



**SOUTH SOUND MILITARY &
COMMUNITIES PARTNERSHIP**

REGIONAL ECONOMIC IMPACT ANALYSIS

South Sound Military & Communities Partnership (SSMCP)



CENTER FOR BUSINESS ANALYTICS
UNIVERSITY *of* WASHINGTON | TACOMA

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EXECUTIVE SUMMARY

Joint Base Lewis-McChord (JBLM) is the fourth-largest employer in Washington State and an essential driver to the economic momentum of Washington State and the South Sound region.¹ The South Sound Military & Communities Partnership (SSMCP) works to enhance partnership and collaboration between military and community leaders. In 2019, SSMCP requested an updated regional economic impact (REI) analysis that expanded the scope of the previous report and incorporated additional data unavailable to the previous study completed in 2018. The SSMCP leadership team wanted the new analysis to include estimates for indirect and induced employment and incorporate cross-region interactions.

The previous REI (completed in 2018) focused on the JBLM military and civilian workforce and their economic impact on the south South Sound region. This expanded REI incorporates additional data related to military retirees, working military spouses and education-related spending (Impact Aid, Tuition Assistance, GI Bill funding). Further, this REI integrates data from IMPLAN simulations that estimate direct, indirect and induced and indirect impacts and incorporates cross-region interactions.

The final impact analysis estimates that, at the state level, JBLM's presence contributes to nearly 100,000 full-time equivalents (FTEs) who earned nearly 9 Billion dollars in salary/wages to helped produce almost 14 billion dollars in gross output that translated into over two and quarter billion dollars in revenue for federal, state and local governments. In Pierce and Thurston counties, over 83 thousand FTEs earned over 8.2 billion dollars to generate 12.1B in total economic impact and over 2 billion dollars in tax revenue.

¹ <https://www.bizjournals.com/seattle/subscriber-only/2020/06/19/largest-employers.html>

INTRODUCTION/BACKGROUND

In 2018, the SSMCP partnered with the University of Washington-Tacoma (UW-Tacoma) Center for Business Analytics to conduct a regional economic impact analysis. The 2018 report focused primarily on the Joint Base Lewis-McChord (JBLM) workforce, both military and civilian, and their contribution to the South Sound region, particularly Pierce and Thurston counties. That analysis estimated the total economic impact attributable to JBLM to be between \$8.3B and \$9.2B. That report focused on quantifying “the impact of the income of the 52,000 personnel on the wider economy of the South Sound region.” It estimated the direct, indirect and induced effects only within Pierce and Thurston counties. In 2019, SSMCP requested an updated regional economic impact analysis that expanded the scope of the previous study and incorporated cross-regional interactions. Four 2019-2020 UW-Tacoma Master of Science in Business Analytics (MSBA) graduate students, under the guidance of Dr. Margo Bergman, UW-Tacoma faculty advisor, and in collaboration with stakeholders from SSMCP and JBLM undertook the expanded analysis. This report summarizes their work and findings.

OVERVIEW²

Joint Base Lewis-McChord (JBLM) is the fourth-largest employer in Washington State and the largest employer in Pierce county. It serves as an essential driver to the economic momentum of Washington State and the South Sound region. The South Sound region supports its military residents in multiple ways, from easing the transition into public schools for families, providing excellent education opportunities focused on the complex needs of active duty military members, to providing a familiar and comfortable environment for military retirees. JBLM, in turn, provides direct employment for thousands of South Sound citizens, as well as creating demand for local services through its tens of thousands of active-duty and government-service personnel.

