating the exchange of ideas and requirements between government, Boeing, its suppliers and organized labor.

# Recommendation One – Preserve Washington’s Workforce Advantage for the 737 MAX

**The efficiency, quality, and productivity advantages of Washington’s workforce distinguish it in a 737 MAX competition and must be strengthened to win.**

Washington should strengthen existing aerospace certification and apprenticeship programs to accelerate the state’s production of skilled manufacturing workers, with particular focus on serving new high school graduates and military veterans. To succeed, government, labor, industry, and educational institutions must work together to define skill needs, build curriculum, provide internship experience, and define a clear path to employment for participants.

Legislature	Responsible
Local Govt., EDCs	Consult
Labor	Accountable
Industry	Accountable
WAP	Consult

## Recommendation Rationale

- Boeing and Washington face shortfalls in its skilled manufacturing workforce that if not filled will reduce its advantage over competing states for producing the 737 MAX
- Other states such as Kansas and Texas have developed integrated programs between industry, cities, and community colleges to generate certified aerospace workers at scale
- Existing programs such as AJAC provide a model to rapidly expand workforce training to support the 737 MAX
- Air Washington’s receipt of a \$20 million U.S. Department of Labor (DoL) grant to support aerospace training provides funding to augment potential state investments

## Specific Actions

- Pursue a policy of data driven planning, capacity and performance as outlined by the Workforce Training and Education Coordinating Board that:
  - Engages industry and labor in defining skill needs, developing curriculum, and providing experience for trainees/apprentices
  - Builds upon the DoL grant and the Air Washington consortium to identify and fund training sites
  - Allocates future funding based on individual program results and return on investment
- Define specific roles and responsibilities (including funding) for all parties involved
- Use the Post 9/11 GI Bill and other federal monies to support veteran participation

# Recommendation Two – Producing Engineers and Research to Support the 737 MAX Program and Beyond

**High quality, innovative engineering talent and research-driven innovation are central to Boeing’s competitiveness on the 737 MAX and into the future.**

Washington should increase the number of high quality engineering graduates and expand aerospace-relevant research from the University of Washington and Washington State University. The expansion of industry-relevant research activities at universities in areas such as computing, manufacturing, and materials technologies would not only benefits industry directly, but also enhance the skills and value of engineering graduates entering industry.

Legislature	Responsible
Local Govt., EDCs	Accountable
Labor	Inform
Industry	Consult
WAP	Consult

## Recommendation Rationale

- Boeing has stated its competitiveness for the 737 MAX and future programs will be rooted in customer-based innovation and the improvement of its internal processes, advances that require engineering talent
- Continued reduction in resources for higher education threatens the quality of Boeing’s new hires which will be required to replace outgoing peaks of retirees
- Boeing is and will source research and talent from out of state if it cannot obtain it in state, reducing Washington’s role in program development for the 737 MAX and beyond

## Specific Actions

- Determine the appropriate funding mechanism and add additional engineering student slots at University of Washington and Washington State University to support the engineering needs of Boeing and the broader supplier community
  - Build upon progress in tuition flexibility to provide universities with greater autonomy in allocating capital and other spending
  - Accelerate students’ entrance the engineering path, while working with the K-12 system to reduce university capacity used for remedial instruction of prerequisites
- Pursue joint industry-university research in computing, manufacturing efficiency, and materials/structures innovation, while addressing industry intellectual property needs

# Recommendation Three – Making High School Graduates Workforce-Ready for the 737 MAX

**Budget cuts and declining student performance, particularly in math, threaten the quality of the new workers who will start their careers on the 737 MAX.**

Build on programs such as Launch Year and increase emphasis on high school STEM initiatives to increase aerospace career awareness and improve the readiness of high school graduates to immediately enter the aerospace workforce or relevant aerospace certification programs. The 737 MAX program will look to those currently in grades 9-12 to meet a significant portion of its new workforce needs and these students must be prepared

Legislature	Responsible
Local Govt., EDCs	Accountable
Labor	Consult
Industry	Consult
WAP	Consult

## Recommendation Rationale

- Boeing, aerospace suppliers in Washington, and our four year universities express concern on the declining numeracy of high school graduates and the impact that this skills gap has upon the quality and capability of those entering
- Washington’s 2010 High School Proficiency Exam results similarly show that only 40% of test takers fully meet or exceed standards in math
- Other states, particularly Texas and Kansas are investing in programs to engage high school students in aerospace, provide them with high school industry internships, and channel them directly into the workforce or additional aerospace training upon graduation

