



WASHINGTON STATE MILITARY & DEFENSE PLAYBOOK

A Five-Year Strategic Plan for the Washington Military Alliance



Department of Commerce

TIP strategies
AUSTIN • SEATTLE



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ABOUT THIS WORK

The military and defense sector provides tens of thousands of jobs for Washington families, contributes billions of dollars to the state's economy annually, and helps safeguard our nation's security. Washington is home to over 1,500 businesses supporting and supplying critical military assets and missions both globally and locally, from armed forces installations to homeland security operations around the state. While the sector's economic importance has long been touted, little is known about the state's defense contracting base. Given planned reductions in defense spending at the national level, a solid understanding of these firms was needed.

To address this need, the Washington Department of Commerce (Commerce) applied for and was awarded a \$4.3 million grant from the US Department of Defense (DOD), Office of Economic Adjustment (OEA). The primary objective of the grant, titled "Washington State, Military & Defense Sector, Industry Adjustment Analysis and Strategy," was to:

1. Assess and forecast the statewide economic impact of Washington's defense industry, and
2. Craft a plan to mitigate the potential catastrophic impact of federal defense budget cuts and sequestration on a region, which has become increasingly dependent on military and defense contracts.

This document, together with the Sustainability Strategy (published separately), is the culmination of the 24-month planning process supported by the grant. It reflects findings and recommendations from more than a dozen grant-funded projects. The ideas presented were culled from thousands of pages, representing countless hours of research and input received from hundreds of stakeholders across the state.

The resulting Washington State Military & Defense Sector Playbook lays out a strategic framework for retaining and strengthening the military and defense sector. The framework's eight components are designed to raise awareness of the military and defense sector in the state, protect and enhance existing assets, reduce the exposure of regional businesses to a reliance on federal defense spending, and retain the businesses and workforce that support the state's national defense interests.

EXECUTIVE SUMMARY

Washington State is known for innovation across a broad range of sectors. It has achieved global recognition as the birthplace of several of the world's best-known brands, including Microsoft, Boeing, Starbucks, and Amazon. There is one sector less well known, despite its broad impact at the state and national level. The military and defense sector employs tens of thousands of workers in the state of Washington, both directly through military installations and defense contracts, and indirectly via the chain of firms that supply them. Beyond these more quantifiable impacts, countless small businesses are supported by the wages of military personnel, civilian contractors, and defense industry workers. It is for these reasons—the broad reach of the sector and its central role in the economy—that recent declines in federal defense spending require a call to action.

PURPOSE & SCOPE

Raising awareness of the sector's role in the state economy is at the heart of a multi-year effort that began with the pursuit of a federal Defense Industry Adjustment grant by the Washington Department of Commerce's Military and Defense Sector program. The stated objective of the federal Defense Industry Adjustment program is to identify strategies to help mitigate the impact of reductions in defense spending. In a nutshell, these strategies are focused on helping firms reliant on defense contracting diversify by identifying new customers, new markets, and new products. This objective must not be interpreted, however, as a move away from the defense industry itself. Quite the contrary, the corollary to a defense industry adjustment strategy must be a recognition of the significance of the sector and the need to retain and support its future in the state. Communicating to a broad audience the value of these assets and aligning resources—money, time, and political capital—becomes the highest priority.

The \$4.3 million grant has been a tremendous step forward in the state's efforts to create a comprehensive and focused initiative in support of the military and defense sector. Awarded through the Office of Economic Adjustment (OEA) of the US Department of Defense (DOD), the OEA grant has supported an intensive 24-month planning process that incorporated broad stakeholder input and rigorous research across 13 separate projects. The Playbook is the culmination of those efforts and is intended to guide the state's long-term strategy for supporting and enhancing the state's military and defense sector.

The Playbook was designed to create actionable strategies that capture the best thinking from the grant-funded projects combined with the expertise of the military and defense sector staff. The document outlines the state's military assets, which include **infrastructure** (10 military and research installations representing all branches of service, along with extensive training ranges and special-use areas); **industry** (manufacturing and defense firms supported through federal spending levels that put Washington among the top 10 states in total defense spending); and **partnerships** (a dense network of community-based organizations and trade associations that support the military installations, defense contractors, and their associated workforce). The document then lays out a strategic framework for ensuring the future of these assets.

TOP 10 STATES, FY 2014

Based on total defense spending

According to a September 2015 report compiled by the US Department of Defense, the agency spent \$418 billion on payroll and contracts nationwide in FY 2014. Washington State was among the top 10 states in terms of the dollar amount of DOD spending:

1. Virginia
2. California
3. Texas
4. Maryland
5. Florida
6. Pennsylvania
7. **WASHINGTON**
8. Georgia
9. Massachusetts
10. Alabama

Source: *Defense Spending by State, FY2014*, US Department of Defense, Office of Economic Adjustment.

THE FRAMEWORK

The framework is comprised of eight components, which are outlined below and summarized on page 21. Each is identified by a single word that reflects the intent of the activities it encompasses. The components categorize and summarize the types of actions that should be undertaken to achieve the desired goals of the grant project.

1. COMMUNICATE

Raise the sector's profile by identifying, building, and sustaining channels of communication with stakeholders and other key audiences.

The military and defense sector and its stakeholders represent a large and diverse body of individuals and entities. To act as one voice and effectively communicate the importance of the sector's vitality to the state's economy, a clear and pre-determined approach to communication is essential. This component stresses the importance of structuring multiple streams of information that:

- Brand and position Washington's Military and Defense Sector
- Raise awareness among the general public, elected officials, and other key audiences
- Maximize sector stakeholder engagement
- Promote the roles, activities, and values of the WMA
- Facilitate statewide military and defense information sharing and partnerships
- Garner broad action, advocacy, and support
- Promote the state's business climate for locating or expanding a defense sector business in Washington
- Ensure the sector's sustainability and continued success

This component also includes references to previous reports that address segmenting audiences and methods of communication; crafting and reinforcing major themes and messages; maintaining and disseminating sector information to stakeholders; and implementing short-, mid-, and long-term strategies to broaden the understanding of the critical role the military and defense sector plays in Washington State and in the livelihood of its people.

2. INVEST

Commit to investments that support and enhance the competitiveness of the state's military and defense sector.

The goal of this component is to allocate ongoing financial resources to strengthen the competitiveness of the military and defense sector and develop a dedicated, sustainable effort to carry the sector work forward for years to come. While future allocations of OEA funding are crucial to reaching this goal, an ongoing commitment of tenable monetary and human capital resources is required. These resources should be used to:

- Establish state policy in support of the military and defense sector
- Allocate state funding to support Commerce and the WMA's military and defense sector efforts
- Create an appropriate staff structure to support the sector
- Advocate for financial resources that will elevate the sector's importance to that of its counterparts
- Invest in infrastructure that will ensure defense missions remain in the state

The sector's economic impact is so large, intermittent funding and part-time staffing is not sufficient. If the state expects to maintain its status and maximize its potential, progress cannot be made in isolation. Support from multiple sources on a continuous basis is needed.

3. PROTECT

Ensure the future of the state's defense installations and unique federal facilities.

Washington State's military and defense assets are the lifeblood of the sector. These unique and diverse facilities include six active-duty installations across multiple military branches, a major homeland security installation, a state military department, two Department of Energy facilities, and two public research universities supporting defense institutions. This component makes strategic recommendations to preserve and create awareness of these vital institutions, including:

- Implementing the recommendations of the Washington State Base Compatibility Study
- Securing existing missions and attracting new ones to the state
- Safeguarding the state's training and staging areas and associated airspace
- Leveraging the WMA's network, voice, and influence to bring awareness
- Promoting and enhancing the state's business climate
- Supporting advocacy efforts to protect the state's military- and defense-related assets

This component also addresses forging and maintaining open lines of communication with installations and visiting installation sites on a regular basis. This will ensure awareness and quick response in the event of possible encroachment issues, BRAC action, and/or other potential threats that would affect the vitality of the asset.

4. SERVE

Connect manufacturing and services firms in the defense services supply chain with tools and support networks to enhance their economic competitiveness.

Given the threat of potential federal defense spending cuts, it is important to assist military and defense supply chain firms in diversifying their products and services, finding new customers, and exploring new domestic and international markets. This component focuses on ensuring the appropriate resources are in place to assist these businesses, bring awareness to and connect firms to available resources, create opportunities for intra-sector business development and partnerships, and ensure resource organizations are adequately staffed and funded. Exporting and procurement assistance are two important areas where proposed and existing tools and support networks can enhance firms' competitiveness.

5. INNOVATE

Foster an environment that encourages the commercialization of defense-related technologies.

Technology transfer and commercialization represent substantial opportunities to help military and defense sector businesses grow and diversify. This component explores strategies to advance sector growth by driving technology transfer from government entities to industry, and vice versa, as well as taking those technologies to market. It also makes recommendations for ensuring an entrepreneurial culture exists in the state and proper mechanisms are in place to support small business owners.

6. INTEGRATE

Ensure alignment of defense industry adjustment strategies across all sector activities.

Commerce has developed a set of eight key industry sectors under which to focus the state's economic development activities. Each sector employs a Sector Lead, who works closely with the governor, industry, and government leaders to support small business growth and expansion statewide. The strategic framework was developed in close alignment with the existing sector initiatives, where applicable, which include:

- Aerospace
- Agriculture & Food Manufacturing
- Life Sciences & Global Health
- Information & Communication Technology
- Clean Technology
- Wood Products
- Maritime
- Military & Defense

In reviewing these key sectors, it was important to recognize that the military and defense sector is economically interconnected with each of the other sectors. The military and defense sector relies on these sectors for its continued success, and the state's military and defense businesses rely on these sectors for a significant amount of their revenue. This interconnection is also represented by collaborations across all sectors that the DOD buys from.

While there are established programs and partnerships dedicated to the success of individual sectors in the state, the military and defense sector's interconnectedness with other sectors is not widely known or appreciated as an expanding opportunity. Sector activities are often conducted in isolation, not purposefully, but to the potential detriment of capitalizing on additional opportunities. There are significant opportunities to bring these efforts together and leverage the entire body of work to benefit the individual sectors and support the state's overall Sector Lead program.

7. ALIGN

Increase the alignment of talent and workforce initiatives with the needs of the military and defense sector.

Human capital is essential to the military and defense sector's success. As the military and defense sector has evolved, so have the required capabilities and competencies of the talent and workforce that support it. This component focuses on proactively building a 21st Century workforce that can effectively support and drive the future prosperity of the sector and successfully transition workers in the event of sector downsizing. To reach this goal, gaps in statewide workforce assistance must be addressed and alleviated, workforce-related agencies must collaborate and coordinate efforts, military and defense downsizing effects on the workforce must be fully understood, and an effective transition model must be put in place to rapidly respond to sector changes.

8. TRACK

Monitor and report on the impact and health of the sector.

Although the DOD OEA grant work is yet to be completed, its accomplishments to-date have yielded significant benefits in connecting military and defense sector stakeholders and organizations, and helping those entities recognize the importance of their collaborative efforts.

The work has also:

- Raised the profile of the sector to various audiences
- Brought awareness and understanding of the economic contribution of the military and defense sector in the state and the jobs that it supports
- Provided specific assistance to companies in diversifying their revenue base and establishing more efficient and effective business operations
- Received national attention and praise

While this interim success is noteworthy, more work needs to be done. Information sharing between stakeholders, organizations, elected officials, key audiences, and the general public is paramount and must be further systemized and refined. Communication between entities must be proactive and not reactive, and performance tracking must follow a predetermined system. Data must continue to drive the conversations, and accurate analysis and interpretations must be extracted and reported in a timely manner. This component makes specific recommendations on several of these key areas.

MOVING FORWARD

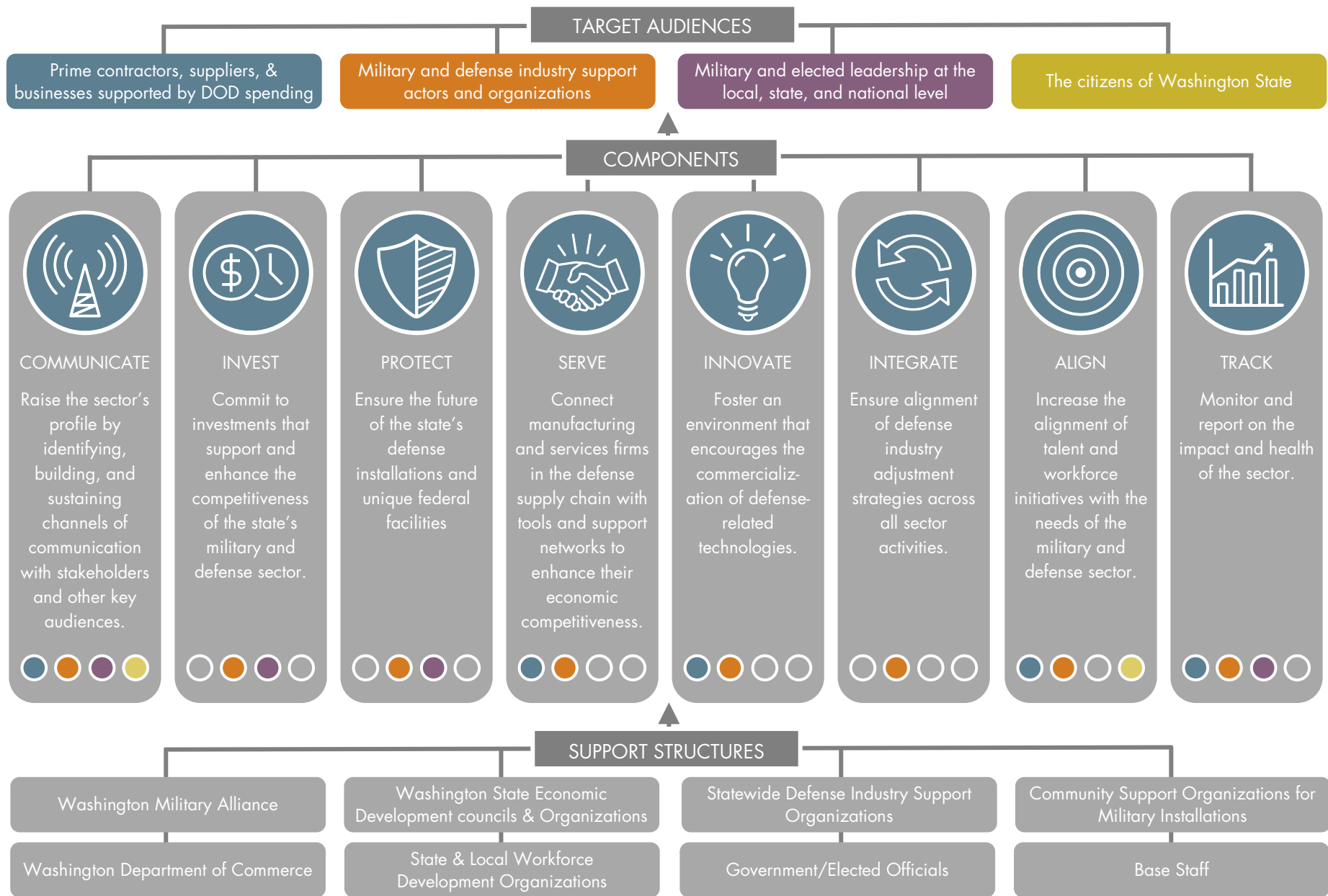
While the Military and Defense Sector program at Commerce will be the lead in implementing the Playbook, a successful outcome will be contingent on the concerted efforts and collaboration of many other entities and individuals. Achieving success will also require dedicated, ongoing funding if it is to continue beyond the horizon of the OEA grant.

The planning process was designed with an eye toward the sustainability of the effort from the outset. A separate sustainability strategy outlines specific recommendations for extending this work beyond the life of the grant. These recommendations will help identify dedicated funding streams and ensure that the work of the Playbook is integrated into the programs of other state, regional, and local organizations.

The strategies outlined in this Playbook are intended to serve as building blocks and are based on the best information available at the time it was published. As with any effort, the passage of time and changing external conditions can alter the initiative's strategic path. TIP Strategies structured this document as a living template that can easily be adapted and updated to accommodate an evolving landscape.

The Washington Department of Commerce and the Washington Military Alliance should be commended for undertaking this complex work. Their investments of time and energy, along with those of many individuals and entities, has already yielded positive results. The planning process benefitted greatly from a thoughtful and inclusive approach, which will continue to guide the effort in the future. This Playbook was written in the same spirit and will serve as a catalyst for a vibrant and promising future for the military and defense sector in Washington State.

The graphic on the following page provides a visual representation of the strategic framework, the structures required to support the work, and the audiences targeted by each component. The four color-coded bubbles at the base of each component indicate the corresponding target audiences.



WASHINGTON'S MILITARY & DEFENSE SECTOR

Washington State is home to a number of strategic military assets and a dense network of defense contractors. These assets are supported by a variety of state resources, led by the Washington Department of Commerce, as well as an array of community-based organizations and trade associations. This section examines the scope of the sector in the state using Commerce's three-part definition: *infrastructure, industry, and partnerships*.

INFRASTRUCTURE

Infrastructure is defined in terms of the state's missions, installations, and workforce. Washington State hosts six major military installations:

1. Joint Base Lewis-McChord (including the Yakima Training Center)
2. Naval Base Kitsap
3. Naval Air Station Whidbey Island
4. Naval Station Everett
5. Fairchild Air Force Base
6. Washington National Guard (Camp Murray).

The US Coast Guard, the nation's fifth military service, is part of the Department of Homeland Security. It cooperates very closely with DOD in peacetime, and becomes a component of the Defense Department during wartime. Active duty and reserve functions are supported by a network of training ranges, special use airspace, and military operating areas.

Along with these major military installations, the state is home to a number of federally funded laboratories that support the military and defense sector. These include two Department of Energy facilities that pursue training and research, which has benefits for the DOD: the HAMMER Training and Education Center and the Pacific Northwest National Laboratory (PNNL). In addition, the University of Washington has a long-standing relationship of research undertaken for the Department of the Navy through its Applied Physics Laboratory. *Additional information regarding the state's military assets, along with a map showing their location in the state, is provided as Appendix A.*

In addition to these widely known assets, the DOD's FY 2015 real property inventory tallies roughly 100 sites controlled by the agency in the state. Together, these sites comprised more than 9,500 buildings totaling more than 66 million square feet across nearly 1 million acres (Figure 2, page 9). The Navy accounted for the largest share of DOD's sites in numeric terms, with 60 individual sites. The vast majority of all sites (72 percent) were characterized as small sites by DOD based on estimated replacement value (Figure 1, page 9). In terms of replacement value of individual sites, JBLM is by far the largest, with an estimated value approaching \$11 billion at the time of the DOD's

FIGURE 1. WASHINGTON STATE DOD SITES
FY 2015 BASELINE DATA BY SIZE & BRANCH

SIZE OF SITE (as defined by replacement value)	ARMY	NAVY	AIR FORCE	MARINE CORPS	TOTAL	Distribution by size
Large ($\geq \$1.876B$)	1	2	1	0	4	4%
Medium ($< \$1.876B$ and $\geq \$1000M$)	0	2	0	0	2	2%
Small ($< \$1000M$ and $> zero$)	22	36	14	1	73	72%
Other*	1	20	1	0	22	22%
Total	24	60	16	1	101	100%
Distribution by branch	24%	59%	16%	1%	100%	

Source: Department of Defense, Base Structure Report – Fiscal Year 2015 Baseline: A Summary of the Real Property Inventory. Percentages calculated by TIP Strategies. Note(s): "Other" sites have a replacement value of zero and were characterized as "primarily land records." In the DOD analysis, a site is defined as follows: Physical (geographic) location that is owned by, leased to, or otherwise possessed by a DOD Component. Each site is assigned to a single installation. A site may exist in one of three forms: land only (where no facilities are present); facility or facilities only (where there the underlying land is neither owned nor controlled by the government); and land with facilities (where both are present.)

inventory. The estimated value of the roughly 100 DOD sites located in Washington State in FY 2015 combined exceeded \$28 billion. Real property figure excludes Coast Guard sites, which are classified as part of the Department of Homeland Security.