² Modified from 2018 CBA REI Report

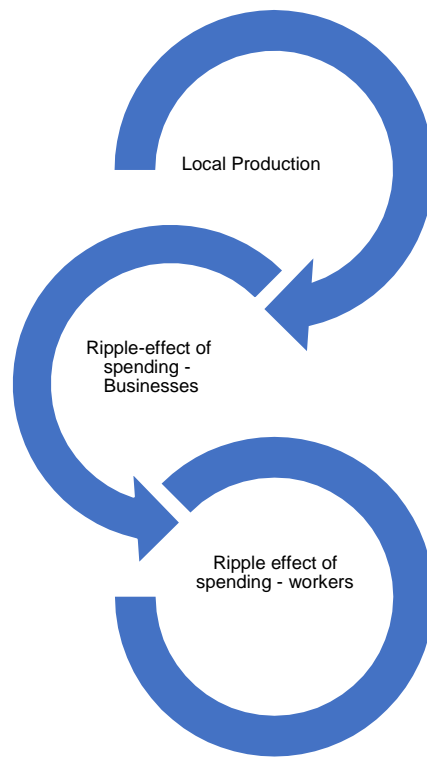


Figure 1--Economic flow of JBLM business expenditures

Figure 1 depicts the visual flow of production and income described in this report.³ Each dollar spent by an individual affiliated with JBLM circulates through the economy more than once. A service member buying a new home upon moving to the Pacific Northwest will generate jobs and income for housing developers, architects, construction workers, lumber businesses, title companies and loan officers. Each of these people, will in turn, buy gas, eat food and pay other workers in the local economy. A thousand dollars provided to a service member, retiree or JBLM civilian employee could become two thousand dollars in the local economy. The economic impact analysis model used in this report is a static model, based on values primarily from the 2019 fiscal year and estimates:

- **Direct Impact** denoting the dollar value of spending steered into the local economy from payroll and operating budgets.

³ © 2019 Margo Bergman, Ph.D., Milgard Center for Business Analytics

- **Indirect Impact** denoting the subsequent growth in economic activity at local firms that supply goods and services necessary to the day-to-day operations (operating budget) of JBLM.
- **Induced Impact** denoting the business activity that occurs when JBLM affiliated personnel and the firms contracted by JBLM spend their earnings. These earnings are typically spent on housing, transportation, retail purchases, education, entertainment, healthcare, and other necessities and luxuries of daily life.

METHODS

Differences Between 2018 and 2020 Regional Impact Analysis

Although this analysis builds on the 2018 work, it deviates from the previous study in two significant ways. The 2018 effort focused exclusively on the JBLM workforce -- both military and civilian. This analysis expands the scope of the last study by incorporating the economic activity of military retirees and the working spouses of active duty service members. Because of the expanded scope, this analysis identified additional data sources to incorporate in the build related to educational spending, off-base housing and others.

Second, the previous team used economic multipliers provided by the Economic Development Council of Thurston County and the Economic Development Department of Pierce County to estimate indirect and induced effects within Pierce and Thurston counties only. This analysis utilizes IMPLAN simulations to estimate the same impacts but also incorporates interactions with larger sectors of the economy and cross-region interactions.

Methods Overview



Figure 2-REI Build Methodology

Figure 2 provides an overview of the process undertaken to generate the Regional Impact Analysis. In November 2019, the UW-Tacoma team, collaborating representatives from JBLM, began collecting data. Much of the data collected came directly from JBLM. As the team collected data, they shared and discussed each data point with the SSMCP leadership and their UW-Tacoma faculty advisor. Based on those discussions, the team determined whether the data represented a valid economic point estimation or if the team needed to conduct additional research to refine the point estimate. For data points not maintained by JBLM, the project team worked with various stakeholders to identify potential points of contact who might aid in the data collection process. The data collection phase ran between November 2019 and the end of April 2020.

