

University of Washington

2017-19 State Operating Budget Request



September 16, 2016

David Schumacher, Director
Office of Financial Management, State of Washington
300 Insurance Building
Box 43113
Olympia, Washington 98054-3113

Dear David,

SUBJECT: University of Washington (UW) 2017-19 Biennial Operating Budget Request

As requested, we are providing eight copies of the UW's 2017-19 Biennial Operating Budget Request for the Office of Financial Management to consider and distribute as needed. We are mindful of the continuing budget challenges facing the state of Washington and, thus, have limited our budget requests to those we consider the most essential and strategic:

Maintenance Level

1. **Maintenance & Operations:** For the Intellectual House, Burke Museum, Computer Science & Engineering expansion and UW Tacoma Urban Solutions facilities.
2. **WWAMI Spokane Continuation:** To continue the recent increase of 20 UW medical students in Spokane to years three and four of their education program. As you know, the existing biennial budget funds these students for years one and two of the program.
3. **Marijuana Research:** For additional marijuana research funding that was authorized in legislation during the 2015-17 biennium.
4. **Occupational Health Internship Management:** For one full-time staff member to help meet accreditation needs in the Dept. of Environmental and Occupational Health Sciences.

Performance Level

5. **Competitive Compensation and Retention:** For 4 percent salary and benefit increases in FY18 and FY19 for faculty and professional staff. Separate decision packages will be submitted for employees covered under collective bargaining agreements.
6. **Maintenance & Operations:** For the Nano Engineering & Science Building and Life Sciences Building.
7. **WWAMI Spokane Expansion:** To expand the UW's medical student education program in Spokane by an additional 20 students per cohort, starting in FY 2018.
8. **Tri-Campus Student Success Initiative:** To expand programs at all three campuses that improve access, retention, graduation and career preparation, with an emphasis on first generation, low-income, underrepresented minority and transfer students—especially those in STEM fields.
9. **RIDE Expansion Bridge:** To permit RIDE students to spend their second year of dental education in Spokane, rather than returning to Seattle. This program is in partnership with Eastern Washington University.

10. **High-Demand Enrollments:** To expand instructional capacity and enrollment at all three campuses in high-demand fields, such as engineering, computer science, ocean engineering and cyber operations.
 11. **Regenerative Medicine Institute:** To support the Institute's scientific cores, add new faculty, provide pilot grants to leverage federal research grants, support student research training and provide translational bridge awards to convert research breakthroughs into products with commercial potential.
- * **Additional Attachment:** A request for a transportation budget appropriation for a Washington State Research Vessel to be operated by the UW and used by local, state, federal and tribal agencies.

The UW greatly appreciates the opportunity to submit these decision packages, which further our shared goals to promote higher education access and attainment, healthy and safe communities and a prosperous economy. University leadership, faculty, staff and students recognize the pressure you continue to face this biennium. However, we believe that the University's funding has never been more important to protect. The UW remains affordable compared to peers and, importantly, more undergraduates than ever continue to apply for limited positions. Targeted programmatic expansions and investments in new and growing infrastructure will support the University and its contributions to our regional, state, national and international communities.

We are grateful for the significant reinvestment that Governor Inslee and Senate and House leadership made in higher education operating support last biennium. In the coming biennium, per the requirements of Second Engrossed Substitute Senate Bill 5954 (Chapter 36, Laws of 2015), we expect an inflationary adjustment to the state funding provided to backfill net revenue loss from legislatively mandated resident undergraduate tuition reductions. It is clear that tuition rates and offsetting state funding are now inextricably linked; it is also clear that recognition of this is shared by elected officials in Olympia, as well as UW students, faculty and staff in Seattle, Bothell and Tacoma.

During the 2015 and 2016 legislative sessions, all branches of government rallied around the shared understanding that higher education is the primary vehicle for transforming our workforce during this period of economic recovery and beyond. We look forward to working with you throughout the coming budget cycle and sincerely appreciate your advocacy efforts on behalf of public higher education.

Sincerely,

Becka Johnson Poppe
Senior Legislative Analyst, Planning & Budgeting

CC: Ana Mari Cauce, President
Gerald Baldasty, Provost and Executive Vice President
Bernard Dean, Director, State Relations
Sarah Norris Hall, Associate Vice Provost, Planning & Budgeting

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TAB A

- 1. UW Organization Chart**
- 2. Agency Activity Inventory**
- 3. UW Strategic Plan**

Administrative Policy Statements

August 14, 2015

1.1

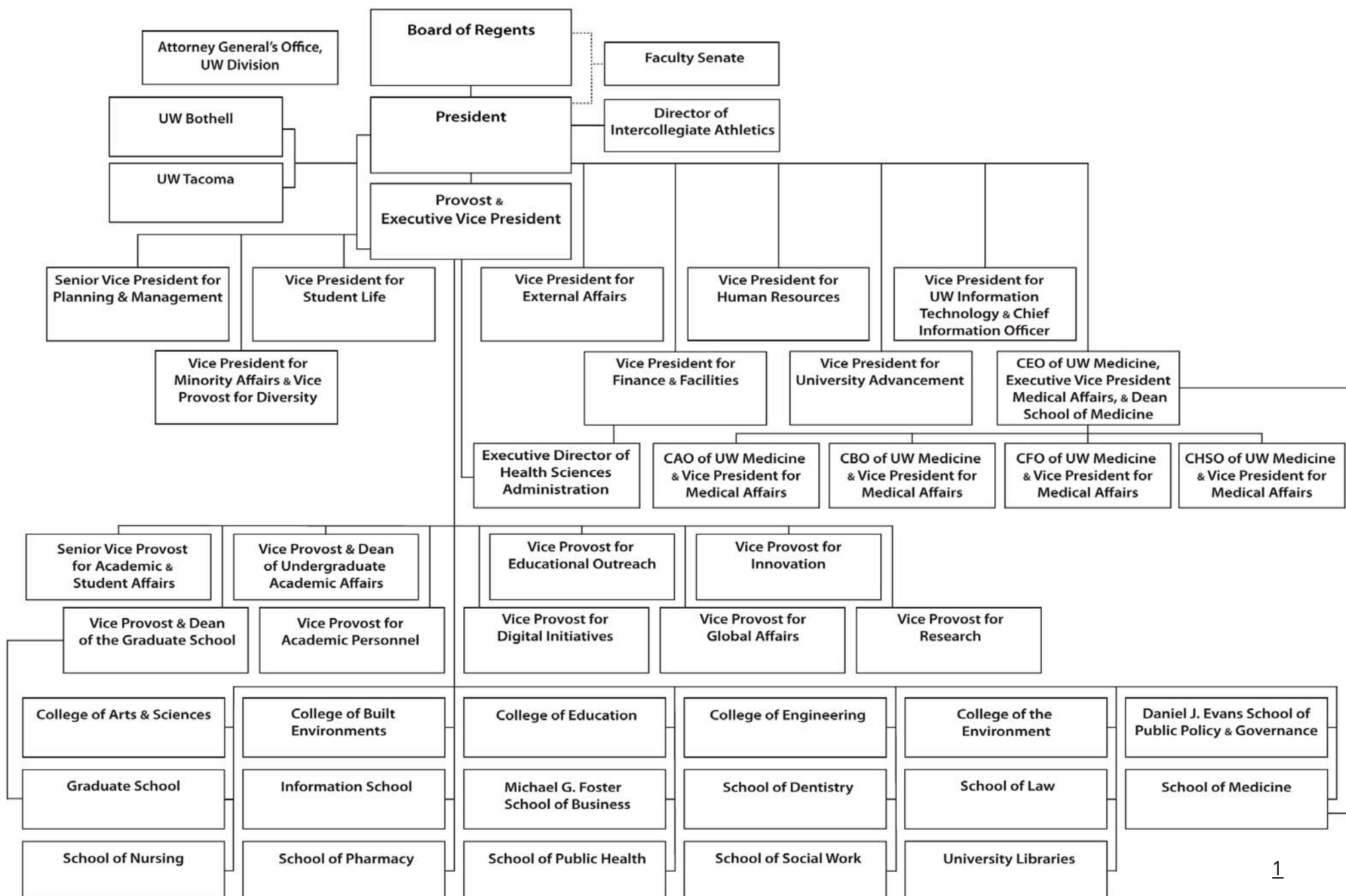
This document will be updated periodically. Please see:

<http://www.washington.edu/admin/rules/policies/APS/01.01.pdf>

University Organization Chart

(Approved by the President by authority of the Board of Regents Governance, Standing Orders, Chapter 1)

This chart reflects the reporting relationships within the University of Washington. Select any box on this chart to link to more detailed information in APS 1.2, University Wide Leadership List.



360 - University of Washington

A001 Agency Management/Administrative Support Services

The administration and management of the university includes governance, executive management, fiscal operations, information services, human resources services, planning, and community relations and development.

Program 080 - Institutional Support

Account	FY	FY	Biennial Total
FTE			
001-1 State	398.2	403.1	400.7
148-6 Non-Appropriated	537.2	535.6	536.4
149-6 Non-Appropriated	195.1	189.7	192.4
FTE Total	1,130.5	1,128.4	1,129.5
001 General Fund			
001-1 State	\$29,879,201	\$31,023,565	\$60,902,766
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$62,458,696	\$65,487,420	\$127,946,116
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$63,733,208	\$62,979,920	\$126,713,128

Statewide Result Area: World Class Education

Statewide Strategy: Provide convenient and efficient post-secondary education

Expected Results

Provide fiscal, human resources, and other information services in support of the university's teaching, research and service missions.

A002 Hospital Operation

The University operates two hospitals: the University of Washington Medical Center (owned by the University) and Harborview Medical Center (owned by King County, but managed by the University). These two hospitals provide patient care and clinical facilities for health sciences training and research. They also train future health care professionals and upgrade the skills of current practitioners.

Program 070 - Hospitals

Account	FY	FY	Biennial Total
FTE			
001-1 State	197.3	199.7	198.5
505-6 Non-Appropriated	4,065.6	4,055.9	4,060.8
FTE Total	4,262.9	4,255.6	4,259.3
001 General Fund			
001-1 State	\$12,957,132	\$13,202,034	\$26,159,166
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$14,199	\$0	\$14,199
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$6,991	\$0	\$6,991
505 University of Washington Hospital			
505-6 Non-Appropriated	\$885,718,000	\$908,198,000	\$1,793,916,000

Statewide Result Area: Healthy and Safe Communities

Statewide Strategy: Provide access to health care

Expected Results

Provide opportunities for clinical education for medical, dental, nursing, and pharmacy students.

A003 Institutional Management

This activity includes institutional management costs that are recorded in program 081 in the state financial systems. These costs include relevant elements of the Board of Regents, the President's Office, the Provost's Office, the Executive Vice President's Office, the Faculty Senate, and the Attorney General's Office.

Program 080 - Institutional Support

Account	FY	FY	Biennial Total
FTE			
001-1 State	62.1	63.0	62.6
148-6 Non-Appropriated	68.4	68.2	68.3
149-6 Non-Appropriated	30.5	29.6	30.1
FTE Total	161.0	160.8	160.9
001 General Fund			
001-1 State	\$4,078,755	\$4,197,690	\$8,276,445
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$9,666,270	\$10,220,580	\$19,886,850
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$9,666,270	\$9,829,080	\$19,495,350

Statewide Result Area: World Class Education**Statewide Strategy: Provide convenient and efficient post-secondary education****Expected Results**

Ensure that university issues are discussed and addressed in a timely manner by the executive management of the university.

A004 Instruction

The Instruction program provides undergraduate and graduate students with the knowledge they need to acquire a degree, prepare for a career, and continue learning after they leave the university.

Program 010 - Instruction

Account	FY	FY	Biennial Total
FTE			
08A-1 State	227.8	261.7	244.8
001-1 State	2,285.3	2,321.0	2,303.2
148-6 Non-Appropriated	3,003.5	2,994.4	2,999.0
149-6 Non-Appropriated	1,199.7	1,161.3	1,180.5
FTE Total	6,716.3	6,738.4	6,727.4
08A Education Legacy Trust Account			
08A-1 State	\$14,999,000	\$14,999,000	\$29,998,000
001 General Fund			
001-1 State	\$225,229,036	\$239,619,574	\$464,848,610
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$372,706,042	\$382,333,000	\$755,039,042
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$374,025,953	\$380,533,000	\$754,558,953

Statewide Result Area: World Class Education**Statewide Strategy: Provide convenient and efficient post-secondary education****Expected Results**

Serve 35,525 State funded student FTEs each year.

Grant approximately 10,000 degrees (Bachelor's, Masters, Professional, and Doctoral combined) each year.

A005 Library Services

Libraries support the instructional, research, and public service functions of the University by providing information in a variety of media.

Program 050 - Library

Account	FY	FY	Biennial Total
FTE			
001-1 State	217.8	220.5	219.2
148-6 Non-Appropriated	14.7	14.6	14.7
149-6 Non-Appropriated	106.8	103.8	105.3
FTE Total	339.3	338.9	339.1
001 General Fund			
001-1 State	\$14,885,963	\$15,623,019	\$30,508,982
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$1,915,209	\$1,879,000	\$3,794,209
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$33,502,153	\$34,010,000	\$67,512,153

Statewide Result Area: World Class Education**Statewide Strategy: Provide convenient and efficient post-secondary education****Expected Results**

Provide access to books, journals, and other materials in support of undergraduate education, graduate education, and research.

A006 Plant Operations

Plant Operations includes functions that preserve and maintain the physical assets of the campus facilities, as well as providing a healthy and secure environment for students, faculty, staff, and visitors. Activities included in this category are utilities, facility maintenance and repair, custodial services, grounds maintenance, university police, environmental health and safety, and plant administration.

Program 090 - Plant Operations and Maintenance

Account	FY	FY	Biennial Total
FTE			
001-1 State	472.6	478.5	475.6
148-6 Non-Appropriated	507.9	506.4	507.2
149-6 Non-Appropriated	231.7	225.2	228.5
FTE Total	1,212.2	1,210.1	1,211.2
001 General Fund			
001-1 State	\$33,520,338	\$41,405,314	\$74,925,652
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$65,321,876	\$69,803,000	\$135,124,876
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$73,556,543	\$75,205,000	\$148,761,543

Statewide Result Area: World Class Education**Statewide Strategy: Provide convenient and efficient post-secondary education****Expected Results**

Provide necessary maintenance and other services for university facilities so that the teaching, research, and service missions of the university can be carried out in a healthy and safe environment.

A007 Primary Support

These administrative functions directly support the instructional, research, and public service activities of the University. Primary support activities include academic computing services, ancillary support services, and academic administration of the University's various schools and colleges.

Program 040 - Primary Support

Account	FY	FY	Biennial Total
FTE			
001-1 State	380.6	384.9	382.8
148-6 Non-Appropriated	507.9	506.4	507.2
149-6 Non-Appropriated	173.3	168.4	170.9
609-1 State	1.0	1.0	1.0
FTE Total	1,062.8	1,060.7	1,061.8
001 General Fund			
001-1 State	\$28,227,850	\$30,288,990	\$58,516,840
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$62,881,633	\$65,144,000	\$128,025,633
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$54,506,130	\$55,176,000	\$109,682,130
609 Medical Aid Account			
609-1 State	\$120,000	\$120,000	\$240,000

Statewide Result Area: World Class Education**Statewide Strategy: Provide convenient and efficient post-secondary education****Expected Results**

Provide the technical infrastructure and support services needed to support instruction and to support students as they pursue their degrees.

A008 Public Service

Through public service activities, the non-instructional services of students, faculty, and staff are available to the citizens of the state. These activities include lectures, concerts, conferences, radio programming, the Mathematics, Engineering and Science Achievement Program, and the Center for International Trade in Forest Products.

Program 030 - Public Service

Account	FY	FY	Biennial Total
FTE			
001-1 State	16.4	16.4	16.4
148-6 Non-Appropriated	73.3	73.0	73.2
149-6 Non-Appropriated	8.1	7.8	8.0
FTE Total	97.8	97.2	97.5
001 General Fund			
001-1 State	\$1,253,108	\$1,348,277	\$2,601,385
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$9,019,215	\$9,399,000	\$18,418,215
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$2,532,937	\$2,566,000	\$5,098,937

Statewide Result Area: World Class Education

Statewide Strategy: Offer university services to the community

Expected Results

Provide opportunities for undergraduate students to get involved in public service activities relevant to their field of study.

A009 Research

State and locally-funded research provides opportunities for faculty and students to maintain and enhance their scholarship and to advance knowledge on many social, environmental, and health care issues of concern to the citizens of the state.

Program 020 - Research

Account	FY	FY	Biennial Total
FTE			
608-1 State	36.5	36.5	36.5
02R-1 State	5.0	5.0	5.0
15M-1 State	1.1	1.1	1.1
09R-1 State	1.0	1.0	1.0
001-1 State	38.1	38.1	38.1
148-6 Non-Appropriated	39.1	39.0	39.1
149-6 Non-Appropriated	8.1	7.8	8.0
609-1 State	41.3	41.3	41.3
FTE Total	170.2	169.8	170.0
608 Accident Account			
608-1 State	\$3,553,000	\$3,626,000	\$7,179,000
02R Aquatic Lands Enhancement Account			
02R-1 State	\$775,000	\$775,000	\$1,550,000
15M Biotoxin Account			
15M-1 State	\$298,000	\$297,000	\$595,000
315 Dedicated Marijuana Account			
315-1 State	\$1,021,000	\$1,021,000	\$2,042,000
09R Economic Development Strategic Reserve Account			
09R-1 State	\$1,506,000	\$1,506,000	\$3,012,000
001 General Fund			
001-1 State	\$4,297,710	\$4,367,699	\$8,665,409
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$4,810,256	\$5,009,000	\$9,819,256
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$2,528,034	\$2,566,000	\$5,094,034
609 Medical Aid Account			
609-1 State	\$3,367,000	\$3,402,000	\$6,769,000

Statewide Result Area: World Class Education**Statewide Strategy: Provide access to high-quality research opportunities****Expected Results**

Provide opportunities for both undergraduate and graduate students to be involved in research. Obtain funding from federal and private sources for sponsored research projects.

A010 Sponsored Research

This program permits public and private organizations to purchase or sponsor research, instruction, or consultative services from the University. These activities are an essential component of the University's graduate education program. (Institutions of Higher Education-Grants and Contracts Account-Nonappropriated)

Program 100 - Sponsored Research and Programs

Account	FY	FY	Biennial Total
FTE			
145-6 Non-Appropriated	7,366.7	7,371.7	7,369.2
145 Institutions of Higher Education - Grant and Contracts Account			
145-6 Non-Appropriated	\$1,309,483,000	\$1,313,184,000	\$2,622,667,000

Statewide Result Area: World Class Education

Statewide Strategy: Provide access to high-quality research opportunities

Expected Results

This program permits public and private organizations to purchase or sponsor research, instruction, or consultative services from the University.

A011 Student Services

Student services include admissions, registration, student records maintenance, academic and career advising, student organizations, and other related services.

Program 060 - Student Services

Account	FY	FY	Biennial Total
FTE			
001-1 State	135.6	137.3	136.5
148-6 Non-Appropriated	131.9	131.5	131.7
149-6 Non-Appropriated	66.5	64.6	65.6
FTE Total	334.0	333.4	333.7
001 General Fund			
001-1 State	\$9,797,842	\$10,564,003	\$20,361,845
148 Institutions of Higher Education - Dedicated Local Account			
148-6 Non-Appropriated	\$16,381,604	\$16,912,000	\$33,293,604
149 Inst of HI ED-Operating Fees Acct			
149-6 Non-Appropriated	\$20,918,781	\$21,179,000	\$42,097,781

Statewide Result Area: World Class Education

Statewide Strategy: Provide support services to college students

Expected Results

Ensure the efficient processing of applications for admittance, registration, grade reports, and other services provided to students.

Grand Total

	FY 2018	FY 2019	Biennial Total
FTE's	22,853.7	22,865.0	22,859.4
GFS	\$364,126,935	\$391,640,165	\$755,767,100
Other	\$3,460,992,000	\$3,517,359,000	\$6,978,351,000
Total	\$3,825,118,935	\$3,908,999,165	\$7,734,118,100

<u>Parameter</u>	<u>Entered As</u>
Budget Period	2017-19
Agency	360
Version	01 - 2017-19 Biennial Budget Request
Result Area	All Result Areas
Activity	All Activities
Program	All Programs
Sub Program	All Sub Programs
Account	All Accounts
Expenditure Authority Type	All Expenditure Authority Types
Theme	All
Sort By	Activity
Display All Account Types	Yes
Include Policy Level	Yes
Include Activity Description	Yes
Include Statewide Result Area	Yes
Include Statewide Strategy	Yes
Include Expected Results Text	Yes
Include Charts	Yes
Chart Type	Line
Include Parameter Selections	Yes
Version Source	Agency

UNIVERSITY *of* WASHINGTON

STRATEGIC PLANNING

SUBMITTED TO THE
OFFICE OF FINANCIAL
MANAGEMENT

September 16, 2016



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Strategic Planning at the University of Washington, 2009-present

In 2009, the University of Washington initiated an in-depth strategic planning initiative to address the challenges of the then-anticipated financial crisis and the opportunities presented by emerging trends in higher education. University leaders consulted over 3,500 members of the community—faculty, students, and staff from the three campuses as well as members of the larger community—for input on emerging trends, threats, opportunities, and future directions. In a time of major change and uncertainty, the process took nothing for granted and was open to results that might prompt rethinking our mission and long-held practices. What resulted, however, was a deep reaffirmation and commitment to staying true to the UW’s core mission, vision, and values. In addition, the process uncovered a strong mandate to build on this core to respond to the challenges and opportunities of the 21st century: to become even more competitive, collaborative, technology-reliant, nimble and diversified; and to provide solutions to society’s most pressing problems.

This strategic planning effort, labeled the Two Years to Two Decades (2y2d) Initiative, reflected the view that the University should be thinking long-term, beyond any given biennium. The 2y2d Initiative was designed to ensure that the University’s near-term actions were in line with a shared sense of how the University community envisioned its future. **The ultimate goal is to actively manage change rather than let change manage the University.**

To implement the 2y2d strategic directions, a steering committee made up of University leaders crafted the Sustainable Academic Business Plan in 2011. As the name implies, the Sustainable Academic Business Plan not only addresses academic excellence, but also is grounded in financial realities. Its long- and short-term goals guide workgroups across the University that are responsible for implementing the 2y2d vision in the near-term, identifying gaps and launching initiatives to fill them. The Plan is regularly updated, most recently in summer 2016.

2y2d, the Sustainable Academic Business Plan, and related efforts have leveraged the University’s collaborative, yet decentralized, culture to empower groups across the three campuses to innovate and achieve common goals in ways unique to each school, college, or unit. Consequently, we have enjoyed wide implementation, strong buy-in, and concrete results. During the most recent round of University accreditation, the Northwest Commission on Colleges and Universities commended our “...robust response to the fiscal downturn, marked by planning that engaged much of the University community. By remaining focused on the University’s mission and values, the institution was able to formulate and implement strategic decisions, and as a result UW has sustained its strong academic reputation.”

As a large and complex institution with multiple stakeholders interested in accountability, the University of Washington has several complementary ways in which we track progress. University accreditation and related metrics ensure we are fulfilling our mission and nearly 80 academic programs track quality measures through specialized, programmatic accreditation. Internal qualitative and quantitative measures ensure we are making progress towards the goals articulated in the Sustainable Academic Business Plan. The University also regularly reports to a variety of stakeholders, including the state and the UW Regents, to provide data requested by these entities.

The University of Washington's Mission, Vision, and Values Serve as the Foundation for Strategic Planning

The 2y2d strategic planning process reaffirmed a commitment to the University of Washington's mission, vision and values. To this foundation, community input from over 3,500 participants added a shared vision of the University of the future. Together, these statements tell us who we are at our core, what is essential to maintain, what we can expect of the future, and how we might change and innovate in ways that balance the timeless with the timely.

Role and Mission of the University

The following UW Role and Mission Statement was drafted by the Board of Regents February 1981 and revised February 1998 and July 2013:

Founded in 1861, the University of Washington is one of the oldest state-supported institutions of higher education on the Pacific coast. The University is comprised of three campuses: the Seattle campus is made up of sixteen schools and colleges whose faculty offer educational opportunities to students ranging from first-year undergraduates through doctoral-level candidates; the Bothell and Tacoma campuses, each developing a distinctive identity and undergoing rapid growth, offer diverse programs to undergraduates and to graduate students.

The primary mission of the University of Washington is the preservation, advancement, and dissemination of knowledge. The University preserves knowledge through its libraries and collections, its courses, and the scholarship of its faculty. It advances new knowledge through many forms of research, inquiry and discussion; and disseminates it through the classroom and the laboratory, scholarly exchanges, creative practice, international education, and public service. As one of the nation's outstanding teaching and research institutions, the University is committed to maintaining an environment for objectivity and imaginative inquiry and for the original scholarship and research that ensure the production of new knowledge in the free exchange of facts, theories, and ideas.

To promote their capacity to make humane and informed decisions, the University fosters an environment in which its students can develop mature and independent judgment and an appreciation of the range and diversity of human achievement. The University cultivates in its students both critical thinking and the effective articulation of that thinking.

As an integral part of a large and diverse community, the University seeks broad representation of and encourages sustained participation in that community by its students, its faculty, and its staff. It serves both non-traditional and traditional students. Through its three-campus system and through educational outreach, evening degree, and distance learning, it extends educational opportunities to many who would not otherwise have access to them.

The academic core of the University of Washington Seattle campus is its College of Arts & Sciences; the teaching and research of the University's many professional schools provide essential complements to these programs in the arts, humanities, social sciences, and natural

and mathematical sciences. Programs in law, oceanography and fisheries, library science, and aeronautics are offered exclusively (in accord with state law) by the University of Washington. In addition, the University of Washington has assumed primary responsibility for the health science fields of dentistry and public health, and offers education and training in medicine for a multi-state region of the Pacific Northwest and Alaska. The schools and colleges of built environments, business, education, engineering, environment, information, nursing, pharmacy, public affairs, and social work, across all three UW campuses, have a long tradition of educating students for service to our region, state, and the nation. These schools and colleges make indispensable contributions to the state and, with the rest of the University, share a long tradition of educating undergraduate and graduate students toward achieving an excellence that well serves the state, the region, and the nation.

Vision Statement

The University of Washington educates a diverse student body to become responsible global citizens and future leaders through a challenging learning environment informed by cutting-edge scholarship. Discovery is at the heart of our university. We discover timely solutions to the world's most complex problems and enrich the lives of people throughout our community, the state of Washington, the nation and the world.

Core Values

- Integrity
- Diversity
- Excellence
- Collaboration
- Innovation
- Respect

The Two Years to Two Decades Initiative's Shared Vision of the Future

From 2009-2011, over 3,500 faculty, staff, student, and community stakeholders from the three campuses participated in focus groups and surveys that asked them to what the UW should look like in the next 20 years. Their input helped identify a shared vision of the future of the University.

The UW of the 21st Century

...is more competitive

It will be a more competitive environment with competition from other universities for the best students and faculty. Competitors will include traditional institutions of higher education; those that more quickly update infrastructure to offer online, distance and hybrid options; for-profit institutions; and international institutions that are increasingly viable options to our traditional student base. Individuals and organizations will think more globally about their choices, will be more knowledgeable about alternatives, and will increasingly see themselves as customers with options.

...is more collaborative

There will be greater collaboration within the University across units and disciplines; with other universities, as institutions become more niche but partner to offer breadth; and with the public and private sector locally, nationally, and internationally. Interdisciplinary activities and partnership development and engagement will grow in importance. The nature of disciplines may change as study shifts towards both virtual and face-to-face learning and research communities. Learning will include more project-based, experiential activities, and research will focus on solving specific societal problems.

...is more technology-adept

Students will expect technological infrastructure and related university interfaces to provide ubiquitous, fast, and fully integrated access 24/7 and on demand to the devices of their choice and with convenient, personalized content delivery. Faculty will increasingly be made up of digital natives as well with expectations of more and better collaborative tools, networks to support research, and more sophisticated teaching technologies. Physical location and schedules will provide fewer constraints as teaching, research, and supporting administrative activities can be accessed at all hours from remote locations and will make use of cloud computing, social networking, and emerging technologies.

...is more nimble, leading our way through change

More nimble structures and coordinated efforts will be required to maintain high quality teaching, research, and service as the people, infrastructure, and communities change within and around the UW. Anticipating and planning will be key to responding to changing societal trends, demographics, diversity, globalization, and technologies, to meet the needs, interests, and expectations of internal and external communities. In addition to our traditional student profile, students of the future will also include more who are over the age of 25, from diverse backgrounds, non-native speakers of English, part-time students, less textbook-reliant, and who attend classes taught off-campus or online. Administrative functions will shift focus away from bureaucracy towards service.

...is supported by a more diversified funding base

The funding base of higher education will rely more heavily on student-based, research, and entrepreneurial revenue streams. Students will expect more value and service for their higher contribution and will be more likely to value convenience in everything from the application process to student services and learning. Faculty will notice a shift in culture toward more entrepreneurial incentives and earning their salary through a balanced mix of instruction, research, and service, where a drop in one means an increase in another. Administrative units will be under increased pressure to become more efficient and effective and will explore alternative ways of organizing activities, units, and work. Donors and the state will emphasize impact and accountability.

The Sustainable Academic Business Plan: Implementing UW Strategic Planning

Developed as the near-term action plan for our vision—the “two year” of our Two Year to Two Decades Initiative—the Sustainable Academic Business Plan (SABP) moves the University from mission to action. It drives excellence in teaching, scholarship, and research while dealing with financial realities. It lays out the strategic goals and related activities that will keep the UW strong and well positioned in the 21st Century.

As illustrated in Figure 1, on the following page, the **long-term SABP strategic goals** are:

- **Sustain:** Academic excellence and mission; financial stability.
- **Compete:** Attract the best students, faculty, and staff; increase and diversify funding.
- **Transform:** Embrace technology and interdisciplinary collaboration to meet needs of a diverse and dispersed student body; increase administrative efficiencies to maximize resources to invest in the people and infrastructure needed to meet 21st century challenges.