## Specific Actions

- Work with industry and labor to strengthen and expand upon existing programs such as Launch Year to provide current high school students with greater exposure to and real experience in aerospace and manufacturing
- Continue and strengthen ongoing efforts to improve high school performance and the quality of those entering the workforce: e.g. assessing math performance, implementing core standards for math and English, and agreeing to core graduation requirements
- Engage industry, labor, high schools, and workforce programs to define the path from high school into higher levels of certification and skill and then on to the workforce

# Recommendation Four – Consolidating the Advantage of Existing 737 Facilities in the 737 MAX Competition

## Washington must sustain and strengthen the cost advantage to Boeing of existing in-state 737 final assembly and component manufacturing facilities.

Within the limits set by the World Trade Organization (WTO), the state should provide tax credit support for investment in manufacturing and research while supporting targeted improvements to infrastructure that serves current 737 facilities. Such support would increase the cost advantage to Boeing of investing in existing facilities versus building new, while providing some counter to the significant cash and financing that can be offered by competing states.

Legislature	Responsible
Local Govt., EDCs	Responsible
Labor	Inform
Industry	Consult
WAP	Consult

### Recommendation Rationale

- A core advantage of Washington to Boeing is the existing 737 facilities in the state – incentives to invest in those facilities will improve the state’s position for the 737 MAX
- Competing states are able to provide reinforcing sets of city, county, and state grants, loans, and direct financial incentives to attract aerospace companies that Washington is constitutionally prohibited from offering
- Tax incentives for investment in existing facilities and people in Washington, while unlikely to reach the potential scale of competing states’ cash or bond offerings, provide a powerful message to Washington’s commitment to aerospace and the 737 MAX

### Specific Actions

- Support industry’s investment in manufacturing and workforce development through targeted tax incentives on expenses such as:
  - Extension of R&D credits with emphasis on programs developed and manufactured in Washington
  - Extension of 787 sales tax abatement to other aerospace development activities
  - Investment in new or improved manufacturing facilities and tooling
  - Hiring costs for skilled employees (e.g. engineers) and support of internal workforce development
- Improvements to enabling infrastructure such as I-405 and public transit further improve the logistical and workforce attractiveness of existing 737 facilities in Washington

# Recommendation Five – Continue Government’s Positive Engagement in Aerospace

**Continuing existing efforts to engage Boeing and its suppliers on their key issues are essential to a positive discussion and outcome for the 737 MAX.**

The state should continue to pursue government’s positive role in developing relationships and facilitate the exchange of ideas and requirements across government, Boeing, its suppliers, and organized labor. The state is in the unique position of having ready access to parties across the aerospace industry and being able to identify opportunities that can potentially benefit	Legislature	Consult
	Local Govt., EDCs	Consult
	Labor	Responsible
	Industry	Responsible
	WAP	Consult

## Recommendation Rationale

- The uncertain outcome of 2012 contract negotiations between Boeing and its represented workforce, and any perceived risk that a poor outcome may pose to the on time launch of the 737 MAX, may influence Boeing’s production site decision making regardless of how it evaluates objective factors
- While significant progress has been made in recent years, interviews with the state’s supplier community indicate that additional policy opportunities may exist to enhance their role in creating jobs in support of both Boeing and also the global aerospace industry

## Specific Actions

- Recognize that while the state cannot directly influence ongoing negotiations between Boeing and its represented workforce, the state can work with suppliers, municipalities, and other interested parties to encourage a positive atmosphere for those discussions to take place; and
- Continue positive progress made in relationship building at the highest levels between the state, Boeing, and the state’s supplier community
- Continue engagement with the supplier community to support their needs and identify reforms that can reduce their cost to support the 737 MAX

# Sustaining Long Term Competitiveness

## Actions over The Next 12-24 Months

---

**Washington's continued competitiveness depends on the skill of its workforce and its participation in sustaining the growth of industry in the state.**

### **Actions over the Next 12-24 Months to Sustain Long Term Competitiveness**

6. Based on 737 MAX-focused Grade 9-12 educational initiatives, increase student engagement and performance in math, science, and English in grades K-8 in order to secure the long-term quality of the state's aerospace workforce
7. Create a robust cabinet level aerospace office led by an industry expert and dramatically strengthen the finances, organizational focus, and performance accountability of the Department of Commerce and local economic development corporations
8. Work with the Washington's U.S. senatorial and congressional delegations on funding and support for education, workforce development and training, and research

# Recommendation Six – Improve K-8 STEM Performance

## Actions Over the Next 12-24 Months

### The long term viability of Washington’s educational strength and manufacturing workforce begins with investments in early education.