Point Estimates

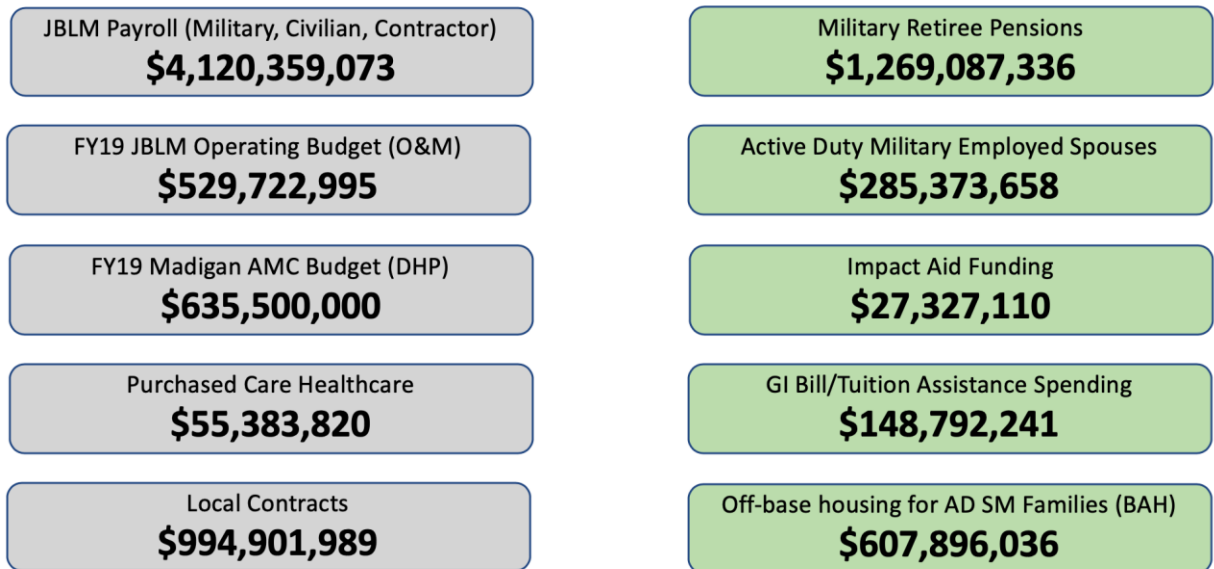


Figure 3 -- REI Point Estimates

Figure 3 summarizes the point estimates generated during the data collection phase. The green-colored boxes highlight data points not included in the 2018 analysis, such as military retiree pensions, or were previously estimated using state/regional data such as off-base housing for active duty service members. Representatives from JBLM Garrison Command provided the data for the JBLM payroll, operating budget, Madigan Army Medical Center budget, purchased healthcare, local contracts and the off-base housing (BAH) estimates. The team received the Impact Aid funding data from a representative of the JBLM Child & Youth Services (CYS).

The GI Bill/Tuition Assistance point estimate came from four separate sources. For the Tuition Assistance portion, the team relied on representatives from the JBLM Career Skills Program, 62 Air Wing Education & Training and Stone Education Center. For the GI Bill portion of the estimate, the project compiled a list of all universities, technical colleges and community colleges in Pierce and Thurston county and recorded GI Bill spending documented at www.va.gov/gi-bil-comparison-tool for each of the schools.

No organization collects employment data for local military spouses. Therefore, the team used available national data and conservative assumptions to estimate the salary/wages attributable to spousal employment. The active duty military spouse employment estimate relies on data provided by the Washington Department of Veterans Affairs. Nationally, data suggests military spouses experience a 24%

unemployment rate and a 26% underemployment rate. To generate the spousal estimate, the team used a .76 (for employment) and a .74 (for underemployment) multipliers against the average of the median salary/wages in Pierce and Thurston counties.

Retiree pensions represent the largest driver in the difference between the 2018 and 2020 point estimates. Representatives from JBLM provided files aggregating military retirees by zip code. The project team used publicly available data via Zillow.com to create lookup tables in the project team's SQL Server database to extract retirees that map to either Pierce or Thurston counties.

IMPLAN Simulations

At that point, the project team packaged the point estimates into a template provided by the Thurston County Economic Development Council (EDC). The SSMCP contracted support from the Thurston County EDC to run IMPLAN simulations using the data provided by the project team. The project team requested three different IMPLAN simulation "builds" to model the data:

1. state-wide impacts
2. regional impacts (Pierce and Thurston counties)
3. county-level impacts (Pierce, Thurston, King and Yakima Training Center)

Each smaller build represents a subset of the larger level build (e.g., state data contains the region data which includes the county data). This report focuses primarily on four components of IMPLAN outputs: employment, labor income, gross (total) impact and the associated tax revenue at the state and regional level.

RESULTS

IMPLAN Estimates

After completing the point estimates, the team passed the data to the Research Manager at the Thurston EDC for IMPLAN simulations.