We plan to reach our long-term goals by pursuing **five short-term goals**. Those short-term SABP goals are to:

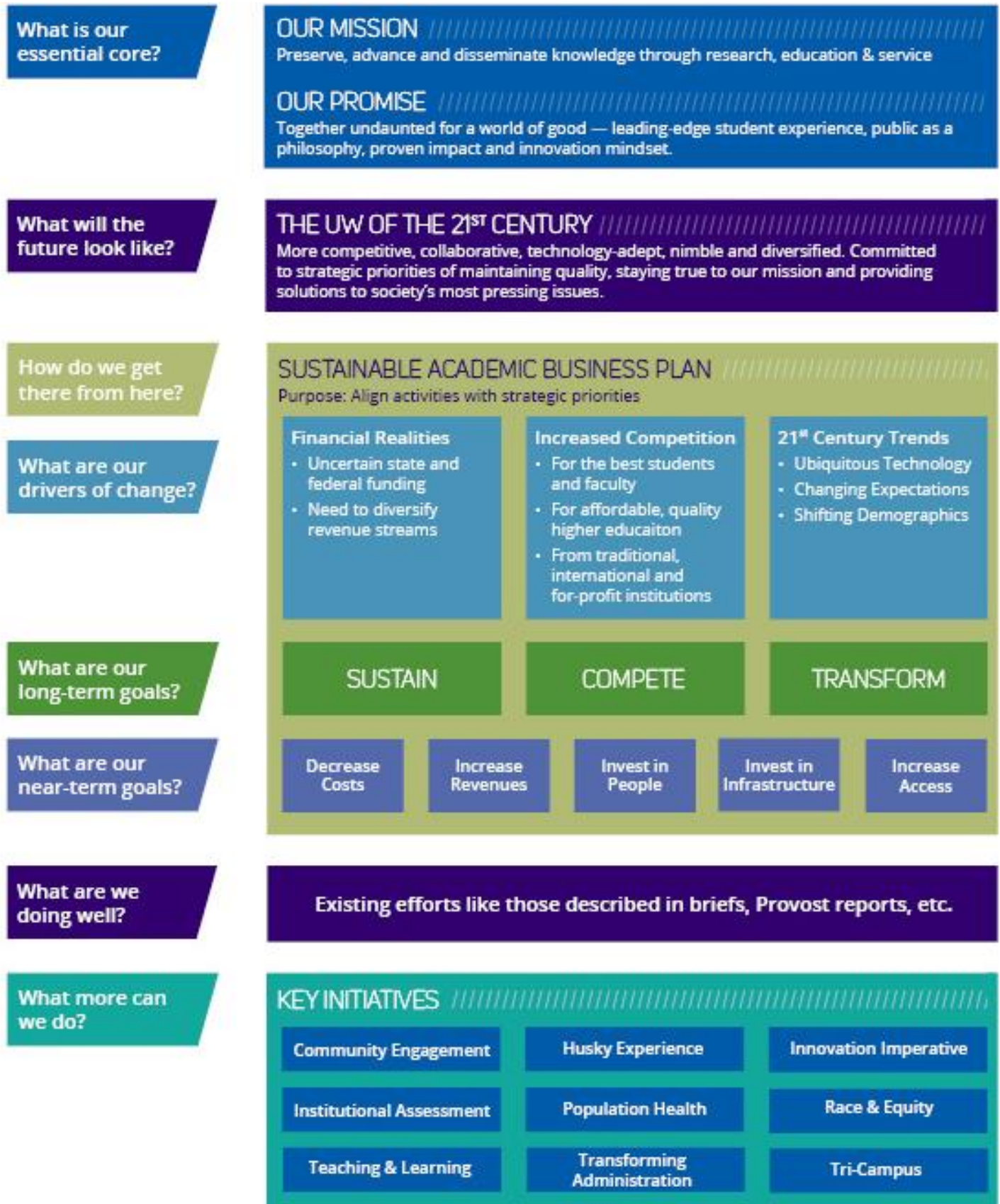
- **Decrease costs:** using resources efficiently and strategically.
- **Increase revenues:** balancing revenue streams, tackling big research, disseminating discoveries, and attracting community support and investment.
- **Invest in people:** attracting and supporting the best students, faculty and staff.
- **Invest in infrastructure:** providing the academic and administrative tools to support students, faculty, and staff.
- **Preserve access:** keeping tuition affordable and UW degrees accessible.

These short-term goals will be discussed more on page 12, under “Alignment with State Goals,” where we outline our strategies for achieving the goals and show how they align with Governor Inslee’s goals.

A gap analysis uncovered a host of goal-relevant activity already taking place across the University. These activities are captured in reports, briefs, and databases for internal use and serve as the basis for external reporting (see pages 10-11, “Assessing Our Performance”). The analysis also identified gaps where more activity was needed. The UW’s Executive Office has launched key initiatives and programs to address these gaps.

The following graphic depicts the University’s mission, shared vision of the future, the Sustainable Academic Business Plan, and initiatives launched as a result of gap-analysis. It also includes the key questions we asked ourselves in the development of the Plan:

Figure 1: Sustainable Academic Business Plan



Objectives & Strategies

There are two important set of objectives used at the University of Washington: those of the Sustainable Academic Business Plan and a sub-set that are used for University accreditation. University accreditation goals, objectives and indicators are adapted from the Sustainable Academic Business Plan to fit the specific needs of the accreditation process.

Table 1: Sustainable Academic Business Plan Objectives & Strategies

DECREASE COSTS: Use resources efficiently and strategically to support our core mission
1. Optimize curricular management
2. Redouble efforts to achieve operational & organizational efficiencies
INCREASE REVENUE: Balance revenue streams, support research, and encourage public and private investment
1. Increase revenue for student programs
2. Increase philanthropy
3. Increase assets & services
4. Increase grant revenues
5. Encourage public reinvestment in students and core higher education
INVEST IN PEOPLE: Attract and support the best students, faculty and staff; improve the learning experience; tackle big research; and strengthen diversity
1. Enhance the student learning experience
2. Support effective instructors (teaching & learning, faculty & students)
3. Support effective scholars (faculty & students)
4. Increasing STEM and other high-demand majors fields
5. Recruit, retain, compensate, and support faculty, students, & staff
6. Develop faculty, student, staff leaders
7. Support the goals of the Diversity Blueprint and improve campus climate
8. Invest in and reward collaborations
9. Increase global learning and scholarship
INVEST IN INFRASTRUCTURE: Enhance academic and administrative tools to support students, faculty and staff
1. Invest in better IT for increased efficiencies
2. Invest in better tools for teaching, learning, research, and data management and analysis
3. Optimize finance & facilities
4. Coordinate assessment processes (accreditation, PEI, 10 year reviews)
5. Promote partnerships & collaborations
6. Improve UW environmental sustainability
7. Improve UW communication and marketing infrastructure
8. Manage enterprise risk
9. Leverage tri-campus opportunities for collaboration and coordination
INCREASE ACCESS: Keep tuition affordable and UW degrees accessible.
1. Enroll more undergraduates, both residents and non-residents
2. Explore cost-effective options for delivering quality teaching to more students
3. Keep tuition affordable
4. Support access through financial aid
5. Support access through strategic enrollment management
6. Support access to transformative curricular and co-curricular learning experiences at the UW

After completing a comprehensive self-study and undergoing an accreditation site visit in 2013, the University of Washington began a new seven-year accreditation cycle in 2014 with updated objectives derived from the Sustainable Academic Business Plan and adapted to fit the specific needs of the accreditation process.

University Accreditation Objectives

The University accreditation process seeks to answer whether the University of Washington is fulfilling its primary mission of the preservation, advancement, and dissemination of knowledge. University accreditation goals, therefore, center on the core themes that speak authoritatively to our mission: (1) research and scholarship; (2) teaching and learning; and (3) service and engagement.

Table 2: University Accreditation Core Themes and Objectives

Core Themes	Objectives
Research and Scholarship The University remains committed to conducting cutting-edge research that solves society’s problems. Unfortunately, the recent financial downturn has meant a significant drop in state support, which has motivated the University to consider other ways to support and stimulate research productivity. Consequently, we put forth three “stretch goals” with respect to research and scholarship.	Increase institutional support for research and creative activity;
	Establish strategic partnerships and collaborations to support discovery and solve problems; and
	Achieve operational and organizational efficiencies to better support the research enterprise and improve productivity.
Teaching and Learning The University is committed to providing exceptional teaching experiences to a diverse student body – individuals who will become responsible global citizens and tomorrow’s leaders. However, several trends have posed challenges to producing a transformative education: Increasing numbers of non-traditional and international students, with vastly different experiences, are seeking degrees at the UW; learning styles have shifted with technological advances; and the economy has created an increasingly competitive job market. Against this backdrop, we set three teaching and learning goals.	Increase institutional support for student learning;
	Enhance the quality and scope of curricular and co-curricular learning experiences; and
	Enhance the student learning experience through engagement in research.
Service and Engagement The University’s focus on service and engagement highlights the ethos behind public higher education – namely, that research and teaching should serve the needs of society. In the face of declining state and federal funds, the University strives to sustain and reaffirm the public nature of its existence, with the understanding that engagement and interaction with different publics can take many forms and be mutually beneficial to all parties involved. We therefore have three key service and engagement goals.	Increase collaborations between the university and the community in areas that enhance community development;
	Provide the highest-quality healthcare in the region; and
	Increase the alignment, quality and impact of global-engagement activities.

Assessing Our Performance

The UW is accountable to many different stakeholders—both internal and external. As a result, we publish and track a huge quantity and range of information about our activities, including indicators of quality and effectiveness.

Among these stakeholders is the Sustainable Academic Business Plan steering committee, which is the body responsible for monitoring the organization’s strategy and implementation. Membership includes broad representation of UW senior leaders, including four deans, eight vice presidents/vice provosts, and the chair and vice chair of the faculty senate.

In 2011, the steering committee conducted a “gap analysis” to pinpoint areas of the Plan that did not have an obvious campus entity (i.e., a committee, office, administrative leader, etc.) to oversee the work and progress. Since then, the steering committee has launched ten central initiatives to fill the identified gaps. One of these initiatives, as an example, is the Transforming Administration Program (TAP), which the Provost launched in spring 2015. TAP encompasses all central administrative units and focuses on fulfilling the need for greater collaboration, clear priorities, increased accountability, improved service, and elimination of unnecessary bureaucracy and redundancies.

The committee meets twice annually to monitor the progress of initiatives and to advise the Provost on emerging issues relevant to the plan.

Many tools exist to assist the committee in its monitoring work and to help the UW stay accountable to its diverse stakeholders. These tools, and the data behind them, are compiled by a variety of offices across the University. Some of the most frequently and broadly used reports are created by Institutional Analysis in the Office of Planning & Budgeting:¹

- [UW Fast Facts](#) (a one-page document highlighting frequently-used UW data)
- [UW Public Profiles](#) (interactive dashboards that allow users to explore UW data)
- [External Reports](#) (IPEDS, Common Data Set, and other external reporting)
- [Peer Comparisons](#) (comparisons of the UW to peer institutions on common measures)
- [Internal Data Resources](#) (additional information on [tri-campus](#) and [Tacoma-specific](#) data and reports)

In addition, the Office of Planning & Budgeting tracks progress on a range of goals via the UW’s [Fiscal Year Budget](#), as does the UW’s Financial Management office through its [Report to Stakeholders](#).

Table 3, on the next page, presents additional examples of how we assess the UW’s progress, via quantitative and qualitative indicators, on the five near-term goals of the Sustainable Academic Business Plan.

¹ Specific colleges also gather data to assess teaching and learning at more local levels. For example, the College of Engineering provides data on various educational outcomes and trends.

Table 3: Tools Used to Compile Indicators and Assess UW Progress

Assessment Tools	DECREASE COSTS	INCREASE REVENUES	INVEST IN PEOPLE	INVEST IN INFRA-STRUCTURE	INCREASE ACCESS
Transforming Administration Project Scorecard	X		X	X	
Finance & Facilities Operational Dashboard	X			X	
Sustainability Dashboard & Map	X			X	
UW Information Technology Metrics	X		X	X	
UW Accomplishments - Organizational Excellence	X		X	X	
Research Stats & Rankings		X	X		
C4C Fast Facts, Dashboards, and Reports		X	X		
Advancement Benchmarking & Analytics		X			X
Learning Spaces Assessment			X	X	
Educational Assessment Reports			X		
Center for Experiential Learning & Diversity Facts			X		X
Office of Minority Affairs & Diversity Facts					X
Diversity Statistics					X
UW In Your Community – Interactive Map					X

Alignment with State Goals

To show how the UW contributes to our state's priority goals, we've mapped our short-term SABP goals (including strategies for achieving them) to the goals of Governor Inslee's Results Washington and the goals described in the Washington Student Achievement Council (WSAC) 2013 Roadmap. As seen in Table 4, below, the UW's short-term goals and strategies are well-aligned with those of Washington state.

The University of Washington is committed to fulfilling its public mission which includes providing world class instruction for Washington residents; opportunities for social and economic mobility; research, innovation, and ideas that address society's needs; and support for state and regional economic needs.

Table 4: State Goals and Associated Strategies, Mapped to UW Goals

Goals/Strategies Shared By the UW and the State of Washington	SABP Goals	WSAC 2013 Roadmap	Results WA
<i>INCREASE REVENUE: Balance revenue streams, support research, and encourage public and private investment</i>			
Encourage public reinvestment in core higher education	X	X	
<i>DECREASE COSTS: Use resources efficiently and strategically</i>			
Redouble efforts to achieve operational & organizational efficiencies	X		X
<i>INVEST IN PEOPLE: Attract and support the best students, faculty and staff</i>			
Enhance the student learning experience	X	X	
Support effective instructors (teaching & learning, faculty & students)	X	X	X
Support effective scholars (faculty & students)	X	X	
Increase STEM and other high-demand majors	X	X	X
Recruit, retain, compensate, and support faculty, students, & staff	X	X	X
Develop faculty, student, staff leaders	X	X	
Support the goals of the Diversity Blueprint and improve campus climate	X	X	
Increase global learning and scholarship	X	X	
<i>INVEST IN INFRASTRUCTURE: Provide academic and administrative tools to support students, faculty and staff</i>			
Invest in better IT for increased efficiencies	X	X	X
Invest in better tools for teaching, learning, research, and data management/analysis	X	X	X
Coordinate assessment processes (accreditation, PEI, 10 year reviews)	X	X	
Improve UW environmental sustainability	X		X
<i>ACCESS: Keep tuition affordable and UW degrees accessible</i>			
Enroll more undergraduates, both residents and non-residents	X	X	X
Explore cost-effective options for delivering quality teaching to more students	X	X	X
Keep tuition affordable	X	X	X
Support access through financial aid	X	X	X
Support access through strategic enrollment management	X	X	
Support access to transformative curricular & co-curricular learning experiences	X	X	

Looking Ahead to the Future

With efforts to fill the initial gaps identified by the Sustainable Academic Business Plan well under way, the University of Washington is moving into the long-term, slower work of institutional transformation. This work involves encouraging, inspiring, supporting, and celebrating opt-in participation (at the individual and unit levels) in efforts that work towards shared goals and move us closer to our vision of the UW of the 21st century (see [Provost reports](#) for examples). The UW's strategic planning principles, developed as part of 2y2d, are weaving into the fabric of the UW as groups across the three UW campuses engage in a culture of continuous improvement, align their activities with strategic priorities, and work to achieve our shared vision.

The Sustainable Academic Business Plan steering committee continues to meet to review initiative progress, ensure we are on track, and refine strategic directions. The Plan remains the fundamental framework for making informed, value-based, and principled decisions, for setting strategic directions (e.g., President's focus on leading change in higher education including the Global Innovation Exchange, an innovative graduate degree program with international and industry partners), and for investing wisely in areas of future importance (e.g., recent investments in interdisciplinary efforts to improve population health). UW strategic planning and the Sustainable Academic Business Plan continue to support decision-making at all levels, deliver results through ongoing initiatives, track trends and drivers of change, and celebrate success of groups across campus that are working towards our shared vision.

Keep up with the latest on [Strategic Planning](#) at the University of Washington.

TAB B

- 1. Recommendation Summary**
- 2. Agency Budget Levels by Program**

State of Washington
Recommendation Summary

Agency: 360 University of Washington

9:55:54AM

9/15/2016

Dollars in Thousands

	Annual Average FTEs	General Fund State	Other Funds	Total Funds
2015-17 Current Biennium Total	22,758.3	597,188	6,959,305	7,556,493
CL 01 2017-19 Carry-Forward Level	2.2	38,190	17,218	55,408
Total Carry Forward Level	22,760.5	635,378	6,976,523	7,611,901
Percent Change from Current Biennium	.0%	6.4%	.2%	.7%
M1 90 Maintenance Level Revenue				
Carry Forward plus Workload Changes	22,760.5	635,378	6,976,523	7,611,901
Percent Change from Current Biennium	.0%	6.4%	.2%	.7%
M2 AA M&O for New Facilities		4,127		4,127
M2 AB WWAMI Spokane Continuation	12.9	5,717		5,717
M2 AD Marijuana Research			1,588	1,588
M2 AE Occupational Health Internship Mgmt	1.0		240	240
Total Maintenance Level	22,774.3	645,222	6,978,351	7,623,573
Percent Change from Current Biennium	.1%	8.0%	.3%	.9%
PL A0 Competitive Compensation		66,008		66,008
PL A1 M&O for New Facilities		6,225		6,225
PL A2 WWAMI Spokane Expansion	31.9	9,263		9,263
PL A3 Tri-Campus Student Success	27.1	5,090		5,090
PL A4 RIDE Expansion Bridge	4.4	1,959		1,959
PL A5 High-Demand Enrollments		16,000		16,000
PL A6 Regenerative Medicine Institute	21.7	6,000		6,000
Subtotal - Performance Level Changes	85.1	110,545		110,545
2017-19 Total Proposed Budget	22,859.4	755,767	6,978,351	7,734,118
Percent Change from Current Biennium	.4%	26.6%	.3%	2.4%

M2 AA M&O for New Facilities

A total of \$4,127,000 in state support for maintenance and operations (M&O) costs is requested in the 2017-19 biennium for buildings that will be completed by or during the biennium and that were previously funded with bond or cash assistance in the state capital budget. These four buildings--House of Knowledge (Intellectual House), New Burke Museum, Computer Science & Engineering Expansion, and UW Tacoma Urban Solutions--represent a wide array of academic, research, and public service activities.

M2 AB WWAMI Spokane Continuation

A total of \$5,717,000 in maintenance level funding is requested in the 2017-19 biennium for the University of Washington's medical student education program in Spokane and eastern Washington, in partnership with Gonzaga University. Last biennium, the state provided funding to support all four years of medical education for the UW's original 40 students per cohort in Spokane, as well as expansion funding for 20 additional students per cohort in the first two years of medical school. This maintenance level request is to fund those same 20 students over their third and fourth years of medical school, so that they can complete their medical education. The requested ongoing funding would allow the UW to sustain 60 students per cohort with approximately \$48,600 per student in state funding each year. By fully funding the 20 additional students approved in the 2015-17 biennium and allowing them to complete their third and fourth years of medical school education, this proposal immediately begins to address the current and growing shortage of physicians in Washington state, including in Spokane and surrounding rural counties.

M2 AD Marijuana Research

In accordance with 2E2SHB 2136, the UW is requesting a total of \$794,000 per year in Dedicated Marijuana Account funds to bring the state's appropriation up to the minimum of \$1,021,000 per fiscal year for the 2017-19 biennium. The UW currently receives \$227,000 per year from the Dedicated Marijuana Account, per the 2015-17 operating budget. This request is a maintenance level adjustment for the difference between our current appropriation and the appropriation authorized under 2 E2SHB 2136. Additionally, in accordance with 2ESHB 2376, a list of proposed research projects and plans for partnerships is attached to this request.

M2 AE Occupational Health Internship Mgmt

Additional permanent funding of \$240,000 in salary and associated benefits is requested in the 2017-19 biennium for a full-time Internship and Career Counselor Manager in the UW's Department of Environmental and Occupational Health Sciences (DEOHS). The department currently receives funding from the state's Medical Aid and Accident Accounts. However, DEOHS Medical Aid and Accident Account appropriations have been flat for more than 10 years. This request will help ensure that the original mission of the appropriation--support for Washington workers and employers--can still be fulfilled, as it will accommodate workload changes associated with mandatory accreditation requirements. This request reflects the upcoming expansion of DEOHS's undergraduate enrollment, in conjunction with a reorganization of the DEOHS Office of Academic Services. Labor and Industries (LNI) leadership have indicated their support for this request.

PL A0 Competitive Compensation

A total of \$66,008,000 in state support is requested in the 2017-19 biennium to increase faculty and professional staff salaries at the University of Washington by an average of 4 percent in both FY 2018 and FY 2019. The caliber of faculty and staff at the UW has been instrumental in creating a high quality academic environment and in allowing the University to successfully secure more federal research dollars than almost any public university in the country. The UW graduates more students than any university in the state and over 80 percent of our entering freshmen graduate within six years, higher than any public institution in the state. Compensation must be set at a competitive level for the UW to be able to recruit and retain high quality faculty, staff, and students, who will (in turn) maintain our exceptional record in scholarship, research, and student success.

Please note that separate decision packages will be submitted for employee groups subject to collective bargaining agreements needing approval from the state; therefore, salary increase costs associated with these staff are not reflected in this request.

PL A1 M&O for New Facilities

A total of \$6,225,000 in state support for maintenance and operations (M&O) costs is requested in the 2017-19 biennium for buildings that will be completed during the 2017-19 biennium. These two buildings-Nano Engineering & Science Building and Life Sciences Building-were funded through Sound Transit mitigation funds, local funds, donor funds, and/or bonds, but are critical to the teaching and research missions of the University of Washington. Because both buildings were constructed with temporary funds, the UW is requesting state support to cover their ongoing maintenance and operations.

PL A2 WWAMI Spokane Expansion

The UW is requesting \$9,263,000 in state funding for the 2017-19 biennium to develop and expand the University of Washington's medical student education program in Spokane and eastern Washington, in partnership with Gonzaga University, to a cohort size of 80-students in each year of the program. The expansion will be phased in over two biennia and the full cost of operating the program will not be realized until fiscal year 2021, when there will be full 80-student cohorts over all four years of medical school. At that time, it is anticipated that the program will cost \$3.9 million per year of state funding, approximately \$48,600 per student. Last biennium, the state provided funding to support all four years of medical education for the UW's original 40 students per cohort in Spokane, as well as expansion funding for 20 additional students per cohort in the first two years of medical school. This request assumes funding for the maintenance level request, which will bring each Spokane cohort to 60 students. This request will expand medical student enrollment by an additional 20 students starting July 1, 2017 in Spokane. This proposal immediately begins to address the current and growing shortage of physicians in Washington state including in Spokane and the surrounding rural counties by enrolling new medical students the very next fiscal year.

PL A3 Tri-Campus Student Success

A total of \$5,090,000 in state support is requested in the 2017-19 biennium for a tri-campus effort to promote student success at the University of Washington. At all three campuses, this proposal would expand programs that improve access, retention, graduation, and career preparation, with an emphasis on first generation, low-income, underrepresented minority, and transfer students-especially those in STEM fields.

This is part of a public higher education sector-wide effort to invest in proven strategies that retain students, lead to efficient degree completion, meet the state's workforce needs in critical STEM and high demand areas, ensure that students excel in today's competitive labor market, and reduce bottlenecks for degree pathways.

PL A4 RIDE Expansion Bridge

A total of \$1,958,000 in state support is requested in the 2017-19 biennium to expand the capacity and footprint of the highly effective Regional Initiatives in Dental Education (RIDE) program, which is run by the University of Washington School of Dentistry. RIDE students currently spend the first year of their dental education program at Eastern Washington University (EWU). This request would add a second year of dental curriculum to the program at EWU, which would mean that RIDE students would stay in Spokane for two years, rather than one. This will position RIDE for future expansion and enhance the UW's presence in eastern Washington as a regional campus and hub for professional education.

PL A5 High-Demand Enrollments

A total of \$16,000,000 in state support is requested during the 2017-19 biennium to increase enrollment capacity in high-demand science, technology, engineering, and math (STEM) programs at the University of Washington's three campuses. These critical investments will make progress toward meeting our state's significant and growing need for qualified applicants in high-demand fields such as engineering, computer science, ocean engineering, and cyber operations. Washington state imports more individuals with a bachelor's degree or greater than every other state. An investment in degree capacity at the UW will help create a pipeline for Washingtonians to fill these jobs.

This request is part of a public higher education sector-wide effort to invest in meeting the state's workforce needs in critical STEM and high demand areas.

PL A6 Regenerative Medicine Institute

A total of \$6,000,000 in state support is requested in the 2017-19 biennium to support the Institute for Stem Cell and Regenerative Medicine's mission to discover new clinical treatments through the use of stem cell science, by taking on and defeating diseases at their origins, the human cell. This funding will support the Institute's scientific cores, fund five new faculty lines, provide translational bridge awards to the most promising basic science research in order to promote clinical trials and eventual commercialization, support student research training, and provide pilot grants to researchers that will leverage federal research grant awards.

2017-19 Agency Budget Levels by Program

Agency: 360 University of Washington

9/15/2016

10:01:45AM

Dollars in Thousands

	Current Biennium		Carry Forward Level		Maintenance Level		Performance Level	
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 1</u>	<u>Year 2</u>
Program: 010 Instruction								
FTEs	6,666.0	6,685.5	6,671.0	6,685.5	6,682.7	6,699.5	6,716.3	6,738.4
FTEs-Annual Average		6,675.8		6,678.3		6,691.1		6,727.4
Fund - Appropriation Type								
001-1 General Fund - Basic Account-State	158,296	191,338	192,882	191,338	196,001	193,936	225,230	239,620
08A-1 Education Legacy Trust Account-State	12,999	15,089	14,999	14,999	14,999	14,999	14,999	14,999
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	368,650	385,233	372,706	382,333	372,706	382,333	372,706	382,333
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	374,064	383,832	374,026	380,533	374,026	380,533	374,026	380,533
Total All Funds - Program 010	914,009	975,492	954,613	969,203	957,732	971,801	986,961	1,017,485
Biennial Total All Funds - Program 010		1,889,501		1,923,816		1,929,533		2,004,446
Program: 020 Research								
FTEs	148.5	148.1	148.5	148.1	148.5	148.1	170.2	169.8
FTEs-Annual Average		148.3		148.3		148.3		170.0
Fund - Appropriation Type								
001-1 General Fund - Basic Account-State	1,257	1,296	1,250	1,271	1,250	1,271	4,297	4,368
02R-1 Aquatic Lands Enhancement Account-State	775	775	775	775	775	775	775	775
09R-1 Econ Dev Strategic Reserve Account-State	1,504	1,507	1,506	1,506	1,506	1,506	1,506	1,506
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	4,798	5,009	4,810	5,009	4,810	5,009	4,810	5,009
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	2,522	2,566	2,528	2,566	2,528	2,566	2,528	2,566
15M-1 Biotoxin Account-State		195	297	298	297	298	297	298
297								
315-1 Dedicated Marijuana Acct-State	227	227	227	227	1,021	1,021	1,021	1,021
608-1 Accident Account-State	3,480	3,649	3,553	3,626	3,553	3,626	3,553	3,626
609-1 Medical Aid Account-State	3,328	3,421	3,367	3,402	3,367	3,402	3,367	3,402
Total All Funds - Program 020	18,086	18,747	18,314	18,679	19,108	19,473	22,155	22,570
Biennial Total All Funds - Program 020		36,833		36,993		38,581		44,725
Program: 030 Community and Public Service								
FTEs	98.1	97.5	97.8	97.2	97.8	97.2	97.8	97.2
FTEs-Annual Average		97.8		97.5		97.5		97.5

Fund - Appropriation Type

001-1 General Fund - Basic Account-State	1,134	1,173	1,167	1,173	1,167	1,173	1,253	1,348
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	8,997	9,399	9,019	9,399	9,019	9,399	9,019	9,399
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	2,522	2,566	2,533	2,566	2,533	2,566	2,533	2,566
Total All Funds - Program 030	12,653	13,138	12,719	13,138	12,719	13,138	12,805	13,313
Biennial Total All Funds - Program 030		25,791		25,857		25,857		26,118

Program: 040 Primary Service

FTEs	1,034.7	1,032.6	1,034.7	1,032.6	1,035.7	1,033.6	1,062.8	1,060.7
FTEs-Annual Average		1,033.7		1,033.7		1,034.7		1,061.8

Fund - Appropriation Type

001-1 General Fund - Basic Account-State	22,757	23,435	23,569	23,431	23,569	23,431	28,228	30,289
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	62,335	65,144	62,882	65,144	62,882	65,144	62,882	65,144
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	54,246	55,181	54,506	55,176	54,506	55,176	54,506	55,176
609-1 Medical Aid Account-State					120	120	120	120
Total All Funds - Program 040	139,338	143,760	140,957	143,751	141,077	143,871	145,736	150,729
Biennial Total All Funds - Program 040		283,098		284,708		284,948		296,465

Program: 050 Library

FTEs	339.3	338.9	339.3	338.9	339.3	338.9	339.3	338.9
FTEs-Annual Average		339.1		339.1		339.1		339.1

Fund - Appropriation Type

001-1 General Fund - Basic Account-State	14,220	14,643	14,406	14,643	14,406	14,643	14,886	15,623
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	1,791	1,879	1,915	1,879	1,915	1,879	1,915	1,879
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	33,441	34,010	33,502	34,010	33,502	34,010	33,502	34,010
Total All Funds - Program 050	49,452	50,532	49,823	50,532	49,823	50,532	50,303	51,512
Biennial Total All Funds - Program 050		99,984		100,355		100,355		101,815

Program: 060 Student Services

FTEs	334.0	333.4	334.0	333.4	334.0	333.4	334.0	333.4
FTEs-Annual Average		333.7		333.7		333.7		333.7

Fund - Appropriation Type

001-1 General Fund - Basic Account-State	8,733	8,997	9,030	8,997	9,030	8,997	9,798	10,564
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	16,183	16,912	16,382	16,912	16,382	16,912	16,382	16,912
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	20,821	21,179	20,919	21,179	20,919	21,179	20,919	21,179
Total All Funds - Program 060	45,737	47,088	46,331	47,088	46,331	47,088	47,099	48,655
Biennial Total All Funds - Program 060		92,825		93,419		93,419		95,754

Program: 070 Hospital

FTEs	4,262.9	4,255.6	4,262.9	4,255.6	4,262.9	4,255.6	4,262.9	4,255.6
FTEs-Annual Average		4,259.3		4,259.3		4,259.3		4,259.3
Fund - Appropriation Type								
001-1 General Fund - Basic Account-State	12,881	13,090	12,902	13,090	12,902	13,090	12,957	13,202
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated			14		14		14	
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated			7		7		7	
505-6 UW-University Hospital Account-Non-Appropriated	874,784	911,786	885,718	908,198	885,718	908,198	885,718	908,198
Total All Funds - Program 070	887,665	924,876	898,641	921,288	898,641	921,288	898,696	921,400
Biennial Total All Funds - Program 070		1,812,541		1,819,929		1,819,929		1,820,096
Program: 080 Institutional Support								
FTEs	1,291.5	1,289.2	1,291.5	1,289.2	1,291.5	1,289.2	1,291.5	1,289.2
FTEs-Annual Average		1,290.4		1,290.4		1,290.4		1,290.4
Fund - Appropriation Type								
001-1 General Fund - Basic Account-State	30,213	31,094	31,935	31,095	31,935	31,095	33,958	35,221
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	71,602	75,708	72,125	75,708	72,125	75,708	72,125	75,708
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	71,602	72,808	73,399	72,809	73,399	72,809	73,399	72,809
Total All Funds - Program 080	173,417	179,610	177,459	179,612	177,459	179,612	179,482	183,738
Biennial Total All Funds - Program 080		353,027		357,071		357,071		363,220
Program: 090 Plant Operations & Maintenance								
FTEs	1,212.2	1,210.1	1,212.2	1,210.1	1,212.2	1,210.1	1,212.2	1,210.1
FTEs-Annual Average		1,211.2		1,211.2		1,211.2		1,211.2
Fund - Appropriation Type								
001-1 General Fund - Basic Account-State	30,443	32,188	31,012	32,188	31,779	35,548	33,521	41,405
148-6 Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	65,064	69,803	65,322	69,803	65,322	69,803	65,322	69,803
149-6 Inst of HI ED-Operating Fees Acct-Non-Appropriated	72,559	75,205	73,557	75,205	73,557	75,205	73,557	75,205
Total All Funds - Program 090	168,066	177,196	169,891	177,196	170,658	180,556	172,400	186,413
Biennial Total All Funds - Program 090		345,262		347,087		351,214		358,813
Program: 100 Sponsored Research								
FTEs	7,366.7	7,371.7	7,366.7	7,371.7	7,366.7	7,371.7	7,366.7	7,371.7
FTEs-Annual Average		7,369.2		7,369.2		7,369.2		7,369.2
Fund - Appropriation Type								
145-6 Inst of Hi Ed-Grants/Contracts Acct-Non-Appropriated	1,299,560	1,318,071	1,309,483	1,313,184	1,309,483	1,313,184	1,309,483	1,313,184
Biennial Total All Funds - Program 100		2,617,631		2,622,667		2,622,667		2,622,667
Agency FTEs	22,753.9	22,762.6	22,758.6	22,762.3	22,771.3	22,777.3	22,853.7	<u>34</u> 22,865.0

Agency Annual Average FTEs			22,758.3		22,760.5		22,774.3		22,859.4
Agency Totals by Fund									
001-1	General Fund - Basic Account-State	279,934	317,254	318,153	317,226	322,039	323,184	364,128	391,640
02R-1	Aquatic Lands Enhancement Account-State	775	775	775	775	775	775	775	775
08A-1	Education Legacy Trust Account-State	12,999	15,089	14,999	14,999	14,999	14,999	14,999	14,999
09R-1	Econ Dev Strategic Reserve Account-State	1,504	1,507	1,506	1,506	1,506	1,506	1,506	1,506
145-6	Inst of Hi Ed-Grants/Contracts Acct-Non-Appropriated	1,299,560	1,318,071	1,309,483	1,313,184	1,309,483	1,313,184	1,309,483	1,313,184
148-6	Inst of Hi Ed-Dedicated Local Acct-Non-Appropriated	599,420	629,087	605,175	626,187	605,175	626,187	605,175	626,187
149-6	Inst of HI ED-Operating Fees Acct-Non-Appropriated	631,777	647,347	634,977	644,044	634,977	644,044	634,977	644,044
15M-1	Biotoxin Account-State	195	297	298	297	298	297	298	297
315-1	Dedicated Marijuana Acct-State	227	227	227	227	1,021	1,021	1,021	1,021
505-6	UW-University Hospital Account-Non-Appropriated	874,784	911,786	885,718	908,198	885,718	908,198	885,718	908,198
608-1	Accident Account-State	3,480	3,649	3,553	3,626	3,553	3,626	3,553	3,626
609-1	Medical Aid Account-State	3,328	3,421	3,367	3,402	3,487	3,522	3,487	3,522
Total All Funds			3,707,983	3,848,510	3,778,231	3,833,671	3,783,031	3,840,543	3,825,120
Biennial Total All Funds			7,556,493		7,611,902		7,623,574		7,734,119

*Agency totals on the OFM Program Summary may slightly differ from the OFM Recommendation Summary agency totals due to rounding.