FIGURE 2. SELECTED DOD SITES IN WASHINGTON STATE

FY 2015 BASELINE DATA, RANKED BY PLANT REPLACEMENT VALUE (PRV) IN MILLIONS

SITE	COMPONENT	NEAREST CITY	BUILDINGS		TOTAL ACRES	PRV (\$M)
			COUNT	SQFT		
Fort Lewis	Army Active	Tacoma	5,565	33,205,263	90,323	\$10,742.6
NAVBASE Kitsap Bremerton	Navy Active	Bangor	959	7,585,121	6,609	\$3,934.6
Shipyards Puget Sound	Navy Active	Bremerton	165	3,937,106	570	\$3,171.3
Fairchild AFB	Air Force Active	Fairchild AFB	279	4,385,298	5,197	\$1,966.4
NAS Whidbey Island	Navy Active	Oak Harbor	305	3,410,090	4,361	\$1,820.7
Bremerton	Navy Active	Bremerton	154	3,055,955	120	\$1,537.4
NAS Whidbey Island Sea Plane Base	Navy Active	Oak Harbor	1,000	3,173,694	2,785	\$869.2
Yakima Training Center	Army Active	Yakima	229	918,693	323,432	\$841.7
NS Everett	Navy Active	Everett	61	973,494	213	\$697.6
Keyport NUWC	Navy Active	Keyport	148	1,376,371	358	\$512.4
Jackson Park Naval Housing Area	Navy Active	Bremerton	221	1,569,199	209	\$505.0
NAVMAG Indian Island	Navy Active	Port Townsend	159	487,509	2,716	\$335.2
Manchester	Navy Active	Bremerton	19	85,932	234	\$312.5
Jim Creek	Navy Active	Oso	60	117,993	4,901	\$150.0
Marysville	Navy Active	Marysville	14	285,788	52	\$84.2
Camp Murray AGS	Air Force Guard	Tacoma	13	141,534	42	\$46.4
OLF Coupeville	Navy Active	Coupeville	9	8,828	1,060	\$45.3
White Bluff Site 1	Air Force Active	Spokane	16	121,743	86	\$42.5
Grant Training Annex	Army Active	Moses Lake	1	0	35	\$37.2
Bremerton Railroad	Navy Active	Shelton	0	0	1,232	\$30.8
NG Kent	Army Guard	Kent	9	83,222	15	\$21.4
NOSC Spokane	Navy Active	Spokane	9	68,291	23	\$20.4
Cusick Survival Training Site	Air Force Active	Cusick	10	23,055	494,250	\$16.3
Paine Field ANG	Air Force Guard	Everett	9	46,399	15	\$14.3
*Other site(s)	—	—	183	1,220,302	2,212	\$412.9
TOTAL			9,597	66,280,880	941,051	\$28,168.1

Source: Department of Defense, *Base Structure Report – Fiscal Year 2015 Baseline: A Summary of the Real Property Inventory*.

*Other sites are 74 Washington State locations that do not meet criteria of at least ten (10) acres and at least \$10M PRV. See Figure 2 (page 9) for a definition of sites. PRV (\$M): Indicates the total Plant Replacement Value in millions of dollars for all facilities (buildings, structures, and linear structures). This value represents the calculated cost to replace the current physical plant (facilities and supporting infrastructure) using construction costs (labor and materials) and standards (methodologies and codes) in place at the time of analysis.

Employing nearly 100,000 people statewide, the US military is Washington State's second-largest direct employer. The state ranks seventh nationally in terms of its military population, which totaled 65,731 active duty and reserve personnel in May 2016, according to data from the Defense Manpower Data Center. Only California (190,160), Texas (173,118), North Carolina (129,049), Virginia (117,084), Florida (94,288), and Georgia (88,521) rank higher in total military population.

In addition, the state counts 28,949 civilian employees across the five armed services (Army, Air Force, Navy, Marine Corps, and Coast Guard), and 1,215 Department of Defense civilian personnel for a total of 30,164. Washington ranks sixth on this indicator, behind Virginia (with 89,989 civilian workers), California (60,190), Texas (46,980), Maryland (43,101), and Georgia (32,993).

As of September 2015, Washington State was recorded as the mailing address of 73,538 retired military personnel. This figure was the seventh largest retiree population among the 50 states, behind Texas (206,130), Florida (195,523), California (160,640), Virginia (155,789), Georgia (96,276), and North Carolina (94,619). Washington State retirees as a group received \$157 million in monthly payments from DOD (an average of \$2,135.60 per retiree). The Army accounted for the largest number of the state's retirees (25,663), followed closely by the Navy (25,172). An additional 2,799 Coast Guard retirees were recorded in the state, however, these retirees fall under the Department of Homeland Security so earnings data were not available.

The following overview of DOD employment by service branch is excerpted from a situational analysis prepared by Washington DC-based Capitol Strategies (provided as Appendix B).

FIGURE 3. US DEPARTMENT OF DEFENSE WASHINGTON STATE EMPLOYMENT AS OF MARCH 31, 2016

ACTIVE DUTY	#	% OF TOTAL
Army	27,578	59%
Navy	10,065	22%
Air Force	6,134	13%
Coast Guard	1,974	4%
Marine Corps	627	1%
Total	46,378	100%
RESERVE FORCES	#	% OF TOTAL
Army	6,202	32%
Army Guard	6,094	31%
Navy	2,124	11%
Air National Guard	1,984	10%
Air Force	1,977	10%
Marine Corps	568	3%
Coast Guard	404	2%
Total	19,353	100%
CIVILIAN WORKERS	#	% OF TOTAL
Navy*	17,892	59%
Army	9,407	31%
Air Force	1,454	5%
Defense Department	1,215	4%
Coast Guard	196	1%
Total	30,164	100%

Source: Defense Manpower Data Center (Active Duty Master Personnel File, Reserve Components Common Personnel Data System) and US Office of Personnel Management (civilian workers) as reported by Governing magazine. *Marine Corps employees are a component of the US Department of the Navy.

ARMY

Washington ranks fourth nationally in Army active duty personnel, with a population of 27,578. Only Texas (74,306), Georgia (46,923), North Carolina (45,177), and Kentucky (32,635) have larger active duty Army populations. In addition, as of mid-2016, Washington State counted 6,202 Army Reserves, 6,094 Army Guard forces, and 9,407 Army civilian personnel, for a total Army population of 49,281, or more than one-half (51 percent) of DOD employment in the state.

Power Projection Platforms (PPP)

are Army installations that strategically deploy one or more high-priority active component brigades or larger and/or mobilize and deploy high-priority Army reserve component units.

Source: GlobalSecurity.org

Joint Base Lewis-McCord (JBLM) has seen significant changes in personnel over the past 15 years. From Fiscal Year (FY) 2001 to 2012, JBLM saw significant gains, almost doubling in the number of military personnel in response to events on 9/11 and the Global War on Terror. As part of a series of Programmatic Environmental Assessments, JBLM was reduced by nearly 6,000 personnel. Despite these large reductions, JBLM is still more than 50 percent larger than it was in FY 2001. While future adjustments are likely nationally, JBLM's designation as a Power Projection Platform coupled with the re-balancing of the nation's strategic priorities to the Pacific should favor the installation.

NAVY/MARINE CORPS

Washington State ranks sixth in Navy active duty personnel with a population of 10,065. Only Virginia (41,707), California (41,311), Florida (21,517), Illinois (13,493), and Maryland (10,474) rank higher in Navy population. In addition to its active duty personnel, the state's Navy/Marine Corps population consisted of 627 active duty Marines, 2,124 Navy Reserves, 568 Marine Reserves, and 17,892 Navy civilian personnel for a total of 31,276.

Since FY 2012, the Navy has invested over \$820 million in military construction funds for Washington's Navy installations. As the Department of Defense continues to shift their focus to the Pacific Region, Washington will continue to play an important role in national defense.

Unlike the Air Force and the Army, the Navy has actually increased in size in recent years. The end strength of the Navy nationally in FY 2016 was 329,200 (5,600 higher in FY 2015). This is also higher than the Navy's end strength of 318,406 in 2012. There are no anticipated personnel reductions in the Navy, and the decommissioned frigates previously at Naval Station Everett are being replaced by DDG-51 class destroyers. The re-balance to the Pacific should benefit the Washington Navy facilities by maintaining the same number and class of ships into the foreseeable future.

AIR FORCE

Washington State ranks 16th in Air Force active duty personnel with a population of 6,134. Texas (35,344), Florida (21,831), California (17,695), Virginia (12,290), New Mexico (11,607), Nevada (9,129), Arizona (9,036), Georgia (8,899), Colorado (8,549), Maryland (8,088), South Carolina (7,502), Alaska (7,375), North Dakota (7,011), Oklahoma (6,792), and North Carolina (6,205) rank higher in Air Force population. In addition, as of 2016, the State counts 1,977 Air Force Reserves, 1,984 Air National Guard forces, and 1,454 Air Force civilian personnel, for a total Air Force population of 11,549.

Joint Base Lewis-McChord (JBLM) is home to the 62nd Airlift Wing (Active) and the 446th Airlift Wing (Reserve), which fly C-17 Globemaster III aircraft. FAFB is home to the 92nd Air Refueling Wing (Active) and 141st Air Refueling Wing (Air National Guard), which fly the KC-135 Stratotanker aircraft. Fairchild Air Force Base (FAFB) is also hosts the Air Force Survival, Evasion, Resistance, and Escape (SERE) School; the Joint Personnel Recovery Agency; and other tenants.

In July 2016, FAFB was formally named by the Air Force as a candidate to become an active duty, Main Operating Base for the KC-135 replacement, the KC-46 Pegasus, along with four other candidate bases. USAF plans to announce its "preferred and reasonable alternatives" for operations at the end of 2016, with fielding of the new KC-46 aircraft to begin at the selected site in 2020. If FAFB were selected for the new KC-46 mission, it would provide significant federal investment in military construction, strategically position Fairchild for long-term future operations, and help to solidify Washington State as a DOD Power Projection Platform for the foreseeable future.

WASHINGTON NATIONAL GUARD

Washington State ranks 26th and 25th respectively in the number of Army National Guard (6,094) and Air National Guard (1,984) personnel. However, the Guard units in the state make up for their lack of size with very unique mission sets. These include the first National Guard Cyber Operations Group and one of two essential aerospace tracking systems for the continental US. In addition, Washington is set to become home to only the second National Guard Stryker Brigade Combat Team (BCT) in existence. The 81st BCT will trade in M1A1 Abrams Tanks and Bradley Fighting Vehicles for the Stryker Combat Vehicle, making it more conducive to active duty training missions, as well as providing a vehicle best utilized in domestic missions in response to earthquakes, fires, floods, and volcanic eruptions.

In addition to the 141st Air Refueling Wing's current KC-135 mission and potential KC-46 mission at FAFB, Washington Air National Guard units are also at the cutting edge of DOD cyber operations. The 252nd Cyber Operations Group (252 COG) became the Air National Guard's first Cyber Group when it was certified for operations in 2015. This decision followed the initial stand up of the 262 Network Warfare Squadron in 2012 and 143rd Cyber Operations Squadron in 2014 through the Total Force Initiative process. The 252nd and its supporting elements comprise approximately 840 military positions, with growth in the Unit coming as a result of their expanded cyber role.

The third leg of the Washington National Guard triad is the Western Air Defense Sector (WADS) at Joint Base Lewis-McCord. WADS and the Eastern Air Defense Sector (EADS) located at Rome, New York, are the two sectors responsible to North American Aerospace Defense Command's (NORAD) aerospace warning and mission control across the continental United States. The WADS and EADS missions are unique, irreplaceable (thus on solid ground as long as manned flight occurs in the US) and face steady-state personnel levels now, and into the future.

Through the term of the Budget Control Act (now through 2023), there is no anticipation that any significant growth or reductions will impact the Washington National Guard. However, if Congress and the administration are unable to put an end to sequestration and the Budget Control Act, the Army will be forced to go through a final round of personnel cuts to bring Active Component end strength down to 420,000; and reduce the Army Guard from its current overall level of 345,000 down to approximately 315,000 by Fiscal Year 2020. The Washington Army National Guard's share of that burden (if implemented) would be approximately 800 military personnel.

If FAFB were selected for active duty for the future introduction of KC-46 in 2020, there would likely be some nominal reductions in personnel requirements for the 141st ARW; however, those personnel spaces would likely be transferred to the growing cyber mission in the Air National Guard. With the certification of the 252nd COG, Washington State is now seen as a leader in National Guard cyber operations. However, as the National Guard increases its cyber capability across the enterprise, it will be difficult to expand the current cyber mission without a concerted statewide strategy to establish a cyber "Center of Excellence" in the state.

UNITED STATES COAST GUARD

Washington State ranks fourth in United States Coast Guard (USCG) active duty personnel with a population of 1,974. Only Florida (4,572), California (4,469), and Virginia (4,059) rank higher in USCG population. In addition, as of 2016 the State counts 404 USCG Reservists, and 196 USCG civilian personnel, for a total USCG population of 2,574.

The state is home to USCG District 13 Headquarters, which is responsible for the states of Washington, Oregon, Idaho, and Montana, as well as more than 460,000 square miles of Pacific Ocean. It is also home to the USCG polar icebreaking fleet. The USCG population has actually increased by 697 personnel since 2012. With increased attention on the Arctic mission, the District 13 mission and population is likely to further increase.

INDUSTRY

The state’s broad network of defense contractors comprises the second part of Commerce’s definition of the military and defense sector: industry. An analysis of USA Spending data conducted as part of the planning process found that defense-related spending in Washington State totaled \$13.3 billion in 2014. Of this figure, \$5.8 billion went to spending on payroll and operations, and the remaining \$7.5 billion went to procurement (defense contracts and grants for work performed in the state).

The 2014 procurement figure is slightly below the three-year average of \$7.8 billion that was the basis of the Washington State Military & Defense Contracts Economic Modeling Tool (beta) created by Seattle-based Community Attributes (CAI). It includes contracts and grants awarded by the Department of Defense and the Department of Homeland Security (Coast Guard spending only) for work performed in the state.

Spending by the Army accounted for the largest share of DOD purchases, followed by the Navy and Air Force with a small amount of spending attributed to the Coast Guard and the Defense Advanced Research Projects Agency (DARPA). More than 1,500 defense firms were identified as part of this analysis. Figure 4 shows the top 10 contractors in FY 2014.

According to CAI’s economic impact model, defense spending directly supports 25,800 jobs in the state (see Figure 5, page 14). The model estimates that an additional \$5.1 billion in secondary impacts accrued to the state each year, which translates to 30,500 additional jobs supported by defense contracting. Secondary impacts include *indirect* impacts (business spending on materials and wages as the initial impact moves through the supply chain) and *induced* impacts (additional economic activity generated by households as they spend wages resulting from the direct and indirect impacts). It is important to note that these figures, as well as those used throughout this section, exclude the impact of \$5.8 billion spent on expenses and personnel wages at installations.

**FIGURE 4. WASHINGTON STATE
TOP 10 CONTRACTORS, FY 2014**

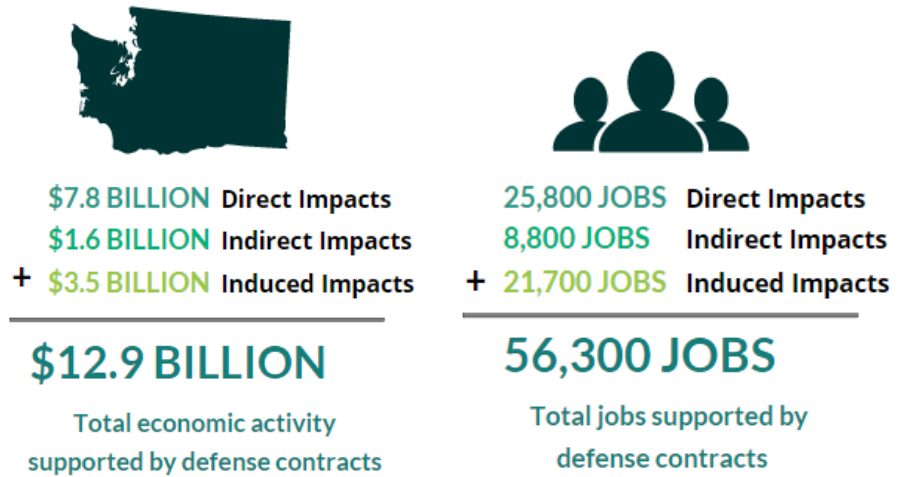
Boeing	\$4.3 B
US Oil Trading	\$162.5 M
Pacific Medical Center Clinic	\$129.5 M
EHW Constructors Joint Venture	\$83.1 M
EJB Facilities Services	\$60.9 M
Todd Shipyards (Vigor Industrial)	\$59.0 M
BP	\$58.4 M
International Marine & Industrial Applicators	\$53.0 M
Dakota Creek Industries	\$44.6 M
Skookum Educational Programs	\$43.1 M

B=billions, M=millions

Source: Defense Spending By State, Fiscal Year 2014, US Department of Defense, Office of Economic Adjustment

FIGURE 5. SPENDING & IMPACTS OF DEFENSE CONTRACTS IN WASHINGTON STATE
ANNUAL AVERAGE 2012-2014

- **Direct Impacts:** Revenues, jobs, wages supported through contracts (procurement).
- **Indirect Impacts:** Revenues, jobs, wages supported through supply chain transactions.
- **Induced Impacts:** Additional revenue, jobs, wages supported through household spending.



Source: Community Attributes, Inc., Washington State Military & Defense Contracts Economic Modeling Tool (beta)
Note: Impacts exclude \$5.8 billion spent on expenses and personnel wages at the state’s defense-related installations.

In addition to these high-level impacts CAI’s model allocates the impact of federal spending across counties and industries by category of impact (i.e., revenues, jobs, wages, occupations), as well as providing estimates of state tax revenues. From a geographic perspective, the largest impacts are found in the Seattle area, with King County accounting for \$2 out of every \$5 of total economic activity associated with defense contracting (40 percent of the state total). King County accounts for a similar share of jobs tied to defense contracting (37 percent), with more than 20,500 jobs supported by defense-related contracts. Snohomish County had the next highest level of revenues, with \$2.8 billion in primary and secondary impacts, representing nearly 9,200 jobs. Federal defense contracts support a similar level of employment in Pierce County—slightly more than 8,600 jobs—based on estimated annual revenues of \$1.7 billion. The dominance of King County and surrounding counties is the result of the high concentration of aerospace and shipbuilding work in the region.

Among eastern Washington counties, defense-contracting impacts were largest in Spokane County, generating slightly more than \$675 million in annual revenues, according to the model. Spending on construction activities (other than road and bridges) was the largest contributor, accounting for \$238.1 million, more than one-third of the county total. In terms of employment, construction’s impact in the county was slightly smaller with nearly 1,110 jobs—roughly 28 percent of the nearly 3,800 jobs supported by defense contracting in the county. Retail spending was the next highest industry for Spokane County, with revenues of \$52.2 million and nearly 550 jobs. Unlike jobs and revenues associated with construction, which were primarily from direct impacts, the vast majority of impacts within the retail industry were secondary effects (i.e., generated by spending within the supply chain and through household spending by employees).

FIGURE 6. DISTRIBUTION OF DIRECT AND SECONDARY IMPACTS

GEOGRAPHIC IMPACTS

	COUNTY	REVENUE*	SHARE
1	King	\$5.1B	40%
2	Snohomish	\$2.8B	22%
3	Pierce	\$1.7B	13%
4	Kitsap	\$776.7M	6%
5	Spokane	\$675.4 M	5%
6	Klickitat	\$325.0 M	3%
7	Thurston	\$185.1 M	1%
8	Skagit	\$171.0 M	1%
9	Clark	\$152.1 M	1%
10	Whatcom	\$144.9 M	1%

	COUNTY	JOBS	SHARE
1	King	20,557	36%
2	Snohomish	9,182	16%
3	Pierce	8,626	15%
4	Kitsap	5,439	10%
5	Spokane	3,782	7%
6	Klickitat	1,688	3%
7	Thurston	1,312	2%
8	Skamania	927	2%
9	Island	902	2%
10	Clark	691	1%

INDUSTRY IMPACTS

	INDUSTRY	REVENUE*	SHARE
1	Aircraft Mfg.	\$4.5B	35%
2	Other Construction	\$1.5B	12%
3	Eng. & Tech Services	\$689.3M	5%
4	Other Retail	\$481.5M	4%
5	Petroleum & Coal	\$436.9M	3%
6	Waste & Ag Services	\$401.7M	3%
7	Credit Intermediaries	\$387.2M	3%
8	Ambulatory Healthcare	\$372.4M	3%
9	Wholesale Trade	\$311.0M	2%
10	Admin. & Emp. Services	\$305.1M	2%

	INDUSTRY	JOBS	SHARE
1	Aircraft Mfg.	7,739	14%
2	Admin. & Emp. Services	5,857	10%
3	Other Construction	5,646	10%
4	Other Retail	5,020	9%
5	Eng. & Tech Services	4,559	8%
6	Food Services	3,098	5%
7	Waste & Ag Services	3,043	5%
8	Care Facilities	2,830	5%
9	Ambulatory Healthcare	2,616	5%
10	Legal & Business Services	2,727	4%

Source: Community Attributes, Inc., Washington State Military & Defense Contracts Economic Modeling Tool (beta). *Revenue impacts are in 2014 dollars. Note: Impacts exclude \$5.8 billion spent on expenses and personnel wages at the state's defense-related installations.

