# The Economic Contribution of the University of Washington to the Statewide, Local and National Economies

(FY23)





# TARIF OF CONTENTS

1	INDEE OF CONTENTS
2	Executive summary
4	About the University of Washington
5	About the study
6	The UW contributes to the state and local economies
7	Creating and sustaining jobs throughout Washington
8	Local and state tax revenues from the UW
9	UW Research
12	CoMotion
13	UW Medicine
20	UW alumni
21	The UW gives back
22	UW Athletics
23	The University of Washington Bothell
26	The University of Washington Tacoma

**Appendix A: Terms and definitions** 

Appendix C: UW regional impact breakout analysis

Appendix B: Data and methods

26

29

30

32

# **EXECUTIVE SUMMARY** (FY23)

# The University of Washington's impact on Washington

**Economic impact** 

\$20.9 BILLION
GENERATED IN ECONOMIC IMPACT (FY23)

- \$1 out of every \$32 in the statewide economy
- 3.1% of the Washington economy

\$2.5 BILLION

IN VISITOR AND STUDENT SPENDING IMPACT

Jobs supported and sustained

111,951 JOBS

**CREATED AND SUSTAINED** 

- 1 out of every 34 jobs in Washington
- Fifth-largest employer in Washington
- 2.9% of WA's employed civilian labor force

Local and state tax revenues

\$962.6 MILLION

GENERATED IN STATE AND LOCAL TAX REVENUES

**UW Research impact** 

\$1.87 BILLION

IN SPONSORED RESEARCH (FY23)

generating

\$2.6 BILLION

IN ECONOMIC IMPACT (FY23)

**Benefitting Washington** 

\$66.5 MILLION DONATED BY STAFF, FACULTY AND STUDENTS:

1.5 million hours valued at **\$44.3 million** and **\$22.2 million** in charitable giving

375,625 ALUMNI

LIVING AND WORKING IN WASHINGTON

generating

\$454.6 BILLION

over their careers while supporting and sustaining an additional **2 million jobs** in the statewide economy

As Washington state's flagship university, the University of Washington (UW) drives economic growth across the state. The UW engaged Parker Strategy Group to measure the economic impact of the University's operations on the state of Washington. The economic impact of the UW in FY2023 totaled \$20.9 billion. This contribution to the local and statewide economies is a point-in-time snapshot depicting how the expenditures of the UW and its faculty, staff, students and visitors make an impact.

#### Economic impact generated

The UW contributes to the local and statewide economies through its expenditures on operations, capital projects and wages; the spending of students off campus; and the spending of visitors to the UW. The direct, day-to-day expenditures of the UW, combined with student and visitor spending, cause a ripple effect throughout the statewide economy, thereby multiplying the impact.

#### FY23 impact:

- \$20.9 billion in total economic impact
- \$18.4 billion in operations and capital spending
- \$1.8 billion in student spending
- \$690.1 million in visitor spending

#### Jobs supported and sustained

The UW supported and sustained a combined total of 111,951 full-time and part-time jobs throughout the state in FY23. Put another way, one out of every 34 jobs in the state of Washington is supported or sustained by the UW. As the fifth-largest employer in the state, the UW provides family-sustaining jobs to residents throughout Washington.

- 111,951 total jobs
- 92,517 jobs supported or sustained by operations and capital spending
- 14,986 jobs supported or sustained by student spending
- 4,448 jobs supported or sustained by visitor spending

#### Local and state tax revenues generated

The UW, its employees, its suppliers and its related constituencies contribute significantly to the local and statewide tax bases. At the state and local levels, the UW contributes to the tax bases through its purchasing, its employees and its visitors. In FY23, the UW contributed an estimated \$962.6 million (\$336.9 million in direct impact, \$154.4 million indirect and \$471.3 million induced).

- \$962.6 million in total impact
- \$336.9 million direct
- \$154.4 million indirect
- \$471.3 million induced

#### ■ UW Research impact

The UW is one of the few universities in the U.S. with total research funding over \$1 billion annually — in FY23, the UW had \$1.87 billion in sponsored research. The impact of the UW's research enterprise creates \$2.6 billion in economic impact to Washington state, supports and sustains 10,641 Washington jobs, and generates \$93.5 million in local and state taxes.

- \$2.6 billion generated in economic impact statewide
- 10,641 jobs supported and sustained
- \$93.5 million in local and state taxes

#### UW Medicine impact

The economic impact of UW Medicine in FY23 totaled \$12.5 billion. UW Medicine also supported and sustained 60,717 jobs and generated \$588.3 million in local and state tax revenue. This contribution to the local and statewide economies is a point-in-time snapshot depicting how the expenditures of UW Medicine and its faculty, staff, students and visitors make an impact.

- \$12.5 billion in economic impact
- 60,717 jobs supported and sustained
- \$588.3 million generated in local and state taxes

#### ■ Benefiting Washington

The UW's impact across all facets of the Washington economy continues to grow year over year. This economic impact study demonstrates that the UW is a driver of the statewide economy from an economic and workforce perspective.

# **About the University of Washington**

Recognized as one of the world's top universities, the University of Washington (UW) significantly contributes to the economic and social fabric of the state of Washington. The University of Washington tied for No. 7 on the U.S. News & World Report's Best Global Universities rankings, released in June 2024, and it maintained its No. 2 status among U.S. public institutions in that ranking. Economically, the UW generates billions of dollars in annual impact, creates and supports thousands of jobs, educates thousands of students across disciplines, and fosters innovation through its extensive research activities and startup incubators.

This economic activity stimulates local businesses and attracts national and global investment, positioning the state as a leading hub for technology and health-care advancements. Socially, the UW enriches communities through its educational programs, public service initiatives, and sports and cultural events, enhancing the quality of life and providing opportunities for lifelong learning. The University's commitment to social equity and inclusion also addresses critical societal challenges, promoting a more just and cohesive community through efforts such as its Population Health Initiative, its Race and Equity Initiative, and UW-led climate research. By driving both economic growth and social progress, the UW plays a pivotal role in shaping the future of Washington and the region.

The UW educates more than 60,000 students on three campuses annually, supplying an educated workforce to meet the demands of Washington's growing economy. The UW has been cultivating ideas into worldwide impact for over 160 years; its impact on Washington and the world is helping to transform communities and lives.

60,000+ STUDENTS

#2
AMONG U.S. PUBLIC UNIVERSITIES

**#7**In global universities



# **About the study**

In February 2024, the UW engaged Parker Strategy Group to measure the economic contribution of its operations – including its campuses in the cities of Bothell, Seattle and Tacoma and its programs across the Puget Sound region and throughout Washington state. The goal of this analysis is to provide a complete assessment of the total economic, employment, and state and local tax impact of the UW across the state of Washington, the Seattle-Tacoma-Bellevue Metropolitan Statistical Area (MSA), the Puget Sound region and the nation.

The methodology in this study uses the input-output model and dataset developed by IMPLAN Group LLC. Primary financial data used in this study was obtained from the UW Office of Finance, Planning and Budgeting; the UW Office of Research; UW Medicine; UW Athletics; and the WWAMI (Washington, Wyoming, Alaska, Montana and Idaho) medical education program. Data categories included operational expenditures, capital expenditures (three-year average), and payroll and benefits for employees for FY23. Secondary data was used to estimate spending by visitors (day and overnight) and students (undergraduate, graduate and professional) exclusive of tuition and fees. Additional information on the methodology and assumptions used to complete this study can be found in Appendix B.