TAB C

- 1. Decision Package Priority List**
- 2. Maintenance Level Decision Packages**
- 3. Performance Level Decision Packages**

Agency Budget Request Decision Package Summary**(Lists only the agency Performance Level budget decision packages, in priority order)****Agency: 360 University of Washington**9/15/2016
8:35:42AM**Budget Period: 2017-19****Decision Package****Code****Decision Package Title**

PL-A0	Competitive Compensation
PL-A1	M&O for New Facilities
PL-A2	WWAMI Spokane Expansion
PL-A3	Tri-Campus Student Success
PL-A4	RIDE Expansion Bridge
PL-A5	High-Demand Enrollments
PL-A6	Regenerative Medicine Institute

Maintenance and Operations for New Facilities (Maintenance Level)

Agency Recommendation Summary Text:

A total of \$4,127,000 in state support for maintenance and operations (M&O) costs is requested in the 2017-19 biennium for buildings that will be completed by or during the biennium and that were previously funded with bond or cash assistance in the state capital budget. These four buildings—House of Knowledge (Intellectual House), New Burke Museum, Computer Science & Engineering Expansion, and UW Tacoma Urban Solutions—represent a wide array of academic, research, and public service activities.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020*	FY 2021*
General Fund- State	\$766,574	\$3,360,370	\$4,510,570	\$4,510,570

*Due to CSE II building coming online during FY19.

Package Description

This package would provide needed funding for utilities, building maintenance, custodial services, and building administration for the following four buildings constructed with bond or cash assistance in the state capital budget:

House of Knowledge Longhouse (Intellectual House, project code 30000021)

A total of \$3 million was provided in the 2011-13 and 2013-15 state capital budgets to design and construct the Intellectual House. The project was a collaborative effort founded on a partnership among Native American tribes, the state of Washington, and the University of Washington. Local funds and donor contributions comprised the remainder of the funds used to complete the project. The building was completed and occupied in 2015. Since then, temporary local funds have been used as bridge funds for maintenance and operations costs of the building. The UW is now requesting state support for these costs.

New Burke Museum (project code 20082850)

A total of \$26 million was provided in the 2015-17 state capital budget to begin construction of the New Burke Museum. The project is made possible through a combination of funding from the state of Washington, City of Seattle, King County, and private donors. Construction of the new facility began in May 2016. The UW is requesting

the remaining portion of the state funding for the project, \$24.2 million in the 2017-19 state capital budget, to complete the new facility located on the University of Washington campus in Seattle. The project will provide a new, larger building to address the limitations and shortcomings of the existing building.

Designated as the “Washington State Museum of Natural History and Culture” by the Legislature in 1899, the Burke Museum is responsible for the care of the state’s collections of natural and cultural heritage. For over 130 years, the museum has cared for objects that show how the Northwest has grown and changed. These scientific and cultural collections are public assets, and their stewardship requires significant responsibility and care. The collections are now severely compressed in spaces that lack necessary environmental controls. The new building will ensure that the resources of the museum are protected and publicly accessible and that the facilities are adequate for meaningful public presentations.

Assuming the remaining capital funds are provided and the building is completed on time, the UW expects that the building will be ready for occupancy in May 2018. Due to the sensitive nature of its collections, the old facility will need to remain online until FY 2020 to allow for proper transition of the museum’s collections. The old Burke Museum building, which will be demolished following the transition in FY 2020, is 68,916 gross square feet. Given the Burke Museum’s important public service mission and its collections, the UW is requesting full funding for ongoing maintenance and operations costs of the new building.

Computer Science and Engineering Expansion (CSE II, project code 30000603)

A total of \$17.5 million in state general funds were provided in the 2015-17 state capital budget to construct the Computer Science and Engineering Expansion (CSE II). These funds are supporting the construction of a new 130,000 gross square foot building to create expansion space for the highly successful UW Computer Science & Engineering program (UW CSE). The program's existing space in the Paul G. Allen Center is overflowing and must expand. As an example, in the last admissions cycle, CSE was able to accommodate only 33 percent of undergraduate applicants due to capacity limitations.

This expansion of space will allow UW CSE to double annual degree production, significantly expand educational offerings to non-majors, and accelerate the high-impact research, entrepreneurship, and collaboration that are hallmarks of its programs.

The new CSE II building is expected to be completed in early 2019, or halfway through FY 2019. As such, the amount requested for FY 2019 is \$1,150,200, but the ongoing annual need will be \$2,300,400.

UW Tacoma Urban Solutions (project code 91000014)

A total of \$16 million was provided in the 2015-17 state capital budget to renovate the UW Tacoma Paper & Stationary Building. The legislature also appropriated \$1.9 million for predesign and design in the 2013-15 biennium. The renovated building will support the instruction, research, and community spaces on the UW's Tacoma campus. UW Tacoma's ability to meet its mandate to provide higher education opportunities in the South Puget Sound Region is directly reliant on this building, as it will provide critical capacity for additional multi-classroom and academic support space to accommodate growing enrollment. The UW is requesting ongoing M&O support for this building, which is expected to be online in May of 2017.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

N/A

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

M&O estimates have several components. The estimates for the utilities, custodial and grounds services, and operations and maintenance support components are based on recent expenditures for similar buildings. However, estimates for the "building and utilities maintenance" component are based on a formula of capital project costs and type of building, as these costs can fluctuate significantly year to year. This formula ensures that the requested level of support will be sufficient to fully maintain and preserve these buildings. If this M&O component were based solely on recent expenditure levels, funds would be insufficient, which would add to the UW's significant deferred maintenance backlog and, in turn, would increase long-term costs to the state.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

Adequately funding maintenance and operations for new and renovated space would assist in managing the UW's maintenance backlog. In addition, support for these buildings would allow the UW to use its existing operating funds for other academic uses.

As the state and higher education institutions moved away from funding based on a formula for maintenance and operations costs, the long-term effect has been an accumulation of deferred maintenance projects. Funding M&O at adequate levels helps

keep buildings in good working condition and helps mitigate the need for more expensive, capital projects resulting from future systems failures.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	No	
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	No	
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	Yes	Maintaining adequate teaching and research facilities is critical to the mission of the University and the efficient work of its faculty, staff, and students.
Capital Budget Impacts?	Yes	These buildings were constructed with bond or cash assistance in the state capital budget. The New Burke Museum will require the remaining \$24.2M investment in the 2017-19 capital budget in order to be completed during the 2017-19 biennium.
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's priorities to expand postsecondary access and success, and degrees in high demand STEM areas.

Please provide a detailed discussion of connections/impacts identified above.

The state has provided over \$64 million for the design and construction of these buildings through capital budget appropriations across several biennia.

Funding ongoing maintenance and operations is essential to meet the University's goals to ensure the highest level of integrity, compliance, and stewardship. This proposal is also necessary to meet the University's goals to attract and retain outstanding and diverse faculty and students; provide outstanding graduate education; strengthen interdisciplinary collaborative research, teaching, and learning; and maintain and build infrastructure and facilities.

This package aligns with the Governor's priorities to expand postsecondary access and success. This package would provide needed funding to maintain and operate buildings that will contribute directly to expanding degrees in high demand STEM areas.

What alternatives were explored by the agency and why was this option chosen?

Because these buildings were constructed with state funds, the UW did not consider other options for funding maintenance and operations.

What are the consequences of not funding this request?

These buildings represent multiple biennia of investments by the state. Not funding these requests would add to the UW's deferred maintenance backlog and could jeopardize the long-term integrity of these significant state investments—potentially increasing long-term costs to the state and the UW.

How has or can the agency address the issue or need in its current appropriation level?

If state funds are not provided, institutional resources could be redirected to support the ongoing maintenance and operations of these buildings. However, this would divert funding away from other critical activities and purposes, which would diminish our ability to provide instruction and conduct research in these new spaces.

Other supporting materials:

Please see Attachment E on the following page for a detailed look at each building's expected occupancy, gross square footage, expected maintenance and operations costs, and other information.

Attachment E (ML)

Maintenance & Operations Costs

For New Facilities Projected to Come On-Line in 2017-19 (Maintenance Level)

Institution: University of Washington

Project Name	Capital Budget Project Code	Total Project Gross Square Feet*	Gross Square Feet		Projected Occupancy Date	Projected Percentage of Year Occupied		Proposed State-Supported Cost Per Square Foot**		Total Cost		
			Replaced by Project	Renovated in Project		FY 18	FY 19	FY 18	FY 19	FY 18	FY 19	TOTAL
Intellectual House	30000021	8,340	0	0	03/11/15	100%	100%	\$15.11	\$15.56	\$126,017	\$129,770	\$255,788
New Burke Museum*	20082850	110,000	0	0	05/01/18	17%	100%	\$15.11	\$15.56	\$282,557	\$1,711,600	\$1,994,157
Computer Science & Engineering Expansion (CSE2)	30000603	135,000	0	0	01/01/19	0%	50%	\$16.54	\$17.04	\$0	\$1,150,200	\$1,150,200
UW Tacoma Urban Solutions	91000014	40,000	0	0	05/01/17	100%	100%	\$8.95	\$9.22	\$358,000	\$368,800	\$726,800
TOTAL										\$766,574	\$3,360,370	\$4,126,945

Seattle Campus (Academic Building)		Proposed Rate per GSF		Estimation Basis for Proposed Rate
Component		FY 18	FY 19	
091 - Utilities		\$3.22	\$3.32	Actual cost per GSF during FY15, escalated by 3% per year
092 - Bldg & Utilities Maintenance		\$9.88	\$10.17	Based on capital project cost and type of building (research or academic)
093 - Custodial & Grounds Svcs.		\$1.49	\$1.53	Actual cost per GSF during FY15, escalated by 3% per year
094 - Ops & Maintenance Support		\$0.52	\$0.54	Actual cost per GSF during FY15, escalated by 3% per year
TOTAL		\$15.11	\$15.56	

Seattle Campus (Research Building)		Proposed Rate per GSF		Estimation Basis for Proposed Rate
Component		FY 18	FY 19	
091 - Utilities		\$3.22	\$3.32	Actual cost per GSF during FY15, escalated by 3% per year
092 - Bldg & Utilities Maintenance		\$11.31	\$11.65	Based on capital project cost and type of building (research or academic)
093 - Custodial & Grounds Svcs.		\$1.49	\$1.53	Actual cost per GSF during FY15, escalated by 3% per year
094 - Ops & Maintenance Support		\$0.52	\$0.54	Actual cost per GSF during FY15, escalated by 3% per year
TOTAL		\$16.54	\$17.04	

Tacoma Campus		Proposed Rate per GSF		Estimation Basis for Proposed Rate
Component		FY 18	FY 19	
091 - Utilities		\$1.13	\$1.16	Actual cost per GSF during FY16, escalated by 3% per year
092 - Bldg & Utilities Maintenance		\$6.36	\$6.55	Based on capital project cost and type of building. Space was renovated from an acquired building, so project cost was lower than building new.
093 - Custodial & Grounds Svcs.		\$1.05	\$1.08	Actual cost per GSF during FY16, escalated by 3% per year
094 - Ops & Maintenance Support		\$0.41	\$0.43	Actual cost per GSF during FY16, escalated by 3% per year
TOTAL		\$8.95	\$9.22	

*The New Burke Museum is replacing an existing facility. However, due to the sensitive nature of its collections, the old facility will be online until FY20 to allow for a transition period. The UW is requesting the full ongoing M&O for the new building.

WWAMI Spokane Continuation

Agency Recommendation Summary Text:

A total of \$5,717,000 in maintenance level funding is requested in the 2017-19 biennium for the University of Washington's medical student education program in Spokane and eastern Washington, in partnership with Gonzaga University. Last biennium, the state provided funding to support all four years of medical education for the UW's original 40 students per cohort in Spokane, as well as expansion funding for 20 additional students per cohort in the first two years of medical school. This maintenance level request is to fund those same 20 students over their third and fourth years of medical school, so that they can complete their medical education. The requested ongoing funding would allow the UW to sustain 60 students per cohort with approximately \$48,600 per student in state funding each year. By fully funding the 20 additional students approved in the 2015-17 biennium and allowing them to complete their third and fourth years of medical school education, this proposal immediately begins to address the current and growing shortage of physicians in Washington state, including in Spokane and surrounding rural counties.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund- State (ongoing)	\$1,945,000	\$1,945,000	\$1,945,000	\$1,945,000
General Fund- State (one-time)	\$1,175,000	\$654,000	-	-
Total	\$3,119,000	\$2,598,000	\$1,945,000	\$1,945,000
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	11.65	13.95	13.95	13.95

Package Description

WWAMI, which stands for Washington, Wyoming, Alaska, Montana, and Idaho, is the northwest regional medical education program of the UW School of Medicine (SoM). The program began in the 1970's as a cost effective response to a critical shortage of physicians, particularly those practicing in rural areas, by utilizing one state medical school to serve a large geographical area. Under the program, students complete the 18-month foundational phase at their respective institutions, attend the UW for the rest of the second year, and then have the option of spending much of their third and fourth years in rural

and community settings. There are currently WWAMI sites in Eastern Washington, Wyoming, Alaska, Montana, and Idaho.

The WWAMI Spokane program is currently funded to have 60-student cohorts in years 1 and 2 of the medical program, and 40-student cohorts in years 3 and 4. When fully ramped up, this maintenance level request would sustain 60 students per cohort across all four cohorts of the program, for a total of 240 medical students in Spokane. By sustaining each cohort at 60 students, this request will increase the number of physicians trained in Spokane and eastern Washington and, in turn, will increase the physician workforce in the state, particularly in eastern Washington and Spokane.

The ramp-up to support the continued students will be phased in over two biennia and the full revenue and cost of operating the program will not be realized until fiscal year 2020 (FY20), when there will be a full cohort of 60 students in each of the last two years of medical school. At that time, it is anticipated that it will cost a total of \$3.25 million per year, of which \$1.95 million would come from state funding and \$1.3 million from tuition, to sustain the 60-student cohort size in the last two years of the program. Please see the attached fiscal and enrollment detail for more information.

The maintenance level state funding, when combined with projected tuition revenue, would buy approximately 13.95 FTE of faculty and staff time to teach and support the last two years of the medical school curriculum. In addition, the funding would support travel, housing, and stipend costs to support the clerkships across the WWAMI sites. The sources and uses of funds for Spokane are set forth in the attached fiscal detail.

In FY18, there is a total of \$132,000 of one-time costs associated with office equipment for expanded space for new staff and another \$525,000 for additional faculty time for clerkship development. The development of additional clinical clerkship sites, prior to students entering clerkships takes up to two years to complete. In addition, \$1.1 million in temporary funding is needed across the first two years to support faculty and staff while tuition revenue is ramping up (this amount is evenly split between FY18 and FY19). By the third year, all costs would be supported by tuition and permanent state funds and no temporary state funds will be required. The ongoing cost to the state per medical student would be approximately \$48,600 per year.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

The UW is requesting additional funding for the Spokane-based program. Currently, baseline support for the program includes \$6.9 million per year in tuition revenue and \$9.0

million per year in state support, which is a combination of \$5.4 million per year approved in the 2015-17 operating budget and \$3.6 million per year approved in 2007-09 operating budget. This baseline funding supports 200 students in the Spokane-based program: 60 students in each of the 1st and 2nd year cohorts, and 40 students in each of the 3rd and 4th year cohorts.

Of this total baseline funding, approximately \$6.5 million supports the program operations located specifically in Spokane, including over 40 staff and faculty that are directly involved in the Spokane program. The remaining annual balance supports operations in Seattle and clerkship sites across the State (including in rural locations during years 3 and 4 of the curriculum), which are essential to the Spokane-based program.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

Please see the attached fiscal and enrollment detail.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

When fully ramped up, there would be 40 additional medical students served in eastern Washington each year (20 per cohort). Increasing the number of physicians trained in Spokane and eastern Washington will help to increase the physician workforce in the state, particularly in eastern Washington and Spokane.

The significant physician workforce shortage in eastern Washington is worsening and is especially acute in rural areas in the primary care specialties. Studies clearly indicate that receiving medical training in an area provides the greatest likelihood for a physician to practice in an area. This request will produce additional physicians, including primary care physicians, to serve clients in rural and underserved areas in eastern Washington. The WWAMI program returns 52 percent of students to Washington, compared to the national average of 38 percent. Additionally, 60 percent of WWAMI graduates enter primary care, compared with the national average of 39 percent. Biomedical research will be enhanced through collaborations among UW and its eastern Washington higher education partners.

Fully describe and quantify expected impacts on state residents and specific populations served.

Continuing the larger medical student cohorts into years 3 and 4 in Spokane will have an immediate and positive economic return to the state, as every state dollar invested in the

UW returns \$49.23 to the state economy (Tripp Umbach 2014 report, University of Washington, page 6). In addition, it will generate new Washington jobs. Training and recruiting additional faculty will improve the value of postsecondary learning for students. It will provide more research opportunities for students, potentially providing graduate-level research projects that can help foster on-going interest and investment in state healthcare issues. It will also provide a hub of research work on U.S.-focused health issues that eventually could lead to the attraction of other prominent researchers to the University of Washington.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	The significant physician workforce shortage in eastern Washington is worsening and is especially acute in rural areas in the primary care specialties. This request will produce additional physicians, including primary care physicians, to serve clients in rural and underserved areas in eastern Washington.
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	Yes	Because an anatomy lab is not yet available on the Gonzaga campus, WWAMI will continue to use WSU's anatomy lab on the Riverpoint campus for at least the upcoming academic year.
Responds to specific task force, report, mandate or exec order?	Yes	The 2015-17 operating budget appropriated funds to the WWAMI program for "60 students and 20 second year students in FY 2016. For FY 2017, the UW is assumed to enroll 60 first year students with the continuation of 60 from the prior year." This request responds to the need to continue the 60-student cohorts throughout the 4-year medical education program.
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's priorities of world-class education, healthy and safe communities, and a prosperous economy.

Please provide a detailed discussion of connections/impacts identified above.

UW Strategic Plan

Expanded state support for enrollment in areas of critical state need is integral to every part of the University's core values reflected in the strategic priorities of the University of Washington, including integrity, diversity, excellence, collaboration, innovation and respect. In addition, the program is responsive to the University's short-term goals. The WWAMI program is a cost-efficient model for educating medical students and the University's national and international recognition provides an essential recruiting tool to attract and support the best students, faculty and staff. Faculty who teach medical students have an active, collaborative research program and/or clinical practice and are well-positioned to apply for funding opportunities from federal agencies such as the National Institutes of Health (NIH).

Governor's Results Washington Goals

This proposal bridges three Results Washington goals:

- World-Class education – increase the number of students who will earn a medical degree in a cost efficient structure.
- Healthy and Safe Communities – increase in medical doctors practicing in the state increases access to healthcare to improve people's lives in eastern Washington.
- Prosperous Economy - increase in jobs with an increase in medical doctors practicing in the state.

As the number of students who train in Spokane or eastern Washington increase, the yield of graduates who will stay and practice in the area can be expected to increase.

State agency impacts

With the new Gonzaga University partnership, WWAMI students will be located on the Gonzaga campus. There is no anatomy lab on the Gonzaga campus. A contract with Washington State University to use the anatomy lab on the Riverpoint campus has been completed for the 2016-2017 academic year and we are negotiating an extension. It is unclear if Washington State University will allow ongoing use of the anatomy lab on the Riverpoint campus in future years. This may require additional funding if a new anatomy lab is required. There also may be need for expanded classroom space on the Gonzaga campus as the class size expands.

What alternatives were explored by the agency and why was this option chosen?

The additional 20 students that are currently enrolled must be allowed to finish their education. An alternative was explored to use scarce institutional resources to fund these students into their third and fourth years of the medical program, however this would

divert resources from other critical programs and services, and would not help address Washington's physician shortage.

Alternatives such as expanding health professional loan repayment programs and increasing funding for residencies can help address the physician shortage. In the 2015 legislative session, the state increased funding for Family Medicine Residency Network. This additional support will help expand opportunities for medical students to choose residencies in Washington, which will improve the likelihood that those students ultimately practice in Washington. In addition, the 2015 legislature restored funding to the Health Professionals Loan Repayment and Scholarship Program, which targets loan repayments toward increasing the number of primary care health professionals in rural and underserved communities. However, even with these alternative forms of support, additional medical students are needed to fill the expanded residency slots. The most efficient and cost-effective way to address the shortage is to add additional student capacity to a proven and established medical education program.

What are the consequences of not funding this request?

If the state does not fund our maintenance request, we will no longer be able to accept a cohort of 60 students at Spokane as we do not have the funding for the 3rd and 4th years of the medical program for the 20 new students who were added in the 2015 state operating budget. Therefore, our cohort will decrease from the current 60 students to 40 students per year.

There is a national consensus that the United States is facing a significant physician shortage. These national shortages are caused by population growth that has not been matched by medical education growth over the last 30 years, an aging population with increased demands for health care, new medical technologies, and changes in the working patterns of physicians. Compared to the U.S. average of 226 physicians per 100,000 population, eastern Washington has 181 physicians per 100,000 population (Washington State's Physician Workforce in 2014 report prepared by Center for Health Workforce Studies). In addition, because much of eastern Washington is rural, the physicians who serve it are predominately from primary care specialties. The percentage of U.S. physicians choosing to practice primary care medicine is decreasing sharply and exacerbates eastern Washington's problem in recruiting the physician workforce it needs.

The significant physician workforce shortage in eastern Washington is worsening and is especially acute in rural areas in the primary care specialties. Studies clearly indicate that receiving medical training in an area provides the greatest likelihood for a physician to practice in an area. Without additional capacity in Washington's medical education programs, these shortages will not be addressed.

How has or can the agency address the issue or need in its current appropriation level?

Tuition increases can only partially offset or replace state funding. Tuition was increased significantly from 2010 to 2014 to offset budget reductions, which leaves little capacity for additional increases. Tuition increases would push the WWAMI students to above national averages for student debt. As the majority of WWAMI students will practice in primary care or in a rural and underserved area, which have below national averages in physician compensation, this would create an increased burden on the students and could reduce retention rates in rural and underserved settings. It is worth noting that Alaska, Montana, Idaho and Wyoming protected state funds for WWAMI during the period that the state of Washington reduced funding for higher education, including the WWAMI program.

Other supporting materials:

Please see the attached fiscal and enrollment detail.

WWAMI Spokane Continuation - Fiscal Detail

(Maintenance Level Request)

CASH RECEIPTS				
Fund Title/Number	FY 18	FY 19	FY 20	FY 21
State Funding (ongoing)	\$1,945,000	\$1,945,000	\$1,945,000	\$1,945,000
State Funding (one-time)	\$1,175,000	\$654,000	-	-
Tuition Revenue	\$0	\$654,000	\$1,308,000	\$1,308,000
TOTAL	\$3,119,000	\$3,252,000	\$3,253,000	\$3,253,000

EXPENDITURE TABLE				
Object	FY 18	FY 19	FY 20	FY 21
Salaries & Wages	\$1,548,000	\$1,528,000	\$1,528,000	\$1,528,000
Employee Benefits	\$421,000	\$432,000	\$432,000	\$432,000
Professional Service Contracts				
Goods and Services	\$153,000	\$168,000	\$167,000	\$167,000
Travel	\$325,000	\$424,000	\$425,000	\$425,000
Capital Outlays	\$252,000	\$120,000	\$120,000	\$120,000
Inter Agency Fund Transfers				
Grants, Benefits Services				
Debt Service				
Interagency Reimbursement				
Intra-Agency Reimbursement				
Other: Specify stipend for clerkship sites	\$420,000	\$580,000	\$580,000	\$580,000
TOTAL	\$ 3,119,000	\$ 3,252,000	\$ 3,252,000	\$ 3,252,000

FTE TABLE				
Job Title, Full-Time Salary (not including benefits)	# of FTE needed for each job title by year			
	FY 18	FY 19	FY 20	FY 21
Clinical Faculty Surgical, \$300,000	0.20	0.20	0.20	0.20
Clinical Faculty Non-surgical, \$200,000	5.30	4.60	4.60	4.60
Basic Science Faculty, \$110,000	0.15	0.15	0.15	0.15
Program Coordinator, \$45,000	2.00	4.00	4.00	4.00
Program Ops Specialist, \$70,000	1.00	1.00	1.00	1.00
Director Quality Improvement, \$75,000	1.00	1.00	1.00	1.00
Administrator, \$50,000	0.00	1.00	1.00	1.00
Instructional Designer, \$95,000	1.00	1.00	1.00	1.00
Computer Specilist, \$61,000	1.00	1.00	1.00	1.00
TOTAL	11.65	13.95	13.95	13.95

WWAMI Spokane Continuation - Enrollment Detail

Performance Level Request
Spokane Enrollment: FY16-FY21

Currently-funded enrollment:

Numbers in *blue* include the 20 additional students that the 2015 legislature funded for years 1 and 2 (but not years 3 and 4) of the medical education program.

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	40	60	60	60	60	60
2nd Year	40	40	60	60	60	60
3rd Year	40	40	40	40	40	40
4th Year	40	40	40	40	40	40
Total	160	180	200	200	200	200

Additional students served as part of the requested continuation:

Numbers in *red* indicate what this maintenance level request would buy: a continuation of the 20 additional students into years 3 and 4 of the program.

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	0	0	0	0	0	0
2nd Year	0	0	0	0	0	0
3rd Year	0	0	0	20	20	20
4th Year	0	0	0	0	20	20
Total	0	0	0	20	40	40

Total enrollment if maintenance level request is funded:

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	40	60	60	60	60	60
2nd Year	40	40	60	60	60	60
3rd Year	40	40	40	60	60	60
4th Year	40	40	40	40	60	60
Total	160	180	200	220	240	240

Marijuana Research

Agency Recommendation Summary Text:

In accordance with 2E2SHB 2136, the UW is requesting a total of \$794,000 per year in Dedicated Marijuana Account funds to bring the state's appropriation up to the minimum of \$1,021,000 per fiscal year for the 2017-19 biennium. The UW currently receives \$227,000 per year from the Dedicated Marijuana Account, per the 2015-17 operating budget. This request is a maintenance level adjustment for the difference between our current appropriation and the appropriation authorized under 2E2SHB 2136. Additionally, in accordance with 2ESHB 2376, a list of proposed research projects and plans for partnerships is attached to this request.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
315-1 Dedicated Marijuana Account	\$794,000	\$794,000	\$794,000	\$794,000

Package Description

2E2SHB 2136 (Chapter 4, Laws 2015, pg. 14) stated that \$1,021,00 per year from the Dedicated Marijuana Account would be provided to the UW, starting in FY17, to conduct marijuana research on the short and long-term effects of marijuana use. The 2015-17 operating budget (ESSB 6052, Chapter 4, Laws 2015, pg. 274), however, delayed implementation of this appropriation level until FY18 and, in the meantime, provided \$227,000 to the UW for FY17.