From an industry standpoint, aircraft manufacturing accounts for the largest share of defense-related economic activity performed in the state by far, with \$4.5 billion in revenues and more than 7,700 jobs tied to federal procurement on average each year. However, the estimates produced by the model represent a small fraction of the roughly \$60 billion in revenues and more than 93,000 jobs attributed to aerospace activities in the state, according to impact analyses performed separately by CAI for the Washington Aerospace Partnership. The comparatively modest figures linked to federal defense contracting reflects both the location of Boeing's operations—the company's commercial division is headquartered in Puget Sound, while its defense- and space-related activities are headquartered in St. Louis—and the impact of declines in defense spending on other companies in the industry.

After aircraft manufacturing, construction-related contracts (excluding roads and bridges) account for the next largest share of the total procurement spending identified in the model, with an average \$1.5 billion in revenues annually and more than 5,600 jobs. The impacts of these activities are also highly concentrated, with more than three-quarters of revenues accruing to four metropolitan counties: Pierce (28 percent), King (23 percent), Spokane (15 percent), and Kitsap (13 percent). In terms of employment impact, however, contracts for administrative and employment services are second after aircraft manufacturing, with an average of nearly 5,900 jobs supported in the state. Employment in these activities is concentrated in Kitsap, King, and Pierce, with each county having roughly 25 percent of the statewide total. This industry group also had stronger secondary impacts than either aircraft manufacturing or construction

activities. Roughly one-third of revenues and employment in administrative and employment services was attributable to the effects of supply chain or consumer spending. By comparison, roughly 20 percent of jobs and 25 percent of revenues in construction activities were derived from secondary impacts.

Engineering and technical services—which is defined here to include computer systems design—is the third largest industry group in terms of revenues generated from defense procurement, averaging nearly \$690 million in revenues annually and roughly 4,500 jobs statewide. The majority of this employment (55 percent) is located in King County. Of the approximately 2,500 engineering and technical services jobs in the county, slightly more than 85 percent are directly supported by contracting. Skamania County has the next largest share of jobs in the industry group, with roughly 680 (15 percent of the statewide total attributed to defense spending). Kitsap, Snohomish, and Pierce Counties round out the top five, with each having between 300 and 350 jobs.

A look at statewide model results helps illustrate the relationship between contract values (revenues) and employment. On average, each \$1,000 of revenue associated with federal contracting (including direct and secondary impacts) supports 4.4 jobs statewide. For some service industries, this figure was significantly higher. For example, an average of 19.2 jobs were supported per \$1,000 of federal spending within the administrative and employment services industry, according to the model. Other industry groups with high employment-to-revenue ratios at the state level include residential treatment and social services facilities (14.5 jobs per \$1,000 in revenues); eating and drinking establishments (13.0 jobs/\$1,000); educational services (11.8 jobs/\$1,000); arts, entertainment, and lodging (10.9 jobs/\$1,000); and retail, excluding e-commerce (10.4 jobs/\$1,000).

Model results also help shed light on the types of jobs impacted by federal spending. Of the nearly 22,100 jobs for which an occupational classification was determined, production workers, office and administrative support represented the largest share of employment tied to federal procurement contracts. Each occupational group had roughly 3,100 jobs supported by contracting activities (including direct and secondary impacts). Production worker impacts were heavily concentrated in King and Snohomish Counties. Office and administrative support impacts were largest in Pierce and Kitsap Counties. Roughly 1 in 10 jobs supported by federal defense spending statewide were in engineering and architectural occupations. Within the occupational group, one-third of these jobs are located in Snohomish County, followed closely by King County. Other occupations representing approximately 10 percent of employment supported by defense spending were business and financial occupations, construction and extraction workers, and management positions.

PARTNERSHIPS

In constructing an actionable strategy, it is essential to understand the potential players involved in supporting and implementing the recommendations. The third element of the sector definition, “partnerships” encompasses the alliance of public, private, and social organizations that serve the military and defense sector. A graphic representation of this support network is provided as Figure 7 (page 20).

WASHINGTON STATE DEPARTMENT OF COMMERCE

Over the years, Commerce has committed staff and resources to support, grow, and better understand the sector. Commerce serves as the primary supporting and implementing organization. This charge aligns well with the agency’s varied responsibilities, which include strengthening the state’s key sectors, expanding international trade, helping small businesses grow, providing training to a new generation of workers, facilitating access to funding, and supporting the work of local economic development partners in all 39 Washington counties.

Commerce’s work on the sector is directed by the Military & Defense Sector Lead, one of eight individuals appointed to support the growth of the state’s key industries. The addition of the Military & Defense Sector Lead to the agency’s existing sector-based efforts was prompted by the election of Governor Jay Inslee who saw the need for an enhanced effort to support this important aspect of the state’s economy. The Military & Defense Sector Lead focuses on three key issues: mitigating military downsizing across the state; advocating for the sector in state and out of state; and addressing the challenges to and opportunities for growth, with a focus on base realignment and closure (BRAC) and the successful transition of service members to civilian life.

Initial research conducted by Commerce revealed that, unlike the other sectors, the military and defense sector was not represented by a formal industry association. In an effort to address this situation, the Washington Military Alliance (WMA) was formalized in September 2014. Originally convened in 2011 to discuss potential responses to uncertainty regarding the federal budget, the WMA is a coalition of over 20 military and defense sector-related organizations around the state. The alliance is staffed by Commerce and operates under a memorandum of understanding among the partners. Formalizing this organization was one of the early undertakings of the grant-funded work. Commerce and the WMA are central to the support and implementation of the strategies contained in this plan. Integrating the plan of work with the activities of the other Sector Leads and relevant programs within Commerce will be essential to success.

OTHER STATE AGENCIES

In addition to Commerce, there are a number of state agencies that play a part in supporting the sector, whether through policy setting and advocacy or through direct delivery of services to contractors and workers. On the policy side, the governor’s office plays a vital role. In addition to setting the tone for support of the sector statewide, the governor plays a key role in allocating resources, positioning the state for economic growth, and advocating at the federal level for the continuation of installations and missions.

From a service delivery standpoint, agencies associated with traditional business development and workforce activities will be part of the plan’s implementation. An important element of the grant was identifying the state resources that would be activated in the event of a downsizing. This project identified a range of actors representing a cross-section of state agencies and boards; Workforce Development Councils (WDCs); economic development councils; business associations; and labor, county, and local government entities that would need to act. The analysis formed the basis for the creation of a Defense Downsizing Framework Analysis (DDFA). The proposed DDFA identified eight unique major processes and more than 5,300 process tasks that would be required

in a potential military & defense-sector downsizing plan. Agencies other than Commerce that have some relationship to this process include:

- Governor's Office
- Washington State Department of Veterans Affairs
- Washington Military Department
- Washington State Employment Security Department
- Workforce Training and Education Coordinating Board; WorkSource Central
- Washington State Board for Community & Technical Colleges
- Washington State Labor Council and Local Labor Affiliates
- Washington State Dept. Social and Health Services

In addition, agencies other than Commerce that provide small business assistance, including financing and technical assistance, will also play a role in the industry adjustment strategy. These include the following:

- Governor's Office for Regulatory Innovation and Assistance (ORIA)
- Washington State Office of Financial Management
- Washington State Department of Revenue
- Washington Department of Labor & Industries
- Washington State Office of Minority & Women's Business Enterprises
- Washington Department of Labor & Industries

KEY PARTNERS

The extensive stakeholder outreach associated with the OEA grant confirmed that a robust set of organizations and efforts dedicated to the military and defense sector exists in the state. These include signatories to the WMA memorandum of understanding, as well as those that play a less formal role in support of the sector.

However, the planning process also confirmed the need to increase coordination and collaboration among these many and varied stakeholder organizations. In the absence of an umbrella organization, these groups may have a tendency to operate in silos—not purposefully, but as a result of focus on a specific installation, geography, or narrow scope of work aimed at a specific niche need. The difficulties in aligning programs of work is exacerbated by the fact that a number of the resources currently supporting the sector are voluntary in nature and are controlled by separate governing bodies, with independent initiatives, goals, and metrics.

Beyond the work of state agencies and those organizations formally charged with supporting the sector, implementation of the industry adjustment strategy will rely on an immense number of organizations and services not uniquely associated with the military and defense sector. Over the life of the grant, hundreds of organizations and initiatives were identified, including economic development organizations, nonprofits, and postsecondary institutions. While they are not formally associated with the military and defense sector, the work of these programs offers tremendous benefit to businesses in the sector. As such, connections to these resources should be highlighted through

tools such as the Resource Roadmap, developed as part of the grant and published under separate cover. Engaging these resources in support of the state's contractors is the focus of the "Serve" strategy outlined in the next chapter.

Although they often face budget limitations, the state's network of Associate Development Organizations (ADOs) present a unique mechanism for implementation. Charged with primary responsibility for economic development in each of the state's 39 counties, the ADOs often serve as the first point of contact for existing business and those considering a location in the state. Making sure this group is invested in the strategy and well connected with information on the sector is imperative. A number of other economic development organizations, while not formally designated as the lead, should also be considered. These include chambers of commerce, economic development districts, and economic development councils not serving as ADOs.

Collaboration with the state's economic development trade association, the Washington Economic Development Association (WEDA), provides a platform for reaching these organizations as well as others interested in the state's economic future. Interacting with WEDA on a regular basis can help raise the profile of the military and defense sector among economic development professionals. Trade associations for the state's key industry sectors are another important conduit for disseminating information about the sector. These include the Washington Aerospace Partnership, the Washington Technology Industry Association, and Life Science Washington (formerly the Washington Biotechnology and Biomedical Association), as well as more generally oriented groups like the Washington Association of Business. Outreach to these associations would need to be closely coordinated with the relevant Sector Lead.

Finally, a range of workforce and higher education institutions will be required to help support the strategy. These include regional workforce boards, community colleges, and nonprofits. In the event of a defense downsizing, these groups will be important actors in carrying out the DDFA described previously. However, the role of workforce and education professionals is not limited to major personnel actions. These organizations are also an important part of creating a seamless transition for military personnel exiting the service. On the industry side, they play an essential role in ensuring a pipeline of talent for the state's defense contractors. Engaging these groups in the plan's implementation is a focus of the "Align" element of the strategic framework.

FIGURE 7. WASHINGTON STATE MILITARY & DEFENSE SECTOR SUPPORT NETWORK



STRATEGIC FRAMEWORK

The strategic framework outlined in this section represents the culmination of the 24-month grant-funded planning process. It was constructed to organize, structure, and attach action-oriented terms to the most significant and relevant findings from OEA grant-funded projects. The strategies and recommendations are the result of countless hours of stakeholder input and thousands of pages documenting the individual elements, as well as independent observations based on the experience of the consulting team.

The framework is divided into eight components, each of which identified by a single word that reflects the intent of the activities it encompasses. The framework is summarized in Figure 8. Detailed strategies that underpin each component are provided on the following pages.

FIGURE 8. STRATEGIC FRAMEWORK AT-A-GLANCE

-
-  **1. COMMUNICATE:** *Raise the sector’s profile by identifying, building, and sustaining channels of communication with stakeholders and other key audiences.*

 -  **2. INVEST:** *Commit to investments that support and enhance the competitiveness of the state’s military and defense sector.*

 -  **3. PROTECT:** *Ensure the future of the state’s defense installations and unique federal facilities.*

 -  **4. SERVE:** *Connect manufacturing and services firms in the defense services supply chain with tools and support networks to enhance their economic competitiveness.*

 -  **5. INNOVATE:** *Foster an environment that encourages the commercialization of defense-related technologies.*

 -  **6. INTEGRATE:** *Ensure alignment of defense industry adjustment strategies across all sector activities.*

 -  **7. ALIGN:** *Increase the alignment of talent and workforce initiatives with the needs of the military and defense sector.*

 -  **8. TRACK:** *Monitor and report on the impact and health of the sector.*
-



1: COMMUNICATE

Raise the sector's profile by identifying, building, and sustaining channels of communication with stakeholders and other key audiences.

Providing support for military installations and mission presence in Washington State and the defense services supply chain in general will raise awareness and appreciation for the economic dependence of the sector. Given the diverse missions, needs, and opportunities of Washington's military and defense assets, it will be critical for the state's military community stakeholders to come together with one voice in support of the sector.

- 1.1.** Distinguish the unique communication roles of Commerce and the Washington Military Alliance to avoid duplication of efforts and maintain consistency.
 - 1.1.1.** As a state agency tasked with various roles in community and economic development, Commerce should communicate broad, high-level messages regarding sector issues, news, and information.
 - 1.1.2.** As a coalition of military and defense-related organizations and stakeholders, the WMA is uniquely positioned to craft and deliver relevant, targeted messages to key internal and external audiences about the importance of the sector and specific military and defense-related issues, opportunities and/or threats. The WMA can also promote and act as a "feeder organization" for Commerce's many programs and services.
- 1.2.** Utilize the WMA to build cohesiveness and collaboration among communities and stakeholders.
 - 1.2.1.** Adopt and promote a formal fundraising program that will support the organization's communication activities.
 - 1.2.2.** Develop an external communications policy for board members, membership, stakeholders, and volunteers.
 - 1.2.3.** Follow recommendations in the "Communications Plan" to market the WMA.
 - 1.2.4.** Provide resources and planning assistance to communities negatively impacted by DOD spending reductions.
- 1.3.** Segment and define internal and external communication efforts.
 - 1.3.1.** Internal Communication should occur within the organization and state and convey relevant information about sector news, issues, and accomplishments. Target audiences should include the WMA, key stakeholders, other key industry sectors, and government officials.
 - 1.3.2.** External Communication should occur inside and outside of the state and communicate why Washington is a leader in supporting the military and defense sector. Target audiences should include the general public, elected officials, defense contractors, local governments, educational institutions, workforce boards, military installations, the Department of Defense, and prospective relocating or expanding businesses.

- 1.4.** Create official channels for all levels of communication and information dissemination.
 - 1.4.1.** Reinforce agreed-upon messages and maintain consistency at all points of contact.
 - 1.4.2.** Develop a schedule and methods for obtaining regular input and feedback from internal and external audiences.
- 1.5.** Raise awareness of the military and defense sector's importance to the state's economy through targeted marketing, public relations, and information sharing in an effort to garner broad understanding, advocacy, and support.
 - 1.5.1.** Create a tagline and/or positioning statement for the military and defense sector and build brand image through select media.
 - 1.5.2.** Promote the sector in earned media (for example, television, and radio PSAs).
 - 1.5.3.** Create a media event that garners broad media attention (for example, a "State of the Industry" Summit.)
 - 1.5.4.** Utilize the TIP-generated asset map and brochure to tell the story of the importance of the military and defense sector to the state, lawmakers, and the general public.
 - 1.5.5.** Promote the Washington State Military & Defense Contracts Economic Modeling Tool created by Community Attributes, Inc. to raise awareness of the economic impact of the sector.
 - 1.5.6.** Integrate and follow the media relations rapid-response communications plan as defined in the WMA's adopted Operations Plan.
 - 1.5.7.** Cultivate relationships with key media outlets to distribute news and information about sector issues in a timely manner.
 - 1.5.8.** Communicate the imperativeness of sustaining the sector to the general public and create a call to action.
- 1.6.** Communicate outcomes from relevant OEA grant-funded projects.
 - 1.6.1.** Disseminate statewide information about pilot program results, lessons learned, and best practice examples.
- 1.7.** Promote the state's business climate for locating or expanding military and defense sector businesses.
 - 1.7.1.** Evaluate how tools are being used to support the sector (for example, tax incentives, regulatory reform, permitting, etc.)



2: INVEST

Commit to investments that support and enhance the competitiveness of the state's military and defense sector.

Continuing to support efforts to bolster the competitiveness of Washington's Military and Defense Sector will help to ensure that the sector maintains its position as a major contributor of jobs and revenue to the state's economy. Small-scale efforts with part-time staff are not sufficient. Support from multiple sources is needed if the state is to maintain its competitive position.

- 2.1.** Establish state policy supporting the military and defense sector. An ongoing commitment across multiple agencies will allow for the thorough implementation of the strategic plan to continue. The dedicated roles of state agencies that impact the success of the sector are of special importance.
 - 2.1.1.** Support Commerce staff, specifically the Military and Defense Sector Lead, whose role is of the highest importance.
 - 2.1.2.** Maintain dedicated representation for the military and defense sector at the governor's office, a role vital to the continued success of the sector. This representative is pivotal in convening stakeholders, coordinating policy, and identifying solutions and possesses the unique ability to bring in and leverage multiple agencies when necessary.
 - 2.1.3.** Employ additional workforce development resources in service of companies in the military and defense sector. The Employment Security Department at the state serves, and should enhance their role, as a convener and aggregator of workforce training services in the state.
- 2.2.** Expand investment in the Military and Defense Sector program. With grant funding coming to a close, resources that have supported this work will end. The success of the Military and Defense Sector program, the importance of the sector to the state's economy, and the demonstrated need by industry justifies expanded investment into the program.
 - 2.2.1.** Expand funding for the program at the state level to support existing staff and operations that are currently being supported by the OEA grant. In addition, identify resources to support new staff to conduct the work identified in this strategic plan.
 - 2.2.2.** Request a "fee for service" structure and authority from the Washington State Legislature to allow the Military and Defense Sector Lead to secure additional funding support from the private sector.
- 2.3.** Identify, evaluate, and encourage infrastructure investments across the state that would benefit the military and defense sector. Understanding these needs and evaluating their impact on the ongoing success of the sector is important in policy and investment decisions that will be made by the legislature.
 - 2.3.1.** Identify the infrastructure assets that will have the greatest impact on the sector's success and support its ongoing needs. The leadership of the WMA and Pacific Northwest Defense Coalition (PNDC) should compile this information in a report to share with the legislature annually.
 - 2.3.2.** Gather information about recent, ongoing, and future investments being made in infrastructure supporting the military and defense industry, and share this information with leadership at state and national levels, to demonstrate Washington's commitment to the sector.

2.3.3. Work with industries that support the military and defense sector (e.g., aerospace, maritime, and information technology) to understand their infrastructure needs and concerns and make sure that future impacts to the military and defense sector are considered.

2.4. Support installations with investments that prevent base encroachment and improve mission capabilities. Land use decisions surrounding bases will certainly have an impact on an installation's ability to serve its current and/or future mission capability. Public sector investments in solutions to these issues will establish a successful relationship between installations and the communities in which they are located, while serving the needs of the military.

2.4.1. Support and implement the recommendations of the Civilian-Military Land Use Compatibility Study that is underway. While these findings may require financial commitments from state and local jurisdictions, these expenditures should be considered investments in the future that will benefit the state's overall economy.

2.4.2. Provide transportation funding investments to address congestion issues and provide for better access to Washington State's military installations.

2.4.3. Make shore-side infrastructure investments to establish additional maintenance and repair capacity, which could service both commercial and Navy vessels at sites.

2.5. Support the WMA in its continued role as the state's leading organization advocating for the military and defense sector. Sustaining the WMA's operation is imperative to the long-term success of the military and defense sector in the state.

2.5.1. Continue to dedicate resources to support the WMA from multiple sources including contributions from the public sector, the organizations engaged with the WMA, and ongoing funding from the state of Washington. Identified funding goals are:

- State funding: \$300,000 annually
- Member contributions: \$75,000 to \$100,000 annually
- Annual WMA "State of the Defense Sector" event and report: \$20,000

2.6. Continue to aggressively seek out and apply for federal grants to support ongoing and new initiatives and programs for the sector. Commerce and the WMA should maintain this effort.

2.6.1. Explore such potential resources as the DOD Office of Economic Adjustment (OEA), US Department of Agriculture (USDA), US Department of Labor (DOL), Economic Development Administration (EDA), Defense Advanced Research Projects Agency (DARPA), and the US Department of Energy (DOE).



3: PROTECT

Ensure the future of the state's defense installations and unique federal facilities.

The first priority is to protect the health and vibrancy of the sector, including the defense industry supply chain, military missions, and installations. The state and its sector partners must stay in front of threats such as reduced spending on procurement, sequestration, and local encroachment that impedes military missions. Effective protection entails working with businesses, communities, and installations to develop proactive strategies to solve challenges and pursue new opportunities.