The impact presented in this analysis is broken down into three categories: direct impact, indirect impact and induced impact. The indirect and induced impacts are commonly referred to as the "multiplier effect."

# **UW** study

#### Data sources:

The University of Washington, UW Medicine, UW Research

#### Study type:

Economic contribution analysis

#### Geography:

State of Washington, Puget Sound region, Bothell, Seattle, Tacoma

#### Study year:

Fiscal year 2023 (FY23)

Methodology: IMPLAN

The graphic below provides an overview of the types of impact detailed in this report.



#### DIRECT

Impacts generated because of spending by the UW on operations, capital expenditures, pay and benefits, student spending, and visitor spending.



#### INDIRECT

The increase in demand for goods and services in industry sectors that supply or support the UW, its students, its faculty and staff, and visitors. Often referred to as the supply chain.



#### INDUCED

The third wave of impact created because of household spending by UW employees, employees of suppliers, and students. Induced impacts estimate the effect of increased household income, including housing, household goods, entertainment, food, clothing, transportation and other categories of personal spending.

## The UW contributes to the state and local economies

The UW contributes to the local and statewide economies through its expenditures on operations, capital projects and wages; the spending of students off campus; and the spending of visitors to the UW. The direct, day-to-day expenditures of the UW, combined with student and visitor spending, cause a powerful ripple effect throughout the statewide economy.

The economic impact of the UW in FY23 totaled **\$20.9 billion**. This represents a 33.1% increase over the previous study in FY18. The UW is an economic driver directly or indirectly responsible for \$1 out of every \$32 in the statewide economy. This contribution to the local and statewide economies is a point-in-time snapshot depicting how the expenditures of the UW and its faculty, staff, students and visitors make an impact.

- *Operations:* UW operations and capital spending contributed a total of \$18.4 billion as a result of operational spending. The UW's operations generated \$8.7 billion in direct economic impact, \$3.2 billion in indirect economic impact and \$6.4 billion in induced economic impact.
- **Student spending:** UW students contributed a total of **\$1.8 billion** as a result of their spending. They generated \$1.2 billion in direct economic impact, \$217.7 million in indirect economic impact and \$385.9 million in induced economic impact.
- *Visitor spending:* UW visitor spending contributed a total of **\$690.1 million**. Visitors to the UW generated \$385.5 million in direct economic impact, \$165.1 million in indirect economic impact and \$139.4 million in induced economic impact.

# **UW ECONOMIC IMPACT (FY23)**

Type of impact	Operational impact	Student impact	Visitor impact	Combined impact
Direct	\$8,732,477,092	\$1,184,966,171	\$385,540,595	\$10,302,983,858
Indirect	\$3,244,961,349	\$217,736,598	\$165,120,500	\$3,627,818,447
Induced	\$6,403,809,070	\$385,882,783	\$139,424,666	\$6,929,116,519
Total	\$18,381,247,511	\$1,788,585,552	\$690,085,761	\$20,859,918,824

# Creating and sustaining jobs throughout Washington

The UW supports a combined total of **111,951 full-time and part-time jobs** throughout the state. The UW is the fifth-largest employer in the state; one out of every 34 jobs in the state is supported or sustained by the UW. This represents 2.9% of Washington's employed civilian labor force. The UW provides family-sustaining jobs to residents throughout Washington.

- *Operations:* The UW supported and sustained a total of **92,517 jobs** as a result of its operations 50,544 direct jobs, 13,213 indirect jobs and 28,760 induced jobs.
- **Student spending:** UW students supported and sustained a total of **14,986 jobs** as a result of their spending 11,136 direct jobs, 808 indirect jobs and 3,042 induced jobs.
- *Visitor spending:* Visitors to the UW supported and sustained a total of **4,448 jobs** as a result of their spending 3,227 direct jobs, 595 indirect jobs and 626 induced jobs.

Based on analysis by industry sector, other jobs supported in the Washington economy outside of the higher education and health-care sectors include jobs in real estate, retail and services (e.g., restaurants, child care centers and entertainment).

# State of Washington Top 10 Employers

	Company name	Washington employees
1	Amazon.com Inc.	90,000
2	The Boeing Co.	60,244
3	Microsoft Corp.	58,400
4	Joint Base Lewis- McChord	55,000
5	University of Washington, Seattle	51,849
6	Navy Region Northwest	33,800
7	Albertsons Cos.	24,500
8	Walmart Inc.	23,000
9	Providence Health and Services	22,771
10	The Kroger Co.	21,497

Source: Puget Sound Business Journal, largest employers list (2023)

# **UW EMPLOYMENT IMPACT IN FY23 (Jobs)**

Type of impact	Operational impact	Student impact	Visitor impact	Combined impact
Direct	50,544	11,136	3,227	64,907
Indirect	13,213	808	595	14,616
Induced	28,760	3,042	626	32,428
Total	92,517	14,986	4,448	111,951

## Local and state tax revenues from the UW

The UW, its employees, its suppliers and its related constituencies contribute significantly to the local and statewide tax bases. In FY23, the UW contributed an estimated **\$962.6 million** (\$336.9 million direct, \$154.4 million indirect and \$471.3 million induced) through local spending (operational, capital, students and visitors) as well as direct and indirect support of jobs.

At the state and local levels, the UW contributes to the tax bases through its purchasing and as the fifth-largest employer in the state. Specific taxes include employee and employer contributions to state and local social insurance funds, sales taxes, personal property taxes, taxes paid on motor vehicle licenses, and payments of fines and fees.

- **Subcounty, general:** The UW generated a total of \$93.9 million in subcounty general taxes (city taxes) \$30.3 million direct, \$15.5 million indirect and \$48.1 million induced.
- Subcounty special districts: The UW generated a total of \$149.8 million in subcounty special districts taxes (fire, EMS and school districts) \$48.3 million direct, \$24.7 million indirect and \$76.8 million induced.
- *County:* The UW generated a total of \$76.2 million in county tax revenue \$24.6 million direct, \$12.6 million indirect and \$39.0 million induced.
- **State:** The UW generated a total of \$642.6 million in state tax revenue \$233.7 million direct, \$101.6 million indirect and \$307.4 million induced.

# **UW TOTAL LOCAL AND STATE TAX IMPACT (FY23)**

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Direct	\$30,283,693	\$48,341,998	\$24,597,196	\$233,687,855	\$336,910,742
Indirect	\$15,520,812	\$24,716,759	\$12,573,974	\$101,603,980	\$154,415,525
Induced	\$48,142,518	\$76,783,490	\$39,024,488	\$307,356,870	\$471,307,366
Total	\$93,947,023	\$149,842,247	\$76,195,658	\$642,648,705	\$962,633,633

#### **UW Research**

- \$1.87 billion in sponsored grants and contracts
- \$1.52 billion in federal funding
- \$350 million in nonfederal funding
- 5,506 awards
- More federal research dollars received than any other U.S. public university

- \$2.6 billion generated in economic impact in the Washington economy
- 10,641 jobs supported and sustained statewide
- \$93.5 million generated in state and local tax revenue
- 2.13% market share in federal research funding



Known for its strategic, multidisciplinary research, the UW has an extensive network of centers and institutes, researchers, staff, and students that work across disciplines to extend the boundaries of knowledge. The UW is one of the few universities in the U.S. with total annual research funding over \$1 billion – currently \$1.87 billion in sponsored grants and contracts. Since 2008, UW Research has received more than \$1 billion in external research funding per year. The dollars brought into the UW represent new dollars in the state's economy and are realized because of the high quality of faculty and the excellence of the UW's research programs.