Additional funds from the dedicated marijuana account will allow the UW to pursue additional research projects and partnerships to study marijuana use and its short and long term effects. If additional funds are awarded, the UW would first conduct an internal peer reviewed grant competition whereby UW researchers would request funds to study the most pertinent and timely topics in this quickly evolving research field.

University of Washington faculty members contribute to a remarkably comprehensive portfolio of research interests and expertise. For any given topic, such as "marijuana," UW researchers from disciplines such as biology, chemistry, physiology, pharmacology, sociology, psychology, public policy, law, medicine, economics, public health, and ecology may be anticipated to propose hypotheses about relevant questions. Answers to these

questions will undoubtedly affect initiatives undertaken in the research and development, commercial, and governmental sectors. The potential for cross-disciplinary research among the University's faculty amplifies its capacity to produce a rich supply of information.

In order to make the most effective and efficient use of scarce research funding, UW proposes to issue a Request for Proposals (RFP) to its research faculty for research projects related to marijuana. Administered by the University's Office of Research (OR), the RFP would provide grants up to \$250,000 for relatively short-term (one year or less) projects. Proposals would undergo a peer review similar to other existing programs overseen by OR, featuring the clinical and scientific expertise necessary to critically evaluate their merit. UW faculty and clinicians with relevant expertise would serve as peer reviewers, assisted by outside experts as necessary. Among the review criteria would be the significance of the question being asked, the quality of the science being proposed, and the likelihood of achieving relevant results within the time frame. There would be a requirement that results of the research be made publicly available within six months of its completion. These publicly available reports will be compiled to serve as annual reports of the program's progress.

It should be noted that, despite Washington state's legalization of marijuana, UW marijuana research is still subject to the same federal rules and regulations as before the passage of Washington state Initiative No. 502. There is as yet no provision for the legal use of marijuana in research at UW except as already established and involving compliance with DEA, FDA, and NIDA policies and regulations. This applies to any research conducted under the auspices of the University of Washington, regardless of whether or not the research is conducted on the UW campus. However, the legal landscape is rapidly changing. The University recognizes and wishes to facilitate the desire of its faculty to conduct marijuana research that has significant scientific merit and/or public health value. Therefore, the University is working with other institutions to request more regulatory clarity from the federal government. While federal regulations do restrict some of the research that can be conducted, there is much valuable work that can be done legally.

In addition, an attachment to this request provides a list of intended state-, federal- and privately-funded marijuana research projects, along with plans for possible partnerships with other entities. This is in response to the mandate by the state legislature (SESHB 2376, Sec. 604(15)(b)) that the UW "provide as part of its budget request for the 2017-2019 biennium:

- i. A list of intended state, federal, and privately funded marijuana research, including cost, duration, and scope;
- ii. Plans for partnerships with other universities, state agencies, or private entities, including entities outside the state, for purposes related to researching short-term and long-term effects of marijuana use."

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

The 2015-17 state operating budget (ESSB 6052, Chapter 4, Laws of 2015) appropriated \$227,000 for FY17 (from the Dedicated Marijuana Account) to the UW for research on the short and long-term effects of marijuana use. This amount is used by the Alcohol and Drug Abuse Institute (ADAI) to conduct literature-reviews, secondary data analyses, scientific manuscript preparation/submission, grant development, and dissemination activities related to a number of marijuana-related research topics. In addition to this state funding, the UW receives over \$3 million per year in federal and private funding for a variety of marijuana research projects. Approximately 20 FTEs are supported with existing funding, which is primarily from federal sponsors such as the National Institutes of Health.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

The actual breakdown of expenditures (into staff time, goods/services, equipment, etc.) will depend on the research project(s) selected as part of the internal RFP process. However, regardless of the project(s), some amount of administrative support will be needed to manage the RFP process, assist with peer reviews, and prepare reports on the program. It is anticipated that this administrative support would require no more than 0.5 FTE, which would be less than 10% of the total appropriation—a very competitive rate for this type of grant-making activity.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

The legalization of marijuana use is impacting the lives of Washington families and communities in ways not fully understood to date. Cannabis research supports the approach of “Building a more responsive, data-driven government.” Knowledge generated by the research will support data-informed policy decisions by advancing the knowledge of the short- and long-term consequences of marijuana use on the health, safety and wellbeing of Washington state residents. Performance outcomes of specific research projects are highly dependent on the amount of funding provided and the projects that receive funding through the UW’s proposal process, which is described above.

Fully describe and quantify expected impacts on state residents and specific populations served.

The ongoing and proposed research projects/proposals listed in the attachment further the University of Washington's goal to conduct innovative, ground breaking medical research that impacts the health and wellbeing of the citizens of our region, Washington state and beyond. The research furthers the goals and values that the citizens of Washington state prescribed with the passage of Initiative 502, including exploring the short and long term health effects that the use of marijuana can have on the health of individuals and our society.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	Our region and county will benefit from more research on the effects of marijuana and related policy.
Other local gov't impacts?	Yes	Local governments will benefit from more research on the effects of marijuana and related policy.
Tribal gov't impacts?	No	
Other state agency impacts?	Yes	Many intended projects are collaborations with other institutions in the state, including Washington State University (WSU).
Responds to specific task force, report, mandate or exec order?	Yes	The requested funding is mandated by 2E2SHB 2136 and 2ESHB 2376. The attachment to this request is in response to the legislature's request for a list of proposed marijuana research projects and plans for partnerships, per 2ESHB 2376.
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's values, mission, and strategic plan and the Governor's Results Washington goals.

Please provide a detailed discussion of connections/impacts identified above.

UW Values and Mission: The proposed marijuana research items are aligned with UW's mission to "discover timely solutions to the world's most complex problems and enrich the lives of people throughout our community, the state of Washington, the nation and the world."

UW Strategic Plan goals addressed by proposals:

Increase Revenue to the UW

Supporting marijuana-focused seed-money grants to UW researchers will generate pilot data for larger externally-funded grant opportunities. For example, a program managed by ADAI (<http://adai.uw.edu/grants/smgrant.htm>) has awarded more than \$4 million to researchers from 40 UW departments, funding nearly 400 projects out of approximately 1,000 applications submitted since the program's inception in 1973. Approximately \$900,000 awarded to 59 ADAI Small Grants projects between 2000 and 2008 generated more than \$39 million external grant support to the UW for subsequent full studies, demonstrating a strong return on investment (ROI).

Invest in People

Research projects will provide an opportunity to increase multidisciplinary training and research capacity of UW scientists, including post-doctoral fellows and graduate students, specifically focused on the multidimensional issues related to marijuana use.

Governor's Results Washington Goals

Research will produce knowledge that can support decisions and provide measurements to Results Washington Goal 4: Healthy and Safe Communities, Healthy Babies (1.1); Healthy Youth and Adults (1.2) with emphasis on Goal 1.2.Y.e ("contain the percent of 10th graders who report using marijuana in the last 30 days at 18% in January 2015 to 07/31.2017"); and Safe People, Traffic 2.4.a, to decrease the number of alcohol and/or drug impaired driver-involved fatalities.

What alternatives were explored by the agency and why was this option chosen?

The UW makes ongoing efforts to secure federal and private funding to support its marijuana research projects. However, these efforts are extremely time and resource intensive, which limits the UW's ability to engage in actual research. Further, while the majority of the UW's marijuana research funding is currently from the federal government, opportunities to secure funding identified specifically for marijuana research are limited, as this is a relatively new area of research.

What are the consequences of not funding this request?

The absence of state funding in support of the proposed research projects/programs would require the investigators planning the research to seek additional alternative funding from federal and private resources, limiting the number and scope of research efforts that could be explored.

How has or can the agency address the issue or need in its current appropriation level?

The UW has sought and will continue to seek federal and private funding, in lieu of additional state support, to support its planned research efforts. However, as mentioned, opportunities to secure funding identified specifically for marijuana research are limited.

Other supporting materials:

In accordance with 2ESHB 2376, the UW has attached to this request a list of proposed marijuana research and plans for partnerships with other entities. The list of marijuana related research projects is provided in response to the Legislature's request for information in the hopes that these research projects/programs demonstrate the value of ongoing research in this field.

ATTACHMENT: INTENDED MARIJUANA RESEARCH AND PLANS FOR PARTNERSHIPS

Plans for partnerships with other universities, state agencies, or private entities, including entities outside the state, for purposes related to researching short-term and long-term effects of marijuana use:

The UW's planned marijuana research projects build off of the University's existing research and partnerships in this area.

Existing and planned collaborations with external entities include:

- Projects with regional health care providers, such as the VA Puget Sound Health Care System, Fred Hutchinson Cancer Research Center, and Seattle Cancer Care Alliance;
- Research sponsored by federal agencies, particularly the National Institutes of Health (NIH);
- Partnerships with business and industry leaders; and
- Collaborations with other academic institutions, such as WSU.

UW and WSU investigators collaborate as a matter of course. Active and proposed collaborations with WSU involve behavioral research on marijuana use and abuse, as well as examinations of treatment efficacy.

In addition, the UW's current and planned marijuana research projects involve a wide variety of internal collaborations across labs, departments, and schools.

Intended Marijuana Research Projects:

The following research projects are currently being proposed by research units and faculty who are seeking sponsorship. They are examples of the types of proposals we anticipate would be submitted in response to this RFP. An internal RFP would provide a closely controlled and expeditious mechanism for generating information from the results of similar high quality research.

Project Title: *Marijuana Use, Extinction Learning, and Exposure Therapy in Individuals with PTSD: Cumulative Genetic Load and Epigenetic Changes*

Department: Psychiatry & Behavioral Sciences, UW School of Medicine

Scope: Data from our newly funded NIH award, examining extinction mechanisms in exposure therapy, provides a unique opportunity to explore genetic and epigenetic effects in a sample of patients with comorbid PTSD and cannabis dependence (n = 36) and a control PTSD only sample (n = 36). Shared genetic mechanisms across these disorders and the role of psychotherapy as an "environmental regulation" that may alter epigenetic state

are at the forefront of next generation research developing personalized medicine for these co-morbid patients.

Project Title: *Mechanism of Anti-epileptic Action of Cannabidiol in a Mouse Model of Dravet Syndrome*

Department: Pharmacology, UW School of Medicine

Scope: Continued work on the mechanism through which cannabidiol (CBD, a chemical compound in marijuana that is not known to be psychoactive) prevents seizures in Dravet Syndrome (a very severe childhood epilepsy syndrome).

Project Title: *Cannabinoid and Alcohol Toxicity in Young Adults*

Departments: Psychiatry & Behavioral Sciences and Pharmacology, UW School of Medicine

Scope: The goal is to determine the brain toxicity associated with the combined intake of THC and alcohol during young adulthood. These experiments are carried out in young adult rodents and both cognitive and anatomical brain damages are assessed in later adulthood.

Project Title: *Impact of Cannabis on Inflammation, Microbiome and Viral Persistence in the Lung in Treated HIV*

Departments: Medicine, Division of Pulmonary & Critical Care Medicine, UW School of Medicine and Pharmaceutics, UW School of Pharmacy

Scope: Using data collected in an NIH-funded parent study, we would like to review pulmonary function testing to characterize subjects' pulmonary physiology, which is important for interpreting the results of cytokines and lung microbiome analyses.

Project Title: *Collaborative Research Center on Cannabis (CRCC)*

Departments: Alcohol & Drug Abuse Institute (ADAI), Health Sciences Administration; in collaboration with the Center for the Study of Health Risk Behaviors (CSHRB), Department of Psychiatry & Behavioral Sciences, School of Medicine; Innovative Programs Research Group (IPRG), School of Social Work; Social Development Research Group (SDRG), School of Social Work

Scope: The Alcohol and Drug Abuse Institute (ADAI) proposes creating the Collaborative Research Center on Cannabis (CRCC) which will:

- Coordinate and conduct marijuana-related prevention, intervention, psychosocial, and health services research on UW campuses, focusing on the short- and long-term effects and related consequences of marijuana use (as originally specified in I-502);
- Support UW-wide research through pilot and implementation research grants;
- Develop CRCC Research Affiliates Program to identify and facilitate collaboration and communication among UW researchers working on marijuana-related issues;
- Review scholarly literature on the short-term and long term effects of marijuana use, in order to identify and present knowledge that can be used by Washington state;

- Disseminate knowledge/information about marijuana use to the general public, families, communities, researchers, policy makers and healthcare providers, through a variety of dissemination methods; and
- expand our current medicinal cannabis online CME program; and establish a multidisciplinary Cannabis Research Studies Program within the UW.

The CRCC will utilize existing and proposed collaborative partnerships with UW researchers and research centers, researchers at other universities (e.g., Washington State University), state agencies (e.g., Division of Behavioral Health and Recovery, Department of Health) and private foundations and research institutes in order to create a center of excellence and innovation in marijuana research at the UW. This would be preparatory to developing the infrastructure needed in order to submit an application to the National Institute on Drug Abuse (NIDA) for a NIDA P50 Research Center of Excellence Grant Program (PAR-16-009).

Project Title: *ADAI Proposed Marijuana Research Projects*

Departments: Alcohol & Drug Abuse Institute (ADAI), Health Sciences Administration; in collaboration with colleagues in other UW departments and schools

Scope: ADAI researchers have begun to develop a series of potential research projects that could be supported by I-502 funds as well as to be developed for external funding:

- Emerging cannabis products and consumer practices: A study among legal WA consumers
- Merging recreational and medicinal cannabis markets in WA State: Perspectives of patients, clinicians and marijuana store owners
- Identifying needs and challenges of marijuana-using mothers in WA State
- Sexual behavior and marijuana use: Understanding potential risks
- Developing harm-minimization interventions for marijuana use
- Marijuana depictions in social media: Perception of harm and level of acceptance among peers
- Private Facebook groups as a forum for support in reducing marijuana use
- Examination of health consultation practices at WA State marijuana dispensaries
- State-wide implementation of the Teen Marijuana Check-Up brief intervention
- Influence of cannabis use disorder on health outcomes of HIV care enrollees
- Feasibility of more naturalistic/ecologically valid ways to study cognitive effects of self-administered marijuana
- Diary study of mental health symptoms and marijuana use
- Concomitant alcohol and cannabis use in HIV patients
- Impacts on dispensaries and/or patients by the recent WA State policy change that merges medical cannabis system into the legalized cannabis framework
- Stoned driving: Driving under the influence of cannabis alone vs. alcohol + cannabis -- Who does it? Why do they do it?

Project Title: *Marijuana Use among Drivers and Risk of Traumatic Injury requiring Medical Care*

Department: Pediatrics, UW School of Medicine and the Harborview Injury Prevention Research Center and the Central Regional Trauma Registry

Scope: As recreational marijuana use has increased in Washington state, the proportion of marijuana-impaired drivers has increased. While there are ongoing studies to examine the crash risk associated with marijuana use, there have not been good population-based studies to examine the impact of driver marijuana use on the risk of injury requiring medical care.

Project Title: *The Effects of Marijuana in Cancer-induced Anorexia and Cachexia*

Department: Medicine, Division of Gerontology & Geriatric Medicine, UW School of Medicine and the VA Puget Sound Health Care System and Seattle Cancer Care Alliance

Scope: Research focuses on cancer-induced anorexia and cachexia. We are interested in exploring the role of marijuana in this setting to establish its potential role in improving appetite, nausea, food intake, and body weight in patients with cancer anorexia living in the State of Washington.

Project Title: *Marijuana and the Lungs*

Department: Medicine, Division of Pulmonary & Critical Care Medicine, UW School of Medicine

Scope: We will use a well-established mouse model to investigate how chronic marijuana inhalation influences the integrity of lung structure and function, and perform a systematic and state-of-the-art survey to determine which genes and pathways are significantly altered in the lungs of mice exposed to cannabis smoke. We will also use the same animal model and study the effects of chronic cigarette exposure as well as the combination of tobacco and cannabis smoking to identify overlapping and unique biological processes affected by marijuana use. Collectively, these results will provide a comprehensive overview of the functional and molecular consequences of chronic cannabis smoking in the lung and open new venues for future research in this important field.

Project Title: *Daily Level Relationships Between, PTSD, Alcohol, and Marijuana Use*

Department: Psychiatry & Behavioral Sciences, UW School of Medicine

Scope: This study will examine daily level relationships between PTSD symptoms, alcohol and cannabis use to understand whether PTSD leads to higher alcohol and cannabis use, and whether this is more severe among those who use cannabis more frequently. We will also examine whether there are differences in how alcohol, cannabis, and combined alcohol and cannabis use affect PTSD. This study will help us determine when or if cannabis can be used for individuals with PTSD to manage symptoms like anxiety, arousal, or sleep disturbance.

Project Title: *Daily and Longitudinal Effects of PTSD on Marijuana among Sexual Minority Women*

Department: Psychiatry & Behavioral Sciences, UW School of Medicine

Scope: This proposal will utilize data from longitudinal study of young adult lesbian or bisexual women assessed annually for four years. Lesbian and bisexual women are at high risk for trauma exposure, PTSD, and marijuana use. A growing number of states have approved marijuana use as a treatment for PTSD, far ahead of research data supporting this. This study can evaluate the impact of marijuana use on PTSD course and the impact of PTSD on marijuana use and consequences. Findings have the ability to inform these decisions in a cost-effective and timely manner.

Project Title: *Intervention to Reduce Simultaneous Alcohol and Marijuana Use among High-risk Young Adults and Impact on Physical, Social, and Driving Risks*

Department: Psychiatry & Behavioral Sciences, UW School of Medicine

Scope: Major changes in marijuana legislation are likely to affect not only the use of marijuana, but also the use of other substances, including alcohol, and these policy changes have shifted attention to the important individual and public health implications of simultaneous alcohol and marijuana (SAM) use, and potential additive or synergistic negative effects and consequences (e.g., increased risk of drinking while intoxicated). In fact, a recent report released by the Northwest High Intensity Drug Trafficking Area (March 2016) highlights the increased public health risks associated with alcohol and marijuana use, particularly on driving. We propose to adapt our effective but separate brief alcohol and marijuana interventions for young adults, to focus on SAM use, the risks and effects of SAM, normative misperceptions of SAM use and motivations of SAM use, and effects of SAM use with respect to physiological and driving risks.

Project Title: *The Effects of Cannabidiol on Virus-specific T and B Cell Differentiation and Function*

Department: Immunology, UW School of Medicine

Scope: Previous studies have suggested that cannabidiol (CBD), the primary non-psychoactive cannabinoid in marijuana extracts, may have immunosuppressive effects on cells of the immune system called T cells and B cells. Medical cannabis is often recommended to alleviate symptoms such as nausea, anorexia, and pain in people with chronic viral infections, such as HIV. These studies will investigate how CBD alters the development and function of virus-specific T and B cells in a mouse model of chronic viral infection. Studies will be performed in collaboration with Vireo Health, a national organization led by physicians and scientists at the leading edge of innovation in the medical cannabis field.

Project Title: *Clarifying Marijuana's Role in Cancer Care: Epidemiologic Patterns of Use, Risks and Implications for Patient & Provider Education*

Departments: Divisions of Allergy & Infectious Diseases, Hematology and Oncology, Department of Medicine, UW School of Medicine and Psychiatry & Behavioral Sciences, UW School of Public Health and the Fred Hutchinson Cancer Research Center and the Seattle Cancer Care Alliance

Scope: With an estimated 38,000 people in WA and 1.7 million in the US diagnosed with cancer each year, studying possible benefits and risks of marijuana in this population is critical, particularly since recent data from our group indicate that nearly one quarter of cancer patients are actively using marijuana. The 2-year plan is to: 1) elucidate motivations for marijuana use among cancer patients and to assess the attitudes and gaps in healthcare provider knowledge of marijuana among cancer centers in WA state, the WWAMI region and nationwide (Project 1); 2) examine health benefits and risks associated with marijuana use among cancer patients, including the impact on opioid/sedative use (Project 2); and 3) partnering with public health and community stakeholders, develop innovative pilot program to educate patient and healthcare providers about marijuana use in the cancer setting (Project 3).

Project Title: *Effects of Marijuana on Liver Inflammation, Viral Hepatitis, and Cell to Cell Communication*

Departments: Laboratory Medicine and Pathology, UW School of Medicine

Scope: We will study how natural products engage human cells to alter cellular inflammatory status, viral hepatitis, and hepatic immunity. We have an established infrastructure to study how natural products like marijuana, and the compounds in the herb could affect liver function, inflammation, immunity, and communication among both parenchymal (i.e. hepatocyte) and non-parenchymal (e.g. Kupffer cells) is altered by consumption of marijuana.

Project Title: *Endocannabinoid Signaling and Epilepsy*

Department: Pharmacology, UW School of Medicine

Scope: Understand how endogenous cannabinoid-like molecules related to those in marijuana are used in the brain for control of neuronal activity and epilepsy

Project Title: *Cannabinoids and Cancer*

Department: Pharmacology, UW School of Medicine

Scope: The goal is to develop novel cancer drugs that are based on cannabinoids. The most promising cancer indications are for Glioblastoma multiform, melanoma brain metastasis and colorectal cancer.

Project Title: *Synaptic Mechanisms of Endocannabinoid Signaling in Drosophila*

Department: Physiology and Biophysics, UW School of Medicine

Scope: The fruit fly, *Drosophila*, is a premier model organism for the investigation of molecular mechanisms of synaptic communication between neurons. However, the targets

and effects of cannabinoids, the primary psychoactive agents in marijuana, have not previously been investigated in the fruit fly brain. We are combining genetic circuit manipulation with electrical recordings from fly neurons to understand how cannabinoids affect the activity of neural circuits. By taking advantage of genetic tools available only in *Drosophila*, we aim to decipher the fundamental mechanisms of cannabinoid signaling in the brain. Because basic mechanisms of neural processing in invertebrates and vertebrates are highly similar, our findings will likely be relevant to cannabinoid signaling in humans.

Project Title: *Cannabinoid-Drug Interactions*

Departments: Pharmaceutics and Pharmacy, UW School of Pharmacy

Scope: Not yet available.

Project Title: *Evaluation of the anticonvulsant and disease modifying properties of cannabinoids (natural and synthetic) in animal seizure and epilepsy models*

Department: Pharmacy, UW School of Pharmacy

Scope: Not yet available.

Project Title: *Effects of acute and chronic dosing of cannabinoids on cognitive function and anxiety in animals with chronic epilepsy*

Department: Pharmacy, UW School of Pharmacy

Scope: The goal of this research is to understand how cannabis may alter gastrointestinal immunity, inflammation and viral reservoirs in HIV-infected people. We aim to determine the mechanisms by which cannabis exerts its effects and develop non-psychoactive cannabinoids as a potential adjunct treatment for HIV infection. Importantly, understanding how marijuana use may affect health in HIV-infected individuals is crucial with the increased legalization of marijuana.

Project Title: *Impact of Cannabis on Inflammation and Viral Persistence in Treated HIV/SIV*

Department: Pharmaceutics, UW School of Pharmacy

Scope: The goal of this research is to understand how cannabis may alter gastrointestinal immunity, inflammation and viral reservoirs in HIV-infected people. The aim is to determine the mechanisms by which cannabis exerts its effects and develop non-psychoactive cannabinoids as a potential adjunct treatment for HIV infection. Importantly, understanding how marijuana use may affect health in HIV-infected individuals is crucial with the increased legalization of marijuana.

Project Title: *Local Analgesic Efficacy in Marijuana Users versus Nonusers*

Department: Endodontics, UW School of Dentistry

Scope: Not yet available.

Project Title: *Inclusion of Racial Minorities in Seattle's Evolving Marijuana Markets*

Department: Sociology, UW College of Arts and Sciences

Scope: Not yet available.

Project Title: *Impacts of Cannabis and Cannabis Legalization on Impaired Driving in Washington state*

Department: Alcohol and Drug Abuse Institute, UW School of Public Health

Scope: In 2012, Washington passed Initiative-502 that licenses and regulates marijuana production, distribution, and possession for persons over age 21; removes state law criminal and civil penalties for specified activities; taxes marijuana sales; and earmarks marijuana-related revenues. The initiative set a level of 5 ng/mL of tetrahydrocannabinol (THC) in whole blood as a per se level for driving under the influence (DUI). This change in state law presents a unique opportunity to examine the potential impact of legislation on marijuana-impaired driving and crash risk. We will examine the relationship between changes in Washington state cannabis laws and policies and the incidence of cannabis-impaired driving using linked toxicological, criminal justice and crash databases. Secondly we will examine the relationship between the presence and level of cannabis metabolites in driver blood samples and the severity of driving offense, rates, and police reported crash severity. A comprehensive literature review of the available evidence on driving and acute cannabis use will be provided in a written report.

Project Title: *Measuring Worker Exposures to UV Radiation in the Cannabis Industry, and Efficacy of Protective Clothing*

Department: Environmental and Occupational Health, UW School of Public Health

Scope: Cultivation and processing of marijuana for recreational and medicinal use is a rapidly growing industry in Washington state. Because this industry is relatively new, there is limited quantitative information available about potential health and safety hazards that workers may be subjected to. One potential hazard of concern is exposure to UV radiation, which is generated by the grow lamps used in the indoor grower operations in Washington state. A pilot study undertaken in two small facilities that grow cannabis for the medical marijuana market measured UV intensities that would result in full shift (8-hour) exposures to workers that would exceed the health protective guidelines (TLV) published by ACGIH. Building upon these preliminary findings, we propose a study to better understand this potential hazard to worker health, and the effectiveness of a simple intervention to mitigate the hazard. Our study would take place in three to five representative grower operations, and use a spectral radiometer to map the spatial profile of radiation in the blue and UV bands within grow rooms and nursery facilities. We would use this data to predict worker exposures and calculate the time required for a worker's exposure to exceed the TLV. We would also evaluate the reliability and efficacy of an inexpensive skin patch as a personal dosimeter to monitor worker exposure to UV radiation. Finally, we shall evaluate the effectiveness of commercially available UV-protective clothing to reduce UV exposures measured at the workers' skin.

Occupational Health Internship Management

Agency Recommendation Summary Text:

Additional permanent funding of \$240,000 in salary and associated benefits is requested in the 2017-19 biennium for a full-time Internship and Career Counselor Manager in the UW's Department of Environmental and Occupational Health Sciences (DEOHS). The department currently receives funding from the state's Medical Aid and Accident Accounts. However, DEOHS Medical Aid and Accident Account appropriations have been flat for more than 10 years. This request will help ensure that the original mission of the appropriation—support for Washington workers and employers—can still be fulfilled, as it will accommodate workload changes associated with mandatory accreditation requirements. This request reflects the upcoming expansion of DEOHS's undergraduate enrollment, in conjunction with a reorganization of the DEOHS Office of Academic Services. Labor and Industries (LNI) leadership have indicated their support for this request.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
609-1 - Medical Aid Account	120,000	120,000	120,000	120,000
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	1.0	1.0	1.0	1.0

Package Description

DEOHS offers a bachelor of science (B.S.) degree in Environmental Health, which currently houses 50 undergraduate students per year, in addition to approximately 80 graduate students. The degree has a mandatory internship requirement of 400 hours per student, providing hands-on experience and potential job placement upon graduation. The internship component is necessary to comply with mandatory accreditation requirements of the National Environmental Health Science & Protection Accreditation Council (EHEC), of which this degree is one of only 29 accredited programs.

This maintenance level adjustment would allow the department to hire 1.0 FTE Internship/Career Counselor Manager, which would both maintain accreditation with the EHEC and also ensure active engagement and management of internship partnerships. The Manager will provide instruction in the currently offered internship course (ENV H 482), oversee all undergraduate student placements and development of memoranda of understanding, and sustain and grow the network of internship placement hosts (summer of 2016 reflects nine participating internship hosts for 18 students). This position also will

have an active role in identifying graduate student internship opportunities. Having a focused and well-qualified internship/career counselor manager will provide ancillary benefits to the department's graduate program (80 ongoing masters and doctorate students), with referrals to graduate-level internship placements, job and career counseling and placement, and sustained and enhanced alumni relations. In addition, the Manager will join an existing Office of Academic Services to help support prospective student recruitment and enrolled student retention.

This, in turn, will result in better service and responsive placements for both partners and students. DEOHS Medical Aid and Accident Account appropriations have been flat for more than ten years. This request will help ensure that the original mission of the appropriation—support for Washington workers and employers—can still be fulfilled.

DEOHS is expanding undergraduate enrollment from 50 students to 90-100 students over the next three years, while maintaining current graduate student levels. Thus, this position is expected to serve 50 undergraduate students in 2016-17, expanding to 90-100 students by 2018 or 2019.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

The total funding base for DEOHS in FY 2017 was \$71 million. Of this amount, \$58 million (80 percent of the department's overall funding base) supports research sponsored by external federal, state, and private grant and contract awards. The annual allocation of Medical Aid and Accident Funds (MAAF) include academic support (\$2.8 million), service programs (\$2.1 million), and operations (\$1.5 million).

DEOHS annual cost for graduate and undergraduate academic instruction and mentorship is \$8.9 million per year (12 percent of the overall departmental budget). Approximately \$3.8 million of this total is from competitive federal training grants which provide direct support for student stipends and tuition. \$2.8 million is allocated from Medical Aid and Accident Funds to support faculty instruction and mentoring, graduate student teaching and research assistant positions, instructional expenses, and academic service support staff. The Department also receives \$1.5 million in direct UW tuition revenue which contributes to the cost of faculty, student, and staff instructional support.

The Department employs 11.72 FTE faculty. Approximately half of a faculty member's time is dedicated to graduate and undergraduate instruction and student mentoring, with the other half of his or her time committed to externally funded grants and contracts. Faculty salaries (not including fringe benefits) paid for student instruction and mentoring are covered by \$1.9 million in MAAF appropriations and \$750,000 in UW tuition revenue.

DEOHS employs a total of 103 FTE staff including professional and classified employees. The total annual expenditures for staff salaries (not including fringe benefits) are approximately \$7 million. External funding, including grants and contracts, support 60 FTE, primarily professional research scientists and coordinators. MAAF appropriations support 37 FTE professional and classified staff who contribute to service, academic and department operations. The total amount of staff salaries attributable to MAAF appropriations (not including benefits) is approximately \$3 million. Of the 37 FTE total staff supported on MAAF appropriations, 5.7 FTE staff support undergraduate and graduate academic programs (approximately \$354,000 per year, not including fringe benefits). Academic support staff are also supported by tuition revenue supporting and account for approximately 1.4 FTE.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

This funding would allow the department to hire 1.0 FTE Internship/Career Counselor Manager, with a salary of up to approximately \$81,000 and fringe benefits of 32.4 percent (approximately \$38,900). As mentioned, this position is expected to serve 50 undergraduate students in 2016-17, expanding to 90-100 students by 2018 or 2019.