- 3.1.** Implement the recommendations of the Washington State Base Compatibility Study. Commerce is conducting a study through its Growth Management Services (GMS) unit to examine land use compatibility surrounding military installations. (See *Invest 1.4.*)
 - 3.1.1.** Carry out the final state-level implementation and sustainability plan approved by the legislature and the governor.
 - 3.1.2.** Conduct ongoing outreach to communities surrounding the installations to inform them about the approved recommendations and the process of implementation.
- 3.2.** Work to secure the basing of existing military missions and to attract additional missions to the state.
 - 3.2.1.** Continue investing in critical infrastructure surrounding military installations that is needed to support existing military missions and attract new missions. (See *Invest 1.3.*)
 - 3.2.2.** Encourage the formation of partnerships between installations and communities that enhance readiness through installation support services. Such partnerships should be designed to improve mission training, enhance cost efficiency, expand mission capability, create efficiencies, and improve community relations.
 - 3.2.3.** Aggressively advocate to federal partners the competitive advantages of Washington as a location for future basing opportunities.
 - 3.2.4.** Continue utilizing the Commander's Council to advise the WMA and the State of Washington on the potential impacts of DOD basing decisions on the state.
- 3.3.** Safeguard the ongoing availability and condition of the state's training and staging areas and associated airspace. Washington State boasts a tremendous array of specialized training facilities, vast training areas throughout a diverse climate and terrain, and unencumbered airspace that provides for all the necessary operational and joint training requirements necessary to maintain the highest readiness levels. The state's unique training centers and ranges include the Yakima Training Center (YTC); Fairchild AFB's Survival, Escape, Resistance & Evasion (SERE) School; Special Use Airspace; Naval Undersea Warfare Center; and The Department of Energy's HAMMER Training and Education Center.
 - 3.3.1.** Washington must work to ensure that DOD maintains the viability of its training ranges and accommodates expanded specialized training activities within the state in order to grow and capture future mission capabilities.

- 3.4.** Support the growth and vitality of defense firms by enhancing the state’s business climate. As with any industry, the ability of the defense services supply chain to successfully operate in Washington depends on the state’s competitiveness in a variety of business climate areas, including education and workforce training, health care, land use, tax and fiscal policy, transportation, and worker’s compensation.
 - 3.4.1.** Regularly communicate with military and defense sector firms to gather input and recommendations for improving the state’s business climate.
 - 3.4.2.** Work with the Association of Washington Businesses, the PNDC, and other business organizations in the state to seek input on important state business climate issues affecting competitiveness.
- 3.5.** Support PNDC advocacy efforts to streamline and strengthen federal procurement processes to improve long-term returns on investment in defense and security contracts.
- 3.6.** Work with Commerce and local economic development organizations to support the defense sector supply chain through retention, expansion, and recruitment opportunities. (*See Integrate and Serve sections for detailed strategies.*)
- 3.7.** Raise awareness of the importance of the state’s military infrastructure (including installations, missions, and workforce) and defense industries as key economic drivers in Washington. Ensure this is done at local, state, and national levels.



4: SERVE

Connect manufacturing and services firms in the defense supply chain with tools and support networks to enhance their economic competitiveness.

Assist military and defense supply chain firms in diversifying their products and services, finding new customers, and exploring new domestic and international markets. Ensure the appropriate resources are in place to support these businesses, bring awareness to and connect firms to available resources, create opportunities for intra-sector business development and partnerships, and ensure resource organizations are adequately staffed and funded.

- 4.1.** Explore options to fully fund second-phase supply chain pilot programs. Research and apply for follow-on funding (for example, SRS, Workstart) to implement next-stage programs that provide an enhanced level of technical assistance to defense contractors. Consider obtaining funding source recommendations from OEA. Reference results and successes from OEA grant-funded pilot projects in application.
 - 4.1.1.** Create a combined manufacturing and services supply chain pilot program. Tailor the program to assist larger numbers of firms and provide more intimate technical assistance.
 - 4.1.2.** The program should emphasize the importance of linking military and defense contractors with opportunities and networks in the state's other key sectors and international markets.
 - 4.1.3.** Results from these pilots should be broadly communicated and promoted.
- 4.2.** Connect defense contractors to Commerce's technical assistance programs and best practices.
 - 4.2.1.** Help contractors find new customers in the government marketplace by matching them with Procurement Technical Assistance Centers (PTAC) programs and services, including assistance with certifications, training, marketing, and bid matching.
 - 4.2.2.** Foster new international trade opportunities for sector businesses. Emphasis should be placed on expanding international trade promotion activity at the state level and dedicating resources to developing the expertise required to support the specialized needs of defense contractors.
 - Dedicate additional resources to trade and export promotion. Commerce's international trade activities should be expanded using Virginia's Going Global Defense Initiative (GGDI) as a model. The GGDI program features a dedicated defense industry program manager and offers specialized assistance including guidance on completing a Commodities Jurisdiction Analysis and submitting the required paperwork to the Department of State in compliance with International Traffic in Arms Regulations (ITAR).
 - Build expertise within the Department of Commerce on international requirements in military and defense goods and services. (e.g., ITAR), so they can be a resource on this topic to Washington State companies.
 - Educate military and defense sector firms on conducting business with international companies to diversify their customer base. This could be accomplished through one-on-one sessions and through seminars/workshops run by the international trade staff.
 - Promote and link businesses to Commerce's export assistance programs and services.

- Facilitate access to research prepared by the Commerce’s International Trade program, including the 2016 Defense Markets Report.
- Attend an international trade mission, specifically for the military and defense sector, targeting countries and trade shows where products and services would be best received.

4.2.3. Connect contractors to other manufacturing and service assistance programs.

- Connect manufacturing supply chain firms with Lean training and certification programs provided by Impact Washington.

4.3. Identify opportunities to connect military and defense sector businesses with other sectors (specifically energy, biofuels, information and communication technology, cybersecurity, life sciences and aerospace/UAS technology). Brainstorm opportunities where partnerships and new business development can occur between sectors.

4.3.1. Hold quarterly Sector Lead meetings to foster information-sharing and partnering opportunities.

4.3.2. Host regular networking events to encourage networking between sector businesses.

4.4. Continue regular outreach to statewide military and defense sector businesses in accordance with traditional business retention and expansion activities. Ensure existing databases are updated, maintain open lines of communication, create a target number of outreach calls/visits per year, create a visitation plan, and conduct regular surveys to evaluate outreach and gauge the effectiveness of programs.

4.5. Ensure programs and services are properly marketed and promoted through search engine optimization, websites, brochures, and partner organizations.

4.6. Conduct regular outreach to resource organizations to ensure their capacity meets the demand of clients. Ensure staffing and funding levels are appropriate.



5: INNOVATE

Foster an environment that encourages the commercialization of defense-related technologies.

Commercializing new technologies out of large defense contractors, research institutions, and universities; creating new companies around those products; and identifying new lines of business for current technologies in existing businesses will strengthen and expand the state's expertise and importance in the defense industry.

5.1. Establish a Center of Excellence (COE) to drive military and defense sector coordination and to provide resources to help small businesses obtain federal funding.

A feasibility study conducted by PA Consulting explored options for Washington to accelerate economic growth by driving technology transfer between government entities and industry and promoting the resulting technology. The study found that the state is a "Military Powerhouse" that is home to a large military presence and prominent research institutions, but lags peer states in Small Business Innovation and Research (SBIR)/Small Business Technology Transfer (STTR) awards (an indicator of early stage research, tech transfer, and commercialization activity.) Washington's comparatively lower performance appears to be due to:

- A lack of mechanisms to drive collaboration among stakeholders;
- A perception that federal contracting is too difficult or offers limited near-term payback, particularly compared to other markets; and
- A less technically oriented military population than states with similar presences.

In addition to these structural challenges, stakeholder input revealed four perceived gaps where additional state assistance would be beneficial:

- *Coordination:* Many stakeholders face challenges identifying suitable go-to-market partners.
- *Marketing:* The R&D community would welcome help growing awareness of Washington's intellectual property (IP).
- *Pursuit support:* Navigating federal contracting and cycles is a recurring challenge for many small businesses.
- *Capacity building:* Defense-oriented firms noted difficulty attracting or competing for top talent.

Washington could begin to address these challenges and gaps by creating its own COE focused on military and defense sector tech transfer and commercialization. Based on a review of other COEs in Silicon Valley and Boston, PA Consulting recommends Washington establish a COE that leverages existing strategic partnerships. This would require minimal upfront costs, it could be established as a trial for a discrete period, and it could scale and adjust as needs evolve.

5.1.1. Create a web platform (e.g., defenseInnovation.wa.gov) akin to DOD's Defense Innovation Marketplace, and open it to interested stakeholders in the state or elsewhere (with password-protected access). The platform could offer:

- A Washington IP clearinghouse, member database, and teaming partner list
- How-tos for funding avenues (e.g., SBIR/ STTR, accelerators)

- A job board
- Info on events related to defense, technology, or government contracting
- Contacts for US government agencies (e.g., PTAC) and links to relevant news content and DOD budget information

5.1.2. Create a full-time staff position funded by grants and/or donations. The staff person would be responsible for:

- Coordinating recurring events designed to provide information on government contracting and/or requirements
- Promoting Washington’s intellectual property through the stakeholder network and at innovation, tech, or defense events in the state and across the US
- Helping to coordinate meetings between stakeholders at partner-provided facilities and ensure the database is up-to-date
- Coordinating stakeholder access to space at a partner-provided central location for networking events, informational speaker series, hackathons, etc. and at decentralized lab space for research or prototyping (e.g., PNNL facilities across Washington)

5.2. Engage non-traditional defense stakeholders (e.g., Amazon, Vulcan, Inc., Blue Origin).

The state’s defense cluster lacks the concentration of defense primes and OEMs, defense-related FFRDCs, or technical military populations that many “balanced actors” possess. Engaging Washington’s world-leading innovators outside the traditional defense sector and driving collaboration between them, the traditional defense industry, and WA’s research centers could be a critical spark.

5.3. Augment federal and state dollars by creating a fund to which partners can contribute on a tax-deductible basis.

The South Carolina Research Authority (a self-sustaining COE in South Carolina, see Appendix A) established a fund through which it receives \$6M annually in state tax-deductible donations that it parcels out to promising technology businesses.

5.4. Integrate and align defense industry opportunity growth areas with the state’s high-tech industry support programs and initiatives.

5.4.1. Align state investments in R&D, science, and innovation capabilities with future DOD investment priorities (e.g., robotics & system autonomy, miniaturization, big data, advanced manufacturing).

5.4.2. Deepen the role of Washington’s military installations in the innovation economy by fostering connections between military assets and the technology sector.

5.4.3. Work with DOD to establish a Defense Innovation Unit-Experimental (DIUx) location in Washington. A pilot location for DIUx has been created in Silicon Valley and a DIUx East will open in Cambridge in 2016.



6: INTEGRATE

Ensure alignment of defense industry adjustment strategies across all sector activities.

Coordinate established programs and partnerships dedicated to the success of industries in the state and align them with the efforts of the military and defense sector. These combined activities will both benefit the individual industries and help to support the military and defense sector by creating a fertile environment for new business.

6.1. Align the Sector Lead program and International Trade Division at Commerce with Commerce's Military and Defense Sector program.

6.1.1. Educate each of the Sector Leads at Commerce and the International Trade program staff through a daylong briefing concerning the future of the military and defense sector in the state.

- Utilize the staff at the Military and Defense Sector program to coordinate and conduct these briefings with the support of outside experts and sector partners when necessary.
- Utilize and update market reports that have been created detailing trade and export opportunities in targeted sectors that align with the Sector Lead program. The industry and country opportunity information in these market reports should be incorporated into the business development plan for each Sector Lead.
- Follow up the annual briefing with quarterly updates.

6.1.2. Establish a set of business development goals and metrics for the Sector Leads that measure new business introductions to the defense sector and the connections made between industries. These metrics should include the number of introductions between specific businesses and defense and military opportunities, connections made between industry sector programs, cross-sector promotional events, and media attention covering the cross connections.

6.1.3. Capitalize on the Military and Defense Sector program's significant expertise concerning the current and future needs of the sector in the state and nation for the benefit of the other sectors within the state. The Sector Leads should evaluate and target future mission and defense industry R&D opportunities for their industries and present those opportunities to key businesses within the state.

6.2. Leverage international trade promotion activity at the state to a greater extent to benefit the military and defense sector and expand international trade opportunities.

6.2.1. Educate military and defense service firms on conducting business with international companies to diversify their customer base. This could be accomplished through one-on-one sessions and through seminars/workshops run by the international trade staff.

6.2.2. Support an international trade mission, specifically for Washington's Military and Defense Sector, targeting countries and trade shows where products and services would be received best.

6.2.3. Build expertise within the International Trade program on specific international requirements in military and defense goods and services (e.g. ITAR), so they can be a resource on this topic to Washington State companies.

- 6.2.4.** Collaborate with Associate Development Organizations (ADOs):
 - 6.2.5.** Participate in a statewide military and defense “State of the Industry” summit that will provide access to information and expertise about the industry.
 - 6.2.6.** Encourage involvement and membership with the WMA.
 - 6.2.7.** Stay engaged and up to date with all activity at Commerce related to the military and defense sector including technical business support programs, recruitment and expansion opportunities for military and defense companies, and grant activity.
 - 6.2.8.** Serve as a conduit for information at the local level, working with ADOs to provide county-level defense, contracting, and employment data (identified with the Washington State Military & Defense Contracts Economic Modeling Tool) to local employers for feedback and confirmation, creating a feedback loop that will ensure the most accurate understanding of the sector.
- 6.3.** Maintain coordination of programs aimed at supporting and growing the military and defense sector including the work of the WMA and Commerce’s Military and Defense Sector program and efforts at the local level, such as military installation support organizations and targeted regional economic development programs.
- 6.3.1.** Continue to support and acknowledge efforts at the local level, and coordinate them with statewide efforts. These organizations and efforts include:
 - Military and defense target industry programs at ADOs
 - Defense industry business associations
 - Defense-related R&D programs at the University of Washington’s Pacific Northwest National Laboratory
 - Business startup and technical support programs working with military and defense organizations
 - Workforce training programs serving military and defense companies



7: ALIGN

Increase the alignment of talent and workforce initiatives with the needs of the military and defense sector.

The state's ability to respond promptly and effectively to job losses in the military and defense sector due to federal budget cuts requires a new defense-sector downsizing plan and an enhanced Rapid Response system. Such a plan must coordinate and operate across multiple jurisdictions, including federal, state, county, local, and public. Washington must also work to ensure veteran transition programs and workforce-training programs are addressing the talent needs of the defense sector.

7.1. Establish a coordinated Defense-Sector Downsizing Plan (DDP) across multiple jurisdictions. A central finding of the Needs Assessment & Gap Analysis Report conducted by Operation Military Families (OMF) is the overwhelming need to establish a formal coordinated response plan to a possible DOD downsizing in the state. Currently, while a few state agencies could modify an existing plan created to respond to general economic downturns, the majority have no plan to address downsizing. Local organizations that can be called upon for economic development or workforce development support do not have a plan in place either. A new Modified Mobilization Strategy & Implementation Plan was recommended under the OEA grant planning work. Now that strategy must be organized and implemented.

7.1.1. Use the OMF DDP framework for a defense-sector downsizing response.

7.1.2. Create a cross-jurisdictional Mobilization Response Team at the Governor's level.

7.1.3. Convene recommended stakeholders to review and customize the OMF DDP.

7.1.4. Secure federal funding for a cross-jurisdictional DDP process.

7.2. Adopt system enhancements and technology upgrades to the current Rapid Response system to better address defense contractor layoffs. These upgrades were identified by Washington State Workforce Development Councils through research conducted on best practices for Rapid Response services, business services, and enhanced services for defense contractor employers and their employees.

7.2.1. Develop improved layoff aversion/advanced warning mechanisms. Better utilize local business climate knowledge within the employer services groups at WorkSource to help to develop an early warning system that notifies employers before major layoffs occur. A best practice is to have one key member of staff in each local Workforce Development Area responsible for coordinating the defense industry and business knowledge sharing effort.

7.2.2. Strengthen engagement requirements by lowering the number of affected employees (layoffs) required to trigger a (Worker Adjustment and Retraining Notification) WARN to as low as 20. Currently the system threshold is 100. Lowering the threshold would require smaller businesses to submit a WARN and would greatly increase the ability to capture the smaller businesses with defense contracts.

7.2.3. Personalize services at Rapid Response events and use mobile technology (i.e., laptops). This would allow Rapid Response teams the ability to register defense contract employees on WorkSourceWA.com on-site at the Rapid Response event instead of relying on voluntary registration at a WorkSource office after the event.

- 7.2.4.** For larger layoff response events, utilize mobile hotspots with 4G LTE service so that participants have internet access to WorkSourceWA.com, and can register on-site themselves. Provide a bank of tablet devices for participants to register on WorkSourceWA.com at the event.
 - 7.2.5.** Add new questions and a search field to the system registration process to prompt Rapid Response team members to include defense contract information.
 - 7.2.6.** Develop a communications campaign to provide targeted information to the public and local businesses about available services to support businesses and their employees after layoffs or closures.
 - 7.2.7.** Create a marketing video to advertise layoff response services, which can be shared online and embedded in local and state websites.
- 7.3.** Expand the efforts of the Washington State Military Transition Council (WSMTC) to support the seamless transition of the state’s military personnel to civilian careers and to develop innovative ideas to reduce veteran unemployment.
- 7.3.1.** Continue to evaluate and identify innovative transition assistance programs for veterans. Examples include Camo2Commerce, Heroes to Hometown, Boots to Business, and VETNET.
 - 7.3.2.** Explore ways to apply WSMTC’s existing employment, education, technical trades, and small business track processes for transitioning military personnel to dislocated civilian workers in the event of defense downsizing.
- 7.4.** Expand workforce-training programs to target the military and defense sector specifically.
- 7.4.1.** Require Washington’s Workforce Board to align new Workforce Innovation and Opportunity Act (WIOA) requirements with defense industry training needs.
 - 7.4.2.** Ensure that data on defense industry training needs (especially certifications) is being shared with the workforce boards.



8: TRACK

Monitor and report on the impact and health of the sector.

Having reliable and up-to-date information is at the heart of any sector-based strategy. The military and defense sector is no exception. The work conducted under the OEA grant confirmed the importance of collecting, maintaining, and disseminating data on the scope and impact of existing assets (installations, industries, and workforce), as well as on trends and forecasts.

8.1. Maintain and disseminate data on the size and scope of the military and defense sector in the state.

8.1.1. Track military and civilian personnel figures (including statistics on families and retirees supported), for each of the state's military installations and employment figures for the federally funded labs.

- Ideally, this task would be accomplished through regular communication with the appropriate contact at each installation (i.e., public information officer). Alternatively, the information can be requested from the DOD's Defense Manpower Data Center.

8.1.2. Compile and update information about key missions and assets, including training ranges and unique capabilities, for use in legislative briefings, stakeholder communications, and public outreach.

8.1.3. Present data (including trends, forecasts, and impacts) at an annual "State of the Sector" event.

8.1.4. Maintain the defense contractor database compiled as part of the grant process. Update the information on an ad-hoc basis from news stories and networking, as well as via annual compilations of publicly available procurement data.

8.1.5. Work with installations and workforce development organizations to conduct a skills inventory of military personnel separating from service through Washington State installations.

- This process should also be used to solicit information about post-service intentions, including whether the individual is considering remaining in the state. Capitalizing on existing processes (such as the Army's Transition Assistance Program) improves participation.

8.1.6. Communicate regularly with state and local workforce professionals to gather and share information about hiring needs and human resource challenges facing the state's defense contractors.

- Industry and trade associations, most notably the Society for Human Resource Management, should be leveraged for this purpose.

8.2. Maintain and update the Washington State Military & Defense Contracts Economic Modeling Tool (the economic model) created under the grant.

8.2.1. Use the economic model to prepare regular reports on the impact of defense spending by county and industry. Unveil annual economic impact report at a "State of the Sector" or similar event.

8.2.2. Explore ways to expand the economic model to capture firms that transact with installations directly.

- Unlike goods and services procured through a formal contracting process, which can be readily identified from federal data, local establishments that provide services directly to installations (e.g.,

catering services, restaurants, and specialty retailers) are harder to identify. Personnel reductions can have heavily localized impacts on these vulnerable businesses.

8.2.3. Conduct a regular survey of defense contractors to gather information about specific needs and monitor reliance on federal funds (as an indicator of how vulnerable firms might be to a significant downsizing event).

8.2.4. Advocate for funds to update and expand the state's input-out model (portions of which are used as one of the inputs into the current economic model). The state's input-output model was last updated in 2010 and lacks county-level detail.

8.2.5. Work with state agency partners and others to define data elements required to quantify revenue lost from a defense downsizing. Use this data to create an interagency financial dashboard at the Office of Financial Management to track impacts.

8.2.6. Gather information on the economic impact of each installation. Consider funding a study update if economic impact statements are not available from the installations directly.

8.3. Prepare regular forecasts of federal defense-related spending in the state of Washington.

8.3.1. Identify partners, such as the Office of Financial Management, the Department of Revenue, and the state's higher education institutions, with expertise in this area to assist.

8.3.2. Analyze the Quadrennial Defense Review (QDR) and annual budget requests. Use the information to prepare an analysis of federal spending priorities and estimate spending levels.

8.3.3. Review annual reports for publicly traded major defense contractors in key sectors to gain an understanding of challenges and opportunities they face.