#### **TOTAL GRANTS AND CONTRACTS AWARDED BY YEAR**

Fiscal Years 1995-2023

Source: UW Research, washington.edu/research/wp-content/uploads/Total-Grant-and-Contract-Awards-by-Year-1995-2023.png



The economic impact of the UW's research enterprise is significant. In FY23, the UW's research enterprise generated **\$2.6** billion in the Washington economy and supported and sustained **10,641 jobs** throughout the state.

# **UW RESEARCH IMPACT (FY23)**

Impact	Employment (jobs)	Labor income	Value added	Economic impact
Direct	5,303	\$736,445,473	\$1,032,591,819	\$1,296,762,933
Indirect	2,025	\$202,789,107	\$333,533,725	\$542,818,804
Induced	3,313	\$232,912,884	\$466,806,964	\$737,574,634
Total	10,641	\$1,172,147,464	\$1,832,932,508	\$2,577,156,371

Furthermore, UW Research generated a total of **\$93.5 million** in state (\$63.0 million) and local (\$30.5 million) tax revenue as a result of operations, student spending and visitor spending.

- **Subcounty, general:** UW Research generated a total of \$9.0 million in subcounty general taxes (city taxes) \$1.3 million direct, \$2.2 million indirect and \$5.5 million induced.
- Subcounty special districts: UW Research generated a total of \$14.2 million in subcounty special districts taxes (fire, EMS and school districts) \$2.1 million direct, \$3.5 million indirect and \$8.7 million induced.
- *County:* UW Research generated a total of \$7.3 million in county tax revenue \$1.1 million direct, \$1.8 million indirect and \$4.4 million induced.
- **State:** UW Research generated a total of \$63.0 million in state tax revenue \$13.2 million direct, \$14.8 million indirect and \$35.1 million induced.

# **UW RESEARCH TOTAL LOCAL AND STATE TAX IMPACT (FY23)**

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Direct	\$1,326,136	\$2,068,853	\$1,067,375	\$13,157,082	\$17,619,446
Indirect	\$2,202,864	\$3,484,496	\$1,778,825	\$14,783,389	\$22,249,574
Induced	\$5,477,610	\$8,677,181	\$4,424,833	\$35,090,428	\$53,670,052
Total	\$9,006,610	\$14,230,530	\$7,271,033	\$63,030,899	\$93,539,072

#### CoMotion

- 2,014 licenses created in the last five years
- 52 startups spun out by CoMotion in the last five years
- \$19.9 billion cumulative impact of CoMotion startups over the past 36 years
- As of July 2023: 110 active UW spinoffs, with over 1,071 employees

Recently, the UW was rated the No. 1 most innovative public university in the world by Reuters,<sup>2</sup> which examined scholarly articles and patent applications. The existence of an anchor institution, like the UW in the state of Washington, creates an advantage for new businesses. Through alignment with the University, entrepreneurs can access faculty expertise and talent and enjoy a pipeline for future employees. The UW takes this role seriously.

CoMotion, the UW's collaborative innovation hub, partners with members of the UW community on their innovation journey, providing tools, connections and acumen to transform ideas into economic and societal impact. CoMotion supports innovation through training, IP advising and protection, funding, and mentorship, as well as licensing, startup creation and incubation. Its CoMotion Labs incubators provide entrepreneurs access to critical infrastructure, learning, mentoring and networking across three locations on the Seattle campus. CoMotion helps bring disruptive ideas to market as efficiently as possible – to inspire meaningful change, improve lives and elevate the global impact of UW research. The economic impact of CoMotion startups over the past 36 years has totaled \$19.9 billion – \$8.6 billion of which was generated in just the past 10 years.

# **COMOTION BY THE NUMBERS (FY2019-2023)**

	FY2019	FY2020	FY2021	FY2022	FY2023
Disclosures	287	300	277	274	272
U.S. patent applications	389	440	445	433	432
U.S. patents issued	72	114	88	73	87
Startups	14	13	9	12	4
License agreements	411	456	413	461	273
SBIR/STTR awarded*	34	42	49	24	7
SBIR/STTR award amount*	\$21,377,561	\$30,556,576	\$29,872,674	\$17,283,341	\$6,070,772

<sup>\*</sup>FY23 Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR), collectively the Small Business Programs, are also known as America's Seed Fund. Award data through September 2022.

Source: CoMotion

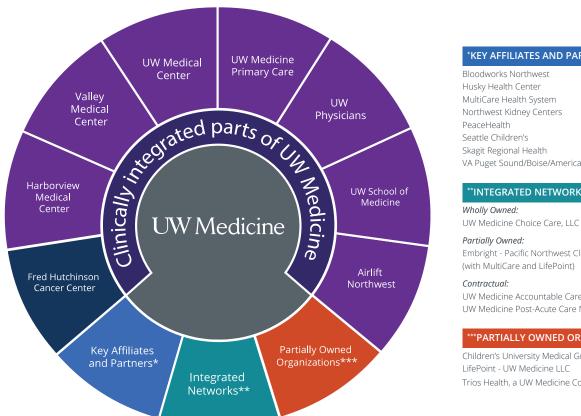
<sup>&</sup>lt;sup>2</sup> Source: David M. Ewalt, "The World's Most Innovative Universities 2019," Reuters Top 100, reuters.com/graphics/AMERS-REUTERS%20 RANKING-INNOVATIVE-UNIVERSITIES/0100B2JP1W1/

# **UW Medicine**

- \$12.5 billion in economic impact
- \$588.3 million generated in state and local tax revenue
- \$836 million in total undercompensated and uncompensated care for FY23
- 60,717 jobs created and sustained
- 27,684 employees
- 5,045 students and trainees

UW Medicine's culture of innovation and collaboration fosters excellence in patient care, medical research and teaching, earning respect and recognition from organizations nationwide. The Puget Sound region and the Pacific Northwest depend on UW Medicine for high-quality patient care, research and innovation, and educating the health-care workforce of the future. UW Medicine and its affiliations span the state and beyond.

#### **UW MEDICINE AND ITS AFFILIATIONS**



#### **\*KEY AFFILIATES AND PARTNERS**

Husky Health Center MultiCare Health System Northwest Kidney Centers Skagit Regional Health VA Puget Sound/Boise/American Lake

#### \*\*INTEGRATED NETWORKS

Embright - Pacific Northwest Clinically Integrated Network (with MultiCare and LifePoint)

UW Medicine Accountable Care Network UW Medicine Post-Acute Care Network

#### \*\*PARTIALLY OWNED ORGANIZATIONS

Children's University Medical Group (with Seattle Children's) LifePoint - UW Medicine LLC

Trios Health, a UW Medicine Community Health Partner

Source: UW Medicine

The UW School of Medicine is consistently recognized for excellence in training primary care physicians and advancing medical knowledge through scientific research. In addition, the school partners with other universities to educate students throughout Washington, Wyoming, Alaska, Montana and Idaho (the WWAMI program). WWAMI is one of the country's most innovative medical training programs to grow the physician workforce in communities across these five states.