Decision Package Justification and Impacts

The UW expects the following specific performance outcomes as a result of this funding change:

- Continued accreditation by the National Environmental Health Science & Protection Accreditation Council (EHEC)
- An increase in network of internship placement hosts
- Active engagement and management of internship partnerships
- Improved career counseling
- Promotion of partnerships and collaborations with the Washington state occupational health and safety professional community
- Targeted and sustained relationship building with employers and alumni
- An increase in well-trained health and safety professionals in Washington state

Fully describe and quantify expected impacts on state residents and specific populations served.

There is an ongoing need for well-trained health and safety professionals in Washington state. The DEOHS chair has had multiple conversations with Washington state Department of Labor and Industries (LNI) leadership and the department's external advisory committee regarding future needs of the state in terms of academic training and refilling health and

safety professional positions due to retirement, turnover, and vacancies. The stakeholders consulted by the Chair were strongly supportive of investments directed toward undergraduate and graduate student training in DEOHS. The stakeholders and LNI leadership also acknowledged that the DEOHS Medical Aid and Accident Account appropriations have been flat for more than 10 years, and suggested that an increase request with a direct tie to the mission of the appropriation—support for Washington workers and employers—would likely be well received by decision makers in Olympia.

Through contact with graduates of the program, DEOHS has learned that many remain in Washington state to work as Environmental Health Specialists, Occupational Health and Safety Managers, Industrial Hygiene Technicians, and Public Health Advisors.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	An increase in the number of well-trained health and safety professionals in our region and Washington state
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	Yes	As noted above, leadership at LNI have indicated their support for this request.
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW Strategic Plan and the Governor's Results Washington goals of increasing the number of postsecondary degrees and healthy people.

Please provide a detailed discussion of connections/impacts identified above.

UW Strategic Plan:

This request supports multiple components of the UW's Strategic Plan most closely aligned with the long term goal of sustaining academic excellence and mission.

- *Invest in People (Attract and Support the Best Students)*
 - *Enhance the Student Learning Experience*
 - *Increasing STEM and other high demand major fields*

Starting in 2014, DEOHS conducted an assessment and restructuring of the Office of Academic Services in conjunction with a review of faculty instructor assignments supporting graduate and undergraduate students. One key goal serving as the foundation of this assessment and restructuring was to enhance and improve the students' learning experience. Feedback received from current graduate and undergraduate students, alumni, Washington employers and agency representatives suggested strengthening the department's internship program, placement, and organizational structure, and also suggested combining the graduate and undergraduate internship program with a strengthened career counseling effort. A dedicated and trained professional with internship and career counseling experience would provide the important foundation and consistency needed to improve the undergraduate and graduate learning experience in DEOHS.

- *Invest in Infrastructure (Provide the Academic and Administrative Tools to Support Students, Faculty and Staff)*
 - *Promote Partnerships & Collaborations*

A key element of the DEOHS internship and career counseling program is the active and sustained promotion of partnerships and collaborations with the Washington state occupational health and safety professional community, as well as national and international networks. The DEOHS undergraduate major was established over 65 years ago, partially in response to the state's need for qualified health and safety professionals responding to the occupational and environmental health demands of a growing state economy. This growth and complexity of human health interactions with the workplace and one's environment may have changed in focus over the years, but the ongoing need for professionals with expertise in public health, prevention and intervention, as well as rigorous scientific assessment, has remained strong. DEOHS has maintained important partnerships with WA state Departments of Labor and Industries, Ecology, and Social and Health Services to house student interns as well as support employment after graduation.

Thus, DEOHS provides a consistent pipeline of highly trained and well qualified interns and graduates to Washington state agencies, business and non-profit organizations.

- *Increase Access (Keep Tuition Affordable and UW Degrees Accessible)*
 - *Enroll more undergraduates*

Over the next 2-3 years, DEOHS will expand its undergraduate enrollment from the current baseline of 50 students to approximately 100 students. Given the mandatory 400 hours of internship required for the DEOHS B.S. in Environmental Health degree, this expansion will result in a significantly greater workload for internship placement opportunities, establishment of sponsor MoU agreements, student mentorship, evaluation, grading, and subsequent follow-up with internship sponsors. In addition, the expanded undergraduate enrollment will require more staffing time to provide high-quality career counseling and assistance with job placement.

Governor's Results Washington goals:

This proposal supports Results Washington goal 1.3 (increase the attainment of degrees from post-secondary institutions) with the increased recruitment and enrollment of undergraduates into the B.S. Environmental Health major. Additional positive benefits tied to this goal are reflected in the STEM emphasis as stated in the Results Washington description for goal 1.3. The scientific emphasis of DEOHS and the undergraduate major directly align with the emphasis of STEM enrollments, graduation and career placement.

Graduates from the B.S. in Environmental Health program often enter careers in workplace health and safety located in Washington state. Many of the graduates directly support the Results Washington goal 4 (healthy people) through their employment in WA state agencies, private industry and non-profit organizations dedicated to the on-going prevention and intervention strategies to ensure safe and healthy populations. The expansion of the undergraduate program will help ensure a steady pipeline of well trained professionals dedicated to this goal.

What alternatives were explored by the agency and why was this option chosen?

DEOHS explored using revenue from distributions of tuition dollars from student credit hours to support the position, but determined, given the direct tie into the mission of the department and use of the Medical Aid and Accident Funds, that the position would be best aligned with these state funds. Further, using tuition revenue to support this position would pull tuition revenue away from sustaining adequate faculty recruitment and retention and teaching assistant positions for the larger course enrollments.

What are the consequences of not funding this request?

Without funding, there would be less dedicated time directed to DEOHS students, fewer resources to hire and retain faculty instructors, and fewer teaching assistant opportunities. In total, it is likely that the undergraduate and graduate student experience in all degree tracks would be compromised, and the ability to meet the training needs of employers and agencies across the state would decrease.

How has or can the agency address the issue or need in its current appropriation level?

If this request for an Internship Manager is not approved, it is likely that the dedicated support of a 1.0 FTE staff position will be reduced (which could compromise compliance with accreditation requirements). In this situation, the reduced position would be supported (possibly on a temporary basis) through a combination of departmental tuition funds and, potentially, leveraged funds with the needs of other School of Public Health departments.

Competitive Compensation and Retention

Agency Recommendation Summary Text:

A total of \$66,008,000 in state support is requested in the 2017-19 biennium to increase faculty and professional staff salaries at the University of Washington by an average of 4 percent in both FY 2018 and FY 2019. The caliber of faculty and staff at the UW has been instrumental in creating a high quality academic environment and in allowing the University to successfully secure more federal research dollars than almost any public university in the country. The UW graduates more students than any university in the state and over 80 percent of our entering freshmen graduate within six years, higher than any public institution in the state. Compensation must be set at a competitive level for the UW to be able to recruit and retain high quality faculty, staff, and students, who will (in turn) maintain our exceptional record in scholarship, research, and student success.

Please note that separate decision packages will be submitted for employee groups subject to collective bargaining agreements needing approval from the state; therefore, salary increase costs associated with these staff are not reflected in this request.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund – State	\$21,713,240	\$44,295,012	\$44,295,012	\$44,295,012

Package Description

Faculty salaries are one of the largest components of operating costs for higher education institutions. The caliber of faculty members at the UW has been instrumental in creating a high quality academic environment and in allowing the University to successfully compete for federal research funding. Over the years, the UW has seen erosion in the level of compensation provided to faculty relative to peer institutions, especially comparing full and associate professors to those in peer institutions.

UW faculty salaries across all faculty ranks would need to grow by an average of 8.4 percent in order to achieve the goal of reaching the Global Challenge State (GCS) peers' mean salary for all faculty. Even with the compensation increases provided in recent years, the UW expects a significant salary gap to persist. Bringing faculty salaries closer to those of our peer institutions is a high priority goal of the UW's administration.

The following table shows faculty salary data from 2015-16:

**2015-16 Average faculty salary by rank - UW Seattle Compared to Global Challenge State (GCS) Peers
(9- and 12-month service period salaries combined and reported on 9-month basis)**

Institution	Professor		Associate Professor		Assistant Professor		All Ranks	
	#	Salary	#	Salary	#	Salary	#	Salary
U California-Davis	789	\$151,400	277	\$105,000	236	\$89,300	1,302	\$130,272
U California-Irvine	543	\$159,400	223	\$101,700	190	\$90,700	956	\$132,287
U California-Los Angeles	963	\$187,800	257	\$122,600	240	\$97,900	1,460	\$161,545
U California-San Diego	557	\$159,800	205	\$108,000	152	\$92,300	914	\$136,956
U Connecticut	474	\$155,800	450	\$105,700	392	\$88,500	1,316	\$118,622
U Massachusetts-Amherst	458	\$145,200	312	\$104,000	303	\$85,600	1,073	\$116,390
Rutgers	1,107	\$159,338	729	\$107,146	746	\$87,876	2,582	\$123,955
U Maryland	802	\$154,874	538	\$107,112	539	\$89,468	1,879	\$122,437
U Colorado	612	\$137,276	641	\$99,436	476	\$91,759	1,729	\$110,716
U Virginia-Main	522	\$164,900	340	\$111,300	229	\$94,900	1,091	\$133,503
Total/mean (without UW)	6,827	\$159,207	3,972	\$106,430	3,503	\$90,109	14,302	\$127,625
Peer mean weighted to UW rank mix		\$159,207		\$106,430		\$90,109		\$124,319
U Washington	683	\$132,817	504	\$103,837	433	\$95,805	1,620	\$113,908
% change to equal peer mean (weighted to UW rank mix)		16.6%		2.4%		-6.3%		8.4%

As is clear from the data above, compensation gaps are particularly acute at the associate professor and full professor ranks. As a result, the UW has developed a national reputation as a prime recruiting territory for other, competing institutions that are searching for the most promising and productive faculty members. Even when assistant professors are recruited to the UW with more competitive salaries, their peers in the same department are often paid less. Salary compression and stagnation remain significant concerns for the UW's administration.

In addition to comparing faculty salaries at the UW to those at peer institutions, the UW regularly compares the salaries of teaching assistants, librarians and classified staff to salaries at its peers. Compensation for these employee groups lags behind the compensation rates of similar positions at peer institutions and in the local market. Note that separate decision packages will be submitted for those employee groups subject to collective bargaining agreements; therefore, costs associated with increasing the salaries of these staff are not reflected in this request.

Every two years the UW assesses pay competitiveness for the University's professional staff. This survey was last conducted in 2015.

The University hires professional staff employees from the education sector and from general industry (including the private sector). In most areas, however, the University also

loses employees to both of these markets. The private sector can often provide a total pay package that includes elements that the University does not offer, such as annual incentives like bonuses or long-term incentives like stock options, restricted stock, or performance shares. Because the University does not pay incentives, its competitive disadvantage has been addressed by comparing base salary to market data for median total cash compensation (base plus incentives).

Salaries at the University of Washington were compared to regional and national institutions of higher education. The UW's employee-weighted average is 4.7 percent below the 50th percentile of the market, but this does not give a complete picture. As illustrated in the following table, there are significant variances in market position between different job families:

Job Family	# UW Employees in Benchmark Titles	UW Weighted Average Pay vs Market (percent)
Counseling/Student Services	459	-5.0
Development	71	-15.6
Health Care	177	11.3
Manager/Strategic Advisor	829	-0.9
Public Information/Communications	212	-10.8
Research	980	-17.1
Information Technology	683	-5.3

Although pay for the health care job family is quite competitive, other job families are moderately or, in some cases, substantially behind the market. In the research job family, our associate research scientist/engineer benchmark (with 338 employees) showed up 25.6 percent behind the market, and our research consultant benchmark (with 52 employees) was farther behind, lagging behind the market by 31.8 percent. In the Information Technology (IT) job family, the senior computer specialist benchmark (with 319 employees) was 10.3 percent behind the market, and department IT manager benchmark (with 40 employees) was 15 percent behind.

Additionally, when making a national hire, the University is more challenged than many of its peer institutions because of its location. According to data from the Economic Research Institute, the cost of living in the greater Seattle area is roughly 40 percent higher than the national average. This high cost of living impacts the decisions of potential employees from other parts of the country. While the cost of labor in Seattle is 13 percent higher than the national average, and new recruits can make higher salaries here than in many locations, the difference presents obstacles to recruiting.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

To construct this decision package, we assumed the current salary base as of July 2016 for faculty and staff paid with General Operating Fund budgets (budgets that provide spending authority for state funds and tuition revenue). This decision package was submitted before a planned 4 percent increase in FY 2017 was fully implemented (estimated for the end of September). Therefore, we first assumed an average of 4 percent increase in the UW's budgeted salary base from July.

To calculate the funds necessary to implement a 4 percent increase in FY 2018, we then increased the assumed FY 2017 salary base by 4 percent and added in marginal benefits using FY 2017 benefit rates, as calculated by the University for each employee category. We assumed the new base for FY 2018 in order to apply a 4 percent increase and incremental benefit expense for the FY 2019 increase. Finally, we included the carryforward expense from the first year of the biennium in our calculation of the second years' total expense.

Please note that this calculation assumes no growth in the number of FTE faculty and staff positions at the UW, and assumes FY 2017 benefit rates for calculations of future years when, historically, benefit costs increase each year. Therefore, this request does not reflect the entire expected costs of these increases.

Base Budget:

Please see salary expenditures by program category (for current assumed salary base and proposed increases) below:

Funding Source	Prgm Ctgry	Adj Salary Base with FY17 estimated increases	% of Base Salary	FY18 Incremental Expense (salary+ benefits)	FY18 Expense Carried Forward in FY2019	FY19 Incremental Expense (salary+ benefits)	FY19 Expense (FY18 Carry Fwd + FY19 incremental)	Total Estimated Biennial Expense
GF-S	01	341,528,151	72.25%	15,687,536	15,687,536	16,315,039	32,002,574	47,690,110
	02	1,031,957	0.22%	47,401	47,401	49,297	96,699	144,100
	03	1,870,543	0.40%	85,920	85,920	89,357	175,277	261,198
	04	46,027,787	9.74%	2,114,211	2,114,211	2,198,780	4,312,990	6,427,201
	05	10,458,664	2.21%	480,402	480,402	499,618	980,019	1,460,421
	06	16,722,893	3.54%	768,139	768,139	798,864	1,567,003	2,335,142
	07	1,195,615	0.25%	54,919	54,919	57,115	112,034	166,953
	08	44,034,968	9.32%	2,022,674	2,022,674	2,103,581	4,126,255	6,148,929
	09	9,841,194	2.08%	452,039	452,039	470,121	922,160	1,374,199
GF-S Total		472,711,772	100.00%	21,713,240	21,713,240	22,581,772	44,295,012	66,008,252

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

The UW maintains a goal to invest in people by recruiting, retaining, compensating, and supporting our faculty and staff. To meet this goal, we must address faculty and staff compensation parity with peers. With the requested funds, the UW will be able to maintain and expand its reputation as a world-class research institution and its exceptional record in scholarship, research, and student success.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	No	
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	No	
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	Yes	This request will allow the UW to increase faculty and professional staff salaries by 4 percent in each FY 2018 and FY 2019.
Does request require a change to a collective bargaining agreement?	No	Salary adjustments for employee groups subject to collective bargaining will be negotiated and submitted in separate decision packages.
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's Results Washington priority of world-class education.

Please provide a detailed discussion of connections/impacts identified above.

The University's ability to spin out new companies, hire outstanding researchers and staff, and enroll students is entirely dependent on its ability to compensate its faculty and staff. The University competes for faculty and staff on an international stage, and it is a high priority goal of the UW's administration to bring faculty and staff salaries closer to those of our peer institutions. This will allow us to at least maintain, if not improve, our ability to attract the best students and the most grants.

UW Strategic Plan:

This proposal is integral to the University's efforts to:

- Attract and retain an outstanding and diverse faculty and staff to enhance educational quality, research strength, and promote leadership.
- Attract a diverse and excellent student body and provide a rich learning experience.
- Recruit, retain, and reward a competitive and skilled workforce.

Governor's Results Washington Priorities:

Compensating our faculty and staff competitively is essential to attracting, retaining, and graduating more students. If we are to achieve and maintain a "world-class education" at the UW, we must invest in world-class faculty and staff that, with students, comprise the University and make it as successful as it is.

Faculty and staff must be compensated in line with peers in order to maintain the University's quality. As the state of Washington's flagship research institution, the UW enrolls and graduates the most students of any state institution and this level of academic and research activity is sustained by its faculty. Faculty are the foundation upon which the future of the University rests. More students apply to the UW every year because our reputation as a world-class research university is growing. This reputation is due to the faculty and students who engage in our research, teach in our classrooms, and serve in our community. It is a reputation worth investing in.

What alternatives were explored by the agency and why was this option chosen?

Because UW's faculty and staff are integral to the teaching mission of the University, it is expected that the state will ensure competitive salaries in order to attract and retain world-class employees.

What are the consequences of not funding this request?

Agency 360 – University of Washington
2017-19 Operating Budget Request
Decision Package: PL A0

Not funding this request will only result in increased attrition of our most competitive faculty and staff because our salaries will continue to lag behind peer universities. The University of Washington will continue to see faculty and staff recruited away to other institutions of higher education and to the private sector. The loss of faculty and staff will diminish our ability to provide a world-class education in the state of Washington.

How has or can the agency address the issue or need in its current appropriation level?

The UW is not able to address this issue within current appropriation levels.

Other supporting materials:

The tables below show how the UW calculated the necessary funds to fulfill this request:

CATEGORY	Adj Salary Base 07.05.16 with FY17 estimated increases	FY18 % Increase	FY18 \$ Increase	FY18 Salary Base	FY17 Marginal Benefit Rates	FY18 Marginal Benefit Increase	FY18 Incremental Expense (salary+benefits)
Faculty	312,574,756	4.0%	12,502,990	325,077,746	14.3%	1,787,928	14,290,918
Faculty - UWMC	92,899	4.0%	3,716	96,615	14.3%	531	4,247
Faculty - HMC	179,693	4.0%	7,188	186,881	14.3%	1,028	8,216
Auxiliary Faculty	4,934,214	4.0%	197,369	5,131,583	11.6%	22,895	220,264
Medical Residents	6,282,430	4.0%	251,297	6,533,727	11.6%	29,150	280,447
Professional	147,724,757	4.0%	5,908,990	153,633,747	16.2%	957,256	6,866,246
Professional - UWMC	495,835	4.0%	19,833	515,668	16.2%	3,213	23,046
Professional - HMC	427,188	4.0%	17,088	444,276	16.2%	2,768	19,856
	472,711,772		18,908,471	491,620,243		2,804,769	21,713,240

CATEGORY	FY18 Expense Carried Forward in FY19	FY19 % Increase	FY19 \$ Increase	FY19 Salary Base	FY17 Marginal Benefit Rates	FY19 Marginal Benefit Increase	FY19 Incremental Expense (salary+benefits)	Total Estimated Biennial Expense
Faculty	14,290,918	4.0%	13,003,110	338,080,856	14.3%	1,859,445	14,862,555	43,444,391
Faculty - UWMC	4,247	4.0%	3,865	100,480	14.3%	553	4,418	12,912
Faculty - HMC	8,216	4.0%	7,475	194,356	14.3%	1,069	8,544	24,976
Auxiliary Faculty	220,264	4.0%	205,263	5,336,846	11.6%	23,811	229,074	669,602
Medical Residents	280,447	4.0%	261,349	6,795,076	11.6%	30,316	291,665	852,559
Professional	6,866,246	4.0%	6,145,350	159,779,097	16.2%	995,547	7,140,897	20,873,389
Professional - UWMC	23,046	4.0%	20,627	536,295	16.2%	3,342	23,969	70,061
Professional - HMC	19,856	4.0%	17,771	462,047	16.2%	2,879	20,650	60,362
	21,713,240		19,664,810	511,285,053		2,916,962	22,581,772	66,008,252

Maintenance and Operations for New Facilities (Performance Level)

Agency Recommendation Summary Text:

A total of \$6,225,000 in state support for maintenance and operations (M&O) costs is requested in the 2017-19 biennium for buildings that will be completed during the 2017-19 biennium. These two buildings—Nano Engineering & Science Building and Life Sciences Building—were funded through Sound Transit mitigation funds, local funds, donor funds, and/or bonds, but are critical to the teaching and research missions of the University of Washington. Because both buildings were constructed with temporary funds, the UW is requesting state support to cover their ongoing maintenance and operations.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund- State	\$1,290,120	\$4,934,784	\$4,934,784	\$4,934,784

Package Description

This package would provide needed funding for utilities, building maintenance, custodial services, and building administration for two buildings constructed with non-state funds:

Nano Engineering & Sciences (NanoES) Building

A building for nano engineering research and teaching requires a quiet site with low vibrations and electromagnetic interference (EMI). The majority of the College of Engineering buildings are located close to the new Sound Transit rail line and the UW station at Husky Stadium, which would significantly compromise the UW's ability to perform nano engineering research.

To mitigate this impact, UW and Sound Transit successfully negotiated a \$43 million agreement that relocates sensitive teaching and research activities. Through a combination of these mitigation funds and other local funds, the UW expects to complete construction of the NanoES building in May of 2017. Because this building was constructed with temporary funds, the UW is requesting state support for the ongoing maintenance and operations of this important building.

Life Sciences Building (LSB)

The UW requested a total of \$40 million in the 2015 legislative session to begin construction of a new Life Sciences Building to accommodate enrollment growth in the life sciences and high-demand STEM fields. Given the limited availability of state funds, the UW did not receive a state investment. In response to an immediate need to increase capacity in STEM programs and in the face of escalating construction costs, the UW College of Arts & Sciences received approval from the UW Board of Regents to finance the project through bonds.

The LSB will provide modern research and instructional space for the Department of Biology so that it can 1) recruit more faculty to meet undergraduate student demand and retain a world-class faculty whose innovative research is the engine of scientific discovery, 2) provide open, flexible, modular, high-density labs ideally suited to the collaborative, interdisciplinary research that is not met by the current Biology buildings, and 3) educate and train the current generation of undergraduates in state-of-the-art research methods working side by side with faculty, postdocs, and graduate students. The building will provide lab and office space for up to 40 Biology faculty and will have four authentic undergraduate teaching labs and one active learning classroom. The building will allow the Biology department to grow to meet the teaching demand of the largest STEM major in the entire state of Washington.

This request will provide funds for the operations and maintenance for the new Life Science Building. Construction of the LSB will be completed and occupation will commence in September of 2018.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

N/A

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

M&O estimates have several components. The estimates for the utilities, custodial and grounds services, and operations and maintenance support components are based on recent expenditures for similar buildings. However, estimates for the “building and utilities maintenance” component are based on a formula of capital project costs and type of building, as these costs can fluctuate significantly year to year. This formula ensures that the requested level of support will be sufficient to fully maintain and preserve these buildings. If this M&O component were based solely on recent expenditure levels, funds

would be insufficient, which would add to the UW's significant deferred maintenance backlog and, in turn, would increase long-term costs to the state.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

Adequately funding maintenance and operations for new and renovated space would assist in managing the UW's maintenance backlog. In addition, support for these buildings would allow the UW to use its existing operating funds for other academic uses.

As the state and higher education institutions moved away from funding based on a formula for maintenance and operations costs, the long-term effect has been an accumulation of deferred maintenance projects. Funding M&O at adequate levels helps keep buildings in good working condition and helps mitigate the need for more expensive, capital projects resulting from future systems failures.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	No	
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	No	
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	Yes	Maintaining adequate teaching and research facilities is critical to the mission of the University and the efficient work of its faculty, staff, and students.
Capital Budget Impacts?	No	See below

Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's priorities to expand postsecondary access and success, and degrees in high demand STEM areas.

Please provide a detailed discussion of connections/impacts identified above.

These buildings were funded through Sound Transit mitigation funds, local funds, and donor funds (NanoES), or bonds (LSB), but are critical to the teaching and research missions of the University of Washington. Because both buildings were constructed with temporary funds, the UW is requesting state support for their ongoing maintenance and operations costs.

Funding ongoing maintenance and operations is essential to meet the University's goals to ensure the highest level of integrity, compliance, and stewardship. This proposal is also necessary to meet the University's goals to attract and retain outstanding and diverse faculty and students; provide outstanding graduate education; strengthen interdisciplinary collaborative research, teaching, and learning; and maintain and build infrastructure and facilities.

This funding request also aligns with the Governor's priorities to expand postsecondary access and success. Providing funds to cover maintenance and operations of the NanoES building and Life Sciences Building will contribute directly to expanding degrees in high demand STEM areas.

What alternatives were explored by the agency and why was this option chosen?

While these buildings were constructed with non-state funds, both are important investments that will benefit the state by expanding capacity in high demand STEM areas. Further, these buildings were constructed with one-time funds that are not available once the buildings are complete. As such, the UW did not consider other options for funding maintenance and operations of these buildings.

What are the consequences of not funding this request?

These buildings represent multiple biennia of investments by the UW and other entities. Not funding these requests would add to the UW's deferred maintenance backlog and could jeopardize the long-term integrity of these significant investments—potentially increasing long-term costs to the state and the UW.

How has or can the agency address the issue or need in its current appropriation level?

If state funds are not provided, institutional resources could be redirected to support the ongoing maintenance and operations of these buildings. However, this would divert funding away from other critical activities and purposes, which would diminish our ability to provide instruction and conduct research in these new spaces.

Other supporting materials:

Please see Attachment E on the following page for a detailed look at each building's expected occupancy, gross square footage, expected maintenance and operations costs, and other information.

Attachment E (PL)
Maintenance & Operations Costs
For New Facilities Projected to Come On-Line in 2017-19 (Performance Level)

Institution: **University of Washington**

Project Name	Total Project Gross Square Feet*	Gross Square Feet		Projected Occupancy Date	Projected Percentage of Year Occupied		Proposed State-Supported Cost Per Square Foot**		Requested State Support		
		Replaced by Project	Renovated in Project		FY 18	FY 19	FY 18	FY 19	FY 18	FY 19	TOTAL
Nano Engineering & Science Building	78,000			5/1/2017	100%	100%	\$16.54	\$17.04	\$1,290,120	\$1,329,120	\$2,619,240
Life Sciences Building	211,600			7/2/2018	0%	100%	\$16.54	\$17.04	\$0	\$3,605,664	\$3,605,664
TOTAL									\$1,290,120	\$4,934,784	\$6,224,904

Seattle Campus (Research Building)	Proposed Rate per GSF		Estimation Basis for Proposed Rate
Component	FY 18	FY 19	
091 - Utilities	\$3.22	\$3.32	Actual cost per GSF during FY15, escalated by 3% per year
092 - Bldg & Utilities Maintenance	\$11.31	\$11.65	Based on capital project cost and type of building (research or academic)
093 - Custodial & Grounds Svcs.	\$1.49	\$1.53	Actual cost per GSF during FY15, escalated by 3% per year
094 - Ops & Maintenance Support	\$0.52	\$0.54	Actual cost per GSF during FY15, escalated by 3% per year
TOTAL	\$16.54	\$17.04	

WWAMI Spokane Expansion

Agency Recommendation Summary Text:

The UW is requesting \$9,263,000 in state funding for the 2017-19 biennium to develop and expand the University of Washington's medical student education program in Spokane and eastern Washington, in partnership with Gonzaga University, to a cohort size of 80-students in each year of the program. The expansion will be phased in over two biennia and the full cost of operating the program will not be realized until fiscal year 2021, when there will be full 80-student cohorts over all four years of medical school. At that time, it is anticipated that the program will cost \$3.9 million per year of state funding, approximately \$48,600 per student. Last biennium, the state provided funding to support all four years of medical education for the UW's original 40 students per cohort in Spokane, as well as expansion funding for 20 additional students per cohort in the first two years of medical school. This request assumes funding for the maintenance level request, which will bring each Spokane cohort to 60 students. This request will expand medical student enrollment by an additional 20 students starting July 1, 2017 in Spokane. This proposal immediately begins to address the current and growing shortage of physicians in Washington state including in Spokane and the surrounding rural counties by enrolling new medical students the very next fiscal year.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund- State (ongoing)	\$3,889,000	\$3,889,000	\$3,889,000	\$3,889,000
General Fund- State (one-time)	\$471,000	\$1,014,000	\$664,000	-
Total	\$4,360,000	\$4,903,000	\$4,553,000	\$3,889,000
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	29.35	34.35	34.85	34.85

Package Description

WWAMI, which stands for Washington, Wyoming, Alaska, Montana, and Idaho, is the northwest regional medical education program of the UW School of Medicine (SoM). The program began in the 1970's as a cost effective response to a critical shortage of physicians, particularly those practicing in rural areas, by utilizing one state medical school to serve a large geographical area. Under the program, students complete the 18-month foundational phase at their respective institutions, attend the UW for the rest of the second

year, and then have the option of spending much of their third and fourth years in rural and community settings. There are currently WWAMI sites in Eastern Washington, Wyoming, Alaska, Montana, and Idaho.

The WWAMI Spokane program is currently funded to have 60-student cohorts in years 1 and 2 of the medical program, and 40-student cohorts in years 3 and 4. This request builds off of the maintenance level request, which would bring each Spokane cohort to 60 students.

When fully ramped up, this request would raise the cohort size by 20 students in each of the four cohorts, raising the total cohort size to 80 students and the total number of UW/Gonzaga medical students training in Spokane to 320 students. By increasing the number of physicians trained in Spokane and eastern Washington, the physician workforce in the state, particularly eastern Washington and Spokane, will increase.

The expansion will be phased in over two biennia and the full revenue and cost of operating the program will not be realized until fiscal year 2021 (FY21), when there will be a full cohort of 80 students over all four years of medical school. At that time, it is anticipated that the program will cost \$6.5 million per year, with \$3.9 million per year of state funding and \$2.6 million of tuition. Please see the attached fiscal and enrollment detail for more information.

The state money along with tuition from the expanded class would buy approximately 35.10 FTE of faculty and staff time to teach and support the curriculum over all four years of medical school. In addition, the funding would support travel, housing and stipend costs to support the clerkships across the WWAMI sites.

To support faculty and staff in the Foundations and Clerkship phases of the program, while student cohort size and tuition revenue is ramping up, \$1.5 million in temporary funds will be needed in FY18 and FY19, along with \$664,000 in FY20. By the fourth year, all costs will be supported by tuition and permanent state funds and no temporary state funds will be required. The ongoing cost to the state per medical student would be approximately \$48,600 per year.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

The UW is requesting additional funding for the Spokane-based program. Currently, baseline support for the program includes \$6.9 million per year in tuition revenue and \$9.0 million per year in state support, which is a combination of \$5.4 million per year approved

in the 2015-17 operating budget and \$3.6 million per year approved in 2007-09 operating budget. This baseline funding supports 200 students in the Spokane-based program: 60 students in each of the 1st and 2nd year cohorts, and 40 students in each of the 3rd and 4th year cohorts.