8.3.4. Disseminate forecasts via the WMA website and through relevant agencies and organizations.

8.3.5. Unveil the forecast at a "State of the Sector" or similar event.

IMPLEMENTATION MATRIX

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
1. COMMUNICATE. Raise the sector’s profile by identifying, building, and sustaining channels of communication with stakeholders and other key audiences.				
1.1. Distinguish the unique communication roles of Commerce and the Washington Military Alliance to avoid duplication of efforts and maintain consistency.				
1.1.1. Communicate broad, high-level messages regarding sector issues, news, and information.	Commerce Staff	◆		
1.1.2. Craft and deliver relevant, targeted messages to key internal and external audiences about the importance of the sector and specific military and defense-related issues, opportunities and/or threats.	WMA Staff	◆		
1.2. Utilize the WMA to build cohesiveness and collaboration among communities and stakeholders.				
1.2.1. Adopt and promote a formal fundraising program that will support the organization’s communication activities.	WMA Board		◆	
1.2.2. Develop an external communications policy for board members, membership, stakeholders, and volunteers.	WMA Staff & Board		◆	
1.2.3. Follow recommendations in the “Communications Plan” to market the WMA.	WMA Staff	◆		
1.2.4. Provide resources and planning assistance to communities negatively impacted by DOD spending reductions.	Commerce & WMA	◆		
1.3. Segment and define internal and external communication efforts.				
1.3.1. Internal Communication should occur within the organization and state and convey relevant information about sector news, issues, and accomplishments.	WMA Staff	◆		
1.3.2. External Communication should occur inside and outside of the state and communicate why Washington is a leader in supporting the military and defense sector.	Commerce Staff	◆		
1.4. Create official channels for all levels of communication and information dissemination.				
1.4.1. Reinforce agreed-upon messages and maintain consistency at all points of contact.	WMA Board & Staff	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
1.4.2. Develop a schedule and methods for obtaining regular input and feedback from internal and external audiences.	WMA Staff		◆	
1.5. Raise awareness of the military and defense sector's importance to the state's economy through targeted marketing, public relations, and information sharing in an effort to garner broad understanding, advocacy, and support.				
1.5.1. Create a tagline and/or positioning statement for the military and defense sector and build brand image through select media.	WMA Staff		◆	
1.5.2. Promote the sector in earned media (for example, television, and radio PSAs).	WMA Staff		◆	
1.5.3. Create a media event that garners broad media attention (for example, a "State of the Industry" Summit.)	WMA Board & Staff		◆	
1.5.4. Utilize the TIP-generated asset map and brochure to tell the story of the importance of the military and defense sector to the state, lawmakers, and the general public.	All	◆		
1.5.5. Promote the Washington State Military & Defense Contracts Economic Modeling Tool created by Community Attributes, Inc. to raise awareness of the economic impact of the sector.	All	◆		
1.5.6. Integrate and follow the media relations rapid-response communications plan as defined in the WMA's adopted Operations Plan.	WMA Board & Staff	◆		
1.5.7. Cultivate relationships with key media outlets to distribute news and information about sector issues in a timely manner.	WMA Staff	◆		
1.5.8. Communicate the imperativeness of sustaining the sector to the general public and create a call to action.	All	◆		
1.6. Communicate outcomes from relevant OEA grant-funded projects.				
1.6.1. Disseminate statewide information about pilot program results, lessons learned, and best practice examples.	Commerce & WMA		◆	
1.7. Promote the state's business climate for locating or expanding military and defense sector businesses.				
1.7.1. Evaluate how tools are being used to support the sector (for example, tax incentives, regulatory reform, permitting, etc.)	Commerce & WMA	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
2. INVEST. Commit to investments that support and enhance the competitiveness of the state’s military and defense sector.				
2.1. Establish state policy supporting the military and defense sector.				
2.1.1. Support Commerce staff, specifically the Military and Defense Sector Lead, whose role is of the highest importance.	WMA Board & Staff	◆		
2.1.2. Maintain dedicated representation for the military and defense sector at the governor’s office.	State & Commerce	◆		
2.1.3. Employ additional workforce development resources in service of companies in the military and defense sector.	State & Commerce			◆
2.2. Expand investment in the Military and Defense Sector program.				
2.2.1. Expand funding for the program at the state level to support existing staff and operations that are currently being supported by the OEA grant. In addition, identify resources to support new staff to conduct the work identified in this strategic plan.	State & Commerce			◆
2.2.2. Request a “fee for service” structure and authority from the Washington State Legislature to allow the Military and Defense Sector Lead to secure additional funding support from the private sector.	State & Commerce			◆
2.3. Identify, evaluate, and encourage infrastructure investments across the state that would benefit the military and defense sector.				
2.3.1. Identify the infrastructure assets that will have the greatest impact on the sector’s success and support its ongoing needs. The leadership of the WMA and Pacific Northwest Defense Coalition (PNDC) should compile this information in a report to share with the legislature annually.	State & PNDC		◆	
2.3.2. Gather information about recent, ongoing, and future investments being made in infrastructure supporting the military and defense industry, and share this information with leadership at state and national levels.	Commerce & WMA	◆		
2.3.3. Work with industries that support the military and defense sector (e.g., aerospace, maritime, and information technology) to understand their infrastructure needs and concerns and make sure that future impacts to the military and defense sector are considered.	Commerce & WMA	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
2.4. Support installations with investments that prevent base encroachment and improve mission capabilities.				
2.4.1. Support and implement the recommendations of the Civilian-Military Land Use Compatibility Study that is underway. While these findings may require financial commitments from state and local jurisdictions, these expenditures should be considered investments in the future that will benefit the state’s overall economy.	State & Commerce			◆
2.4.2. Provide transportation funding investments to address congestion issues and provide for better access to Washington State’s military installations.	State			◆
2.4.3. Make shore-side infrastructure investments to establish additional maintenance and repair capacity, which could service both commercial and Navy vessels at sites.	State & Commerce			◆
2.5. Support the WMA in its continued role as the state’s leading organization advocating for the military and defense sector.				
2.5.1. Continue to dedicate resources to support the WMA from multiple sources including contributions from the public sector, the organizations engaged with the WMA, and ongoing funding from the state of Washington.	State, M&D Stakeholders	◆		
2.6. Continue to aggressively seek out and apply for federal grants to support ongoing and new initiatives and programs for the sector. Commerce and the WMA should maintain this effort.				
2.6.1. Explore such potential resources as the DOD Office of Economic Adjustment (OEA), US Department of Agriculture (USDA), US Department of Labor (DOL), Economic Development Administration (EDA), Defense Advanced Research Projects Agency (DARPA), and the US Department of Energy (DOE).	WMA Board & Staff	◆		
3. PROTECT. Ensure the future of the state’s defense installations and unique federal facilities.				
3.1. Implement the recommendations of the Washington State Base Compatibility Study. Commerce is conducting a study through its Growth Management Services (GMS) unit to examine land use compatibility surrounding military installations. (See Invest 1.4.)				
3.1.1. Carry out the final state-level implementation and sustainability plan approved by the legislature and the governor.	State			◆
3.1.2. Conduct ongoing outreach to communities surrounding the installations to inform them about the approved recommendations and the process of implementation.	M&D Stakeholders	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
3.2. Work to secure the basing of existing military missions and to attract additional missions to the state.				
3.2.1. Continue investing in critical infrastructure surrounding military installations that is needed to support existing military missions and attract new missions. (See <i>Invest 1.3.</i>)	State	◆		
3.2.2. Encourage the formation of partnerships between installations and communities that enhance readiness through installation support services.	Commerce & WMA	◆		
3.2.3. Aggressively advocate to federal partners the competitive advantages of Washington as a location for future basing opportunities.	State	◆		
3.2.4. Continue utilizing the Commander’s Council to advise the WMA and the State of Washington on the potential impacts of DOD basing decisions on the state.	WMA Board & Staff	◆		
3.3. Safeguard the ongoing availability and condition of the state’s training and staging areas and associated airspace.				
3.3.1. Washington must work to ensure that DOD maintains the viability of its training ranges and accommodates expanded specialized training activities within the state in order to grow and capture future mission capabilities.	State & Commerce	◆		
3.4. Support the growth and vitality of defense firms by enhancing the state’s business climate.				
3.4.1. Regularly communicate with military and defense sector firms to gather input and recommendations for improving the state’s business climate.	Commerce & WMA	◆		
3.4.2. Work with the Association of Washington Businesses, the PNDC, and other business organizations in the state to seek input on important state business climate issues affecting competitiveness.	Commerce & WMA	◆		
3.5. Support PNDC advocacy efforts to streamline and strengthen federal procurement processes to improve long-term returns on investment in defense and security contracts.	Commerce & WMA	◆		
3.6. Work with Commerce and local economic development organizations to support the defense sector supply chain through retention, expansion, and recruitment opportunities. (See <i>Integrate and Serve sections for detailed strategies.</i>)	WMA Staff	◆		
3.7. Raise awareness of the importance of the state’s military infrastructure (including installations, missions, and workforce) and defense industries as key economic drivers in Washington. Ensure this is done at local, state, and national levels.	WMA	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
4. SERVE. Connect manufacturing and services firms in the defense supply chain with tools and support networks to enhance their economic competitiveness.				
4.1. Explore options to fully fund second-phase supply chain pilot programs.				
4.1.1. Create a combined manufacturing and services supply chain pilot program. Tailor the program to assist larger numbers of firms and provide more intimate technical assistance.	Commerce		◆	
4.1.2. The program should emphasize the importance of linking military and defense contractors with opportunities and networks in the state’s other key sectors and international markets.	Commerce & WMA		◆	
4.1.3. Results from these pilots should be broadly communicated and promoted.	Commerce & WMA		◆	
4.2. Connect defense contractors to Commerce’s technical assistance programs and best practices.				
4.2.1. Help contractors find new customers in the government marketplace by matching them with Procurement Technical Assistance Centers (PTAC) programs and services, including assistance with certifications, training, marketing, and bid matching.	Commerce & PTAC	◆		
4.2.2. Foster new international trade opportunities for sector businesses. Emphasis should be placed on expanding international trade promotion activity at the state level and dedicating resources to developing the expertise required to support the specialized needs of defense contractors.	Commerce	◆		
<ul style="list-style-type: none"> • Dedicate additional resources to trade and export promotion. 	State & Commerce			◆
<ul style="list-style-type: none"> • Build expertise within the Department of Commerce on international requirements in military and defense goods and services. (e.g., ITAR). 	Commerce			◆
<ul style="list-style-type: none"> • Educate military and defense sector firms on conducting business with international companies to diversify their customer base. 	Commerce	◆		
<ul style="list-style-type: none"> • Promote and link businesses to Commerce’s export assistance programs and services. 	Commerce	◆		
<ul style="list-style-type: none"> • Facilitate access to research prepared by the Commerce’s International Trade program, including the 2016 Defense Markets Report. 	Commerce	◆		
<ul style="list-style-type: none"> • Attend an international trade mission, specifically for the military and defense sector, targeting countries and trade shows where products and services would be best received. 	Commerce & WMA		◆	

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
4.2.3. Connect contractors to other manufacturing and service assistance programs.	Commerce & WMA	◆		
<ul style="list-style-type: none"> Connect manufacturing supply chain firms with Lean training and certification programs provided by Impact Washington. 	Commerce & WMA	◆		
4.3. Identify opportunities to connect military and defense sector businesses with other sectors (specifically energy, biofuels, information and communication technology, cybersecurity, life sciences and aerospace/UAS technology).				
4.3.1. Hold quarterly Sector Lead meetings to foster information-sharing and partnering opportunities.	Commerce Sector Leads	◆		
4.3.2. Host regular networking events to encourage networking between sector businesses.	Commerce Sector Leads	◆		
4.4. Continue regular outreach to statewide military and defense sector businesses in accordance with traditional business retention and expansion activities.	Commerce	◆		
4.5. Ensure programs and services are properly marketed and promoted through search engine optimization, websites, brochures, and partner organizations.	Commerce	◆		
4.6. Conduct regular outreach to resource organizations to ensure their capacity meets the demand of clients. Ensure staffing and funding levels are appropriate.	Commerce & WMA	◆		
5. INNOVATE. Foster an environment that encourages the commercialization of defense-related technologies.				
5.1. Establish a Center of Excellence (COE) to drive military and defense sector coordination and to provide resources to help small businesses obtain federal funding.				
5.1.1. Create a web platform (e.g., defenseInnovation.wa.gov) akin to DOD's Defense Innovation Marketplace and open to interested stakeholders in the state or elsewhere (with password-protected access).	Commerce		◆	
5.1.2. Create a full-time staff position funded by grants and/or donations.	Commerce			◆
5.2. Engage non-traditional defense stakeholders (e.g., Amazon, Vulcan, Inc., Blue Origin).	Commerce			◆
5.3. Augment federal and state dollars by creating a fund to which partners can contribute on a tax-deductible basis.	WMA		◆	

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
5.4. Integrate and align defense industry opportunity growth areas with the state’s high-tech industry support programs and initiatives.				
5.4.1. Align state investments in R&D, science, and innovation capabilities with future DOD investment priorities (e.g., robotics & system autonomy, miniaturization, big data, advanced manufacturing).	Commerce	◆		
5.4.2. Deepen the role of Washington’s military installations in the innovation economy by fostering connections between military assets and the technology sector.	Commerce	◆		
5.4.3. Work with DOD to establish a Defense Innovation Unit-Experimental (DIUx) location in Washington.	Commerce		◆	
5.4.4. Integrate and align defense industry opportunity growth areas with the state’s high-tech industry support programs and initiatives.	Commerce	◆		
6. INTEGRATE. Ensure alignment of defense industry adjustment strategies across all sector activities.				
6.1. Align the Sector Lead program and International Trade Division at Commerce with Commerce’s Military and Defense Sector program.				
6.1.1. Educate each of the Sector Leads at Commerce and the International Trade program staff through a daylong briefing concerning the future of the military and defense sector in the state.	Commerce & WMA		◆	
<ul style="list-style-type: none"> Utilize the staff at the Military and Defense Sector program to coordinate and conduct these briefings with the support of outside experts and sector partners when necessary. 	Commerce		◆	
<ul style="list-style-type: none"> Utilize and update market reports that have been created detailing trade and export opportunities in targeted sectors that align with the Sector Lead program. The industry and country opportunity information in these market reports should be incorporated into the business development plan for each Sector Lead. 	Commerce		◆	
<ul style="list-style-type: none"> Follow up the annual briefing with quarterly updates. 	Commerce	◆		
6.1.2. Establish a set of business development goals and metrics for the Sector Leads that measure new business introductions to the defense sector and the connections made between industries.	Commerce	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
6.1.3. Capitalize on the Military and Defense Sector program’s significant expertise concerning the current and future needs of the sector in the state and nation for the benefit of the other sectors within the state. The Sector Leads should evaluate and target future mission and defense industry R&D opportunities for their industries and present those opportunities to key businesses within the state.	Commerce	◆		
6.2. Leverage international trade promotion activity at the state to a greater extent to benefit the military and defense sector and expand international trade opportunities.				
6.2.1. Educate military and defense service firms on conducting business with international companies to diversify their customer base.	Commerce	◆		
6.2.2. Support an international trade mission, specifically for Washington’s Military and Defense Sector, targeting countries and trade shows where products and services would be received best.	State & Commerce		◆	
6.2.3. Build expertise within the International Trade program on specific international requirements in military and defense goods and services (e.g. ITAR), so they can be a resource on this topic to Washington State companies.	Commerce	◆		
6.2.4. Collaborate with Associate Development Organizations (ADOs).	Commerce	◆		
6.2.5. Participate in a statewide military and defense “State of the Industry” summit that will provide access to information and expertise about the industry.	Commerce & WMA		◆	
6.2.6. Encourage involvement and membership with the WMA.	Commerce & WMA	◆		
6.2.7. Stay engaged and up to date with all activity at Commerce related to the military and defense sector including technical business support programs, recruitment and expansion opportunities for military and defense companies, and grant activity.	Commerce	◆		
6.2.8. Serve as a conduit for information at the local level, working with ADOs to provide county-level defense, contracting, and employment data (identified with the Washington State Military & Defense Contracts Economic Modeling Tool) to local employers for feedback and confirmation, creating a feedback loop that will ensure the most accurate understanding of the sector.	Commerce & WMA	◆		
6.3. Maintain coordination of programs aimed at supporting and growing the military and defense sector including the work of the WMA and Commerce’s Military and Defense Sector program and efforts at the local level, such as military installation support organizations and targeted regional economic development programs.				

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
6.3.1. Continue to support and acknowledge efforts at the local level, and coordinate them with statewide efforts.	Commerce	◆		
7. ALIGN. Increase the alignment of talent and workforce initiatives with the needs of the military and defense sector.				
7.1. Establish a coordinated Defense-Sector Downsizing Plan (DDP) across multiple jurisdictions.				
7.1.1. Use the OMF DDP framework for a defense-sector downsizing response.	Commerce		◆	
7.1.2. Create a cross-jurisdictional Mobilization Response Team at the Governor’s level.	State & Commerce		◆	
7.1.3. Convene recommended stakeholders to review and customize the OMF DDP.	Commerce		◆	
7.1.4. Secure federal funding for a cross-jurisdictional DDP process.	State & Commerce		◆	
7.2. Adopt system enhancements and technology upgrades to the current Rapid Response system to better address defense contractor layoffs.				
7.2.1. Develop improved layoff aversion/advanced warning mechanisms. Better utilize local business climate knowledge within the employer services groups at WorkSource to help to develop an early warning system that notifies employers before major layoffs occur.	Commerce	◆		
7.2.2. Strengthen engagement requirements by lowering the number of affected employees (layoffs) required to trigger a (Worker Adjustment and Retraining Notification) WARN to as low as 20.	Commerce		◆	
7.2.3. Personalize services at Rapid Response events and use mobile technology (i.e., laptops).	Commerce		◆	
7.2.4. For larger layoff response events, utilize mobile hotspots with 4G LTE service so that participants have internet access to WorkSourceWA.com, and can register on-site themselves. Provide a bank of tablet devices for participants to register on WorkSourceWA.com at the event.	Commerce		◆	
7.2.5. Add new questions and a search field to the system registration process to prompt Rapid Response team members to include defense contract information.	Commerce		◆	
7.2.6. Develop a communications campaign to provide targeted information to the public and local businesses about available services to support businesses and their employees after layoffs or closures.	Commerce		◆	
7.2.7. Create a marketing video to advertise layoff response services, which can be shared online and embedded in local and state websites.	Commerce		◆	

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
7.3. Expand the efforts of the Washington State Military Transition Council (WSMTC) to support the seamless transition of the state's military personnel to civilian careers and to develop innovative ideas to reduce veteran unemployment.				
7.3.1. Continue to evaluate and identify innovative transition assistance programs for veterans. Examples include Camo2Commerce, Heroes to Hometown, Boots to Business, and VETNET.	WSDVA	◆		
7.3.2. Explore ways to apply WSMTC's existing employment, education, technical trades, and small business track processes for transitioning military personnel to dislocated civilian workers in the event of defense downsizing.	WSDVA		◆	
7.4. Expand workforce-training programs to target the military and defense sector specifically.				
7.4.1. Require Washington's Workforce Board to align new Workforce Innovation and Opportunity Act (WIOA) requirements with defense industry training needs.	State Workforce Board		◆	
7.4.2. Ensure that data on defense industry training needs (especially certifications) is being shared with the workforce boards.	Commerce & WMA	◆		
8. TRACK. Monitor and report on the impact and health of the sector.				
8.1. Maintain and disseminate data on the size and scope of the military and defense sector in the state.				
8.1.1. Track military and civilian personnel figures (including statistics on families and retirees supported), for each of the state's military installations and employment figures for the federally funded labs.	Commerce	◆		
8.1.2. Compile and update information about key missions and assets, including training ranges and unique capabilities, for use in legislative briefings, stakeholder communications, and public outreach.	Commerce	◆		
8.1.3. Present data (including trends, forecasts, and impacts) at an annual "State of the Sector" event.	Commerce		◆	
8.1.4. Maintain the defense contractor database compiled as part of the grant process.	Commerce	◆		
8.1.5. Work with installations and workforce development organizations to conduct a skills inventory of military personnel separating from service through Washington installations.	Commerce		◆	
8.1.6. Communicate regularly with state and local workforce professionals to gather and share information about hiring needs and human resource challenges facing the state's defense contractors.	Commerce	◆		

	RESPONSIBILITY	TIMEFRAME		
		Ongoing	Short Term (Years 1&2)	Long Term (Years 3-5)
8.2. Maintain and update the Washington State Military & Defense Contracts Economic Modeling Tool (the economic model) created under the grant.				
8.2.1. Use the economic model to prepare regular reports on the impact of defense spending by county and industry. Unveil annual economic impact report at a “State of the Sector” or similar event.	Commerce	◆		
8.2.2. Explore ways to expand the economic model to capture firms that transact with installations directly.	Commerce		◆	
8.2.3. Conduct a regular survey of defense contractors to gather information about specific needs and monitor reliance on federal funds (as an indicator of how vulnerable firms might be to a significant downsizing event).	Commerce	◆		
8.2.4. Advocate for funds to update and expand the state’s input-out model (portions of which are used as one of the inputs into the current economic model).	Commerce		◆	
8.2.5. Work with state agency partners and others to define data elements required to quantify revenue lost from a defense downsizing. Use this data to create an interagency financial dashboard at the Office of Financial Management to track impacts.	Commerce		◆	
8.2.6. Gather information on the economic impact of each installation. Consider funding a study update if economic impact statements are not available from the installations directly.	Commerce		◆	
8.3. Prepare regular forecasts of federal defense-related spending in the state of Washington.				
8.3.1. Identify partners, such as the Office of Financial Management, the Department of Revenue, and the state’s higher education institutions, with expertise in this area to assist.	Commerce	◆		
8.3.2. Analyze the Quadrennial Defense Review (QDR) and annual budget requests. Use the information to prepare an analysis of federal spending priorities and estimate spending levels.	Commerce		◆	
8.3.3. Review annual reports for publicly traded major defense contractors in key sectors to gain an understanding of challenges and opportunities they face.	Commerce	◆		
8.3.4. Disseminate forecasts via the WMA website and through relevant agencies and organizations.	Commerce & WMA	◆		
8.3.5. Unveil the forecast at a “State of the Sector” or similar event.	Commerce & WMA	◆		

APPENDIX A: MILITARY & DEFENSE RELATED FEDERAL ASSETS IN WASHINGTON STATE

This section provides brief profiles of the following military installations and related federal facilities in the state:

- Joint Base Lewis-McChord (including Yakima Training Center)
- Naval Base Kitsap
- Naval Air Station Whidbey Island
- Naval Station Everett
- Fairchild Air Force Base
- Washington National Guard (Camp Murray)
- US Coast Guard – District 13
- HAMMER Training and Education Center
- Pacific Northwest National Laboratory (PNNL)
- Applied Physics Laboratory – University of Washington

In light of their strategic importance, a summary of the state’s training ranges, military operating areas, and special use airspace is also provided. In addition, a map is provided showing the location of the installations and associated ranges, as well as the distribution of defense contracts greater than \$150,000 awarded in the state in FY 2015.