#### **Economic impact of UW Medicine**

The economic impact of UW Medicine in FY23 totaled \$12.5 billion. This is a 31.4% increase from FY18.

- *Operations:* UW Medicine operations and capital spending contributed a total of \$11.9 billion as a result of operational spending. UW Medicine's operations generated \$5.3 billion in direct economic impact, \$2.1 billion in indirect economic impact and \$4.4 billion in induced economic impact.
- **Student spending:** UW Medicine students contributed a total of \$145.7 million as a result of their spending. They generated \$98.6 million in direct economic impact, \$16.9 million in indirect economic impact and \$30.1 million in induced economic impact.
- *Visitor spending:* UW Medicine visitor spending contributed a total of \$479.4 million. Visitors to UW Medicine's hospitals and clinics generated \$262.1 million in direct economic impact, \$119.1 million in indirect economic impact and \$98.2 million in induced economic impact

# **ECONOMIC IMPACT OF UW MEDICINE (FY23)**

Impact	Operational impact	Student impact	Visitor impact	Combined impact
Direct	\$5,338,313,927	\$98,644,399	\$262,079,701	\$5,699,038,027
Indirect	\$2,122,876,465	\$16,873,523	\$119,113,227	\$2,258,863,215
Induced	\$4,426,165,148	\$30,141,374	\$98,173,099	\$4,554,479,621
Total	\$11,887,355,540	\$145,659,296	\$479,366,027	\$12,512,380,863

Source: Parker Strategy Group using IMPLAN with data provided by the UW

#### **Employment impact of UW Medicine**

In FY23, UW Medicine supported a combined total of 60,829 full-time and part-time jobs throughout the state.

- *Operations:* UW Medicine operations supported and sustained a total of **56,584 jobs** 27,684 direct jobs, 9,028 indirect jobs and 19,872 induced jobs.
- **Student spending:** UW Medicine students supported and sustained a total of **1,062 jobs** as a result of their spending 863 direct jobs, 63 indirect jobs and 136 induced jobs.
- *Visitor spending:* Visitors to UW Medicine and its clinics and hospitals supported and sustained a total of **3,183 jobs** as a result of their spending 2,319 direct jobs, 423 indirect jobs and 441 induced jobs.

# **EMPLOYMENT IMPACT OF UW MEDICINE IN FY23 (JOBS)**

Impact	Operational impact	Student impact	Visitor impact	Combined impact
Direct	27,684	863	2,319	30,866
Indirect	9,028	63	423	9,514
Induced	19,872	136	441	20,449
Total	56,584	1,062	3,183	60,829

Source: Parker Strategy Group using IMPLAN with data provided by the UW

#### UW Medicine state and local tax impact

UW Medicine generated a total of **\$588.3 million** in state and local tax revenue in FY23 as a result of operations, student spending and visitor spending.

- **Subcounty, general:** UW Medicine generated a total of \$56.6 million in subcounty general taxes (city taxes) \$11.3 million direct, \$11.4 million indirect and \$33.8 million induced.
- Subcounty special districts: UW Medicine generated a total of \$89.4 million in subcounty special districts taxes (fire, EMS and school districts) \$17.7 million direct, \$18.0 million indirect and \$53.6 million induced.
- *County:* UW Medicine generated a total of \$45.7 million in county tax revenue \$9.1 million direct, \$9.2 million indirect and \$27.3 million induced.
- *State:* UW Medicine generated a total of \$396.7 million in state tax revenue \$105.0 million direct, \$74.9 million indirect and \$216.7 million induced.

# **UW MEDICINE TOTAL LOCAL AND STATE TAX IMPACT (FY23)**

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Direct	\$11,329,575	\$17,735,273	\$9,126,966	\$105,029,015	\$143,220,829
Indirect	\$11,392,854	\$18,032,656	\$9,201,259	\$74,946,669	\$113,573,438
Induced	\$33,828,903	\$53,588,987	\$27,327,113	\$216,711,256	\$331,456,259
Total	\$56,551,332	\$89,356,916	\$45,655,338	\$396,686,940	\$588,250,526

#### WWAMI medical education program

#### Combined impact across five WWAMI states

- \$159 million in economic impact due to operations
- 625 jobs created and sustained due to operations
- \$7.8 million generated in state and local tax revenue due to operations
- 805 medical residents generated \$170 million in economic impact
- 6,534 alumni practicing throughout the WWAMI region

#### Washington impact

- \$117.3 million in economic impact due to operations
- 378 jobs created and sustained due to operations
- \$6.1 million generated in state and local tax revenue due to operations
- 445 medical residents (259 western Washington and 186 eastern Washington) generated \$93.1 million in economic impact
- 2,302 alumni practicing in the state

#### Wyoming impact

- \$6.8 million in economic impact due to operations
- 41 jobs created and sustained due to operations
- \$198,000 generated in state and local tax revenue due to operations
- 45 medical residents generated \$8.9 million in economic impact
- 110 alumni practicing in the state

#### Alaska impact

- \$8.6 million in economic impact due to operations
- 52 jobs created and sustained due to operations
- \$225,000 generated in state and local tax revenue due to operations
- 38 medical residents generated \$6.9 million in economic impact
- 167 alumni practicing in the state

#### Montana impact

- \$11.0 million in economic impact due to operations
- 66 jobs created and sustained due to operations
- \$499,000 generated in state and local tax revenue due to operations
- 96 medical residents generated \$19.4 million in economic impact
- 259 alumni practicing in the state

#### Idaho impact

- \$15.3 million in economic impact due to operations
- 88 jobs created and sustained due to operations
- \$751,000 generated in state and local tax revenue due to operations
- 181 medical residents generated \$41.7 million in economic impact
- 263 alumni practicing in the state











WWAMI is the UW School of Medicine's one-of-a-kind, multistate medical education program. The acronym WWAMI stands for the states served by the school: Washington, Wyoming, Alaska, Montana and Idaho. The school established the program in 1971 to address the shortage of physicians in these largely rural and medically underserved states. WWAMI allows students to complete their medical education through a collaborative network of universities and clinical training sites across the five states, promoting community-based education and encouraging graduates to practice in their home regions. This program is noted for its innovative approach to medical training and its emphases on primary care, rural health and family medicine. Students have access to a variety of settings for clinical training, such as a Level I trauma center in Seattle, WA, a small primary care clinic in Libby, MT, and opportunities to work with Alaska Natives in Anchorage, AK.

The operational impact of the program is calculated based on dollars spent across all five states at the individual state level. The impact includes operations of the program and graduate medical education costs broken out by the geography of where they are paid. It is important to note that costs are shared between the UW and partner institutions and hospitals, and therefore not all impact can be attributed to spending by the UW.