Of this total baseline funding, approximately \$6.5 million supports the program operations located specifically in Spokane, including over 40 staff and faculty that are directly involved in the Spokane program. The remaining annual balance supports operations in Seattle and clerkship sites across the State (including in rural locations during years 3 and 4 of the curriculum), which are essential to the Spokane-based program.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

Please see the attached fiscal and enrollment detail.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

When fully ramped up, there would be 80 additional medical students served in eastern Washington each year (20 per cohort). Increasing the number of physicians trained in Spokane and eastern Washington will help to increase the physician workforce in the state, particularly in eastern Washington and Spokane.

The significant physician workforce shortage in eastern Washington is worsening and is especially acute in rural areas in the primary care specialties. Studies clearly indicate that receiving medical training in an area provides the greatest likelihood for a physician to practice in that area. This request will produce additional physicians, including primary care physicians, to serve clients in rural and underserved areas in eastern Washington. The WWAMI program returns 52 percent of students to Washington, compared to the national average of 38 percent. Additionally, 60 percent of WWAMI graduates enter primary care, compared with the national average of 39 percent. Biomedical research will be enhanced through collaborations among UW and its eastern Washington higher education partners.

Fully describe and quantify expected impacts on state residents and specific populations served.

The additional 20 students per cohort in Spokane will have an immediate and positive economic return to the state as every state dollar invested in the UW returns \$49.23 to the state economy (Tripp Umbach 2014 report, University of Washington, page 6). In addition, it

will generate new Washington jobs. Training and recruiting additional faculty will improve the value of postsecondary learning for students. It will provide more research opportunities for students, potentially providing graduate-level research projects that can help foster on-going interest and investment in state healthcare issues. It will also provide a hub of research work on U.S.-focused health issues that eventually could lead to the attraction of other prominent researchers to the University of Washington.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	The significant physician workforce shortage in eastern Washington is worsening and is especially acute in rural areas in the primary care specialties. This request will produce additional physicians, including primary care physicians, to serve clients in rural and underserved areas in eastern Washington.
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	Yes	Because an anatomy lab is not yet available on the Gonzaga campus, WWAMI will continue to use WSU's anatomy lab on the Riverpoint campus for at least the upcoming academic year.
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's priorities of world-class education, healthy and safe communities, and a prosperous economy.

Please provide a detailed discussion of connections/impacts identified above.

UW Strategic Plan

Expanded state support for enrollment in areas of critical state need is integral to every part of the University's core values reflected in the strategic priorities of the University of Washington, including integrity, diversity, excellence, collaboration, innovation and respect. In addition, the program is responsive to the University's short-term goals. The WWAMI program is a cost-efficient model for educating medical students and the University's national and international recognition provides an essential recruiting tool to attract and support the best students, faculty and staff. Faculty who teach medical students have an active, collaborative research program and/or clinical practice and are well-positioned to apply for funding opportunities from federal agencies such as the National Institutes of Health (NIH).

Governor's Results Washington Goals

This proposal bridges three Results Washington goals:

- World-Class education – increase the number of students who will earn a medical degree in a cost efficient structure.
- Healthy and Safe Communities – increase in medical doctors practicing in the state increases access to healthcare to improve people's lives in eastern Washington.
- Prosperous Economy - increase in jobs with an increase in medical doctors practicing in the state.

As the number of students who train in Spokane or eastern Washington increase, the yield of graduates who will stay and practice in the area can be expected to increase.

State agency impacts

With the new Gonzaga University partnership, WWAMI students will be located on the Gonzaga campus. There is no anatomy lab on the Gonzaga campus. A contract with Washington State University to use the anatomy lab on the Riverpoint campus has been completed for the 2016-2017 academic year and we are negotiating an extension. It is unclear if Washington State University will allow ongoing use of the anatomy lab on the Riverpoint campus in future years. This may require additional funding if a new anatomy lab is required. There also may be need for expanded classroom space on the Gonzaga campus as the class size expands.

What alternatives were explored by the agency and why was this option chosen?

Alternatives such as expanding health professional loan repayment programs and increasing funding for residencies can help address the physician shortage. In the 2015 legislative session, the state increased funding for Family Medicine Residency Network. This

additional support will help expand opportunities for medical students to choose residencies in Washington, which will improve the likelihood that those students ultimately practice in Washington. In addition, the 2015 legislature restored funding to the Health Professionals Loan Repayment and Scholarship Program, which targets loan repayments toward increasing the number of primary care health professionals in rural and underserved communities. However, even with these alternative forms of support, additional medical students are needed to fill the expanded residency slots. The most efficient and cost-effective way to address the shortage is to add additional student capacity to a proven and established medical education program.

What are the consequences of not funding this request?

There is a national consensus that the United States is facing a significant physician shortage. These national shortages are caused by population growth that has not been matched by medical education growth over the last 30 years, an aging population with increased demands for health care, new medical technologies, and changes in the working patterns of physicians. Compared to the U.S. average of 226 physicians per 100,000 population, eastern Washington has 181 physicians per 100,000 population (Washington State's Physician Workforce in 2014 report prepared by Center for Health Workforce Studies). In addition, because much of eastern Washington is rural, the physicians who serve it are predominately from primary care specialties. The percentage of U.S. physicians choosing to practice primary care medicine is decreasing sharply and exacerbates eastern Washington's problem in recruiting the physician workforce it needs.

The significant physician workforce shortage in eastern Washington is worsening and is especially acute in rural areas in the primary care specialties. Studies clearly indicate that receiving medical training in an area provides the greatest likelihood for a physician to practice in that area. Without additional capacity in Washington's medical education programs, these shortages will not be addressed.

We can add medical students immediately upon receipt of funding. If we receive funding to support 20 more students on top of our current cohort of 60 students, for a total of 80 per cohort, we will expand medical education in Spokane and Eastern Washington as soon as August of 2017.

How has or can the agency address the issue or need in its current appropriation level?

Tuition increases can only partially offset or replace state funding. Tuition was increased significantly from 2010 to 2014 to offset budget reductions, which leaves little capacity for additional increases. Tuition increases would push the WWAMI students to above national

averages for student debt. As the majority of WWAMI students will practice in primary care or in a rural and underserved area, which have below national averages in physician compensation, this would create an increased burden on the students and could reduce retention rates in rural and underserved settings. It is worth noting that Alaska, Montana, Idaho and Wyoming protected state funds for WWAMI during the period that the state of Washington reduced funding for higher education, including the WWAMI program.

Other supporting materials:

Please see the attached fiscal and enrollment detail.

WWAMI Spokane Expansion - Fiscal Detail

(Performance Level Request)

CASH RECEIPTS				
Fund Title/Number	FY 18	FY 19	FY 20	FY 21
State Funding (ongoing)	\$3,889,000	\$3,889,000	\$3,889,000	\$3,889,000
State Funding (one-time)	\$471,000	\$1,014,000	\$664,000	-
Tuition Revenue	\$654,000	\$1,308,000	\$1,961,000	\$2,615,000
TOTAL	\$5,014,000	\$6,211,000	\$6,514,000	\$6,504,000

EXPENDITURES				
Object	FY 18	FY 19	FY 20	FY 21
Salaries & Wages	\$3,487,000	\$3,817,000	\$3,850,000	\$3,850,000
Employee Benefits	\$958,000	\$1,058,000	\$1,069,000	\$1,069,000
Professional Service Contracts				
Goods and Services	\$297,000	\$379,000	\$377,000	\$382,000
Travel	\$21,000	\$287,000	\$389,000	\$373,000
Capital Outlays	\$0	\$0	\$0	\$0
Inter Agency Fund Transfers				
Grants, Benefits Services				
Debt Service				
Interagency Reimbursement				
Intra-Agency Reimbursement				
Other: Specify -stipend for clerkship sites	\$250,000	\$670,000	\$830,000	\$830,000
TOTAL	\$ 5,013,000	\$ 6,211,000	\$ 6,515,000	\$ 6,504,000

FTE DETAILS				
Job Title, Full-Time Salary (not including benefits)	# of FTE needed for each job title by year			
	FY 18	FY 19	FY 20	FY 21
Clinical Faculty Surgical, \$300,000	0.40	0.40	0.40	0.40
Clinical Faculty Non-surgical, \$200,000	12.35	12.85	12.85	12.85
Basic Science Faculty, \$100,000	1.20	1.20	1.20	1.20
Basic Science Faculty, \$75,000	0.00	1.00	1.00	1.00
Administrative Specialist, \$75,000	0.50	0.50	0.50	0.50
Program Ops Specialist, \$50,000	0.00	0.50	0.50	0.50
Program Ops Specialist, \$70,000	1.00	1.00	1.00	1.00
Administrator Anatomy, \$65,000	0.15	0.15	0.15	0.15
Computer Specialist-Data Analyst, \$60,000	0.50	0.50	0.50	0.50
Assistant to Asst. Dean, \$49,000	1.00	1.00	1.00	1.00
Diversity Manager, \$50,000	0.75	0.75	0.75	0.75
Counseling Services Coordinator, \$65,000	0.00	0.00	0.50	0.50
Assistant Registrar Manager, \$55,000	1.00	1.00	1.00	1.00
Administrator, \$50,000	0.00	0.50	0.50	0.50
Program Manager, \$50,000	1.00	1.00	1.00	1.00
Program Manager, \$46,000	1.00	1.00	1.00	1.00
Program Coordinator, \$55,000	1.00	1.00	1.00	1.00
Program Coordinator, \$45,000	7.50	8.50	8.50	8.50
Program Coordinator, \$40,000	0.00	0.50	0.50	0.50
Fiscal Staff, \$40,000	0.00	1.00	1.00	1.00
TOTAL	29.35	34.35	34.85	34.85

WWAMI Spokane Expansion - Enrollment Detail

Performance Level Request

Spokane Enrollment Detail: FY16-FY21

Currently-funded enrollment:

Numbers in *blue* include the 20 additional students that the 2015 legislature funded for years 1 and 2 (but not years 3 and 4) of the medical education program.

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	40	60	60	60	60	60
2nd Year	40	40	60	60	60	60
3rd Year	40	40	40	40	40	40
4th Year	40	40	40	40	40	40
Total	160	180	200	200	200	200

Enrollment if maintenance level request is funded:

Numbers in *bold* indicate what the maintenance level request would buy -- a continuation of the 20 additional students into years 3 and 4 of the program.

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	40	60	60	60	60	60
2nd Year	40	40	60	60	60	60
3rd Year	40	40	40	60	60	60
4th Year	40	40	40	40	60	60
Total	160	180	200	220	240	240

Additional students served under this performance level request:

Numbers in *red* indicate what this performance level request would buy: 20 additional students in each cohort of the program.

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	0	0	20	20	20	20
2nd Year	0	0	0	20	20	20
3rd Year	0	0	0	0	20	20
4th Year	0	0	0	0	0	20
Total	0	0	20	40	60	80

Total enrollment if performance level request is funded:

	FY16	FY17	FY18	FY19	FY20	FY21
1st Year	40	60	80	80	80	80
2nd Year	40	40	60	80	80	80
3rd Year	40	40	40	60	80	80
4th Year	40	40	40	40	60	80
Total	160	180	220	260	300	320

Tri-Campus Student Success Initiative

Agency Recommendation Summary Text:

A total of \$5,090,000 in state support is requested in the 2017-19 biennium for a tri-campus effort to promote student success at the University of Washington. At all three campuses, this proposal would expand programs that improve access, retention, graduation, and career preparation, with an emphasis on first generation, low-income, underrepresented minority, and transfer students—especially those in STEM fields.

This is part of a public higher education sector-wide effort to invest in proven strategies that retain students, lead to efficient degree completion, meet the state's workforce needs in critical STEM and high demand areas, ensure that students excel in today's competitive labor market, and reduce bottlenecks for degree pathways.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund – State	\$2,545,000	\$2,545,000	\$2,545,000	\$2,545,000
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	27.1	27.1	27.1	27.1

Package Description

This package combines student success proposals from several units of the University of Washington, including all three campuses. During the development of this budget request, the UW solicited proposals from its colleges, schools, campuses, and major administrative offices. The following proposals, which make up this decision package, were determined to be the most impactful in promoting student success. Assuming full funding of this package, the UW would make the following investments **each biennium**:

UW in Seattle

College of Engineering: Diversity & Access

\$410,000 (\$205,000 per year) to expand the STARS program. Washington State Academic Redshirt (STARS) is a specialized, wrap-around support program for freshmen. The goal of

STARS is to increase the number of economically-and educationally-disadvantaged students who graduate from the UW with engineering degrees.

The current STARS program is supported entirely by temporary grants. Funds have come from the National Science Foundation (\$2 million), the Washington State Opportunity Scholarship (\$2.2 million), the Boeing Company (\$50,000), Seattle Foundation (\$50,000), and other foundation and private donors. Currently, the program is growing to 5 FTE staff, including a director, two advisors, one program manager, and a physics instructor. In addition, there are 6 FTE teaching assistants (TAs) who provide instruction in chemistry, math, and physics. Current **annual** budgets for these positions are \$390,000 for staff and \$187,000 for TAs.

\$250,000 (\$125,000 per year) to double the number of students in the Math Academy. The Math Academy helps high-achieving, rising high school seniors (especially underrepresented minority students) develop math and problem-solving skills to succeed in engineering. Math Academy also exposes students to a variety of examples of engineering in practice. Since its inception in 2009, over 200 students have attended Math Academy. On average, 50 percent of the participants are underrepresented minorities, 60 percent are from low-income families, and for the last five years, 50 percent of participants have been women. Nearly 90 percent of the Summer 2015 cohort will enter the University of Washington's Seattle campus in Autumn 2016.

Currently, the Math Academy is supported **annually** by a combination of \$73,000 in tuition funds, which support the salary and benefits of an assistant director, and a combination of gifts from corporations and foundations such as the RealNetworks Foundation, the Micron Foundation, and F5 Networks, private gifts, and the Dean's Endowed Chair, totaling \$120,000. Gift funds support the salary and benefits of TAs, programming, field trips, and other assorted materials.

To support both these efforts, the Engineering Academic Center and Engineering Diversity and Access staff would be expanded (3 FTE for STARS and 6-one-month student employees for Math Academy).

Office of Minority Affairs and Diversity (OMA&D): Diverse STEM Workforce

\$171,000 (\$85,500 per year) to expand STEM outreach programs and pipelines. The UW would hire 1 FTE STEM Outreach Coordinator to focus on recruiting high school and community college students in STEM fields who are low-income, from underrepresented groups, or would be first-generation college students. The Multicultural Outreach and Recruitment program operates with an **annual** budget of \$1.035 million, including \$550,000 in state funds. The budget supports programming and operating costs and 9 FTE

staff, including an associate vice president, program director, assistant director, outreach coordinators, and an administrative assistant. In addition, the budget supports 15 part-time student assistants.

\$600,000 (\$300,000 per year) to provide STEM teaching and instructional support. The UW would expand staff at the Instructional Center by 3 FTE counselors to provide 5,400 additional hours of staff tutoring and instructional support and add student tutors to provide an additional 5,000 hours of student tutoring time in key math and science courses each year to first-generation, low-income, and underrepresented minority students. This would increase tutoring and instructional support by 10,400 hours per year. The Instructional Center operates with an **annual** budget of \$1.241 million, including \$1.216 million in state funds and \$25,000 in student fees. The budget supports operating costs and 17 FTE staff, including a center director, an administrative assistant, an IT/data specialist and instructional staff. In addition to staff tutoring hours, the budget currently supports 5,412 student tutor hours each year.

\$491,000 (\$245,500 per year) to implement a Summer Bridge Program. The UW would hire 1 FTE Program Manager to prepare students for the transition from high school to the UW by introducing college level curriculum and learning strategies, which would increase the number of first-generation, low-income, and underrepresented minority students who successfully persist and graduate in STEM. Costs would include student assistants and program resources.

Office of Minority Affairs & Diversity: College Bound Students

\$173,000 (\$86,500 per year) for additional instructional/counseling staff. The Office of Minority Affairs & Diversity (OMA&D) would hire 1 FTE to improve College Bound student success by helping students develop effective learning strategies, study skills, and financial literacy while receiving proactive academic counseling. The Educational Opportunity Program currently operates with an **annual** budget of \$1.2 million through a combination of \$1.125 million in state funds and \$75,000 in student fees. The budget includes programming and operating costs and 15 FTE staff, including the program director, assistant director, data analyst, program coordinators, and academic counselors. In addition, the budget supports 4 part-time student assistants.

Student Life: Retention Programs and Career Preparation

\$300,000 (\$150,000 per year) to expand existing retention programs. With these funds, the UW would hire a Retention Manager (1 FTE) to manage the expansion of retention programs and to oversee the development and operations of new infrastructure, tools, and resources. This includes: 1) Maintaining and expanding support for reinstated students,

which include a transitional course defined to help them succeed upon their return to the university and access to learning coaches to facilitate holistic academic development. Institutional data showed that only 54 percent of reinstated students continue to make academic progress and ultimately graduate. Early data from a recently implemented retention pilot program show that the pilot has raised that percentage to 69 percent while providing recommendations to further increase it. 2) Creating and operating the infrastructure to reconnect with students who have been absent for two quarters or more and connecting them with advisors, which includes students who qualify for graduation but have not technically posted a degree. 3) Creating and maintaining a catalogue of student success resources and initiatives for dissemination on campus. 4) The creation and operation of an online tool to help track students who haven't been admitted to the major of their choice in an effort to provide academic counseling and assistance. Currently, these programs are supported by 1 FTE Retention Manager, and the position is funded with temporary resources with the intent of securing ongoing state funding. Total **annual** expenditures are \$99,000 for salary, benefits, and operating costs. Permanent funding would support this 1 FTE position and allow for the expansion of retention activities delineated above.

\$400,000 (\$200,000 per year) to expand the Seattle Career & Internship Center and career preparation work. The Career & Internship Center would hire additional career counselors (2.5 FTE) to support a growing need for career services. The Career & Internship Center provides critical connections to transition students from success in the academic environment to the workforce. Staff 1) help students explore their strengths, majors, and career paths that align with their course of study, 2) help students navigate the complex leap to internships and career positions through preparation of professional materials, such as resumes, cover letters, LinkedIn profiles, and more, 3) connect students with alumni and employers, and 4) connect students to on-campus jobs, internships, graduate schools, and careers. When students have career readiness it increases student satisfaction and aids in retention efforts. The Career & Internship Center is the central hub for career services, serving 10,576 students annually.

The Career Center has a total **annual** budget of \$1.436 million. The budget is made up of: \$544,000 in state funding, which supports 8 FTE, including the executive director, associate directors, career counselors and program manager; \$210,000 in tuition, which supports 2 FTE directors; a grant of \$62,500 titled "Job Location & Development" (JLD), which supports 1 FTE program manager; \$49,000 in International Student Fee revenue, which supports 0.5 FTE career counselor; and \$570,000 in annual revenue generated by the Career Center in a self-sustaining budget, which supports 4 FTE career counselors, student workers, and operational costs of the Center.

UW Bothell

Student Success Initiative

\$400,000 (\$200,000 per year) to improve access. UW Bothell would hire 3 FTE to expand pipeline programming, the Summer Bridge Program, and use of open education resources:

- 1 FTE adviser/recruiter to support first generation students in accessing pathways to college and graduation.
- 1 FTE adviser to increase coordination with high schools and community colleges to increase student access.
- 0.5 FTE peer adviser/tutor to support student access and pathways.
- 0.5 FTE staff appointment to enable adoption of open educational resources (OER) that would impact 800 first year students. The adoption of OER for college courses produces immediate savings for students, thereby contributing to the University's goal of increased access to higher education. UW Bothell proposes a multi-year initiative to assist faculty in selection of OER that are suitable for undergraduate curricula. Entry-level courses enjoy the widest variety of OER, making first- and second-year courses a sound starting point.

The Summer Bridge Program has a current **annual** budget of \$55,000 per year, which supports 0.75 FTE staff. The program is supported by \$44,000 in tuition funds and \$11,000 in state support.

\$150,000 (\$75,000 per year) to improve preparation for post-graduation. UW Bothell would hire 2 FTE to enhance career and civic engagement, such as applied projects developed in partnership with local community and industry constituencies:

- 1 FTE in the Career Center to increase internships in industry and
- 1 FTE in the Community Based Learning office to increase community-engaged partnership projects.

With a strong career-focused curriculum, accompanied by internships and practicum experiences, UW Bothell students are well-positioned to find rewarding careers. UW Bothell currently has 4.5 FTE Career Center staff serving over 5,000 students through academic outreach, workshops, events, programs and advising appointments. Adding additional staff would enable the program to target and better serve the over 40 percent of Bothell undergraduates who are first generation college students. These students often need more robust support infrastructures to help them move forward on these pathways through individual appointments that focus on career exploration, searching for internships, and transitioning into a career. An increase in funding/staffing would allow an additional 500 students or more to receive this individual attention.

The Career Center has an **annual** budget of \$390,000, consisting of \$312,000 in tuition funds and \$78,000 in state support. In addition, Community Base Learning has 4.5 FTE staff, including two through AmeriCorps, and is supported by an annual budget of \$180,000 in state funds (\$144,000 in tuition funds, \$36,000 in state support), and \$110,000 in AmeriCorps funding support.

\$600,000 (\$300,000 per year) to support retention and graduation success. UW Bothell would add 3.5 FTE to support the campus's high percentages of first generation and under-represented students and target crucial periods of student transition. Counselors would be hired in the following key areas for supporting first generation students:

- College Mindset, using evidence-based tools that have proven successful in retaining First Generation students in college. College Mindset has a current annual budget of \$70,000 (as of Fall 2016) comprised of \$56,000 in tuition funds and \$14,000 in state support.
- Support students in decreasing course repetition, withdrawal, and failure.
- Financial Literacy: Many first-generation students have difficulty managing financial issues while attending college. This position would be devoted to improving financial literacy and navigation of financial aid, scholarships, and other resources in support of student retention.

UW Tacoma:

Student Success Initiative

\$379,000 (\$189,500 per year) to create and run a Learning Commons. UW Tacoma would add 1.75 FTE to support extending hours of operation in the Library to further engage UW Tacoma's diverse commuter population and enhance support services. This would include a Campus Safety Officer to ensure a safe environment. This student-centered, campus collaboration is led by the Library and based on research and best practices. This would enlarge an existing area where our non-traditional students congregate for study—an area that surrounds them with easily accessible advising and academic support to promote good decisions and on-track graduation. Entering the library is a low-stakes, low risk act for students, thereby creating opportunities to provide easily accessible, less formal access to support services. The Commons would encourage group learning and implement a program to increase awareness and utilization of a full-range of support services, which are known to increase engagement and retention.

\$188,000 (\$94,000 per year) to expand the Summer Bridge Program. UW Tacoma would add more cohorts to the program and additional student peer advisors (0.5 FTE equivalent). The Summer Bridge program provides incoming freshmen with tools for success as they navigate a new academic environment and face the personal and academic

challenges of being a first-year student. Data from UW Tacoma indicate that students participating in the Summer Bridge Program persist at rates of 97 to 100 percent, so expanding the availability of that program to additional students would be highly impactful. **Annual** expenditures for the Summer Bridge Program in FY17 were \$72,000, including local funds, primarily from Summer School tuition. The budget supports two months of salary for a faculty member, who manages the program along with funding for lecturers and operations.

\$111,000 (\$55,500 per year) for a University 101 Student Success Course. This course would be co-taught by a faculty member and a staff member (0.6 FTE) and would provide students with the tools necessary to be successful in college. National research documents increased retention rates for students enrolled in success courses that aim to develop students' understanding of the opportunities and demands of higher education, facilitate relationships with faculty, staff and peers and support their cognitive and psychosocial development. Topics covered include study skills, tips on navigating the first year in college, and directions and information to campus resources where students can receive instructional or other support. This introduction is critically important to first generation students, who do not have family members with experience in these issues.

\$368,000 (\$184,000 per year) for high impact practices (HIPs). UW Tacoma would add 2 FTE to coordinate and implement additional HIPs, which have been demonstrated to increase student learning and retention and to facilitate students' transition from college to career. National data indicates traditionally underrepresented students show greater gains from high impact practices than their peers. HIPs at UW Tacoma focus on internships, experiential learning and engaging students in undergraduate research. These programs are critical to preparing students for a career with their college degree. Underrepresented students often lack the work experiences employers seek; internships, community-based research and applied class projects help provide this experience. Currently, three staff members at UW Tacoma have part of their work-time assigned to assisting with student internships. This package would fund 1 FTE director to lead a comprehensive and coordinated implementation and facilitation of HIPs for UW Tacoma, and 1 FTE associate director to support the significant coordination effort across schools, academic programs, student affairs units, and the complex (and often customized) relationships with community partners. Currently, roughly half of first-year students and about three-quarters of seniors participate in at least one high-impact practice. Our goal is for every student to be involved in multiple opportunities across their academic career, and for these educational opportunities to define the UW Tacoma experience. Research shows HIPs increase retention significantly, particularly for first-generation and low-income students. Considering that Pierce County's level of educational engagement falls significantly behind that of neighboring King and Thurston counties, this represents a significant and important investment in improving our region's socioeconomic viability.

\$99,000 (\$49,500 per year) to expand the Campus Career Center. UW Tacoma would add 0.75 FTE to provide enhanced career testing and career counseling services and enhance relations with South Sound employers. UW Tacoma recently expanded the Career Center, but even with this investment it does not have necessary staffing to assist the number of students who are searching for career testing and resume writing assistance. Campus Career Services' **annual** budget is \$136,000. It is completely covered by state and tuition funds and it covers 2 FTE staff, student assistants, and operations. Operations include sponsoring Career Fairs, which involve inviting and supporting employers who to come to campus to meet with students regarding career opportunities. Employers pay to participate in this activity, which helps support operations for the Fair. Revenue from employer fees averages approximately \$6,700 per year.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

In the narrative above, we provided additional detail about current resources devoted to programs and initiatives that are already in existence. Many of these programs are funded through a variety of state, tuition, local, federal, and grant resources. Further discussion of funding alternatives and current appropriations can be found in the narratives below.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

Expenditure assumptions for each element of this proposal are included in the narrative above. Further detail for specific programs is available upon request.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

These investments will improve pathways, access, counseling, retention, graduation success, and career preparation for students at the University of Washington by improving services and support for students most at-risk of not completing their degrees.

The UW aims to attain increased persistence, especially for first generation and underrepresented students, through evidence-based practices. We also hope to increase participation in high-impact practices that increase retention (such as internships, community-engagement, and leadership development, counseling, academic advising), and increase access (through STEM outreach and preparation, pipeline programs with

community colleges, expanded Summer Bridge programs at all three campuses, and others).

This initiative will increase the number of potential STEM students touched by outreach programs and will increase the success of students in STEM fields by offering more robust and accessible instructional support programs. For example, among recent incoming UW cohorts, OMA&D Instructional Center (IC) users were 41 percent more likely to graduate within 6 years than non-users from similar backgrounds. With additional instructional support at the IC, College Bound students as well as first-generation and underrepresented students pursuing STEM (all with varying degrees of college preparedness) can improve their likelihood for success and completion.

The UW currently serves significant populations of underserved students. For example, UW Bothell currently enrolls high percentages of Pell eligible (36 percent), first-generation (41 percent), and underrepresented minority (20 percent) students. Students who are currently enrolled in the STARS program from the first three cohorts are 95 percent Pell eligible, 67 percent first-generation and 45 percent underrepresented minority.

These efforts are an opportunity to increase access and support for these students by increasing enrollment, retention and persistence rates for underserved student populations. As an example, one of UW Bothell's goals through this request is to increase its retention rate for sophomore (second year) students by 10 percent.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	This proposal will help address the workforce needs in critical STEM and high demand areas in our region and in the state.
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	No	
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with several aspects of the UW's strategic plan and the Governor's Results Washington Goals.

Please provide a detailed discussion of connections/impacts identified above.

These proposals are directly aligned with the UW's mission to provide world class instruction for Washington residents, opportunities for social and economic mobility, and support for state and regional economic needs. This proposal will directly support the following UW goals:

- Enhance the student learning experience
- Support effective instructors
- Support effective scholars
- Increase STEM and other high-demand majors
- Develop faculty, student, and staff leaders
- Support the goals of the Diversity Blueprint
- Support access to transformative curricular and co-curricular learning experiences

This proposal supports the following Results Washington goals under “Access & Success”:

- 1.2.d – Reduce opportunity gaps for all students through proficiency in English language arts, math, science by half
- 1.2.f – Increase project-based, career, workplace, community learning opportunities that provide STEM and 21st century skills with career and technical education
- 1.2.h – Increase the percentage of high school graduates who during the 3rd quarter after graduation are either enrolled in post-secondary education or training
- 1.3 – Increase annual attainment of certificates, credentials, apprenticeships and degrees from 72,000 in 2012 to 149,000 in 2023
- 1.3.f – Increase the number of students enrolled in STEM and identified high-demand employment programs in public 4-year colleges and universities from 31,282 to 32,642 by 2016-17
- 1.3.h – Increase number of graduates in STEM and identified high-demand employment programs in public 4-year colleges from 10,726 to 11,661 by 2017-18
- 1.3.i – Increase the percent of postsecondary graduates from 4-year colleges who during the 4th quarter after graduation are either enrolled in post-secondary education or training or are employed in Washington from 80 percent to 82 percent.

It also supports 2.2.a, under “Prosperous Economy”: Expand skilled workforce to match increase in high-demand industries

This proposal is designed to improve the value of postsecondary learning by addressing issues of diversity and access.

What alternatives were explored by the agency and why was this option chosen?

The UW uses operating funds to financially support many of these programs. Some programs receive support from other sources. For example, STARS receives limited, *temporary* funding from private sources, including the National Science Foundation, Washington State Opportunity Scholarship, The Boeing Company, and The Seattle Foundation. The Math Academy also receives limited, temporary funding from private sources including f5, Micron Foundation, and the RealNetworks Foundation. We are deeply grateful for these investments and will continue to pursue other funding opportunities, however, the impact of *permanent* state funding cannot be overstated.

Permanent state funding would allow UW to expand and maintain these important programs, as well as further leverage private, federal, and foundational sources of funds, thereby increasing the rate at which underserved students succeed at the UW.

What are the consequences of not funding this request?

Today, the state of Washington is second in the nation in percentage of engineering and computer science jobs per population, and we are the #1 state per capita in the importation of individuals with a Bachelors education or greater. It is clear that in Washington, as in much of the rest of the country, there is the need for more qualified applicants to fill jobs, especially in high-demand fields. As regional employment continues to grow, the UW must better support students to ensure that they graduate, and must focus on students who need additional support to be successful. We must give talented young people the opportunity to pursue an education.

Without permanent funding for these programs, our ability to increase diversity in STEM, both in higher education and in the workforce will be reduced. Underserved student populations are in greater need of support services to improve their academic skills, abilities, and confidence to pursue and complete STEM degrees. STEM programs need the perspectives of people from these populations to better solve problems that face all of our society. STARS and Math Academy, for example, are foundational programs that will allow the UW to increase the retention rate of engineering students who are low-income, first-generation, or are from underrepresented minority populations by providing intensive wrap around services that help them persist through to degree completion. With state support, we can make a significant leap in filling the growing number of high-demand STEM jobs, while changing the economic and career trajectory of students from underserved communities in Washington state.