Unless otherwise indicated, figures in this section come from the installations directly (either via their website or public information office) or from *2014 Demographics: Profile of the Military Community*, a report published by the Office of the Deputy Assistant Secretary of Defense (Military Community and Family Policy). Figures related to the economic impact an installation, where available, are from the 2012 report, *Retaining and Expanding Military Missions: Increasing Defense Spending and Investment*. Additional data such as housing and acreage was taken from Military Installations (<http://www.militaryinstallations.dod.mil/>), an online resource funded through the Department of Defense and maintained by the Office of Military Community & Family Policy.

JOINT BASE LEWIS-MCCHORD



Joint Base Lewis-McChord (JBLM) was established in 2010 as the result of a merger between former Fort Lewis and McChord Air Force Base. JBLM is a training and mobilization center for all services and is the only Army power-projection platform west of the Rockies. Its key geographic location provides rapid access to the deepwater ports of Tacoma, Olympia, and Seattle for deploying equipment. Units can be deployed from JBLM-McChord Field, and individuals and small groups can also use nearby Sea-Tac Airport. The strategic location of the base provides Air Force units with the ability to conduct combat and humanitarian airlift to any location in the world.

FAST FACTS



COUNTY: Pierce



ACTIVE DUTY: 45,709*
 CIVILIAN: 16,058*
 FAMILY MEMBERS: 57,946*
 RETIREES: 31,550*



HOUSING UNITS: 6,065*



IMPACT: \$6.1B



ACRES: 90,323



MADIGAN ARMY MEDICAL CENTER is the largest hospital on the West Coast, serving 40,300 Active duty, 41,000 active duty family members and 27,200 retirees and families

*Represents sum of figures for McChord Field and Fort Lewis/JBLM from MilitaryInstallations.com, accessed Sept. 2016

DETAILS

PRIMARY UNITS – ARMY:

- 18 Brigade Sized Elements
- I Corps Headquarters:
 - 3 Stryker Brigade Combat Teams with supporting units
 - Fires, Military Police, Medial, Battlefield Surveillance, Engineer & Sustainment Brigades
 - 16th Combat Aviation Brigade
- 7th Infantry Division Headquarters (Administrative Command)
- Training
 - 191st Infantry Brigade
 - 8th ROTC Brigade
 - 1st Joint Mobilization Brigade

Special Operations:

- 1st Special Forces Group (ABN)
- 2nd Battalion, 75th Ranger Regiment
- 4th Battalion, 160th Special Operations Aviation Regiment
- 4th Squadron, 6th US Air Cavalry Regiment Training

Western Region Medical Command

PRIMARY UNITS – AIR FORCE:

- Classic Association (Active/Reserve)
 - 62nd Airlift Wing, Air Mobility Command
 - 446th Airlift Wing, Air Force Reserve
 - Western Air Defense Sector (WA Air National Guard)
 - 627th Air Base Group

YAKIMA TRAINING CENTER



Open since 1941, Yakima Training Center has historically been used for Army Reserve and National Guard training. In 1992, Congress approved the acquisition of 63,000 acres, at a cost of \$18 million, to expand the training facilities. Today, the Yakima Training Center hosts a diverse group of training groups including Joint Base Lewis-McChord and Army National Guard units, Special Operations Command, Marine Corps, Air Force, Navy, and Coast Guard units, local and federal Law Enforcement, and allied units from Canada and Japan. Totalling more than 327,000 acres, the Yakima Training Center is a prized asset in the Pacific Northwest.

FAST FACTS



COUNTY: Yakima/Kittitas



Over 600 full time employees, military and civilian (2012 report)



IMPACT: Included in JBLM \$



ACRES: 327,233



Vagabond Army Airfield and Selah Airstrip are located on the Yakima Training Center.

DETAILS

- More than 327,000 acres of training space (511 square miles / 126-mile border)
- Varied elevation from 400 ft. To 4100 ft.
- 22,000-acre impact area
- 20 training areas, 26 established ranges, 212 artillery firing points
- 1,635-mile road network
- Ability to tailor ranges and training areas to fit units' special requirements
- Restricted airspace to 55,000 ft.
- Battle command training center
- Intelligence operations facility
- Medical simulation training center

NAVAL BASE KITSAP



Created in 2004, Naval Base Kitsap (NBK) is the result of a merger between the former Naval Station Bremerton and Naval Submarine Base Bangor. It is the largest naval organization in the Navy Region Northwest and the country's third largest Navy base. NBK provides base operating services to five main installations: three bases (NBK–Bangor, NBK–Bremerton, and NBK–Keyport), as well as a housing area and a naval fuel depot. The mission of this base is to coordinate the Navy's fleet in the Puget Sound area and to service surface ships and submarines. NBK received the 2005 Commander in Chief's Award for Installation Excellence or the best base in the US Navy.

FAST FACTS



COUNTY: Kitsap, Island, Snohomish, and Jefferson



ACTIVE DUTY: ~14,500
CIVILIAN: ~19,000
FAMILY MEMBERS: 18,700*
RETIREES: 35,908*



HOUSING UNITS: 2,206*



IMPACT: \$6.1B



NAVAL HOSPITAL BREMERTON

Active duty and civilian personnel figures calculated from data on individual bases provided by the installation. *Family members and retirees are from MilitaryInstallations.com, accessed Sept. 2016.

DETAILS

- Naval Base Kitsap – Bangor is a deepwater facility that provides the West Coast basing and support for the Navy's component of the triad deterrence systems, the submarine-launched TRIDENT ballistic missile system. Sixty percent of the US ballistic missile submarine force is based at Bangor.
- Naval Base Kitsap–Keyport is host to the Naval Undersea Warfare Center (NUWC) Keyport Division, a repair and maintenance facility for torpedoes and undersea mobile targets, as well as a research center to develop and apply new technologies for future undersea warfare needs.
- Naval Magazine Indian Island provides operational ordnance logistics in support of Navy, Joint, and Allied forces.
- Puget Sound Naval Shipyard & Intermediate Maintenance Facility is the Pacific Northwest's largest naval shore facility and one of the state's largest industrial installations. Established in 1891, PSNS & IMF provides the Navy with maintenance, modernization, and technical and logistics support. The shipyard contains a portion of the US Navy reserve fleet, a large collection of inactive, or "mothballed," vessels.
- Manchester Naval Station Fuel Depot stores and provides fuel for all Navy activities, including aircraft carriers. In addition, the depot services Coast Guard ships and air stations, and other US military activities. It is the largest military fuel facility in the mainland US and has been in operation for over 90 years.

NAVAL AIR STATION WHIDBEY ISLAND



Naval Air Station (NAS) Whidbey Island has served the US since WWI and is the only naval aviation support in the Pacific Northwest. The installation houses all Navy tactical electronic attack squadrons flying the EA-18G Growler. It is comprised of three major areas: Ault Field, Seaplane Base, and Coupeville Outlying Landing Field (OLF), which is used for field carrier landing practice. NAS Whidbey Island's airspace and electronic training environments are unique due to their ability to conduct active jamming training with little or no effect on civil aviation or other civil emissions (i.e. TV, radio, communications, etc.). The base was the recipient of the 2015 Commander in Chief's Award for Installation Excellence or the best base in the US Navy.

FAST FACTS



COUNTY: Island



ACTIVE DUTY: 7,050*
CIVILIAN: 2,420*
FAMILY MEMBERS: 14,000*
RETIREES: 14,000*



HOUSING UNITS: 1,500+*



IMPACT: \$592M



ACRES: 7,146 (includes NAS Whidbey Island Sea Plane Base)



NAVAL HOSPITAL OAK HARBOR (12-bed hospital) is one of three rural community hospitals within 40-mile radius.

*Figures are from MilitaryInstallations.com, accessed Sept. 2016.

DETAILS

- Missions are performed with the following aircraft assigned to the NAS:
 - EA-6B Prowler – aircraft that provides protection for strike aircraft, ground troops, and ships through electronic warfare (e.g., jamming enemy radar and communications).
 - EA-18G Growler – sophisticated electronic warfare suite built to replace EA-6B Prowler.
 - P-3C Orion – anti-submarine and maritime surveillance aircraft. Surveillance of the battlespace either at sea or over land.
 - EP-3E Aries – Navy's only land-based signals intelligence (SIGINT) reconnaissance aircraft.
 - C-9 Skytrain – Provides cargo and passenger transportation, as well as forward deployment logistics support.
 - SH-60 Seahawk – Medium lift utility helicopter used for search and rescue (SAR) missions.
- Primary Units:
 - Electronic Attack Wing
 - Pacific (CVWP)
 - Patrol and Reconnaissance Wing 10
- Major Tenants:
 - Marine Aviation Training Support Group (MATSG-53)
 - Fleet Readiness Center Northwest
 - Navy Operational Support Center (NOSC)
 - Fleet Reserve Logistics Squadron (VR-61)
 - Naval Hospital Oak Harbor
 - Maritime Expeditionary Security Squadron 9
 - Navy Information Operations Command (NIOC)
 - Naval Ocean Processing Facility (NOPF)
 - Center for Naval Aviation Technical Training (CNATTU)

NAVAL STATION EVERETT



The mission of Naval Station Everett (NSE) is to support US Navy and Coast Guard operations. The installation resulted from the Navy's Strategic Homeport Initiative approved by Congress in 1983, which was designed to disperse the fleet. Dedicated in 1994, NSE is the Navy's most modern shore installation. It has one of only two Navy-owned deepwater ports on the West Coast. There are about 6,000 Sailors and Civil Service personnel assigned to commands located at Naval Station Everett. The Naval Station itself has about 450 Sailors and Civilians assigned.

FAST FACTS



COUNTY: Snohomish



There are about 6,000 Sailors and civilian workers at NSE*



HOUSING UNITS: off base only



IMPACT: \$475M



ACRES: 213



NSE's natural deepwater port requires no dredging to maintain water depth at the piers and has no tidal or navigational restrictions on ship movement.

*Figures are from MilitaryInstallations.com, accessed Sept. 2016, and verified with the installation.

DETAILS

- NSE is currently homeport to:
 - Two destroyers, (USS Momsen and USS Shoup) with an additional four destroyers arriving from 2016-2017
 - Carrier Strike Group 11 and Destroyer Squadron 9
 - Two Coast Guard vessels (a buoy-tender and a coastal patrol boat)
- In addition, Military Sealift Command supply vessels and other visiting ships also use the port on a regular basis.
- NSE supports mission-critical functions at:
 - Jim Creek Radio Station (Arlington, WA), which maintains communication with submarines in the Pacific. This off-site NSE location includes roughly 4,900 acres.
 - Naval Facility Pacific Beach, which supports training for Navy pilots from Naval Air Station Whidbey Island.
- NSE's areas of responsibility within the Northwest Region encompass Acoustic Research Detachment (Bayview, ID) and Naval Radio Transmitter Facility (LaMoure, ND).
- Navy Reserve activities include 16 Navy Operational Support Centers.

FAIRCHILD AIR FORCE BASE



Fairchild Air Force Base (FAFB) is part of the Air Mobility Command, which provides worldwide cargo and passenger delivery, air refueling, and aeromedical evacuation. The Command also transports humanitarian supplies to hurricane, flood, and earthquake victims both at home and around the world. The installation is home to the 92nd Air Refueling Wing and the Air National Guard 141st Air Refueling Wing, and associated support organizations. Other tenants include the 336th Training Group, which is responsible for the Air Force Survival, Evasion, Resistance, and Escape School (SERE), and the Joint Personnel Recovery Agency.

FAST FACTS



COUNTY: Spokane



ACTIVE DUTY: 2,710

GUARD/RESERVE: 1,634

CIVILIAN: 1,507

RETIREES: 16,982*



IMPACT: \$461M



ACRES: 5,197



FAFB is the largest employer in Eastern Washington State.

*Retiree figures are from MilitaryInstallations.com, accessed Sept. 2016. All other personnel figures provided by the installation.

DETAILS

- The 336th Training Group is part of the Air Education and Training Command.
 - The 336th is the Air Force's sole unit responsible for Survival, Evasion, Resistance, and Escape (SERE) training.
 - The SERE School teaches 22 different courses to approximately 20,000 students annually at four locations: Fairchild AFB; Lackland AFB, Texas; Pensacola NAS, Florida; and Eielson AFB, Alaska.
- Other major tenants at FAFB include:
 - Joint Personnel Recovery Agency (JPRA)
 - 509th Weapons Squadron,
 - USAF Weapons School, 57th Wing
 - 262nd Network Warfare Squadron - 194th Regional Support Wing, Washington Air National Guard
 - Armed Forces Reserve Center

WASHINGTON NATIONAL GUARD (CAMP MURRAY)



First designated as a National Guard base in 1889, Camp Murray is home to the Washington Military Department, the Washington National Guard, and the Washington State Guard. The mission of the guard is to protect the citizens of the state and their property and provide support during civil emergencies and in support of federal combat commanders. In late 2015, the 252nd Group (a unit of the 194th Regional Support Wing) became one of the first Air National Guard groups in the nation designated by its state as a Cyberspace Operations Group.

FAST FACTS



COUNTY: Pierce



ACTIVE DUTY: 8,400*

CIVILIAN: 330*



IMPACT: \$520M



ACRES: 295 (2012 report)

*From 2012 report and confirmed with installation September 2016.

DETAILS

ARMY NATIONAL GUARD:

- 56th Information Operations Group
- 66th Theater Aviation Command
- 81st Brigade Combat Team
- 96th Troop Command
- 205th Leadership Regiment

AIR NATIONAL GUARD:

- 141st Air Refueling Wing
- 194th Regional Support Wing
- Western Air Defense Sector

The Washington National Guard has twelve core competencies which are provided in support of civil authorities in responding to domestic emergencies:

- Command and control
- Engineering
- Ground transportation
- Medical support
- Logistics
- Chemical, Biological, and Radiological (CBR)
- Detection
- Communications
- Aviation
- Security
- Maintenance
- Cyber

US COAST GUARD – DISTRICT 13



The US Coast Guard (USCG) is a multi-mission, maritime service within the Department of Homeland Security (DHS). Upon the declaration of war or when the President directs, the USCG operates under the authority of the Department of the Navy. Its core role is to protect the public, the environment, and US economic and security interests in any maritime region in which those interests may be at risk. Headquartered in Seattle, District 13's (D13) area of responsibility includes four states as well as more than 460,000 square miles of the Pacific Ocean.

FAST FACTS



COUNTY: King

ACTIVE DUTY: 1,999*



RESERVE: 435*

CIVILIAN: 197*

RETIREES: 2,757*



IMPACT: \$215M



The Coast Guard's presence in the region was established between 1852 and 1858 through construction of lighthouses along the coast.

*Figures are from fact sheet, *US Coast Guard in Washington, 2014*.

DETAILS

- Unique features of D13 include:
 - Access to the nation's third largest port and third largest cruise ship industry.
 - Vessel Traffic Service function encompasses the largest ferry system, which moves over 24 million passengers and 11 million vehicles.
 - Home to one of eight current Port Security Units (PSUs), which provide landward and seaward security at strategic port locations. It is the only PSU with organic radiation detection capability in the US.
- Key to accomplishing this mission is D13's Joint Harbor Operations Center (JHOC). Duties of the JHOC include:
 - Monitoring and coordinating the movement and safety of maritime operations in the Puget Sound area;
 - Facilitating the planning and response to natural disasters, accidents, attacks on Puget Sound ships and waterfront infrastructure.
- The JHOC is also connected to the State of Washington's Intelligence Fusion Center and the Navy Region Northwest Regional Operations Center.

VOLPENTEST HAMMER FEDERAL TRAINING CENTER



The Volpentest HAMMER Federal Training Center is a safety and emergency response training center owned by the Department of Energy (DOE) and available to affiliates; military, federal, and state agencies; and local law enforcement. HAMMER, which stands for Hazardous Materials Management and Emergency Response, is located at DOE's Hanford Site in Richland, the country's largest nuclear cleanup site in the country. The 88-acre campus offers hands-on training to Hanford Site workers, military, national, and international emergency responders, and Homeland Security personnel. Dedicated in 1997, HAMMER has conducted over 640,000 student days of training.

FAST FACTS



COUNTY: Benton



EMPLOYEES: 130



IMPACT: \$22M



ACRES: 88 acres



55,000 student days of hands-on training annually

DETAILS

- HAMMER's primary mission is to train the DOE's Hanford workers and emergency responders on hazardous materials handling, environmental, health and safety courses, and emergency response.
- Non-Hanford related missions include classes for emergency response agencies in areas like fire suppression, hostage rescue, high-speed pursuit, and drug enforcement.
- A new agreement with the US State Department has expanded HAMMER's curriculum in the training of international border patrol agents and homeland security efforts including the construction of a \$2.25 million facility that was dedicated in March of 2009.
- HAMMER staff manages nationally recognized training and safety programs, including:
 - Construction Worker Safety Training
 - Worker-Trainer Program
 - National Training Center Safety and Health Courses
 - Energy Infrastructure Protection and Emergency Response Program
 - Domestic and International Border Security Training
 - Military Training

PACIFIC NORTHWEST NATIONAL LABORATORY



Founded in 1965, the Pacific Northwest National Laboratory (PNNL) has been involved in innovative and award-winning research, from analysis of NASA moon samples to nuclear radiation testing. PNNL contributes to economic development in the region by providing programs and support to technology businesses including mentorship programs and funding. The lab has helped over 400 businesses regionally and 100 more across the country. As of fiscal year 2015, the business volume of PNNL was \$955 million representing over 4,400 scientists, engineers, and researchers.

FAST FACTS



COUNTY: Benton



EMPLOYEES: 4,400+ scientists, engineers, and professionals



IMPACT: \$1.2B



ACRES: 670

DETAILS

- Operated by Battelle since 1965
- In FY 2015, the lab claimed 78 patents, reaching a total of 2,410 since its inception.
- 1,048 peer-reviewed published articles (FY 2015) ranking PNNL among the top 1% in publications and citations according to Essential Science Indicators.
- More than 170 businesses with roots to Battelle, and PNNL technology or personnel. In the Tri-Cities, Washington area, this currently represents approximately 4,672 direct and indirect jobs.
- Completed more than 1,200 technology assistance projects since 1994, with approximately 68% of them supporting Washington-based companies, resulting in product or service improvements and increased revenues for these companies.
- Scientific facilities include:
 - William R. Wiley Environmental Molecular Sciences Laboratory (EMSL)
 - Applied Process Engineering Lab (APEL)
 - Radiochemical Processing Laboratory (RPL)
 - Bioproducts, Sciences, and Eng. Lab.(BSEL)
 - Electricity Infrastructure Operations Center (EIOC)
 - Microproducts Breakthrough Institute (MBI)
- Core Capabilities
 - Chemical and Molecular Science
 - Climate Change Science
 - Biological Systems Science
 - Environmental Subsurface Science
 - Adv. Computer Science, Visualization/Data
 - Applied Nuclear Science and Technology
 - Applied Materials Science and Engineering
 - Chemical Engineering
 - Systems Engineering and Integration
 - Large Scale User Facilities / Advanced Instrumentation

APPLIED PHYSICS LABORATORY – UNIVERSITY OF WASHINGTON



Founded in 1943 at the request of the US Navy, the Applied Physics Lab at the University of Washington (APL-UW) provides academic expertise in scientific research and engineering to address Navy-specific problems. APL-UW research is funded by grants and contracts, primarily with government federal agencies; it receives no state funds. In addition to funding from the Office of Naval Research, APL-UW receives funding from agencies including NSF, NASA, NIH, and DARPA.