# COMBINED WWAMI OPERATIONS IMPACT ACROSS ALL FIVE STATES (FY23)

Impact	Employment (jobs)	Economic impact	Local and state tax impact
Direct	314	\$90,144,990	\$4,072,964
Indirect	124	\$29,967,372	\$1,048,797
Induced	187	\$38,882,118	\$2,640,614
Total	625	\$158,994,480	\$7,762,375

Source: Parker Strategy Group using IMPLAN with data provided by the UW

# **WASHINGTON WWAMI OPERATIONS IMPACT (FY23)**

Impact	Employment (jobs)	Economic impact	Local and state tax impact
Direct	162	\$65,995,083	\$3,100,260
Indirect	82	\$21,561,893	\$828,332
Induced	134	\$29,711,061	\$2,161,285
Total	378	\$117,268,037	\$6,089,877

# **WYOMING WWAMI OPERATIONS IMPACT (FY23)**

Impact	Employment (jobs)	Economic impact	Local and state tax impact
Direct	28	\$4,378,213	\$110,866
Indirect	7	\$1,409,337	\$28,305
Induced	6	\$1,024,818	\$58,342
Total	41	\$6,812,368	\$197,513

Source: Parker Strategy Group using IMPLAN with data provided by the UW

# **ALASKA WWAMI OPERATIONS IMPACT (FY23)**

Impact	Employment (jobs)	Economic impact	Local and state tax impact
Direct	34	\$5,142,887	\$108,635
Indirect	6	\$1,320,189	\$27,710
Induced	12	\$2,146,236	\$88,301
Total	52	\$8,609,312	\$224,646

Source: Parker Strategy Group using IMPLAN with data provided by the UW

# **MONTANA WWAMI OPERATIONS IMPACT (FY23)**

Impact	Employment (jobs)	Economic impact	Local and state tax impact
Direct	39	\$6,145,642	\$322,504
Indirect	12	\$2,337,896	\$62,066
Induced	15	\$2,500,289	\$114,604
Total	66	\$10,983,827	\$499,174

Source: Parker Strategy Group using IMPLAN with data provided by the UW

# **IDAHO WWAMI OPERATIONS IMPACT (FY23)**

Impact	Employment (jobs)	Economic impact	Local and state tax impact
Direct	51	\$8,483,165	\$430,699
Indirect	17	\$3,338,057	\$102,384
Induced	20	\$3,499,714	\$218,082
Total	88	\$15,320,936	\$751,165

After graduating from medical school, students pursue their medical residency for training. The impact of medical residents training and practicing across the five WWAMI states totals \$170 million. These 805 residents support an additional 1,199 jobs and generate an additional \$6.1 million in local and state tax impact.

# **WWAMI RESIDENTS' IMPACT (FY23)**

	Number of residents*	Average resident salary**	Total economic impact***	Total jobs impact***	Total local and state tax impact***
Alaska	38	\$55,237	\$6,907,401	52	\$127,710
Idaho	181	\$52,365	\$41,673,040	292	\$1,445,222
Montana	96	\$50,434	\$19,395,581	149	\$752,939
Washington	445	\$55,652	\$93,128,225	641	\$3,576,218
Wyoming	45	\$56,008	\$8,876,629	65	\$208,680
Total	805		\$169,980,876	1,199	\$6,110,769

\*Source: UW Medicine's WWAMI program

The 3,815 alumni of WWAMI still within the five-state region continue to make an impact after graduation and residency training. They play a vital role in strengthening the health-care infrastructure for patients throughout the program's footprint.

# WWAMI PHYSICIANS PRACTICING THROUGHOUT THE FIVE-STATE REGION

	Washington WWAMI	Wyoming WWAMI	Alaska WWAMI	Montana WWAMI	ldaho WWAMI
Number practicing within specific state	2,302	110	167	259	263
Number practicing within WWAMI region	2,514	157	281	451	412
Percentage practicing within WWAMI region	57.7%	56.9%	59.4%	61.8%	59.3%

Source: The UW WWAMI program

<sup>\*\*</sup>Source for salary data: <a href="mailto:aamc.org/data-reports/students-residents/report/aamc-survey-resident/fellow-stipends-and-benefits">aamc.org/data-reports/students-residents/report/aamc-survey-resident/fellow-stipends-and-benefits</a>
\*\*\*Source: Parker Strategy Group using IMPLAN with data provided by the UW's WWAMI program

#### **UW** alumni

- 586,641 alumni throughout the world
- 375,625 alumni living and working in Washington
- 1 out of every 10 workers in Washington is a UW graduate
- 64% of alumni live and work in Washington
- \$454.6 billion generated by all alumni over their careers in the Washington economy
- 2 million jobs supported and sustained statewide

The value of a UW degree lasts a lifetime, and it continues to pay dividends for individuals and for the health of Washington's economy by providing access to a talented and skilled workforce. Assuming an average career span of 35 years, the UW's 375,625 alumni living and working in Washington as of FY23 will support and sustain an additional 2 million jobs due to spending on goods and services in the state, thereby creating a combined total of 2.4 million jobs including the alumni themselves and their resulting impact. Washington-based alumni will generate an estimated \$454.6 billion in economic impact throughout the state over their career spans because of their degrees. These alumni will contribute a total of \$33 billion in local (\$11.4 billion) and state (\$21.6 billion) taxes.

# WASHINGTON-BASED UW ALUMNI IMPACT OVER CAREER SPAN

Impact	Employment (jobs)	Labor income	Value added	Economic impact
Undergraduate alumni	1,453,825	\$104,372,241,650	\$209,305,023,131	\$330,411,343,227
Graduate alumni	562,071	\$39,998,298,715	\$78,826,518,460	\$124,211,343,612
Total	2,015,896	\$144,370,540,365	\$288,131,541,591	\$454,622,686,839

 $Source: Parker\ Strategy\ Group\ using\ IMPLAN\ with\ data\ provided\ by\ the\ UW$ 

# WASHINGTON-BASED UW ALUMNI LOCAL AND STATE TAX IMPACT OVER CAREER SPAN

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Undergraduate alumni	\$2,460,541,223	\$3,897,803,481	\$1,987,634,911	\$15,757,809,630	\$24,103,789,245
Graduate alumni	\$908,425,546	\$1,438,986,858	\$733,821,001	\$5,828,405,259	\$8,909,638,664
Total	\$3,368,966,769	\$5,336,790,339	\$2,721,455,912	\$21,586,214,889	\$33,013,427,909



# The UW gives back

Throughout the state of Washington and the world, UW faculty, staff and students are committed to giving back to their communities and being civically engaged. The UW's three campuses – in Bothell, Seattle and Tacoma – are active members of their communities, providing public access to arts and cultural events, sporting events, academic lectures, summer youth programs, and other community events.

Communities throughout Washington benefit from the volunteer time and services provided by UW faculty, staff and students. Based on assumptions derived from the U.S. Census Bureau and the University of Maryland Do Good Institute<sup>3</sup> regarding donation amounts and volunteerism rates by age, income level and employment status, it is estimated that staff, faculty and students gave more than \$22.2 million in FY23 in charitable donations and volunteered for 1.5 million hours valued at \$44.3 million. The combined impact of charitable giving and volunteerism totals \$66.5 million. These benefits are in addition to the \$20.9 billion economic impact generated by the UW for FY23.