If the UW does not receive permanent funding for this request, the state would be putting at risk the current levels of retention and graduation outcomes for transfer students and underserved students, and would more likely fail to meet its goals of increasing access.

How has or can the agency address the issue or need in its current appropriation level?

The University of Washington is deeply committed to addressing issues of diversity and access. We will continue to invest in these programs and pursue private support. However, the rate of growth and transformational impact of these programs will be constrained without investments of permanent funding from the state.

Other supporting materials:

Regional Initiatives in Dental Education (RIDE) Expansion Bridge

Agency Recommendation Summary Text:

A total of \$1,959,000 in state support is requested for the 2017-19 biennium to expand the capacity and footprint of the highly effective Regional Initiatives in Dental Education (RIDE) program, which is run by the University of Washington School of Dentistry. RIDE students currently spend the first year of their dental education program at Eastern Washington University (EWU). This request would add a second year of dental curriculum to the program at EWU, which would mean that RIDE students would stay in Spokane for two years, rather than one. This request will position RIDE for future expansion and enhance the UW's presence in eastern Washington as a regional campus and hub for professional education.

Fiscal Summary:

Operating Expenditures*	FY 2018	FY 2019	FY 2020	FY 2021
General Fund – State (ongoing)	\$732,000	\$778,000	\$778,000	\$778,000
General Fund – State (one -time)	\$448,000	-	-	-
TOTAL	\$1,181,000	\$778,000	\$778,000	\$778,000
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	4.22	4.47	4.47	4.47

*Table above represents the funding needed for BI 2017-19 and continuation of that funding for BI 2019-21. A request for future, incremental funding for RIDE Expansion will be made for the 2019-21 biennium. Please see attachments for more information. *(numbers may not add due to rounding)*

Package Description

The Regional Initiatives in Dental Education (RIDE) program is a specific educational track of the University of Washington School of Dentistry (UWSOD) that trains dentists to meet the needs of rural and underserved populations in the state and region. RIDE Website: <http://dental.washington.edu/ride/>.

An innovative and interprofessional program, RIDE is operated in conjunction with Eastern Washington University (EWU), the UW School of Medicine (SOM) WWAMI program in Spokane, and community health centers in eastern and central Washington. Currently, over 70 percent of RIDE graduates are practicing in rural and/or underserved areas. The UWSOD intends to expand the footprint and, eventually, the capacity of this highly effective

program, which will also enhance Spokane’s function as a regional campus and hub for professional education in the Northwest.

Specifically:

- In the 2017-19 biennium, the intention is to double the amount of time RIDE students spend in Spokane by adding the second year of dental school curriculum to the educational program
- In future biennia, the intention is to increase the number of RIDE students from 8 to 30 per cohort, with a phased-in approach

Together these strategies will:

- Increase the number of dentists trained to meet needs of rural and underserved populations in the state and region
- Increase the amount of care RIDE students can deliver to rural and underserved populations while on intensive community-based rotations
- Increase the likelihood RIDE students will practice in rural and underserved communities by increasing training time in such communities

The 2017-19 request will serve as a “bridge” for the future expansion of student enrollment in RIDE. The requested funding would provide infrastructure and personnel to enable second year dental curriculum in Spokane. The timing is optimal to expand the footprint of RIDE: the recent increase in biomedical sciences curriculum from 12 to 18 months, combined with the integral nature of the second year of dental school training, now make it highly desirable for RIDE students to remain in Spokane for two years. To provide the best educational experience for students while growing the footprint of the program, this bridge funding doubles the amount of time RIDE students spend in Spokane, and is the first step to fully expanding the RIDE program in the 2019-21 biennium and beyond. As mentioned, this bridge funding would allow the current first-year RIDE students to remain in Spokane for their second year of dental school in autumn of 2017.

Looking ahead, we will build on our strong, historic partnerships with EWU and the UW WWAMI program. Together we will implement a bold and innovative expansion of dental training and an integrated, interprofessional approach to biomedical sciences education.

Expenditure, FTE and Revenue assumptions, Calculations and Details

See **Attachment 1: Fiscal Detail** and **Attachment 2: RIDE Expansion Timeline**.

This 2017-19 proposal would fund:

- Dental simulation lab equipment to retro-fit the current space in Spokane;

- Personnel in Spokane and Seattle required to execute the new second year dental curriculum in Spokane; and
- One-time funding to upgrade an additional UWSOD classroom to support new distance learning functionality necessary to teach second year curriculum from Seattle to Spokane.

Specifically, this proposal includes operational funding for:

- *2.57 FTE EWU faculty in Spokane* to teach second year biomedical foundations and dental sciences, including dental simulation laboratory courses.
- *1.0 FTE UWSOD faculty in Seattle* to develop and implement curriculum in collaboration with Spokane faculty and ensure educational equivalence as required by the Commission on Dental Education Accreditation.
- *Enhanced distance learning (DL) infrastructure* by upgrading a Seattle classroom in the first year and hiring 0.5 FTE for DL expertise/support starting in the second year. This will allow us to deliver the second year dental science curriculum, including remote courses from Seattle, and the DL infrastructure guarantees equivalence of educational content and approach across the two campuses.

The proposal takes advantage of existing funding and infrastructure in Spokane and Seattle including the WWAMI biomedical sciences program in Spokane.

Explanation of One-Time and Ongoing Costs

One-time:

Initial start-up costs include:

- Temporary funds to purchase eight self-contained, portable dental simulation stations to be installed using the existing space and infrastructure in the dental lab at EWU Spokane. This allows us to teach second year curriculum in Spokane within the current space allocations as we prepare to expand the program. This equipment is fully transportable to any future designated lab space.
- Temporary funds to expand and upgrade our distance learning infrastructure at the UWSOD to allow remote students in Spokane to have access to second year courses taught from Seattle.

Ongoing:

This proposal builds on the currently funded RIDE functions and is meant to represent the incremental funding needed at both UWSOD Seattle and EWU Spokane to support ongoing functions and additional resources as the time students spend in Spokane increases from one year to two years. The 2.75 faculty FTE in Spokane and 1.0 faculty FTE in Seattle would be an ongoing investment.

Future biennia – RIDE Expansion:

- *Operating funding:* To fund the future expansion of the RIDE program, operating costs would increase annually starting with the 2019-21 biennium* as the number of students increases. Student enrollment would level out as we become fully subscribed in autumn of 2025, with 30 students in each of the four cohorts, for a total of 120 RIDE students across all years.
- *Capital funding:*
 - To build infrastructure for expansion in the 2019-21 biennium, a capital request of \$3.3 million is required for a new dental simulation lab (Sim lab) in Spokane to accommodate the greater number of RIDE students in years one and two. Current lab space, even with the new equipment identified in the current 2017-19 bridge request, is at capacity with eight students per cohort. (The new equipment is portable and will be utilized in any future expanded simulation lab space.)
 - In biennia 2021-23 and 2023-25, capital for remodeling and new equipment (non-capital) is required in the UWSOD Seattle teaching clinics to accommodate additional students when they return to Seattle during the third year and part of the fourth year of their dental training.

**Budget detail for the RIDE Expansion request in 2019-21 is available upon request.*

Base Budget:

Current Operating Expenditures	FY 2016	FY 2017	BI 2015-17 Total	FTE	
<u>State General Fund</u>				Faculty	Staff
UWSOD RIDE	\$1,321,636	\$1,403,408	\$2,725,044	2.69	6.65
EWU RIDE	\$495,468	\$495,468	\$990,936	0.71	3.42
<u>Tuition Reimbursement</u>					
EWU RIDE only	\$122,000	\$122,000	\$244,000	1.44	-
<u>UWSOD Grants</u>					
Montana Mini-RIDE	\$200,000	\$100,000	\$300,000	0.50	0.46
WA Dental Services	\$139,236	\$144,806	\$284,042	0.35	0.50
<u>Private Donations</u>	\$8,900	\$8,500	\$17,400	-	-
TOTAL	\$2,287,240	\$2,274,182	\$4,561,422	5.69	11.03

Current RIDE funding supports the first year of dental education at EWU/Spokane, and curriculum management to ensure educational equivalency between RIDE and the Seattle-based program. In addition, funds support the administration of extensive community clinic student rotations, including strategic partnership management and site development and oversight.

Decision Package Justification and Impacts

RIDE is a proven, efficient model of dental education that builds on the existing infrastructure of multiple universities and community health centers across Washington. The creative use of distance learning technologies for regional education facilitates scalability of the program.

What specific performance outcomes does the agency expect?

- Increased number of dentists trained and practicing in the state
- Increased training time for dental students in rural and/or underserved areas of Washington to enable recruitment and retention of graduates in these areas
- Increased access to dental care to promote the oral and overall health of the public, especially for those living in rural and/or underserved areas
- Continuing dental education provided for dental professionals in rural and/or underserved areas to enhance quality of care in these areas

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	Enhance Spokane's function as a regional campus and hub for professional education in the Northwest.
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	Yes	RIDE is a partnership between UWSOD and EWU Health Sciences.
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	This proposal does not include capital budget impacts, but future expansion of the RIDE program will require capital investment.
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's Results Washington goals of world-class education and healthy people.

Please provide a detailed discussion of connections/impacts identified above.

This proposal aligns with the UW's Strategic Plan:

- As the only dental school in the WWAMI states, the UWSOD has a mission to train dentists for the state and region to improve the health of the public.
- The University promotes partnerships and community collaborations; this community outreach program is especially responsive to the needs of underserved patients.
- RIDE's educational outreach and distance learning capacity extends educational opportunities to students and community dentists who would not normally have access to them, consistent with the UW's role and mission statement.
- By attracting students from rural and underserved areas, RIDE is contributing to a diverse student body, thereby enhancing diversity of the health workforce.
- This proposal would not only enhance participation in this high-impact learning experience, but would improve the student experience by exposing dental students to different populations and needs. This ensures that graduates will be prepared for meaningful careers and have the skills to meet a changing population and job market.
- When fully implemented in future biennia, the expanded RIDE program would increase enrollment in STEM fields at the graduate and professional level.

This proposal aligns with the Governor's Results Washington goals:

- *GOAL 1: World-Class Education, 1.3: Increase percentage of population enrolled in certificate, credential, apprenticeship, and degree programs.*
 - This request lays the foundation for future program expansion, which will increase enrollment in STEM fields and in degree programs generally.
 - Based on RIDE's current ability to recruit students from rural and underserved areas, the expansion will help attract students from broader demographics.
- *GOAL 4: Healthy People, Access/Pay for Quality, 1.3c: Increase percentage of residents who report they have a personal doctor or health care provider.*
 - Additional UWSOD graduates will increase access to dental care, particularly in rural and/or underserved communities.

Impacts to the Capital Budget: To expand the number of RIDE students in future biennia, a new dental lab in Spokane is required to increase capacity for the simulated patient care training in second year curriculum.

What alternatives were explored by the agency and why was this option chosen?

Building a second school of dentistry in eastern Washington would be significantly more expensive, whereas leveraging existing infrastructure and distance learning technologies would allow high-quality education to be delivered remotely.

What are the consequences of not funding this request?

Without funding, it would be difficult to achieve the positive performance outcomes for the dental workforce and the public's health, and future expansion would be more challenging.

How has or can the agency address the issue or need in its current appropriation level?

To address temporary funding needs, RIDE would leverage additional support, i.e., through community support and/or one-time grant funding. Given its success in training a rural workforce, the RIDE program could approach other states to support student positions in a WWAMI type model, using Spokane as the regional training hub. RIDE is currently partnering with the state of Montana to develop a sustainable dental education model in that state (as noted in base budget table above).

Other supporting materials:

Please see **Attachments 1 and 2** for fiscal detail and an expansion timeline, respectively. Additional considerations:

- The RIDE program is a cost-effective, scalable model for increasing the number of dentists trained in the state. It builds on the existing health professions educational infrastructure in Spokane, community health centers in Washington, and the UWSOD infrastructure in Seattle.
- RIDE makes use of distance learning technologies for efficient regional education and delivery of continuing education to preceptors in remote clinic sites, helping to raise the quality of dental care delivered to rural and/or underserved populations.
- RIDE benefits the economy of the Spokane area (e.g., a dental simulation laboratory, enhanced distance learning infrastructure, faculty hires). The future expansion will bring additional faculty, students, staff, and dental professionals to the region.
- RIDE will add to the inter-professional education efforts underway in Spokane. Such efforts will improve the health care system by training team-oriented professionals.
- A larger dental education infrastructure in Spokane would contribute to Spokane's growing presence as a regional leader in health care training and delivery.
- RIDE has attracted many students from underrepresented minorities and rural areas, and thus contributes to enhancing the diversity of state and regional health workforce.
- The RIDE program has the support of key stakeholders including the Spokane District Dental Society, the Washington State Dental Association, the Washington Dental Service/Foundation, Community Health Centers, and EWU.
- Expansion of RIDE was recommended by the Washington State Board of Health.

UW School of Dentistry - Regional Initiatives in Dental Education (RIDE)	BRIDGE REQUEST (enables 2nd yr in Spokane)			INCREMENTAL FUNDING NEEDED FOR RIDE EXPANSION REQUEST* (+8 students FY21)		
	FY18	FY19	2017-19	FY20	FY21	2019-21
Seattle Operations Subtotal	\$ 330,466	\$ 375,910	\$ 706,376	\$ 685,919	\$ 879,369	\$ 1,565,288
Spokane Operations - Eastern Washington University Subtotal	\$ 401,674	\$ 401,674	\$ 803,348	\$ 185,536	\$ 190,536	\$ 376,072
RIDE OPERATIONS TOTAL	\$ 732,140	\$ 777,584	\$ 1,509,724	\$ 871,455	\$ 1,069,905	\$ 1,941,360
TOTAL ONE-TIME COSTS	FY18	FY19	2017-19	FY20	FY21	2019-21
	\$ 448,373	\$ -	\$ 448,373	\$ 240,000	\$ 150,000	\$ 390,000
TOTAL	\$ 1,180,513	\$ 777,584	\$ 1,958,097	\$ 1,111,455	\$ 1,219,905	\$ 2,331,360
*This represents incremental operations funding needed beyond the bridge request (which would become permanent in BI 19-21).						
Also assumes captial funding to build new sim lab for increased number of students						

UW School of Dentistry - Regional Initiatives in Dental Education (RIDE)	BRIDGE REQUEST			TOT ADDED FTE BI 17-19	
	FY18	FY19	2017-19	Faculty	Staff
Seattle UWSOD Operations					
RIDE - Program Administration & Operations	\$ -	\$ -	\$ -		
Instruction/Course Development	\$ 72,000	\$ 72,000	\$ 144,000		
Administration/Admissions/Student Services/Orientation	\$ -	\$ 40,000	\$ 40,000	0.25	
Interprofessional Education	\$ -	\$ -	\$ -		
Academic Affairs/Curriculum/Evaluation	\$ 79,843	\$ 79,843	\$ 159,686	0.25	0.4
Compliance/Risk Mgmt/Advisory Board/Finance	\$ 14,875	\$ 15,319	\$ 30,194		
Rural/Underserved Opportunities Program (R/UOP)	\$ -	\$ -	\$ -		
4th year Extended Community Rotations	\$ -	\$ -	\$ -		
Site & Preceptor Calibration/CDE	\$ -	\$ -	\$ -		
Spokane RIDE Regional Clinic Directors (FTE)	\$ -	\$ -	\$ -		
Classroom Support Services (FTE)	\$ 13,678	\$ 13,678	\$ 27,356		
Dist Learn Service Agrmnt/Maint/Repairs/Insurance	\$ -	\$ 5,000	\$ 5,000		
Distance Learning Support (FTE)	\$ 66,370	\$ 66,370	\$ 132,740		0.5
Distance Learning Equipment Upgrades	\$ -	\$ -	\$ -		
Departmental Operating Costs (FTE)	\$ 83,700	\$ 83,700	\$ 167,400	0.5	
Departmental Start Up Costs (non-capital)	\$ -	\$ -	\$ -		
Subtotal	\$ 330,466	\$ 375,910	\$ 706,376		
Spokane EWU Operations					
RIDE Administrative & Classroom Support	\$ 87,192	\$ 87,192	\$ 174,384	0.5	
1st year Student Instruction	\$ -	\$ -	\$ -		
2nd year Student Instruction	\$ 274,482	\$ 274,482	\$ 548,964	2.07	
Dental Clinic Administration & Instruction	\$ -	\$ -	\$ -		
Program Operations and Instruction	\$ 10,000	\$ 10,000	\$ 20,000		
Lab supply/equip repair/maintenance (course related)	\$ -	\$ -	\$ -		
Library ref books	\$ 500	\$ 500	\$ 1,000		
Clinic Program Operating Costs	\$ 20,500	\$ 20,500	\$ 41,000		
Start Up Costs (non-capital)	\$ 9,000	\$ 9,000	\$ 18,000		
Subtotal	\$ 401,674	\$ 401,674	\$ 803,348	Faculty	Staff
RIDE OPERATIONS TOTAL	\$ 732,140	\$ 777,584	\$ 1,509,724	3.57	0.9
One-time Costs					
Seattle DL Classroom Upgrade - Equipment/Infrastructure	\$ 300,000	\$ -	\$ 300,000		
Spokane Equipment for Dental Lab/2nd Year Curriculum	\$108,373	\$ -	\$ 108,373		
Spokane ENDO Xray Unit and Developer	\$40,000	\$ -	\$ 40,000		
Subtotal	\$ 448,373	\$ -	\$ 448,373		
TOTAL OPERATING COSTS	FY18	FY19	2017-19		
	\$ 732,140	\$ 777,584	\$ 1,509,724		
TOTAL ONE-TIME COSTS	FY18	FY19	2017-19		
	\$ 448,373	\$ -	\$ 448,373		
GRAND TOTAL	\$ 1,180,513	\$ 777,584	\$ 1,958,097		

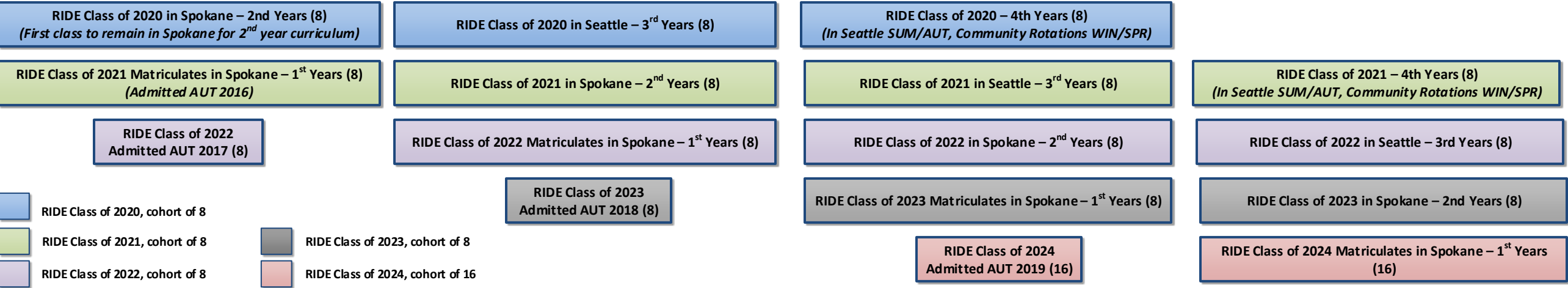
RIDE EXPANSION TIMELINE

BI 2017-19 Year 1 July 2017-Jun 2018	BI 17-19 Year 2 July 2018-Jun 2019	BI 19-21 Year 1 July 2019-Jun 2020	BI 19-21 Year 2 July 2020-Jun 2021
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FUNDING



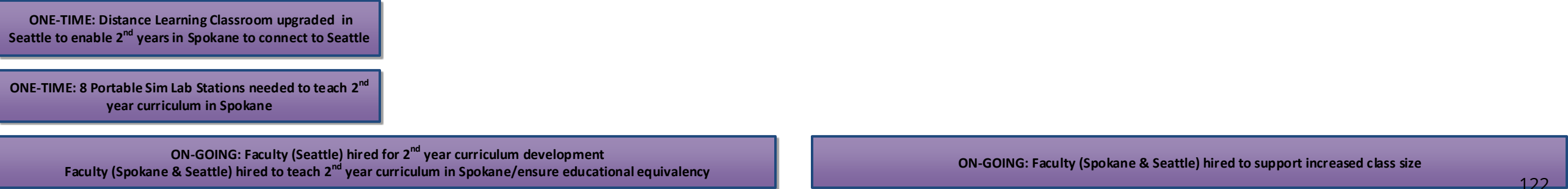
ADMISSIONS & MATRICULATION



CAPITAL EXPENDITURES



OPERATIONS EXPENDITURES (One-time/Ongoing)



High-Demand Enrollments

Agency Recommendation Summary Text:

A total of \$16,000,000 in state support is requested during the 2017-19 biennium to increase enrollment capacity in high-demand science, technology, engineering, and math (STEM) programs at the University of Washington's three campuses. These critical investments will make progress toward meeting our state's significant and growing need for qualified applicants in high-demand fields such as engineering, computer science, ocean engineering, and cyber operations. Washington state imports more individuals with a bachelor's degree or greater than every other state. An investment in degree capacity at the UW will help create a pipeline for Washingtonians to fill these jobs.

This request is part of a public higher education sector-wide effort to invest in meeting the state's workforce needs in critical STEM and high demand areas.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund- State	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000

Package Description

The state of Washington and the University of Washington (UW) share a common concern: the urgent, state-wide need for more graduates to fill the growing number of high-demand jobs in STEM fields.

The demand at the UW for engineering and computer science degrees has almost doubled since 2009. In fall of 2015, the UW admitted nearly 2,100 freshman students who specified engineering or computer science as their first-choice majors. Due to capacity issues only a third of these admitted UW students with declared interest will receive a bachelor's degree in engineering or computer science. The College of Engineering at the UW in Seattle educates more than 50 percent of the state's engineering graduates. As regional engineering employment continues to grow, the UW must add more engineering slots.

According to the "Benchmarking Washington's Innovation Economy" report by the Tech Alliance, the UW ranks in the bottom half of our peers in measures of total degree production and science and engineering degree production. There is a deep disconnect

between our competitiveness in measures of an educated, innovative workforce and the capacity to produce such talent in our own state. Technology companies have many thousands of unfilled jobs, but our ability to prepare Washington citizens to fill them is extremely limited. Lack of capacity in our higher education system has negative implications for our state's students, as they are denied access to high-impact career opportunities. At the same time, a shortage of available local talent slows business growth and, as a result, negatively affects overall regional prosperity. Lack of available talent is the most pressing challenge for innovation-based companies in our state, and our inability to solve this problem threatens our long-term success and global competitiveness.

We are deeply grateful for the state proviso funding that has been allocated to UW since 2009 for enrollment expansion in high-demand fields. That funding has allowed us to rapidly expand enrollments, as evidenced in our most recent report to the legislature. As an example, in the last legislative session, proviso funding was directed to a much needed expansion in computer science enrollment. Through the support of the legislature, the campus, and the local tech community, we are growing our faculty and student capacity through the construction of a new CSE building. The CSE expansion, which is expected to be complete in FY19, is estimated to yield another 200 bachelor's degrees.

Local industry leaders in technology, aerospace, transportation, infrastructure, energy, health, and manufacturing continue to express their critical need for more computer science, civil, mechanical, electrical, industrial, aeronautical, and biomedical engineers. Even with recent investments, we still fall short of meeting the demands of our current students and of the regional workforce. Strategic campus and legislative investments in high-demand enrollment expansion have already had, and will continue to have, measurable and transformative impacts on our students, our state's economy, and the well-being of its residents. With additional funding, we can provide the opportunity for more, and a more diverse, group of Washington students to attain degrees in high-demand fields.

Therefore, the UW respectfully requests additional ongoing annual funding of \$8 million to expand high demand enrollments across our three campuses. Decisions about how to use state operating dollars will be made after assessing space and instructional capacity, student demand, and workforce demand. However, a preliminary assessment has identified the following areas of potential expansion:

- *Engineering:* UW in Seattle can provide the opportunity for more, and more diverse group of, Washington students to attain degrees in high-demand engineering fields.
- *Ocean Engineering:* In response to significant and growing employer demand in the Puget Sound Region, and significant stakeholder support, UW Bothell is poised to offer an undergraduate concentration in Ocean Engineering.

- *Cyber Operations:* Both UW Bothell and UW Tacoma currently offer graduate degree and certificate opportunities in cybersecurity. Information security breaches are becoming more common, and have raised the profile and need for cybersecurity professionals. However, very few undergraduate degree programs exist that directly address the need for the development of a cybersecurity workforce. A new bachelor's degree program in cyber operations at UW Tacoma would help fill this need, and would be the first of its kind in the Puget Sound Area. UW Tacoma is an ideal location for this degree program due to significant employer demand for cybersecurity analysts in the Tacoma region.

As mentioned in the UW's recent report to the legislature, for fall of 2016, the UW Tacoma Institute of Technology began to turn away qualified students for the first time in its history, due to capacity limitations. Additional funding would allow UW Bothell and UW Tacoma to grow capacity in high-demand programs to meet not only employer/workforce demand, but also student demand.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

The high-demand programs represented in this package reside in several departments across all three UW campuses. As mentioned above, the UW's recent report to the legislature best outlines how the UW has used previous proviso appropriations to expand engineering enrollment capacity. Decisions regarding the allocation of proviso funds would occur as outlined above.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

Expenditures would be scaled to meet the revenue provided by the state, accounting for any increase in tuition revenue from enrollment growth. The vast majority of any increased appropriation would be used to expand teaching capacity (i.e. salary and benefits for additional instructional faculty, lecturers, etc.). Details will be available in the next few months.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

Describe and quantify the specific performance outcomes the agency expects as a result of this funding change.

Support to expand enrollment in fields that are critical to the state's workforce aligns directly with the priorities of the UW and the state of Washington. The social and economic benefits that our residents and the region will gain are far-reaching. Specifically, this funding will result in:

- More Washington students receiving undergraduate degrees in fields of high employer demand.
- As we add faculty members, the UW will experience an increase in federal grants in support of research. This will result in an increase in graduate student enrollment as well as an increase in patents, technology transfer, and companies started.
- Additional faculty members will also allow us to expand our professional master's programs, which are of high-value to local employers.
- A reduction in the importation of STEM graduates for high-demand jobs in Washington state.
- A more diverse student body and workforce.

The proposed additional slots in high-demand programs would mean that fewer students are turned away. This would also mean less stress on students and fewer students enrolling in majors in which they are less interested. Thus, additional slots could improve retention and graduation rates at the UW and reduce overcrowding in some other majors.

Fully describe and quantify expected impacts on state residents and specific populations served.

As mentioned above, investments in increasing high-demand enrollments are necessary to respond to significant workforce needs in our state and region. Graduates in high-demand fields will have an easier time finding gainful employment after graduation, which will contribute to our local and regional economies.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	This request is in response to workforce needs in our region and state.
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	No	
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	Yes	See narrative below regarding the condition of current capital infrastructure.
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections		This proposal aligns with both the UW's strategic plan and the Governor's Results Washington priorities of providing a world-class education, maintaining a prosperous economy, expanding postsecondary access and success, and expanding degrees in high demand STEM areas.

Please provide a detailed discussion of connections/impacts identified above.

UW Strategic Plan

Expanding access and capacity in the UW's high-demand programs directly aligns with the UW's mission to provide world class instruction for Washington residents, opportunities for social and economic mobility, and support for state and regional economic needs. The UW has been recognized as the most innovative public university in the world. The UW continues to hold top-five ranking in sponsored research funds in the country. This proposal will build off of those successes and enhance the UW's ability to attract quality faculty, enroll more students, increase access, and meet the state's workforce needs.

Governor's Results Washington Goals

Access to higher education has personal and social benefits, as well as broad economic benefits for citizens, industry and Washington state government. Our proposal supports Results Washington goals:

Goal 1: World-Class Education

- 1.3 – Increase annual attainment of certificates, credentials, apprenticeships and degrees from 72,000 in 2012 to 149,000 in 2023
- 1.3.e – Increase the percentage of postsecondary graduates from public community and technical colleges who during the 3rd quarter after graduation are either enrolled in postsecondary education or training or are employed in Washington
- 1.3.f – Increase the number of students enrolled in STEM and identified high-demand employment programs in public 4-year colleges and universities from 31,282 to 32,642 by 2016-17
- 1.3.h – Increase number of graduates in STEM and identified high-demand employment programs in public 4-year colleges from 10,726 to 11,661 by 2017-18
- 1.3.i – Increase the percent of postsecondary graduates from 4-year colleges who during the 4th quarter after graduation are either enrolled in postsecondary education or training or are employed in Washington from 80% to 82% in 2016-17.

Goal 2: Prosperous Economy

- 1.1.b – Maintain or improve the state's ranking of 13 for 2012 in the U.S. Chamber of Commerce Innovation and Entrepreneurship metric
- 2.1 – Increase the number of jobs in state from 2.92 million in 2012 to 3.07 million by 2015
- 2.1.a – Increase employment by 6.5% in these sectors: clean technology, agriculture, aerospace, life sciences, information and communication technology, maritime
- 2.2 – Increase the average earnings of Washington workers

- 2.2.a – Expand skilled workforce to match increase in high-demand industries by 11%
- 2.2.b – Increase number of workers in occupations who earn an average of at least \$35,000

Capital Budget Impacts

Every year we lose top students and faculty to other universities where the facilities far surpass ours. For example, half of the College of Engineering's 23 buildings are more than 50 years old, making them inefficient and functionally obsolete. Our students are pursuing technological breakthroughs in creative and innovative fields while working in facilities that were built for a long-outmoded model of engineering education. Our buildings must accommodate the latest technology, facilitate undergraduate research and projects, and provide offices and labs for new faculty. More expensive than traditional, outdated classrooms, these new teaching, learning and research spaces are critical to grow high-demand education at the UW. Much needed construction is happening and being planned on campus with the NanoEngineering and Sciences Building, CSE II construction, and CAMCET. However, with the exception of the new Computer Science & Engineering expansion (CSE II), the majority of this construction addresses specific research needs and will not expand our space for student educational offerings.

The UW has adequate space capacity for this expansion, but will need to complete existing and proposed capital projects in order to sustain this and future FTE growth in the long term. Future reallocation of existing space, renovation, and construction of new facilities will all be required to grow to meet statewide employment demand and rising student demand.

What alternatives were explored by the agency and why was this option chosen?

The UW receives support from a variety of private sources including individual donors, corporations and foundations, and federal grants. We are deeply grateful for these investments and will continue to pursue funding opportunities, however, the need for permanent state funding to address enrollment cannot be overstated. There are few substitutes for permanent state funding of faculty members. Private and federal funds are typically tightly designated and fluctuate from year to year. For example, gifts from individuals are often authorized for student scholarships. Federal and corporate grants are usually given to advance research.