FAST FACTS



COUNTY: King



JOBS: 333



IMPACT: \$74M

DETAILS

- The lab has eight departments:
 - Acoustics
 - Air-Sea Interaction and Remote Sensing
 - the Center for Industrial and Medical Ultrasound
 - Electronic and Photonic Systems
 - Environmental and Information Systems
 - Ocean Engineering
 - Ocean Physics
 - Polar Ice Center
- PNNL has helped over 400 businesses regionally and 100 more across the country.
- As of fiscal year 2015, the business volume of PNNL was \$955 million representing over 4,400 scientists, engineers, and researchers.
- In FY 2015, the lab claimed 78 patents, reaching a total of 2,410 since its inception.

TRAINING RANGES & RELATED AREAS

In an effort to understand the extent to which encroachment impacts training, the DOD is required report annually to Congress on military training range needs, resources, and constraints. The following information was compiled from the FY 2015 Sustainable Ranges Report. Although a report was filed for FY 2016, the more recent inventory is limited to revisions from the prior year's report. No revisions were reported for Washington State areas.

FIGURE 9. FY 2015/FY 2016 RANGE INVENTORY: WASHINGTON STATE

RANGE/RANGE COMPLEX	STATE	SERVICE BRANCH/ COMMAND OR COMPONENT	RANGE DESCRIPTION			
			Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)
AVN Training Area (Weyerhaeuser)	WA	Army/USARC	20,443	0	0	0
Camp Murray	WA	Army/ARNG	98	0	0	0
Camp Seven Mile	WA	Army/ARNG	340	0	0	0
Fort Lewis	WA	Army/FORSCOM	82,712	0	0	0
Hayford Pit LTA	WA	Army/USARC	54	0	0	0
Vail Tree Farm LTA	WA	Army/USARC	166,332	0	0	0
Yakima Training Center	WA	Army/FORSCOM	327,233	0	0	0
Northwest Training Range Complex	CA, OR, WA	Navy/CPF	49,674	42,714	128,103	128,103

RANGE/RANGE COMPLEX	RANGE TYPE										
	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Instrumented Underwater Tracking Range	Amphibious Area	Other
AVN Training Area (Weyerhaeuser)	-	-	-	-	-	-	-	-	-	-	✓
Camp Murray	-	-	-	-	-	-	-	-	-	-	✓
Camp Seven Mile	-	-	✓	-	-	-	-	-	-	-	-
Fort Lewis	-	-	✓	✓	✓	-	-	✓	-	-	✓
Hayford Pit LTA	-	-	-	-	-	-	-	-	-	-	✓
Vail Tree Farm LTA	-	-	-	-	-	-	-	-	-	-	✓
Yakima Training Center	-	-	✓	✓	✓	-	-	-	-	-	✓
Northwest Training Range Complex	✓	✓	✓	✓	✓	✓	✓	-	✓	-	✓

Source: Department of Defense, 2015 Report to Congress on Sustainable Ranges (March 2015). FY 2016 report includes only revisions to the inventory. No revisions were reported for Washington State ranges.

**FIGURE 10. FY 2015/FY 2016 INVENTORY OF SPECIAL USE AIRSPACE
ASSOCIATED WITH WASHINGTON STATE INSTALLATIONS**

2015 SUA NAME	CONTROLLING AGENCY	UPPER ALTITUDE	LOWER ALTITUDE	MILITARY SERVICE	AREA (NM ²)*
FORT LEWIS					
R6714A	FAA, SEATTLE ARTCC	028999AMSL	SURFACE	USA	229
R6714B	FAA, SEATTLE ARTCC	028999AMSL	SURFACE	USA	25
R6714C	FAA, SEATTLE ARTCC	028999AMSL	SURFACE	USA	30
R6714D	FAA, SEATTLE ARTCC	028999AMSL	SURFACE	USA	4
R6714F	FAA, SEATTLE ARTCC	028999AMSL	SURFACE	USA	14
R6714G	FAA, SEATTLE ARTCC	028999AMSL	SURFACE	USA	21
R6714H	FAA, SEATTLE ARTCC	005499AMSL	SURFACE	USA	26
RAINIER 1 MOA, WA	FAA, SEATTLE-TACOMA APP CON	009000AMSL	02000AMSL	USA	27
RAINIER 2 MOA, WA	FAA, SEATTLE-TACOMA APP CON	009000AMSL	02000AMSL	USA	49
RAINIER 3 MOA, WA	FAA, SEATTLE-TACOMA APP CON	009000AMSL	02000AMSL	USA	15
MCCHORD AFB					
DEVILS LAKE EAST MOA, ND	FAA, MINNEAPOLIS ARTCC	018000AMSL	03500AMSL	USAF	1,773
DEVILS LAKE WEST MOA, ND	FAA, MINNEAPOLIS ARTCC	018000AMSL	04000AMSL	USAF	1,739
R2312	LIBBY AAF TWR	014999AMSL	SURFACE	USAF	9
R5115	FAA, ALBUQUERQUE ARTCC	015000AMSL	SURFACE	USAF	10
R6316	FAA, HOUSTON ARTCC	015000AMSL	SURFACE	USAF	21
R6317	FAA, HOUSTON ARTCC	015000AMSL	SURFACE	USAF	21
R6318	FAA, ALBUQUERQUE ARTCC	014000AMSL	SURFACE	USAF	9
TIGER NORTH MOA, ND	FAA, MINNEAPOLIS ARTCC	018000AMSL	00300AGL	USAF	2,225
TIGER NORTH MOA, ND (XA)	FAA, MINNEAPOLIS ARTCC	018000AMSL	03001AGL	USAF	—
TIGER NORTH MOA, ND (XB)	FAA, MINNEAPOLIS ARTCC	018000AMSL	01501AGL	USAF	—
TIGER NORTH MOA, ND (XC)	FAA, MINNEAPOLIS ARTCC	018000AMSL	01501AGL	USAF	—
TIGER NORTH MOA, ND (XD)	FAA, MINNEAPOLIS ARTCC	018000AMSL	01501AGL	USAF	—
TIGER SOUTH MOA, ND	FAA, MINNEAPOLIS ARTCC	018000AMSL	06000AMSL	USAF	1,715
W93(A)	FAA, SEATTLE ARTCC	FL500	SURFACE	USAF	4,987
W93(B)	FAA, SEATTLE ARTCC	FL500	SURFACE	USAF	978
WHIDBEY ISLAND RANGE COMPLEX					
A680	USN, WHIDBEY NAS APP	003000AMSL	SURFACE	USN	28
BOARDMAN MOA, OR	FAA, SEATTLE ARTCC	018000AMSL	04000AMSL	USN	358
CHINOOK A MOA, WA	USN, WHIDBEY IS NAS APP	005000AMSL	00300AMSL	USN	23
CHINOOK B MOA, WA	USN, WHIDBEY IS NAS APP	005000AMSL	00300AMSL	USN	33
DOLPHIN NORTH MOA, OR	FAA, SEATTLE ARTCC	018000AMSL	11000AMSL	USN	5,719
DOLPHIN SOUTH MOA, OR	FAA, SEATTLE ARTCC	018000AMSL	11000AMSL	USN	1,766
OKANOGAN A MOA, WA	FAA, SEATTLE ARTCC	018000AMSL	09000AMSL	USN	2,604
OKANOGAN B MOA, WA	FAA, SEATTLE ARTCC	008999AMSL	00300AGL	USN	961
OKANOGAN B MOA, WA (XA)	FAA, SEATTLE ARTCC	008999AMSL	01501AGL	USN	—
OKANOGAN C MOA, WA	FAA, SEATTLE ARTCC	008999AMSL	00300AGL	USN	741
OKANOGAN C MOA, WA (XA)	FAA, SEATTLE ARTCC	008999AMSL	01501AGL	USN	—
OLYMPIC A MOA, WA	FAA, SEATTLE ARTCC	018000AMSL	06000AMSL	USN	921
OLYMPIC B MOA, WA	FAA, SEATTLE ARTCC	018000AMSL	06000AMSL	USN	698
R5701(A)	FAA, SEATTLE ARTCC	FL200	SURFACE	USN	78
R5701(B)	FAA, SEATTLE ARTCC	010000AMSL	SURFACE	USN	11
R5701(C)	FAA, SEATTLE ARTCC	006000AMSL	SURFACE	USN	31

2015 SUA NAME	CONTROLLING AGENCY	UPPER ALTITUDE	LOWER ALTITUDE	MILITARY SERVICE	AREA (NM ²)*
R5701(D)	FAA, SEATTLE ARTCC	010000AMSL	SURFACE	USN	21
R5701(E)	FAA, SEATTLE ARTCC	006000AMSL	SURFACE	USN	64
R5706	FAA, SEATTLE ARTCC	010000AMSL	03500AMSL	USN	107
R6701	USN, WHIDBEY ISLAND NAS APP	005000AMSL	SURFACE	USN	21
R6703A	FAA, SEATTLE-TACOMA APP	014000AMSL	SURFACE	USN	14
R6703B	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	4
R6703C	FAA, SEATTLE-TACOMA APP	014000AMSL	SURFACE	USN	20
R6703D	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	5
R6703E	FAA, SEATTLE-TACOMA APP	014000AMSL	SURFACE	USN	—
R6703F	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	—
R6703G	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	—
R6703H	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	—
R6703I	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	—
R6703J	FAA, SEATTLE-TACOMA APP	005000AMSL	SURFACE	USN	—
ROBERTS MOA, CA	FAA, OAKLAND ARTCC	014999AMSL	00500AGL	USN	87
ROOSEVELT A MOA, WA	FAA, SEATTLE ARTCC	018000AMSL	09000AMSL	USN	3,149
ROOSEVELT B MOA, WA	FAA, SEATTLE ARTCC	008999AMSL	00300AGL	USN	2,191
ROOSEVELT B MOA, WA (XA)	FAA, SEATTLE ARTCC	008999AMSL	01501AGL	USN	—
W237A(HI)	FAA, SEATTLE ARTCC	FL500	FL230	USN	2,039
W237A(LO)	FAA, SEATTLE ARTCC	FL230	SURFACE	USN	2,039
W237B(HI)	FAA, SEATTLE ARTCC	FL500	FL230	USN	1,520
W237B(LO)	FAA, SEATTLE ARTCC	FL230	SURFACE	USN	1,520
W237C	FAA, SEATTLE ARTCC	UNLTD	SURFACE	USN	1,542
W237D	FAA, SEATTLE ARTCC	UNLTD	SURFACE	USN	1,631
W237E	FAA, SEATTLE ARTCC	FL270	SURFACE	USN	1,823
W237F	FAA, SEATTLE ARTCC	UNLTD	SURFACE	USN	3,904
W237G	FAA, SEATTLE ARTCC	UNLTD	SURFACE	USN	2,327
W237H	FAA, OAKLAND ARTCC	FL270	SURFACE	USN	5,902
W237J	FAA, OAKLAND ARTCC	FL270	SURFACE	USN	4,301
W570	FAA, SEATTLE ARTCC	FL500	SURFACE	USN	4,485
YAKIMA					
R6714E	FAA, SEATTLE ARTCC	054999AMSL	29000AMSL	USA	319

Source: Department of Defense, *2015 Report to Congress on Sustainable Ranges* (March 2015). FY 2016 report includes only revisions to the inventory. No revisions were reported for Washington State ranges. Shaded areas indicate SUAs that are associated with a Washington State installation but located outside the state. *Area figures were not provided in the FY 2015 or FY 2016 *Sustainable Ranges* reports. Where available, figures from the FY 2012 report are shown.



NAVAL AIR STATION WHIDBEY ISLAND

Sole naval aviation support in the Pacific Northwest, managing two primary aircraft training fields, providing support to military and civilian air operations.

MILITARY: 7,050
CIVILIAN: 2,420
IMPACT: \$592M



NAVAL STATION EVERETT

One of only two Navy-owned deep water ports on the West Coast of the continental United States. Supports US Navy and Coast Guard operations.

SAILORS & CIVILIANS: 6,000
IMPACT: \$475M



NAVY APPLIED PHYSICS LAB UW

Home to eight science and technology research/engineering units with a focus on invention and technology transfer.

JOBS: 333
IMPACT: \$74M



FAIRCHILD AIR FORCE BASE

The largest employer in Eastern Washington State, providing air refueling, passenger and cargo airlift, and aero-medical evacuation missions.

MILITARY: 4,344
CIVILIAN: 1,507
IMPACT: \$461M

LEGEND

- ★ Installation/Asset
- DOD Contractor (\$150K+)
- Air Force Range
- Army Range
- Navy Range
- Special Use Air Space
- 👤 Personnel
- 💰 Economic Impact



NAVAL BASE KITSAP

Nation's third largest naval base, coordinating the fleet in the West Puget Sound, servicing surface ships and submarines and meeting Navy Region NW's fuel requirements.

MILITARY: ~14,500
CIVILIAN: ~19,000
IMPACT: \$6B

BANGOR
MILITARY: 5,600
CIVILIAN: 3,000

KEYPORT
MILITARY: 30
CIVILIAN: 1,700

NAVAL HOSPITAL BREMERTON
MILITARY: 800
CIVILIAN: 400

BREMERTON
MILITARY: 8,400
CIVILIAN: 14,000



CAMP MURRAY

State headquarters for Washington National Guard, Washington State Guard and the Washington Air National Guard.

MILITARY: 8,400
CIVILIAN: 330
IMPACT: \$520M



JOINT BASE LEWIS MCCORD

Training and mobilization center for all services, the only Army power projection base west of the Rocky Mountains, and the fourth largest base in the US.

MILITARY: 45,709
CIVILIAN: 16,058
IMPACT: \$6B



US COAST GUARD

Responsible for maritime safety and security, recreational boating safety, port state control, environmental protection, and port, waterway, and coastal security.

MILITARY: 2,434
CIVILIAN: 197
IMPACT: \$215M



YAKIMA TRAINING CENTER

Provides training support for transient units and organizations by sustaining training lands, range complexes, and support facilities to enhance readiness.

JOBS: 600+
IMPACT: —



VOLPENTEST HAMMER TRAINING CENTER

A safety and emergency response training center available to the DOE and affiliates, military, federal and state agencies, and local law enforcement.

JOBS: 130
IMPACT: \$22M



PACIFIC NORTHWEST NATIONAL LAB.

Performs innovative research and provides programs and support to technology businesses including mentorship programs and funding.

JOBS: 4,400
IMPACT: \$1.2B

SOURCES: Map: Personnel figures were obtained from installations (via website or public information office) or www.militaryinstallations.dod.mil, a DOD-funded site maintained by the Office of Military Community & Family Policy (MC&FP). Where updated information was not available from either source, figures are from Retaining and Expanding Military Missions: Increasing Defense Spending and Investment (2012), which is also the source of economic impact figures, excluding APL and PNNL. Front page: Defense Manpower Data Center via Governing magazine (military installation employment), MC&FP (dependents), US Dept. of Veterans Affairs (retirees), Community Attributes (contracting impact), Dept. of Defense (real estate and ranges).

APPENDIX B: SITUATIONAL ANALYSIS

PREPARED BY CAPITOL STRATEGIES

FORCE STRUCTURE/MISSION REQUIREMENTS: IMPACTS ON WASHINGTON STATE

Washington State is home to multiple military installations, associations, and community groups. These entities, while mostly geographically and institutionally independent of each other, have come together over the past few years under the auspices of the Washington Military Alliance to advocate greater attention and resources be placed on securing and strengthening the state's military industrial complex from the efforts currently ongoing by other states. The state's defense industry benefits from these efforts in numerous ways, ranging from contracting opportunities at military installations, to enticing qualified workers into the defense industry instead of other commercial industries across the state, to continuing to show the DOD that Washington State companies and communities desire to remain a partner in the years ahead.

This section provides a review of the 2012 report *Retaining and Expanding Military Missions: Increasing Defense Spending and Investment*, an exploration of the current situational analysis of the state's military installations, and a forecast of potential force structure and mission requirement changes that could impact the installations as well as the communities and industries that support them.

As discussed in detail within the 2012 report (referenced above), Washington State's military installations will be directly impacted by a renewed focus, or "rebalance" toward the countries in the Pacific and South Asia. At the time of publication, the National Military Strategy reiterated the focus on this region: "The Nation's strategic priorities and interests will increasingly emanate from the Asia-Pacific region." As well, the January 2012 strategic military guidance stated "US economic and security interests are inextricably linked to developments in the arc extending from the Western Pacific and East Asia into the Indian Ocean region and South Asia, creating a mix of evolving challenges and opportunities. Accordingly, while the US military will continue to contribute to security globally, we will, out of necessity, rebalance toward the Asia-Pacific region."¹

MILITARY PERSONNEL LEVELS STATEWIDE

According to Department of Defense data, as of 2016, there were 1.3 million active duty military and more than 800,000 reserve forces. Washington State ranks seventh in military population with 65,731 active duty and reserve personnel. Only California (190,160), Texas (173,118), North Carolina (129,049), Virginia (117,084), Florida (94,288), and Georgia (88,521) rank higher in military population.

In addition, the state counts 28,949 civilian employees across the five armed services (Army, Air Force, Navy, Marine Corps, and Coast Guard) and 1,215 Department of Defense civilian personnel for a total of 95,895.²

¹ Retaining and Expanding Military Missions; Increasing Defense Spending and Investment, page 26.

² Active duty and reserve personnel data was provided by the Defense Manpower Data Center. Civilian personnel data was provided by the United States Office of Personnel Management.

As the table below illustrates, Washington State’s military population has decreased very slightly since 2012.

YEAR	MILITARY PERSONNEL	CIVILIAN PERSONNEL	TOTAL
2012 ³	75,244	29,628	104,872
2016	65,731	30,164	95,895
Change	-9,513	+536	-8,977

At the same time, according to the most recent figures, the state ranks seventh in total funding received from the DOD, with \$6.8 billion spent, making up roughly two percent of the state’s Gross Domestic Product (GDP).⁴ These figures are approximately 50 percent lower than the 2010 levels of \$13.5 billion and four percent of GDP at the high-water mark for the DOD budget. However, in 2010, the state ranked 14th in total funding received.

Therefore, in spending and military personnel, the state has actually increased its standing within the Pentagon as budgets have tightened, due in part by the coordinated efforts of the WMA.

ARMY

Washington State ranks fourth in Army active duty personnel with a population of 27,578. Only Texas (74,306), Georgia (46,923), North Carolina (45,177), and Kentucky (32,635) rank higher in Army population. In addition, as of 2016, the state counts 6,202 Army Reserve, 6,094 Army Guard, and 9,407 Army civilian personnel, for a total Army population of 49,281.

Joint Base Lewis-McChord (JBLM) has seen significant changes in personnel over the past 15 years. From fiscal year (FY) 2001 to 2012, JBLM saw significant gains, almost doubling in the number of military personnel in response to events on 9/11/2001 and the Global War on Terror.

In 2012, the Army announced that between 2013 and 2019, the Army's active duty "end strength" would be reduced from 580,000 full-time military personnel down to 420,000. These reductions were to take place in three separate rounds known as the Programmatic Environmental Assessment (PEA) and Supplemental PEA (one reducing end strength to 490,000 and a following to reduce to 450,000). JBLM was reduced by 4,721 military personnel in the PEA and 1,251 in the SPEA. Despite these large reductions, JBLM is still more than 50 percent larger than it was in FY 2001.

Future Outlook: If the Congress and Administration are unable to put an end to sequestration and the Budget Control Act, the Army will be forced to go through a final round of SPEA to reach an end strength of 420,000 Soldiers. While an announcement is expected in July 2017 to identify where further cuts would be made to reach that goal, the rebalance to the Pacific should favor JBLM and spare it from future reductions in Army personnel.

NAVY

Washington State ranks sixth in Navy active duty personnel with a population of 10,065. Only Virginia (41,707), California (41,311), Florida (21,517), Illinois (13,493), and Maryland (10,474) rank higher in Navy population. In addition, as of 2016, the state counts 627 active duty Marines, 2,124 Navy Reserve, 568 Marine Reserve, and 17,892 Navy civilian personnel, for a total Navy/Marine Corps population of 31,276.

³ Military and civilian personnel figures is a compilation of data provided by the Defense Manpower Data Center, United States Office of Personnel Management and the 2012 report, Retaining and Expanding Military Missions; Increasing Defense Spending and Investment, based on information provided by individual installation commanders.