Employment

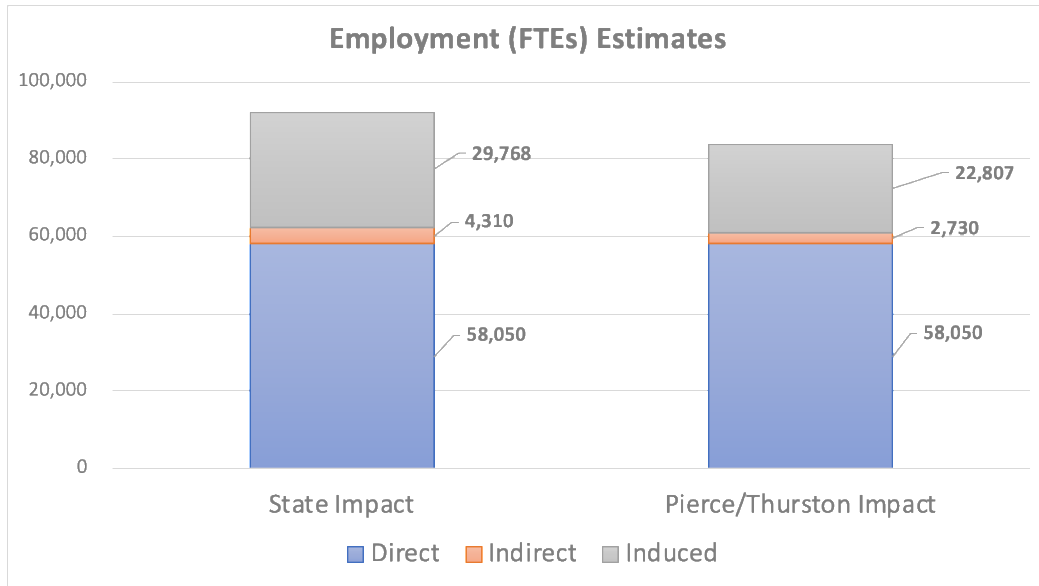


Figure 4 - FTE Estimates

State-wide, the model estimates approximately 58 thousand direct employment full-time, four thousand indirect FTEs and 29.8 thousand induced FTEs equivalents (FTEs). Within Pierce and Thurston counties, the numbers are 58K, 2.7 thousand and 22.8 thousand for direct, indirect and induced FTEs, respectively. Combined, the model estimates a total of 92,128 FTEs across the state and 83,587 FTEs in Pierce and Thurston counties directly attributable to the presence of JBLM. The 34 thousand indirect and induced FTEs state-wide and 25.5 thousand FTEs within Pierce and Thurston counties represent “spin-off” jobs generated because of JBLM connected economic activity.

Labor Income

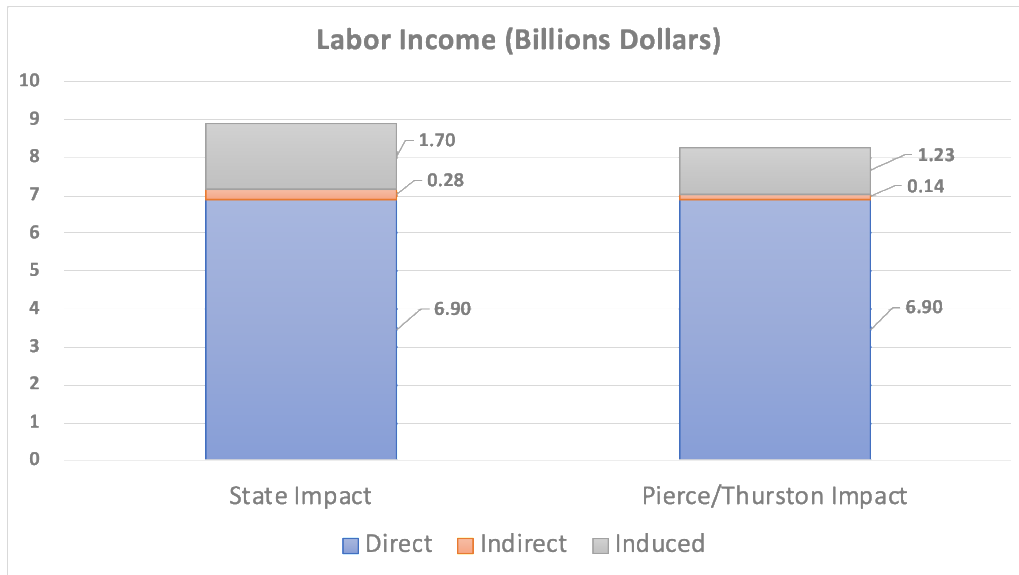


Figure 5 - Labor Income Estimates

Those 92 thousand state-wide FTEs translates into \$8.83B of salary/wages state-wide and \$8.27B within Pierce and Thurston counties. The induced and indirect jobs mentioned in the previous section represent more than two billion dollars in labor income annually.