#### **UW CHARITABLE GIVING AND VOLUNTEERISM IN FY23**

Charitable giving	UW combined	UW Bothell	UW Tacoma
Staff and faculty charitable giving	\$19,693,514	\$332,517	\$317,612
Student charitable giving	\$2,521,453	\$235,793	\$199,660
Total	\$22,214,966	\$568,309	\$517,272

Volunteerism	UW combined	UW Bothell	UW Tacoma
Staff and faculty volunteerism hours	531,298	8,712	8,573
Student volunteerism hours	946,306	88,493	74,933
Total	1,477,604	97,205	83,506
Staff and faculty volunteerism dollar value	\$15,912,363	\$260,913	\$256,758
Student volunteerism dollar value	\$28,341,871	\$2,650,377	\$2,244,237
Total	\$44,254,234	\$2,911,290	\$2,500,996

# Total value of giving back \$66,469,200

<sup>&</sup>lt;sup>3</sup> For the purposes of this study, it is assumed that 24.9% of staff and faculty donate \$2,064 annually and 14.9% of students donate \$250 each year. Volunteer impacts are based upon assumptions found in the U.S. Census survey of charitable giving, and the value of a volunteer hour (estimated at \$29.95 per hour) was obtained from the University of Maryland Do Good Institute. For the purposes of this breakout analysis, it was assumed that 27.2% of staff and faculty volunteer for 51 hours and 23.3% of students volunteer for 60 hours annually.

#### **UW Athletics**

- \$487.5 million in economic impact generated
   1,990 jobs supported and sustained
- \$32.3 million in state and local taxes contributed
   748,452 tickets sold

The University of Washington's Husky Athletics currently competes at the National Collegiate Athletic Association (NCAA) Division I level as a member of the Big Ten Conference.\* With 22 varsity teams and a loyal fan base, UW Athletics' impact continues to grow. The economic impact of UW Athletics includes both operations and game day attendance. In FY23, Husky Athletics generated an estimated economic impact of \$487.5 million and supported and sustained 1,990 jobs as a result of operations and game day spending by visitors.

It is estimated that **\$178.6** million was generated in FY23 from game-related spending by fans attending sporting events. In FY23, Husky Athletics sold approximately 748,452 tickets and collected a total of \$141.3 million in revenue across all sports, attributable to ticket sales, licensing, sponsorships and NCAA distributions.

# **UW ATHLETICS IMPACT (FY23)**

Impact	Employment	Labor income	Value added	Economic impact
Direct	1,078	\$90,845,690	\$140,181,144	\$255,107,559
Indirect	451	\$38,978,952	\$73,318,274	\$129,734,583
Induced	461	\$32,417,962	\$64,967,633	\$102,653,483
Total	1,990	\$162,242,604	\$278,467,051	\$487,495,625

Source: Parker Strategy Group using IMPLAN with data provided by the UW

UW Athletics generated a total of \$32.3 million in state and local tax revenue as a result of operations, student spending and visitor spending in FY23.

- *Subcounty, general:* UW Athletics generated a total of \$3.3 million in subcounty general taxes (city taxes) \$2 million direct, \$548,858 indirect and \$762,195 induced.
- Subcounty special districts: UW Athletics generated a total of \$5.2 million in subcounty special districts taxes (fire, EMS and school districts) \$3.1 million direct, \$868,724 indirect and \$1.2 million induced.
- *County:* UW Athletics generated a total of \$2.6 million in county tax revenue \$1.6 million direct, \$443,275 indirect and \$615,704 induced.
- *State:* UW Athletics generated a total of \$21.1 million in state tax revenue \$12.6 million direct, \$3.6 million indirect and \$4.9 million induced.

\*In FY23, the UW competed in the Pac-12 Conference.

# **UW ATHLETICS LOCAL AND STATE TAX IMPACT (FY23)**

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Direct	\$1,968,605	\$3,118,157	\$1,590,196	\$12,644,835	\$19,321,793
Indirect	\$548,858	\$868,724	\$443,275	\$3,611,537	\$5,472,394
Induced	\$762,195	\$1,207,406	\$615,704	\$4,882,804	\$7,468,109
Total	\$3,279,658	\$5,194,287	\$2,649,175	\$21,139,176	\$32,262,296

Source: Parker Strategy Group using IMPLAN with data provided by the UW

# The University of Washington Bothell

- \$394.2 million generated in economic impact in FY23
- 2,539 jobs created and sustained
- \$27.6 million generated in state and local tax revenues
- 5,816 students

UW Bothell, established by approval of the state legislature in 1989, has been providing educational access and opportunity to students from all over the globe for over 30 years. With over 55 undergraduate and graduate programs, UW Bothell provides students of all backgrounds and experiences access to a UW degree for a great value. It was recently ranked No. 2 by SmartAsset on its list of Best Value Colleges in the state of Washington; and in 2022–2023, 70% of UW Bothell undergraduate students and 66% of its graduate students graduated debt-free. Not only does this value create generational change in access to a world-class education, but the wages of UW Bothell alumni with bachelor's degrees are second highest in the state compared to other graduates with comparable degrees. Ninety-two percent of UW Bothell students are from Washington state, and the vast majority stay in-state after graduation. The trajectory of opportunity and access to high-paying careers, in addition to the operations and capital expenditures of the campus itself, result in an impressive economic impact and significant annual tax revenue.

<sup>&</sup>lt;sup>4</sup> Sources: UW Bothell Office of Financial Aid & Scholarships; Educational Research & Data Center (2023); and SmartAsset (2023)

#### **UW Bothell economic impact**

The economic impact of UW Bothell in FY23 totaled **\$394.2 million** in the state of Washington. This is an increase in impact from the previous economic impact study completed.

- *Operations:* UW Bothell operations and capital spending contributed a total of **\$194.5** million because of operational spending \$87.7 million direct, \$33.3 million indirect and \$73.4 million induced economic impact.
- **Student spending:** UW Bothell students contributed a total of **\$181.1 million** to the economy because of their spending \$122.4 million direct, \$21.1 million indirect and \$37.6 million induced economic impact.
- *Visitor spending:* UW Bothell visitor spending contributed a total of **\$18.6 million** \$10.9 million direct, \$4.1 million indirect and \$3.6 million induced economic impact.

# **UW BOTHELL ECONOMIC IMPACT (FY23)**

	Operational impact	Student impact	Visitor impact	Combined impact
Direct	\$87,725,913	\$122,443,101	\$10,893,857	\$221,062,871
Indirect	\$33,326,948	\$21,103,858	\$4,057,984	\$58,488,790
Induced	\$73,413,107	\$37,560,143	\$3,628,957	\$114,602,207
Total	\$194,465,968	\$181,107,102	\$18,580,798	\$394,153,868

Source: Parker Strategy Group using IMPLAN with data provided by the UW

#### **UW Bothell employment impact**

UW Bothell supported and sustained a total of **2,539 jobs** in the state of Washington. This is an increase in impact from the previous economic impact study completed.

- *Operations:* UW Bothell operations and capital spending supported and sustained a total of 1,101 jobs 647 direct jobs, 125 indirect jobs and 329 induced jobs.
- **Student spending:** UW Bothell students supported and sustained a total of 1,327 jobs as a result of their spending 1,080 direct jobs, 78 indirect jobs and 169 induced jobs.
- *Visitor spending:* Visitors to UW Bothell supported and sustained a total of 111 jobs as a result of their spending 80 direct jobs, 15 indirect jobs and 16 induced jobs.