⁴ Department of Defense, Office of Economic Adjustment

Since FY 2012, the Navy has invested over \$820 million in military construction funds for Washington's Navy installations. As the Department of Defense continues to shift their focus to the Pacific Region, Washington will continue to play an important role in our national defense.

Unlike the Air Force and the Army, the Navy has actually increased in size over the past couple of years. The end strength of the Navy in FY 2016 was 329,200 (5,600 higher than in FY 2015). This is also higher than the Navy's end strength in 2012 of 318,406.

Future Outlook: There are no anticipated personnel reductions in the Navy and the decommissioned frigates previously at Naval Station Everett are being replaced by DDG-51 class destroyers. The rebalance to the Pacific should benefit Washington's Navy facilities by maintaining the same number and class of ships into the foreseeable future. However, the combination of the United States Navy's Applied Physics Laboratory (APL), located at the University of Washington, and Naval Undersea Warfare Center (NUWC) – Keyport provide an opportunity for the state to become a center of excellence in the development and application of new unmanned technologies for emerging undersea warfare missions.

AIR FORCE

Washington State ranks 16th in Air Force active duty personnel with a population of 6,134. Texas (35,344), Florida (21,831), California (17,695), Virginia (12,290), New Mexico (11,607), Nevada (9,129), Arizona (9,036), Georgia (8,899), Colorado (8,549), Maryland (8,088), South Carolina (7,502), Alaska (7,375), North Dakota (7,011), Oklahoma (6,792), and North Carolina (6,205) rank higher in Air Force population. In addition, as of 2016, the state counts 1,977 Air Force Reserve, 1,984 Air National Guard, and 1,454 Air Force civilian personnel, for a total Air Force population of 11,549.

The Air Force presence in the state is comprised of two Air Mobility Command installations, McChord Field at JBLM and Fairchild Air Force Base (FAFB) located outside of Spokane.

JBLM is home to the 62nd Airlift Wing (active) and the 446th Airlift Wing (reserve), which fly C-17 Globemaster III aircraft. FAFB is home to the 92nd Air Refueling Wing (active) and 141st Air Refueling Wing (Air National Guard), which fly the KC-135 Stratotanker aircraft. FAFB is also hosts the Air Force Survival, Evasion, Resistance, and Escape (SERE) School; the Joint Personnel Recovery Agency; and other tenants.

In July 2016, FAFB was formally named by the Air Force as a candidate to become an active duty Main Operating Base for the KC-135 replacement, the KC-46 Pegasus, along with four other candidate bases. USAF plans to announce its "preferred and reasonable alternatives" for operations at the end of 2016, with fielding of the new KC-46 aircraft to begin at the selected site in 2020.

Future Outlook: If FAFB were selected for the new KC-46 mission, it would provide significant federal investment in military construction and strategically position Fairchild for long-term future operations, but would result in nominal personnel reductions due to the personnel ratios for KC-46 versus KC-135R airframes. In addition, the strategic basing of the KC-46 mission at FAFB would complement the C-17 mission at JBLM, thereby solidifying Washington State as a Department of Defense power projection platform for the foreseeable future.

WASHINGTON NATIONAL GUARD

Washington State ranks 26th and 25th respectively in the number of Army National Guard (6,094) and Air National Guard (1,984) personnel. However, the Guard units in the state make up for their lack of size with very unique mission sets. Most notably, the state is not only set to become home to just the second National Guard

Stryker Brigade Combat Team (BCT) in existence, it already boasts the first National Guard Cyber Operations Group, and one of two essential aerospace tracking systems for the continental United States.

The 81st BCT will trade in M1A1 Abrams Tanks and Bradley Fighting Vehicles for the Stryker Combat Vehicle, making it more conducive to active duty training missions, as well as providing a vehicle best utilized in domestic missions in response to earthquakes, fires, floods and volcanic eruptions.

In addition to the 141st Air Refueling Wing's current KC-135 mission and potential KC-46 mission at FAFB, Washington Air National Guard units are also at the cutting edge of DOD cyber operations. The 252nd Cyber Operations Group (252 COG) became the Air National Guard's first Cyber Group when it was certified for operations in 2015. This decision followed the initial stand up of the 262 Network Warfare Squadron in 2012 and 143rd Cyber Operations Squadron in 2014 through the Total Force Initiative process. The 252nd and its supporting elements comprise approximately 840 military positions, with growth in the unit coming as a result of their expanded cyber role.

The third leg of the Washington National Guard triad is the Western Air Defense Sector (WADS) at Joint Base Lewis-McChord. WADS and the Eastern Air Defense Sector (EADS) located in Rome, New York, are the two sectors responsible to NORAD's aerospace warning and mission control across the continental United States. The WADS and EADS missions are unique, irreplaceable (thus on solid ground as long as manned flight occurs in the US), and face steady-state personnel levels now and into the future.

Future Outlook: Through the term of the Budget Control Act (now through 2023), there is no anticipation that any significant growth or reductions will impact the Washington National Guard. However, if the Congress and Administration are unable to put an end to sequestration and the Budget Control Act, the Army will be forced to go through a final round of personnel cuts to bring Active Component end strength down to 420,000 and reduce the Army Guard from its current overall level of 345,000 down to approximately 315,000 by fiscal year 2020. The Washington Army National Guard's share of that burden (if implemented) would be approximately 800 military personnel.

If Fairchild were selected for the future introduction of KC-46 in 2020, there would likely be some nominal reductions in personnel requirements for the 141st ARW; however, those personnel spaces would likely be transferred to the growing cyber mission in the Air National Guard. With the certification of the 252nd COG, Washington State is now seen as a leader in National Guard cyber operations. However, as the National Guard increases its cyber capability across the enterprise, it will be difficult to expand the current cyber mission without a concerted statewide strategy to establish a cyber center of excellence in the state.

UNITED STATES COAST GUARD

Washington State ranks fourth in United States Coast Guard (USCG) active duty personnel with a population of 1,974. Only Florida (4,572), California (4,469), and Virginia (4,059) rank higher in USCG population. In addition, as of 2016, the state counts 404 USCG Reserve and 196 USCG civilian personnel, for a total USCG population of 2,574.

The state is home to USCG District 13 Headquarters, which is responsible for the states of Washington, Oregon, Idaho, and Montana, as well as more than 460,000 square miles of Pacific Ocean. It is also home to the USCG Polar Icebreaking Fleet.

Future Outlook: The USCG population has actually increased by 697 personnel since 2012. With increased attention on the Arctic mission, the District 13 mission and population is likely to further increase.

FORCE STRUCTURE 2020

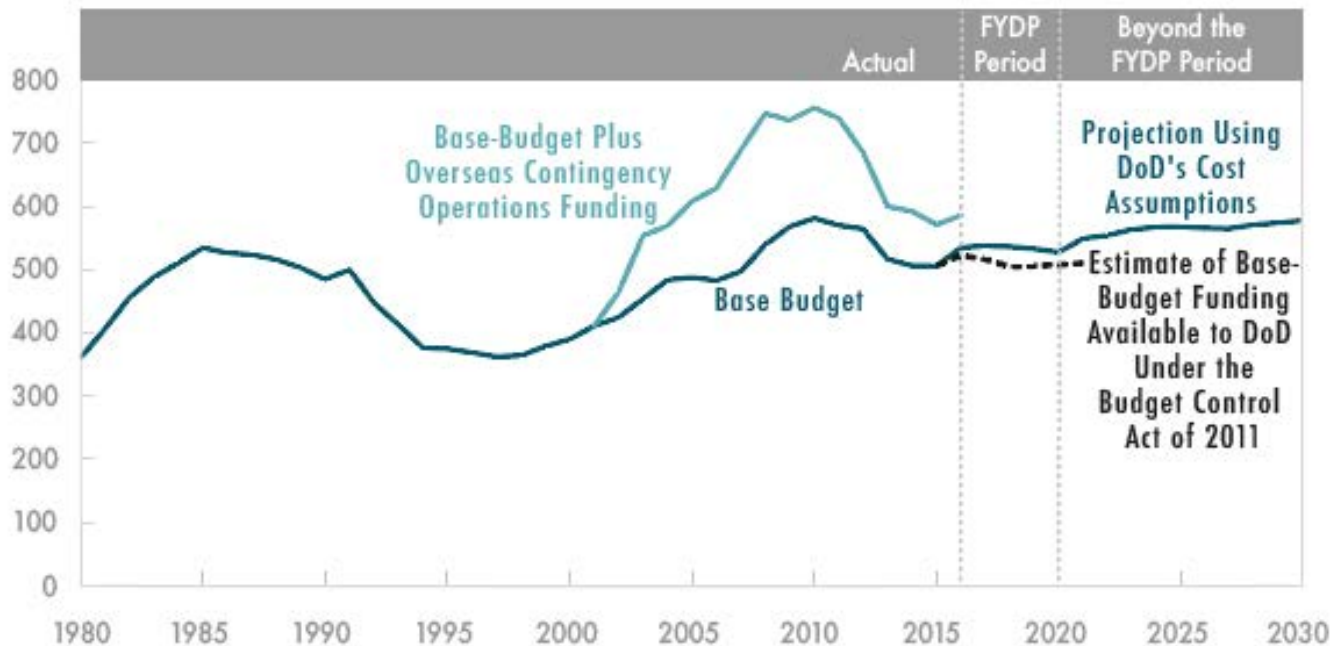
In most years, the DOD produces a five-year plan, called the Future Years Defense Program (FYDP), which indicates to Congress a longer-term view of base budget needs beyond the current fiscal year. The 2016 FYDP, which covers fiscal years 2016 through 2020, calls for relatively flat budgets that average \$534 billion for 2016 through 2020.

For fiscal year 2016, DOD requested a budget of \$585 billion. Of that amount, \$534 billion was to fund the Department’s base budget, which encompasses activities such as the development and procurement of military systems and the day-to-day operations of the military and civilian workforce. The remaining \$51 billion of DOD’s request was to pay for the costs of overseas contingency operations (OCO), mostly Operation Freedom’s Sentinel in Afghanistan and Operation Inherent Resolve in Iraq and Syria.

According to the Congressional Budget Office (CBO), the inflation-adjusted costs for the base budget would increase to \$538 billion in 2017, and gradually decline to \$527 billion in 2020 (see figure below). Nonetheless, the average annual DOD budget under the 2016 FYDP would be greater than the funding DOD received in all but six years (1985, and 2008 through 2012) since 1980, after adjusting for inflation.

As highlighted above, budget constraints may require the DOD to contemplate adjustments to its force structure requirements, placing intense scrutiny on each military installation. However, due in part to the Pentagon’s rebalance to the Pacific, the state’s military installations will likely be somewhat insulated from expected near-term reductions in force. Nonetheless, due to budget constraints, the state’s military installations are equally unlikely to see any increases in missions and/or personnel in the next few years.

FIGURE 11. HISTORICAL FUNDING FOR DOD AND PROJECTED COSTS OF DOD’S PLANS
BILLIONS OF 2016 DOLLARS



Source: Congressional Budget Office, January 2016

OPPORTUNITIES AND CHALLENGES

DOD's rebalance to the Pacific: In the fall of 2011, the Obama Administration announced that it would be intensifying the US role in the Asia-Pacific region, including East Asia, Southeast Asia, Australasia, and the coastal areas of South Asia. The ultimate goal, according to National Security Advisor Tom Donilon, is to promote US interests by helping to shape the norms and rules of the Asia-Pacific region, to ensure that "international law and norms be respected, that commerce and freedom of navigation are not impeded, that emerging powers build trust with their neighbors, and that disagreements are resolved peacefully without threats or coercion. To accomplish this, the United States is in the midst of a "rebalance" – placing more attention toward planning for future challenges and opportunities in the Asia-Pacific region than it has since the end of the US involvement in the Vietnam conflict.

BRAC: While incremental force structure realignments should have little impact, a new round of Base Realignment and Closures (BRAC), emerging missions, as well as the impending KC-46 MOB decision will provide both opportunities and challenges for the state.

Political intransigence has delayed the Pentagon's request for another BRAC round for the past few years, and the FY2017 National Defense Authorization Act will contain language preventing another BRAC for several more. At this point, the earliest a BRAC round is likely to occur is in 2021, however, the state should begin preparing for such an instance as soon as possible. The BRAC process is long and methodical. In addition, DOD data lags two years behind, therefore, any mitigation efforts would typically need to be completed, or be sufficiently underway by 2019 in order to be considered by a 2021 BRAC commission.

The amount of DOD spending on goods and services in the civilian economy is directly related to the strength of the military installations in the community; therefore, a future BRAC should be viewed as an opportunity for Washington State.

As the Department of Defense rebalances missions to the Pacific theater, the geographic proximity to Asia and Russia, the current mission compatibility of ground force (JBLM), airlift (JBLM), aerial refueling (FAFB), stealth marine warfare (NBK-Bangor), electronic attack and surveillance (NAS-Whidbey), and naval force (NBK-Bremerton and NS Everett) provide the most comprehensive power projection platform in the DOD. As such, emerging missions in the Arctic and the use of new unmanned systems technologies are certain opportunities for capture as new or enhanced mission sets at the state's military installations.

Training Facilities/Airspace: Strength of military installations, and therefore the ability to attract and secure additional missions, is directly reflected by the availability and condition of training and staging areas, and associated airspace. Washington State boasts a tremendous array of specialized training facilities, vast training areas throughout a diversity of climate and terrain, as well as unencumbered airspace that provide for all the necessary operational and joint training requirements necessary to maintain the highest readiness levels.

The crown jewel of the state's training capacity is the Yakima Training Center (YTC), operated under the JBLM command, which provides the capability to support brigade- and division-sized maneuver space, and can accommodate the firing of almost all Army weapons systems, as well as the conduct of joint training exercises with its restricted airspace. Some of the unique training aspects include over 327,000 acres of training space (511 square miles/126 mile border) with varied elevations ranging from 400 to 4100 feet above sea level, as well as a 1,635-mile road network. There are 20 training areas, 26 established ranges, 212 artillery-firing points, and a 22,000-acre impact area. The entire facility has restricted airspace to 55,000 feet, ensuring no incursion by civilian aircraft.

The 336th Training Group located at FAFB runs the Air Force's only Survival, Escape, Resistance & Evasion (SERE) school utilizing dormitories, mess halls and training facilities (pool, classrooms, etc.) on the Base. The SERE school has trained over 14,000 students at Fairchild on a 600K acre training facility covering four states (WA, OR, ID & TX). Forty-two different permits and leases are required and the school maintains over 450 miles of roads on the training site.

Additionally, there is no other location in the continental US where active electronic jamming training can be conducted with little or no effect on civil aviation or other civil emissions (i.e. TV, radio, communications, etc.). The Special Use Airspace (e.g. Military Operating Areas, Offshore Warning Areas, Restricted Areas, Low Level Training Routes, etc.) that is available in and around the state provides high value training in a low congestion environment with diverse capabilities (i.e. water, land, and airspace).

Finally, the state's specialized training facilities include two unique centers:

- Naval Undersea Warfare Center (NUWC) – Keyport has a 3-D underwater tracking range for undersea testing, training, and evaluation in nearby areas of the Sound; and
- The Department of Energy's HAMMER Training and Education Center provides specialized hazardous materials training for military and civilian homeland security and first responders, including National Guard units from around the country.

While none of these facilities could be cost-effectively duplicated anywhere in the United States, if the state intends to grow and capture future mission capabilities, and therefore greater DOD investment in the economy, it must both ensure the DOD maintains the viability of its training ranges and accommodate expanded specialized training activities within its border.

Shoreside Maintenance/Repair: In May 2016, the Government Accountability Office (GAO) released a report that ship maintenance had not kept pace with Navy requirements, threatening fleet readiness. This issue will be exacerbated by the Navy's requirement to add more ships to the fleet, and the rebalance to the Pacific will impact the abilities of West Coast facilities such as the Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF)—one of only four Navy-operated shipyards—to properly maintain the fleet in coming years.

As the state seeks to attract more ships into Puget Sound for homeporting, it should consider encouraging investment in at least two areas that could feasibly provide the necessary space for a contractor to establish a maintenance and repair facility, which could service both commercial and Navy vessels.

- Derelict property owned by Kimberly-Clark Corporation which sits between Naval Station Everett and the Port of Everett would also have the benefit of providing surge capacity berthing capability for Naval Station Everett.
- The former State Department of Transportation Pontoon Construction Facility in Aberdeen could also offer the economic benefits of a thriving, commercial shipyard.

Each property would require maintenance dredging, but each site has deepwater access, rail, water, sewer, power, and natural gas, meriting further consideration by the cities, counties, port districts, and the state.

Encroachment: As discussed earlier, the state's location, mission compatibility between installations and services, and combined training facilities provide the ultimate power projection platform within the DOD. However, every installation in the Department of Defense inventory has some growth management or encroachment issues, including those within the state.

The obvious concerns deal with safety and possible encroachment concerns that would limit or inhibit the use of any of the currently available facilities. In this sense, the state should pay particular attention to two issues impacting JBLM and another impacting FAFB:

- A JBLM Transportation Analysis funded by DOD's Office of Economic Assistance (OEA) identified the need for improvements in an 11-mile stretch of the I-5 corridor. Recommended improvements included replacing interchanges at four exits and adding general-purpose lanes through the corridor. While the state has begun mitigation efforts by completing work on the most impactful interchange and exit, much more needs to be done to alleviate traffic congestion at the Base access points.
- The Northern Sector of the McChord Field Clear Zone (CZ) at JBLM is probably the most concerning as operations are affected by the presence of private parcels in the Clear Zone (CZ), which are not eligible for purchase under the DOD's Readiness and Environmental Protection Initiative (REPI) Program. This issue should be pursued aggressively by the City of Lakewood, Pierce County, and the state to ensure that a definitive plan is developed with the objective of voiding the CZ of all properties that are not compatible with safe aviation operations.
- A mobile home park has long been located in the Accident Potential Zone (APZ) II at FAFB. Again, these parcels are not eligible for purchase under the DOD's Readiness and Environmental Protection Initiative (REPI) Program. This issue should be pursued aggressively by Spokane County and the state to ensure that a definitive plan is developed with the objective of voiding the APZ of all properties that are not compatible with safe aviation operations.

CONCLUSION

Military installations within the State of Washington will remain stable through 2020. DOD budget constraints will not provide for significant growth in the near term, however, DOD spending in the state will increase slightly in construction and services in the next several years. Nonetheless, the state is well positioned to take advantage of opportunities beyond that period and should immediately begin actions to do so.

Due in part to the leadership of the Washington Military Alliance, Washington State is beginning to respect the military and defense sector as an economic driver.

On an annual basis, the DOD obligates more money on federal contracts than all other government agencies combined; equal to approximately eight percent of overall federal spending, or roughly \$300 million in current year figures. And, 92 percent of DOD contract obligations remain in the United States.

The Department of Defense is directly responsible for between two and four percent of the state's economy, the largest employer in the state (other than the state) with nearly 100,000 direct jobs, and the largest single consumer of many of the state's largest diversified industries, including Boeing, Microsoft and Amazon. As well, DOD provides a significant portion of R&D investment in biopharmaceutical, cancer and other medical research ongoing within the state.

RECOMMENDATIONS

Secure KC-46 MOB for FAFB: This is not only the most immediate concern; it is also the most crucial for the future of the Air Force in the state. If FAFB is chosen to be the KC-46 MOB, it will secure the Air Force in the state for generations to come. However, if FAFB is not chosen it could put the entire Air Force infrastructure of the state in jeopardy. Without replacement aircraft and mission for the aging KC-135 fleet at FAFB, there is a chance the Base would be left without a flying component. Without air refueling capacity, the strategic airlift mission at JBLM would also be a target for realignment, particularly given the encroachment issue in the CZ at McChord Field. Therefore, the state must immediately come together to create and execute an aggressive strategy to influence the KC-46 MOB process.

Eliminate Encroachment: Provide transportation funding investments to address congestion issues and provide for better access to Washington State’s military installations. In addition, the encroachment in the CZ at McChord Field at JBLM and the encroachment in the APZ II at FAFB must be resolved prior to the next BRAC round.

Statewide Joint Land Use Study (JLUS): Execute a statewide JLUS with particular emphasis on current and potential training areas and airspace within the state. Incorporate recommendations in the state’s Growth Management Act and work with local jurisdictions to incorporate zoning regulations consistent with the recommendations.

Preparation for Potential BRAC Actions: Develop a comprehensive state plan for the future including updated economic impact and growth management plans, in-depth analysis of Washington State’s installations’ BRAC 2005 performance, and a state strategy for securing new missions based on Washington State’s unique attributes/capabilities.

Shoreside Infrastructure Investments: Determine the viability of establishing additional maintenance and repair capacity, which could service both commercial and Navy vessels at sites located in Everett and/or Aberdeen.

Research and recommendations in this section provided by:



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