Based on 737 MAX-focused Grade 9-12 educational initiatives, increase student engagement and performance in math, science, and English in grades K-8 in order to secure the long-term quality of the state’s aerospace workforce. Increasing skill the skill level of those entering high school will reduce remediation cost, and increase the pool of interested and capable candidates for the future aerospace workforce.

Legislature	Responsible
Local Govt., EDCs	Accountable
Labor	Consult
Industry	Consult
WAP	Consult

#### Recommendation Rationale

- Only 40% of Washington eighth graders rate at or above proficient in math and under 40% rate at or above proficient in science based on most recent National Assessment of Educational Progress data
- Only 43% of Washington fourth graders rate proficient in math and 35% rate at proficient in science based on most recent National Assessment of Educational Progress data
- K-8 performance drives remediation and higher cost at the high school level and beyond
- A continuation of this cycle will injure the long term quality of the aerospace workforce

#### Specific Actions

- Extend core math, science, and English assessments and standards into K-8: e.g. assessing math performance, implementing core standards for math and English, and agreeing to core graduation requirements
- Work with industry, labor, and workforce development institutions to bring engaging and age appropriate engineering and aerospace focused programming into schools
- Provide faculty with access to enrichment, skill development, and other activities that can help to extend more current math, science, and engineering concepts into the secondary system

# Recommendation Seven – Strengthen State Institutions

## Actions Over the Next 12-24 Months

**The multiple layers of decision authority in the state can hinder rapid policy and decision making in support of economic and workforce development.**

Create a robust cabinet level aerospace office led by an industry expert and dramatically strengthen the finances, organizational focus, and performance accountability of the Department of Commerce and local economic development corporations. As Washington transitions from the 737 MAX into subsequent Boeing competitions, it must be able to rely upon a permanent organization that can respond to Boeing’s requirements and address competitive pressures.	Legislature	Responsible
	Local Govt., EDCs	Responsible
	Labor	Consult
	Industry	Consult
	WAP	Consult

### Recommendation Rationale

- Highly competitive states have specific government officials responsible for coordinating aerospace policy, promoting the state’s role in aerospace, and allocating state incentives, while permitting local economic development councils/ corporations to take the lead in recruiting companies, promoting their local markets, and providing local incentive packages
- While the need for a strong aerospace advocacy and development in Washington has been previously identified, actions taken to date have not placed Washington at the same level of capability and coordination as exists in other states

### Specific Actions

- Create a robust cabinet level aerospace office to define state aerospace industry strategy, identify priorities, collaborate with industry, and coordinate the Department of Commerce and local economic development councils/ corporations
- Clearly define the role, responsibility, and expectations of the Department of Commerce and local economic development councils/ corporation as relates to aerospace and other industrial development
- Identify and implement a set of outcomes-based metrics to measure the effectiveness and impact of investments in economic development and the programs they support

# Recommendation Eight – Secure Federal Support

## Actions Over the Next 12-24 Months

### Washington’s national congressional and senatorial delegations have long supported aerospace and will be key assets moving forward.

By working with the Washington’s U.S. senatorial and congressional delegations on legislation related to long term funding and support for education, workforce development and training, and aerospace research, the state can obtain alternate sources of funding for initiatives critical to its long term aerospace competitiveness.

Legislature	Accountable
Local Govt., EDCs	Accountable
Labor	Consult
Industry	Consult
WAP	Responsible

#### Recommendation Rationale

- Current cuts and a slow economic recovery will continue to pose financial challenges to Washington as it seeks to sustain investments in aerospace and elsewhere and it will require additional sources of funding to sustain the momentum of its investments
- While the national financial situation is also unlikely to improve in the short term, student aid, workforce development, support for veterans, and sustaining America’s global research and aerospace leadership are central to supporting the recovery
- As the country’s leading exporter Boeing and its success are central to the country’s continued competitiveness in the global economy

#### Specific Actions

- Preserve federal funding for student loan programs, particularly for two year degree programs for technical training
- Actively seek federal funding for research into computing and materials technologies
- Continue access to Post 9/11 GI Bill and other federal funds to support military personnel reentering the workforce
- Address FAA topics as needed, e.g. a shift to EASA-like type certification for maintenance to improve the position of Washington’s maintenance facilities and training institutions