# **UW BOTHELL EMPLOYMENT IMPACT IN FY23 (JOBS)**

	Operational impact	Student impact	Visitor impact	Combined impact
Direct	647	1,080	80	1,807
Indirect	125	78	15	218
Induced	329	169	16	514
Total	1,101	1,327	111	2,539

Source: Parker Strategy Group using IMPLAN with data provided by the UW

#### UW Bothell state and local tax impact

As a result of UW Bothell's operational and capital expenditures, student spending, and visitor spending, the campus generated an estimated **\$27.6 million** in combined state and local taxes.

- *Subcounty, general:* UW Bothell generated a total of \$2.8 million in subcounty general taxes (city taxes) \$1.7 million direct, \$245,923 indirect and \$854,463 induced.
- *Subcounty special districts:* UW Bothell generated a total of \$4.5 million in subcounty special districts taxes (fire, EMS and school districts) \$2.7 million direct, \$399,362 indirect and \$1.4 million induced.
- *County:* UW Bothell generated a total of \$2.3 million in county tax revenue \$1.4 million direct, \$201,229 indirect and \$699,329 induced.
- *State:* UW Bothell generated a total of \$18.0 million in state tax revenue \$11.0 million direct, \$1.6 million indirect and \$5.4 million induced.

# **UW BOTHELL LOCAL AND STATE TAX IMPACT (FY23)**

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Direct	\$1,692,932	\$2,748,390	\$1,385,149	\$11,024,510	\$16,850,981
Indirect	\$245,923	\$399,362	\$201,229	\$1,586,876	\$2,433,390
Induced	\$854,463	\$1,388,644	\$699,329	\$5,403,064	\$8,345,500
Total	\$2,793,318	\$4,536,396	\$2,285,707	\$18,014,450	\$27,629,871

# The University of Washington Tacoma

- \$359.0 million generated in economic impact in FY23
- 2,277 jobs created and sustained
- \$24.5 million generated in state and local tax revenues
- 5,300+ students

Since 1990, UW Tacoma has been enabling student economic mobility and providing a personalized educational experience. UW Tacoma has conferred over 32,000 degrees and certificates to a diverse student population; currently, over 50% of students are first-to-college or first-to-degree, and over 60% are students of color. With a choice among over 60 undergraduate majors, minors and study options along with 15 graduate programs, UW Tacoma graduates are filling high-demand jobs for Washington's economy. Ranked No. 1 for social mobility in Washington state by U.S. News & World Report<sup>5</sup> and with eight in ten alumni staying in Washington, UW Tacoma makes an impact on the state and the region.<sup>6</sup>

#### **UW Tacoma economic impact**

The economic impact of UW Tacoma in FY23 totaled **\$359.0 million** in the state of Washington. This is an increase in impact from the previous economic impact study completed.

- *Operations:* UW Tacoma operations and capital spending contributed a total of \$192.3 million as a result of operational spending \$87.5 million direct, \$33.2 million indirect and \$71.5 million induced economic impact.
- **Student spending:** UW Tacoma students contributed a total of **\$150.8 million** to the economy as a result of their spending \$101.4 million direct, \$17.8 million indirect and \$31.6 million induced economic impact.
- *Visitor spending:* UW Tacoma visitor spending contributed a total of \$15.9 million \$9.3 million direct, \$3.5 million indirect and \$3.1 million induced economic impact.

# **UW TACOMA ECONOMIC IMPACT (FY23)**

	Operational impact	Student impact	Visitor impact	Combined impact
Direct	\$87,516,403	\$101,449,759	\$9,349,252	\$198,315,414
Indirect	\$33,247,356	\$17,763,927	\$3,482,624	\$54,493,907
Induced	\$71,549,675	\$31,559,733	\$3,114,424	\$106,223,832
Total	\$192,313,434	\$150,773,419	\$15,946,300	\$359,033,153

<sup>&</sup>lt;sup>5</sup> Source: https://www.usnews.com/best-colleges/rankings/regional-universities-west

<sup>&</sup>lt;sup>6</sup> Sources: About UW Tacoma web page (tacoma.uw.edu/home/about-university-washington-tacoma) and University of Washington Tacoma 2023-24 Campus Facts (tacoma.uw.edu/sites/default/files/2023-11/UW-Tacoma Fact-Card-Aut2023 web 0.pdf)

#### **UW Tacoma employment impact**

UW Tacoma supported and sustained a total of **2,277** jobs in the state of Washington. This is an increase in impact from the previous economic impact study completed.

- *Operations:* UW Tacoma operations and capital spending supported and sustained a total of **1,064 jobs** as a result of operational spending 618 direct jobs, 125 indirect jobs and 321 induced jobs.
- **Student spending:** UW Tacoma students contributed a total of **1,117 jobs** to the economy as a result of their spending 909 direct jobs, 66 indirect jobs and 142 induced jobs.
- *Visitor spending:* UW Tacoma visitor spending contributed a total of **96 jobs** 69 direct jobs, 13 indirect jobs and 14 induced jobs.

# **UW TACOMA EMPLOYMENT IMPACT IN FY23 (JOBS)**

	Operational impact	Student impact	Visitor impact	Combined impact
Direct	618	909	69	1,596
Indirect	125	66	13	204
Induced	321	142	14	477
Total	1,064	1,117	96	2,277

#### UW Tacoma state and local tax impact

As a result of UW Tacoma's operational and capital expenditures, student spending, and visitor spending, the campus generated an estimated **\$24.5 million** in combined state and local taxes.

- **Subcounty, general:** UW Tacoma generated a total of \$2.5 million in subcounty general taxes (city taxes) \$1.4 million direct, \$226,118 indirect and \$790,925 induced.
- **Subcounty special districts:** UW Tacoma generated a total of \$3.9 million in subcounty special districts taxes (fire, EMS and school districts) \$2.3 million direct, \$357,937 indirect and \$1.3 million induced.
- *County:* UW Tacoma generated a total of \$2.0 million in county tax revenue \$1.2 million direct, \$182,623 indirect and \$638,912 induced.
- *State:* UW Tacoma generated a total of \$16.1 million in state tax revenue \$9.6 million direct, \$1.5 million indirect and \$5.1 million induced.

# **UW TACOMA LOCAL AND STATE TAX IMPACT (FY23)**

Impact	Subcounty, general	Subcounty special districts	County	State	Total
Direct	\$1,443,398	\$2,283,773	\$1,165,618	\$9,583,254	\$14,476,043
Indirect	\$226,118	\$357,937	\$182,623	\$1,477,549	\$2,244,227
Induced	\$790,925	\$1,252,918	\$638,912	\$5,066,889	\$7,749,644
Total	\$2,460,441	\$3,894,628	\$1,987,153	\$16,127,692	\$24,469,914

# **Appendix A: Terms and definitions**

**ARRA:** The American Recovery and Reinvestment Act of 2009 (ARRA) was fiscal legislation passed by the U.S. Congress to alleviate the Great Recession of 2008.

**Direct economic impact:** All direct expenditures made by the UW for its operations. These include operating expenditures, capital expenditures, and pay and benefits expenditures.

**Direct employment:** Total number of employees, both full-time and part-time, at the UW based on full-time equivalents (FTEs).

**Dollar year:** Presented in 2024 dollars.

**Government revenue/state and local tax impact:** Government revenue or tax revenue that is collected by governmental units at the state and local levels in addition to those revenues paid directly by the UW. This impact includes taxes paid directly – by the UW itself, by employees of the UW and by vendors who sell products to the UW – and also taxes paid at the household level.