Gross Impact

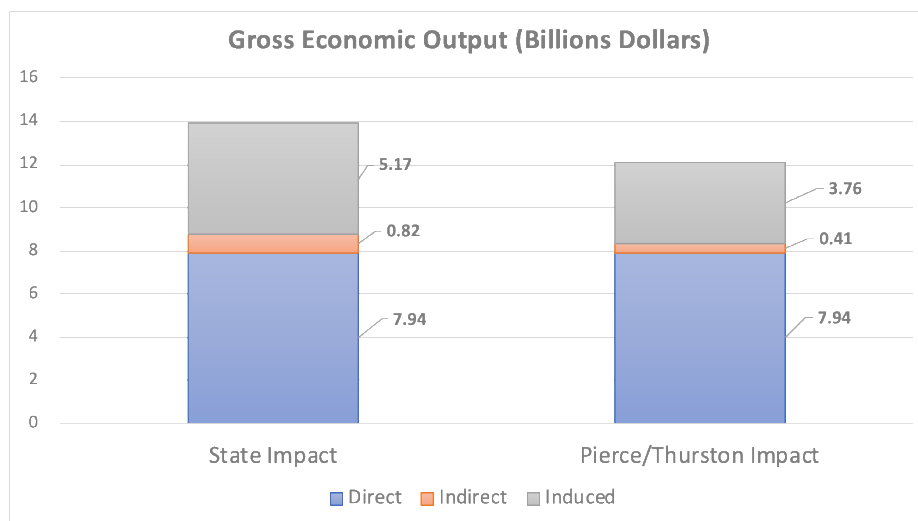


Figure 6 - Gross (Total) Impact Estimates

Based on the data collected and the IMPLAN simulations, the gross (total) impact attributable to JBLM state-wide is \$13.9B and \$12.1B. That includes \$6B in indirect and induced output state-wide and \$4B within Pierce and Thurston counties.

Tax Revenue

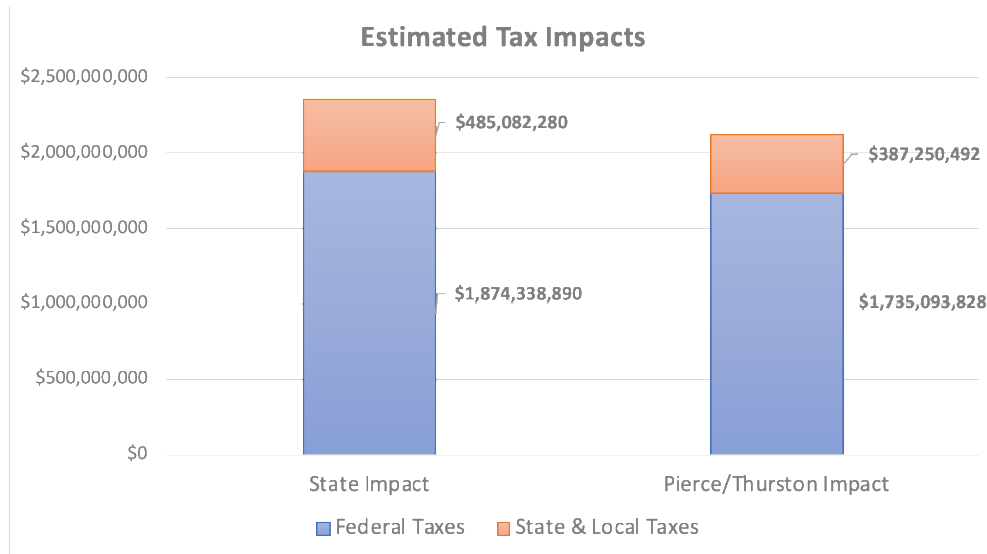


Figure 7 - Estimated Tax Revenues

The IMPLAN simulations also estimated JBLM’s impact the federal, state and local tax revenues. Overall, the model estimates total tax revenue over \$2.3B state-wide and \$2.1B within the local area. Those tax revenues support government initiatives at all levels.

CONCLUSION

Impact	Washington State	Pierce/Thurston County
FTEs(Jobs)	92,128	83,587
Wages/Salary	\$8.83B	\$8.27B
Gross (Total)	\$13.9B	\$12.1B
Tax Revenue	\$2.36B	\$2.12B

Figure 8 - REI Summary

In conclusion, this analysis estimates that, because of the presence of JBLM, across the state of Washington nearly 100,000 full-time equivalents (FTEs) earned nearly 9 Billion dollars in salary/wages to helped produce almost 14 billion dollars in gross output that translated into over two and quarter billion dollars in revenue for federal, state and local governments. In Pierce and Thurston counties, over 83 thousand FTEs earned over 8.2 billion dollars to generate 12.1B in total economic impact and over 2 billion dollars in tax revenue.

As the largest employer in Pierce County and the fourth-largest employer in the state of Washington, Joint Base Lewis-McChord is an economic engine with an outsized impact in the South Sound region. In addition to the quantifiable economic impacts described in this report, JBLM also brings other, less tangible, benefits to the region. Perennially, JBLM ranks as one of the most desired duty stations for military personnel. Service members and their families want to come to the Pacific Northwest and serve at JBLM. The installation also does an excellent job helping service members completing their military obligation transition to roles outside of the military. Those who choose to stay in the area represent a valuable talent pool that adds to the dynamism and growth of the region.

ACKNOWLEDGMENTS

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