**Indirect economic impact:** Includes the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money is spent outside of the local economy, either through imports or by payments to value added (multiplier effect).

**Indirect employment:** Additional jobs created as a result of the UW's economic impact. Local companies or vendors that provide goods and services to the UW increase their number of employees as purchasing increases, thus creating an employment multiplier.

**Induced economic impact:** The response by an economy to an initial change (direct effect) that occurs through respending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not lost to the regional economy. This money is recirculated through household-spending patterns, causing further local economic activity (multiplier effect).

**Induced employment:** Additional jobs created as a result of household spending by employees of the UW and employees of vendors. This is another wave of the employment multiplier.

**Multiplier effect:** The additional economic impact created as a result of the UW's direct spending. Local companies that provide goods and services to the UW increase their purchasing by creating a multiplier (indirect/supply-chain impacts). Household spending generated by employees of the UW and the UW's suppliers creates a third wave of multiplier impact (induced/household-spending impacts). The multipliers in this study are derived by IMPLAN.

Study year: FY2023.

**Subcounty general taxes:** Includes city and township taxes.

**Subcounty special districts taxes:** Includes city, fire, police, emergency medical services and other special taxes levied at the local level.

**Total economic impact:** Includes spending on operations, capital expenditures, labor income expenditures and value added to the economy as a result of expenditures made by the UW. It is the combined impact of direct, indirect and induced impacts.

**Value added:** The total market value of all final goods and services produced within a region in a given period of time (usually a quarter or year). It is the sum of the intermediate stages of production.

# Appendix B: Data and methods

Data used to complete the University of Washington contribution analysis was provided by the UW Office of Finance, Planning and Budgeting for the Bothell, Seattle and Tacoma campuses; UW Medicine; WWAMI; UW Research; CoMotion; UW Athletics; UW Professional and Continuing Education; and the UW Alumni Association. Data supplied included operating expenditures, three-year capital spending averages, total employees (including graduate student employees) and direct taxes paid. Primary and secondary data were used to complete the input-output models in IMPLAN. The study approach and economic impact findings are a conservative estimate of impact and are based on actual financial information. These findings represent a snapshot of the economic impact of the University of Washington.

#### Overview and the IMPLAN model

The most common and widely accepted methodology for measuring the economic impacts of economic sectors is input-output (I-O) analysis. At its core, an I-O analysis is a table that records the flow of resources to and from companies/organizations and individuals within a region at a given time. For a specified region like a state or the nation, the input-output table accounts for all dollar flows between different sectors of the economy in a given time period. With this information, a model can then follow how a dollar added into one sector is spent and respent in other sectors of the economy, generating outgoing ripples of subsequent economic activity. This chain of economic activity generated by one event is called the "economic multiplier" effect.

The primary tool used in the performance of this study is the I-O model and dataset developed and maintained by IMPLAN Group LLC (formerly Minnesota IMPLAN Group Inc.). IMPLAN is a widely accepted and used software model first developed by the U.S. Forest Service in 1972. The data used in the baseline IMPLAN model and dataset comes largely from federal government databases. The input-output tables themselves come from the Bureau of Economic Analysis. Much of the annual data on labor, wages, final demand and other market variables comes from the Bureau of Labor Statistics, the Census Bureau and other government sources.

Government agencies, companies and researchers use IMPLAN to estimate the economic activities associated with spending in a particular industry or on a particular project. The IMPLAN model extends conventional I-O modeling to include the economic relationships between government, industry and household sectors, allowing IMPLAN to model transfer payments such as taxes.

As explained above, the model works by tracking the flow of resources to and from companies/organizations and individuals within a region. Producers of goods and services must secure labor, raw materials and other services to produce their product. The resources transferred to the owners of that labor or those raw materials and services are then spent to secure additional goods and services or inputs to the products they sell. For example, an organization in a region may develop a company that produces trains with a value of \$1 million. However, to produce that product, they may be required to spend \$500,000 in wages and benefits, \$200,000 to suppliers of parts, \$100,000 for electricity, \$50,000 for transportation of goods and raw materials to and from the plant, and \$50,000 in various professional services associated with operating a business (e.g., attorneys and accountants). The suppliers will, in turn, spend those resources on labor and raw materials necessary to produce the trains. Workers and the owners of the company will buy goods and services from other firms in the area (e.g., restaurants and gas stations). The suppliers, employees and owners of this second tier will, in turn, spend those resources on other goods and services, either within the study region or elsewhere. The cycle continues until all the money leaves the region.

#### IMPLAN methodology

The model uses national production functions for over 450 industries to determine how an industry spends its operating receipts to produce its commodities. These production functions are derived from U.S. Census Bureau data. IMPLAN couples the national production functions with a variety of county-level economic data to determine the impacts at a state and congressional district level. To estimate these regional impacts, IMPLAN combines national industry production functions with county-level economic data. IMPLAN collects data from a variety of economic data sources to generate average output, employment and productivity for each industry in a given county. IMPLAN combines this data to generate a series of economic multipliers for the study area. The multiplier measures the amount of total economic activity generated by a specific industry spending an additional dollar in the study area. Based on these multipliers, IMPLAN generates a series of tables to show the economic event's direct, indirect and induced impacts to gross receipts, or output, within each of the model's more than 450 industries.

The model calculates three types of effects: direct, indirect and induced. The economic impact of the University of Washington is the sum of these three effects.



#### **DIRFCT**

Investment in construction and expenditures for operations



#### INDIRECT

Purchases from local suppliers



#### INDUCED

Household spending from earnings of direct and indirect expenditures

#### Considerations concerning IMPLAN

There are three important points about the use of IMPLAN (or any other input-output model):

- 1. It is a fixed price model. The model assumes that changes in consumption are not limited by capacity and do not affect prices. This simplifying assumption does not cause a problem for the analysis presented here because we are taking a snapshot of the UW in a specific year.
- 2. As in many studies using this type of model, the model does not calculate the direct impacts; the direct impacts reflect actual spending levels and patterns due to the UW. Changing the level of direct spending allows us to calculate the magnitude of the indirect and induced effects associated with the initial level of spending.
- 3. Because the model continues to calculate additional spending until all the money leaves the region (i.e., "leakage"), the larger and more economically diverse the region, the longer it will take for spending to leave the region and the larger the impact is likely to be. For example, employees of the UW may spend some amount of their income on buying a car. If no car manufacturers are in their state or county, this spending will leave the region and the multiplier effect will stop. At the national level, some portion of that same spending by that same individual may go to a national auto producer. Therefore, that spending would lead to more spending at the national level than would be captured by a more regional model. The national impact will be larger than the sum of the individual states, and the individual state impact will be larger than the sum of the impacts in its congressional districts.

# Appendix C: UW regional impact breakout analysis

# The UW's impact on the Seattle-Tacoma-Bellevue Metropolitan Statistical Area (MSA) \$14.4 billion generated in economic impact 67,171 jobs supported and sustained \$666.7 million generated in local and state taxes The UW's impact on the Puget Sound region \$16.9 billion generated in economic impact 90,680 jobs supported and sustained \$779.7 million generated in local and state taxes The UW's impact on the United States \$33.2 billion generated in economic impact 153,000 jobs supported and sustained \$3.4 billion generated in total federal taxes \$1.6 billion generated in local and state taxes