Permanent state funding would allow the UW to significantly expand our high-demand, high-value educational opportunities to Washington state residents. This expansion will

also allow us to increase the rate at which underserved students attain their engineering degrees.

What are the consequences of not funding this request?

In order to increase the number of students accessing higher education and completing degrees in areas of critical state need, additional enrollment support is needed at the UW. Without this funding, we will lose very bright Washington high school seniors to out-of-state institutions, and we will continue to import workers for high-demand and high-value jobs. These are jobs that our Washington state students have interest in and have worked hard to be prepared for, but are turned away due to lack of capacity.

How has or can the agency address the issue or need in its current appropriation level?

The UW is deeply committed to addressing issues of capacity, access, and diversity. For example, over the last seven years, the College of Engineering has expanded student capacity by 40 percent, faculty by 20 percent, and efficiency by 18 percent, largely due to targeted state investment. The College has accommodated this growth in students using the same facilities, and aggressively pursues cost efficiencies to offer the best student experience possible.

The UW continues to invest in and pursue private support. However, the rate of growth and transformational impact of our programs will be constrained without permanent funding.

Regenerative Medicine Institute

Agency Recommendation Summary Text:

A total of \$6,000,000 in state support is requested in the 2017-19 biennium to support the Institute for Stem Cell and Regenerative Medicine's mission to discover new clinical treatments through the use of stem cell science, by taking on and defeating diseases at their origins, the human cell. This funding will support the Institute's scientific cores, fund five new faculty lines, provide translational bridge awards to the most promising basic science research in order to promote clinical trials and eventual commercialization, support student research training, and provide pilot grants to researchers that will leverage federal research grant awards.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund- State	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	21.7	21.7	21.7	21.7

Package Description

Washington state is the home of the world's first stem cell therapy in the form of bone marrow transplantation. We have a proud history of leading the world in conducting stem cell and tissue regeneration research, which led to E. Donnell Thomas's Nobel Prize in Medicine or Physiology. This research has translated into incredible advances in the clinical treatment of patients and saved the lives of more than 100,000 people worldwide.

Today, that tradition continues with the ground-breaking work being done by the UW's Institute for Stem Cell & Regenerative Medicine (ISCRM). ISCRM works to turn fundamental discoveries in stem cell biology and tissue regeneration into therapies for today's patients. Stem cell biology and regenerative medicine are believed by many to be the most promising breakthrough in medicine in decades. No major university can afford to ignore this revolution. The University of Washington is poised to meet this challenge and to embrace the opportunity for the Institute to become a world-class leader in the ethical development of novel cell-based therapies for patients.

Transforming therapies are being developed for heart failure, cancer, muscular dystrophy, neurodegenerative diseases including Parkinson's and Alzheimer's, diabetes, retinal

disease, hearing loss, kidney failure and orthopaedic/sports injuries. All of these diseases share a common cause, that is, a deficiency of a key cell population in the body or, in the case of cancer, an overproduction of cells. Our scientists are using life's most potent building blocks—adult and pluripotent stem cells—to rebuild damaged tissues and develop cures for diseases where there are few treatments at present.

ISCRM is internationally recognized as one of the world's leading stem cell institutes, and its faculty have been issued 342 patents over the last decade and have spun out 8 new companies, contributing to the vibrant tech and biotech environment of Washington state. ISCRM is leading the world in developing new therapies for heart failure and using precision medicine to treat cancer.

ISCRM has been successful in receiving significant federal research funding and private philanthropy over the past ten years. However, federal research funding and private companies do not fund ISCRM's core operations, nor do they support the work of translating our most promising programs to the point of readiness for clinical trials or commercialization.

The requested funds will allow ISCRM to recruit and retain the best faculty, staff, students and trainees, to perform the highest quality research and training, and conduct the key clinical studies that will establish Washington's medical centers and biotech companies as an epicenter for stem cell therapies. The funds will support pilot grants to leverage federally funded large-scale grants, position ISCRM researchers to create new therapies to improve the health of patients, and train the next generation of stem cell scientists and physicians. Furthermore, in the case of new therapies for heart failure, ISCRM may be the first in the world to use this technology for treating patients.

This request would add:

- Faculty lines: Support for five new faculty lines of \$200,000/year each (including benefits) ramping up over a three-year period. Faculty would be recruited in partnership with an academic department. The plan is to award these lines on a five-year term with the potential to renew.
- Core Support
 - Administrative core: This includes salary support for the institute director, manager, communications officer, grants manager and administrative assistant.
 - ISCRM has three technology cores: The Ellison Stem Cell Core, the Garvey Imaging Core, and the Quellos High Throughput Screening Core. Resources requested here would support salaries for the core directors, staff, consumables and equipment upgrades.

- Training Program: ISCRM will be developing expertise in this innovative research area through its training of graduate students and postdoctoral fellows. Funding will support the creation of a training program for a total of 4 trainees, 2 pre-doctoral, and 2 postdoctoral.
- Pilot Grants: The pilot grant program will support work for 1-2 years to enable faculty members to generate high-quality preliminary data for submitting large-scale grant proposals, such as federal research project grants and program project grants. These pilot grants will be open to ISCRM-affiliated scientists from across the state of Washington. This program will give promising researchers the ability to generate key proof of concept data, allowing them to leverage federal grant funding that otherwise would not be available without the initial research work.
- Translational Bridge Awards (TBAs): These translational bridge award grants are intended for our most promising projects that have successfully used basic science funding to establish key concepts. TBA funding is needed to translate these key concepts into a product with demonstrated commercial utility, efficacy and safety. TBAs will enable the recipients to enter clinical trials or to make the jump to commercialization and then leverage this state funding for subsequent private sector funding. These awards will be open to ISCRM-affiliated scientists from across the state.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

The following table shows ISCRM's annual funding sources and uses:

<u>ISCRM Funding:</u>	<u>NIH/Federal</u>	<u>Private</u>	<u>Gifts</u>	<u>UW</u>	<u>Total</u>
Core Faculty	\$22,096,000	\$4,898,000	\$3,647,000	\$1,153,000	\$31,793,000
Affiliate Faculty	\$28,912,000	\$5,307,000	N/A	\$121,000	\$34,340,000
Total	\$51,008,000	\$10,205,000	\$3,647,000	\$1,274,000	\$66,133,000

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

Please see the attached fiscal detail.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

An investment in the Institute for Stem Cell and Regenerative Medicine will have a generate a positive economic return and new jobs for Washington. ISCRM currently employs more than 300 scientists in the South Lake Union campus, with virtually no support from the state. Since its inception 10 years ago, ISCRM scientists have generated 342 patents and started 8 new companies, making it one of the largest and most productive stem cell institutes in the world. Each year, ISCRM trains more than 500 undergraduates, graduate students and postdoctoral fellows in the science of regeneration. Training and recruiting additional faculty will improve access to and the value of postsecondary learning for students. It will provide more research opportunities for students and potentially additional graduate-level research projects that can help foster ongoing interest and investment in state healthcare issues. It will also provide a hub of research work on U.S.-focused health issues that eventually could lead to the attraction of other prominent researchers/educators to the University of Washington or affiliated institutions.

Fully describe and quantify expected impacts on state residents and specific populations served.

The impacts on citizens of Washington will be manifold, including:

- Better health for Washington residents: ISCRM is developing cures for the major causes of death in Washington state, including cancer (#1), heart disease (#2), Alzheimer's disease (#3), diabetes (#7) and chronic liver disease (#9). (Source: WA State Dept. of Health)
- Promoting the Biotechnology Sector: ISCRM will commercialize its discoveries through licensing of patents and generating spinout companies to develop new diagnostic and therapeutic technologies.
- Promoting the Health Care Sector: Washington is already a destination for patients seeking the world's first stem cell therapy, bone marrow transplantation. This is because bone marrow transplantation was developed here, and our health care professionals offer the world's best outcomes. Given how common many of the diseases are that ISCRM studies (e.g. 750,000 heart attacks per year in the U.S.), we could easily see ten times as many patients coming to Washington for heart regeneration therapy or a new treatment for cancer in the coming years.
- Enhancing Education and Training: ISCRM is not only developing new medical therapies, it is training a new generation of physicians and scientists. These protégés will help establish Washington as a destination for regenerative therapy by practicing medicine here and by referring outside patients here for care.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	Better health for residents by promoting the biotechnology sector, promoting the health care sector, and enhancing education and training
Other local gov't impacts?	No	
Tribal gov't impacts?	No	
Other state agency impacts?	Yes	Pilot grant programs will be open to all higher education institutions in Washington state on a competitive basis.
Responds to specific task force, report, mandate or exec order?	No	
Does request contain a compensation change?	No	
Does request require a change to a collective bargaining agreement?	No	
Facility/workplace needs or impacts?	No	
Capital Budget Impacts?	No	
Is change required to existing statutes, rules or contracts?	No	
Is the request related to or a result of litigation?	No	
Is the request related to Puget Sound recovery?	No	
Identify other important connections	Yes	This proposal aligns with both the UW's strategic plan and the Governor's priority of world-class education, healthy and safe communities, and a prosperous economy.

Please provide a detailed discussion of connections/impacts identified above.

UW Strategic Plan

This request is integral to the vision and values that reflect the strategic priorities of the University of Washington, including integrity, diversity, excellence, collaboration, innovation and respect. This proposal will improve the value of postsecondary learning as well as support enrollments and research in areas of critical state need. The University's national and international recognition provides an essential recruiting tool to attract and support the best students, faculty, and staff. Faculty who teach undergraduate, graduate, and professional students have an active, collaborative research program and/or clinical practice and are well-positioned to apply for funding opportunities from federal agencies such as the National Institutes of Health (NIH). UW Medicine's research program provides a significant economic impact to the state, as noted above.

Governor's Results Washington Goals

- *Healthy and Safe Communities:* ISCRM is targeting chronic diseases for which there are currently no cures. As noted above, these include the major causes of death in Washington.
- *World Class Education:* This proposal will improve the value of postsecondary learning as well as support enrollments and research in areas of critical state need. It will provide the opportunity to recruit faculty and staff, thus increasing the number of jobs in Washington.
- *Prosperous Economy:* ISCRM's research program provides a significant economic impact to the state, as noted above, impacting the biotechnology and health care sectors.

What alternatives were explored by the agency and why was this option chosen?

As noted above, we were able to launch the Institute with generous philanthropy and federal and non-federal grants. The University will continue to aggressively pursue federal grant and/or private donor funds, but these would end up being complementary to state support.

What are the consequences of not funding this request?

The University is internationally recognized for its research, and consistently receives more federal funding than almost any other U.S. public institution. This recognition gives the University a competitive edge in recruiting the best faculty, students, trainees and staff. If this request is not funded, it will limit the UW's ability to recruit the best and will mean the UW cannot leverage state monies for significant federal and private financial support.

Funding this work will allow the University to be well-positioned to apply for and leverage other funding opportunities from federal agencies, such as the National Institutes of Health (NIH) and National Science Foundation (NSF), private foundations, and potentially private donors with a specific interest in healthcare.

How has or can the agency address the issue or need in its current appropriation level?

The UW launched ISCRM through an aggressive philanthropy campaign that carried it through its first decade. Over this time, ISCRM scientists have demonstrated that they can compete with the best scientists in the world and are moving multiple discoveries through commercialization and clinical trials. None of the other leading stem cell institutes (e.g. those at Harvard, Stanford, UCLA, and UT Southwestern) sustain themselves solely through federal grant funding or private philanthropy. They require ongoing support from the state or, in the case of private universities, revenue from their endowments. With the increased strain on the UW's budget since 2008, there are no existing resources that can be repurposed to support the institute.

Other supporting materials:

Please see the attached fiscal detail.

Regenerative Medicine Institute - Fiscal Detail

Salary Expenses	Total Salary	Requested Support	% of Total Salary	FTE	FY 2018	FY 2019
Faculty Lines	\$ 160,000	\$ 153,373	96%	5.0	\$ 766,866	\$ 766,866
Core Faculty Director	\$ 140,000	\$ 49,000	35%	0.4	\$ 49,000	\$ 49,000
ISCRM Director Supplement	\$ 250,000	\$ 80,000	32%	0.3	\$ 80,000	\$ 80,000
Postdoctoral Fellows	\$ 51,200	\$ 51,200	100%	4.0	\$ 204,800	\$ 204,800
Professional Staff	\$ 65,000	\$ 65,000	100%	12.0	\$ 780,000	\$ 780,000
TOTAL				21.7	\$ 1,880,666	\$ 1,880,666
Benefits Expenses	Benefits Rates				FY 2018	FY 2019
Faculty - 25.7%	25.7%				\$ 230,238	\$ 230,238
Post Doctoral Fellow	17.0%				\$ 34,816	\$ 34,816
Professional Staff	32.6%				\$ 254,280	\$ 254,280
TOTAL					\$ 519,334	\$ 519,334
Other Expenses					FY 2018	FY 2019
Pilot Grant Funding					\$ 300,000	\$ 300,000
Translational Bridge Award					\$ 300,000	\$ 300,000
TOTAL					\$ 600,000	\$ 600,000

TOTAL STATE REQUEST	\$ 3,000,000	\$ 3,000,000
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TAB D

- 1. Summarized Revenues Report**
- 2. Fund Balance Management Report**
- 3. Proposed Fee Changes (I-960 Report)**
- 4. Non-Budgeted Local Fund Summary**

State of Washington

Summarized Revenue by Account and Source

Budget Period: 2017-19
Dollars in thousands
360 - University of Washington
Agency Level
01 - 2017-19 Biennial Budget Request
Supporting Text Excluded

9/14/2016
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	Maintenance Level		Performance Level		Biennium Totals		
	FY2018	FY2019	FY2018	FY2019	FY2018	FY2019	Total
145 - H E - Grants/Contrct							
Total - 0303 - Institute of Museum - F	384	392			384	392	776
Total - 0305 - National Endow Arts - F	18	18			18	18	36
Total - 0310 - Dept of Agriculture - F	14,088	14,370			14,088	14,370	28,458
Total - 0311 - Dept of Commerce - F	24,937	25,436			24,937	25,436	50,373
Total - 0312 - Dept of Defense - F	66,473	67,802			66,473	67,802	134,275
Total - 0315 - Dept of Interior - F	2,826	2,882			2,826	2,882	5,708
Total - 0319 - Dept of State - F	4,052	4,133			4,052	4,133	8,185
Total - 0320 - Dept of Transportatn - F	2,797	2,853			2,797	2,853	5,650
Total - 0321 - Dept of Treasury - F	95	97			95	97	192
Total - 0343 - Nat Aero & Sp Admini - F	10,615	10,827			10,615	10,827	21,442
Total - 0347 - Nat Science Foundati - F	72,252	73,697			72,252	73,697	145,949
Total - 0364 - Veterans Administrat - F	5,043	5,144			5,043	5,144	10,187
Total - 0366 - Environ Protection A - F	2,693	2,747			2,693	2,747	5,440
Total - 0381 - Dept of Energy - F	20,634	21,047			20,634	21,047	41,681
Total - 0383 - FEMA - F	5	5			5	5	10
Total - 0384 - Dept of Education - F	13,034	13,295			13,034	13,295	26,329
Total - 0393 - Health & Human Svc - F	432,506	441,156			432,506	441,156	873,662
Total - 0397 - Homeland Security - F	1,164	1,187			1,164	1,187	2,351
Total - 0399 - Fed Assistance Misc - F	798	814			798	814	1,612
Total - 0409 - Interest Income - S	91,070	92,891			91,070	92,891	183,961
Total - 0420 - Charges for Services - S	166,185	169,509			166,185	169,509	335,694

Total - 0499 - Other Revenue - S	34,780	35,475	34,780	35,475	70,255
Total - 0541 - Contributions Grants - P/L	297,187	303,130	297,187	303,130	600,317
Total - 0546 - Federal Revenue - P/L	111,750	113,985	111,750	113,985	225,735
Total - 0621 - Operating Trans In - S	328,605	335,177	328,605	335,177	663,782
Total - 0622 - Operating Trans Out - S	(237,796)	(242,552)	(237,796)	(242,552)	(480,348)
145 - H E - Grants/Contrct - State	382,844	390,500	382,844	390,500	773,344
145 - H E - Grants/Contrct - Federal	674,414	687,902	674,414	687,902	1,362,316
145 - H E - Grants/Contrct - Private/Local	408,937	417,115	408,937	417,115	826,052
Total - 145 - H E - Grants/Contrct	1,466,195	1,495,517	1,466,195	1,495,517	2,961,712

148 - HE - Dedicated Locl

Total - 0303 - Institute of Museum - F	97	98	97	98	195
Total - 0305 - National Endow Arts - F	6	6	6	6	12
Total - 0310 - Dept of Agriculture - F	729	744	729	744	1,473
Total - 0311 - Dept of Commerce - F	5,108	5,211	5,108	5,211	10,319
Total - 0312 - Dept of Defense - F	13,906	14,184	13,906	14,184	28,090
Total - 0315 - Dept of Interior - F	671	685	671	685	1,356
Total - 0319 - Dept of State - F	1,198	1,222	1,198	1,222	2,420
Total - 0320 - Dept of Transportatn - F	838	855	838	855	1,693
Total - 0321 - Dept of Treasury - F	9	9	9	9	18
Total - 0343 - Nat Aero & Sp Admini - F	2,934	2,993	2,934	2,993	5,927
Total - 0347 - Nat Science Foundati - F	20,160	20,563	20,160	20,563	40,723
Total - 0364 - Veterans Administrat - F	104	106	104	106	210
Total - 0366 - Environ Protection A - F	1,003	1,023	1,003	1,023	2,026
Total - 0381 - Dept of Energy - F	5,842	5,959	5,842	5,959	11,801
Total - 0383 - FEMA - F	2	3	2	3	5
Total - 0384 - Dept of Education - F	1,860	1,897	1,860	1,897	3,757
Total - 0393 - Health & Human Svc - F	133,361	136,028	133,361	136,028	269,389
Total - 0397 - Homeland Security - F	235	240	235	240	475
Total - 0399 - Fed Assistance Misc - F	348	355	348	355	703
Total - 0402 - Income From Property - S	2,537	2,588	2,537	2,588	5,125
Total - 0405 - Fines, Forfeits - S	1,423	1,452	1,423	1,452	2,875

Total - 0409 - Interest Income - S	18,409	18,777	18,409	18,777	37,186
Total - 0413 - Cap Gains/Losses - S	(75)	(77)	(75)	(77)	(152)
Total - 0420 - Charges for Services - S	208,918	213,096	208,918	213,096	422,014
Total - 0424 - Tuition and Fees - S	452	461	452	461	913
Total - 0430 - Dedicated Stu Fees - S	237,609	242,361	237,609	242,361	479,970
Total - 0499 - Other Revenue - S	17,525	17,875	17,525	17,875	35,400
Total - 0541 - Contributions Grants - P/L	29,619	30,212	29,619	30,212	59,831
Total - 0546 - Federal Revenue - P/L	39,652	40,445	39,652	40,445	80,097
Total - 0621 - Operating Trans In - S	133,476	136,145	133,476	136,145	269,621
Total - 0622 - Operating Trans Out - S	(183,096)	(186,758)	(183,096)	(186,758)	(369,854)
Total - 0688 - UW Internal Lending - S	(31,255)	(31,879)	(31,255)	(31,879)	(63,134)
Total - 0901 - Interagency Reimburs - U	6,270	6,395	6,270	6,395	12,665
Total - 0902 - Recovery Current Exp - U	12	12	12	12	24
Total - 0920 - Items Pl in Suspense - U	(4,870)	(4,967)	(4,870)	(4,967)	(9,837)
148 - HE - Dedicated Locl - State	405,923	414,041	405,923	414,041	819,964
148 - HE - Dedicated Locl - Federal	188,411	192,181	188,411	192,181	380,592
148 - HE - Dedicated Locl - Private/Local	69,271	70,657	69,271	70,657	139,928
148 - HE - Dedicated Locl - Unknown	1,412	1,440	1,412	1,440	2,852
Total - 148 - HE - Dedicated Locl	665,017	678,319	665,017	678,319	1,343,336
149 - Inst of HI ED-Operat					
Total - 0424 - Tuition and Fees - S	673,175	696,791	673,175	696,791	1,369,966
Total - 0622 - Operating Trans Out - S	(50,369)	(50,808)	(50,369)	(50,808)	(101,177)
Total - 0688 - UW Internal Lending - S	(4,104)	(1,482)	(4,104)	(1,482)	(5,586)
149 - Inst of HI ED-Operat - State	618,702	644,501	618,702	644,501	1,263,203
Total - 149 - Inst of HI ED-Operat	618,702	644,501	618,702	644,501	1,263,203
505 - U of W Hospital					
Total - 0402 - Income From Property - S	6,726	7,062	6,726	7,062	13,788
Total - 0420 - Charges for Services - S	1,705,524	1,790,800	1,705,524	1,790,800	3,496,324
Total - 0450 - Sales/Goods & Supply - S	990	1,040	990	1,040	2,030
Total - 0621 - Operating Trans In - S	61,017	64,068	61,017	64,068	125,085

Total - 0622 - Operating Trans Out - S	(131,622)	(138,203)	(131,622)	(138,203)	(269,825)
Total - 0901 - Interagency Reimburs - U	5,494	5,769	5,494	5,769	11,263
505 - U of W Hospital - State	1,642,635	1,724,767	1,642,635	1,724,767	3,367,402
505 - U of W Hospital - Unknown	5,494	5,769	5,494	5,769	11,263
Total - 505 - U of W Hospital	1,648,129	1,730,536	1,648,129	1,730,536	3,378,665
360 - University of Washington - State	3,050,104	3,173,809	3,050,104	3,173,809	6,223,913
360 - University of Washington - Federal	862,825	880,083	862,825	880,083	1,742,908
360 - University of Washington - Private/Local	478,208	487,772	478,208	487,772	965,980
360 - University of Washington - Unknown	6,906	7,209	6,906	7,209	14,115
Total - 360 - University of Washington	4,398,043	4,548,873	4,398,043	4,548,873	8,946,916

Fund Balance Management Report

As required by the higher education addendum to OFM's budget submission instructions, this report provides a narrative summary of the University of Washington's (UW's) historic management and uses of accounts 148 and 149, including an explanation of reserve and working capital policies that govern fund balances.

AFRS Fund (Account) 148 - Institutions of Higher Education - Dedicated Local Account:

Revenues in Fund 148 support certain UW's expenses associated with federal, state, and local grant and contract activity. Fund 148 also supports summer quarter and fee-based degree options for students. Fund 148 mainly includes the UW's designated operating funds (DOF) and self-sustaining activities.

Designated operating funds are locally generated and are a primary component of the UW's core operating resources. The UW has discretion over these funds. However, as a matter of internal policy, the UW restricts their use. Indirect cost recovery revenue, described below, is a major source of DOF funding.

Indirect Cost Recovery (ICR):

ICR revenue is the primary source of infrastructure support for the UW's research portfolio of more than \$1 billion. These are cost reimbursements that pay for a wide range of research-related support services and administrative activities. These funds also ensure that general state support and student tuition do not subsidize the UW's research infrastructure.

ICR revenues also increasingly go to support critical maintenance and capital construction of research-related facilities. The growth of the research enterprise at the UW has made it necessary to build additional space to house this work. The UW has used ICR to renovate and construct this space in lieu of asking the state for new investment. If trends continue, ICR will be increasingly relied upon to support debt service for new research facilities.

Self-Sustaining Activities:

Another major source of Fund 148's funding comes from self-sustaining activities, specifically summer quarter tuition (which is different from the tuition paid by students during the regular academic year) and fees for UW Educational Outreach courses. Neither of these activities are state supported. Revenue is distributed back to the academic units providing the instruction, after accounting for central services and expenses. Academic units, in turn, expend these revenues on related activities, such as providing instruction, support services, and making infrastructure improvements.

AFRS Fund (Account) 149 – Higher Education Operating Fees Account:

Net tuition operating fees, which are tuition operating fee revenues less waivers and financial aid, and state appropriations are included in the UW's general operating funds (GOF). GOF is a primary component of the UW's core operating resources. These funds are used to support the UW's instructional mission and administrative and operational functions. This includes general operations, which support delivery of instruction, student support, public service, and maintenance of plant operations. Tuition operating fee revenue provides the main source of GOF funding and covers the majority of GOF expenses.

Reserve and Working Capital Policies:

University-wide, academic and administrative units maintain some fund balance on an ongoing basis to ensure that unanticipated, long term, or emergency costs can be covered. This also ensures the University has appropriate "cash on hand" levels to satisfy bondholders and rating agencies.

Academic and administrative units' designated operating fund (DOF) and general operating fund (GOF) balances are monitored and reviewed annually through the Provost's budgeting process to ensure that levels of reserves are justified and appropriate. In fiscal year 2016, a carryover policy was implemented for administrative units.

The policy requires that each Seattle administrative and academic unit, as well as UW Bothell and UW Tacoma, submit a carryover spending plan to articulate the planned usage of any existing carryover balance. Administrative units are advised to hold 10 percent of their permanent GOF and DOF budget base as an emergency reserve. Any additional carryover beyond this 10 percent reserve must be justified with an itemized list of intended uses and commitments. Academic units (including UW Bothell and UW Tacoma) are also asked to provide carryover spending plans on an annual basis. However, as the responsibilities, risks, and the composition of each academic unit can vary dramatically (more so than administrative units), appropriate reserve amounts are determined on a case-by-case basis. In addition, annual budget materials require units to account for unchanged or growing carryover balances.

For additional information, please see the Washington State Auditor's 2014 audit of UW's uses of higher education dedicated local funds and operating fee accounts, which can be found here:
<http://portal.sao.wa.gov/ReportSearch/Home/ViewReportFile?isFinding=false&arn=1013400>

State of Washington
Request for Fees
2017-19 Biennium

		Page
	Code	Title
AGENCY	360	University of Washington

							Incremental Revenue						
							GF-S		Other Funds				
Agy #	Agency Name	Fee Code	Name of Fee	Is a bill required?	Z-Draft # (or Pending)	New, Increased, Continued?	FY 2018	FY 2019	FY 2018	FY 2019	Tied to Expenditure Change?	Fee Payer Position	Explanation of Change (See instructions)
360	University of Washington	1100	Resident Undergraduate Tuition	No	n/a	Increased	-	-	6,607	13,474	Fee change will make up the shortfall between current expenditures and current revenue.	This change is initiated by the legislature. Fee payers (resident undergraduates) have not expressed a position.	Our calculations assume tuition rates for resident undergraduates will increase by 2.1% in both FY18 and FY19. Our calculations also assume enrollment will be flat at Seattle, but will increase by 4% at Bothell and by 3% at Tacoma in both FY18 and FY19.
360	University of Washington	1200	Tuition for Non-Resident and Graduate Programs	No	n/a	Increased	-	-	19,665	37,346	Fee change will make up the shortfall between current expenditures and current revenue.	This change is proposed by the UW. Fee payers (non-residents and graduate students) have not expressed a position.	Our calculations assume tuition rates for nonresident undergraduates will increase by 2% in both FY18 and FY19, and that tuition rates for resident and nonresident graduate and professional students will increase by 3% in both FY18 and FY19. Our calculations also assume no enrollment growth for graduate/professional students, but for nonresident undergraduates, it assumes enrollment will increase by 4% in FY18 and 3% in FY19 at Seattle, 10% and 8% at Bothell, and 5% and 3% at Tacoma, in FY18 and FY19 respectively.
360	University of Washington	1300	Summer Quarter Tuition - Resident Undergraduates	No	n/a	Increased	-	-	-1,900	-1,560	Fee change will make up the shortfall between current expenditures and current revenue.	Fee payers (summer quarter resident undergraduate students) have not expressed a position.	Our calculations assume no resident undergraduate summer enrollment growth, as this enrollment has remained fairly stable in recent years. The decrease in Summer 2017 (FY18) is a function of the legislatively mandated decrease in tuition resident undergraduate tuition for the 2016-17 academic year (although Summer 2017 is part of FY18, it is still part of the 2016-17 academic year). A tuition increase of 2.1% is assumed for Summer 2018 (FY19).
360	University of Washington	1310	Summer Quarter Tuition - Non-Residents & Graduate Programs	No	n/a	Increased	-	-	1,421	2,908	Fee change is to support increasing expenditures.	This change is proposed by the UW. Fee payers (summer quarter students) have not expressed a position.	Enrollment growth of 2% is assumed for all nonresident undergraduate and graduate program categories. Nonresident undergraduate tuition is expected to increase 2% per year; graduate/professional tuition is expected to increase 3% per year.
360	University of Washington	2200	Services and Activities Fees	No	n/a	Increased	-	-	300	604	Fee change is to support increasing expenditures.	This change is proposed by the Services & Activities Fee Committees. Student leaders will consulted with fee payers, as necessary.	Each campus has a Services and Activities Fee (SAF) Committee that includes undergraduate and graduate students. At this time, it is assumed that Bothell and Tacoma will not increase their S&A fee rates during the 2017-19 biennium. However, it is expected that a slight increase could occur at Seattle--possible up to \$2/quarter. That increase (approximately 1.5%) is built into the incremental calculations. The enrollment increases noted for "Resident Undergraduate Tuition" and "Tuition for Non-Resident and Graduate Programs" above are assumed in the incremental revenue calculations.
360	University of Washington	3100	Existing On-Campus Lab, Course , etc. Fees	No	n/a	Increased			222	477	Fee change is to support increasing expenditures.	This change is the sum of many changes initiated by a variety of departments across the UW. Fee payers (students) have not expressed a position.	Rates for lab and course fees are expected to remain stable in the next biennium, and previously-approved fee increases for individualized music instruction have leveled off and are expected to increase by less than 5% for the biennium.
360	University of Washington	3100	Existing On-Campus Lab, Course , etc. Fees - Summer Quarter	No	n/a	Increased	-	-	-	2	Fee change is to support increasing expenditures.	This change is the sum of many changes initiated by a variety of departments across the UW. Fee payers (summer quarter students) have not expressed a position.	Rates for summer lab and course fees are expected to remain stable in the next biennium. As a result, very slight increases in incremental revenue are expected for FY18 and FY19: \$200 and \$2,200 respectively.

							Incremental Revenue						
							GF-S		Other Funds				
Agy #	Agency Name	Fee Code	Name of Fee	Is a bill required?	Z-Draft # (or Pending)	New, Increased, Continued?	FY 2018	FY 2019	FY 2018	FY 2019	Tied to Expenditure Change?	Fee Payer Position	Explanation of Change (See instructions)
360	University of Washington	4100	Fee-Based Programs/Degree Fees	No	n/a	Increased	-	-	3,560	7,262	Fee change is to support increasing expenditures.	This change is proposed by the UW. Fee payers (students in fee-based programs) have not expressed a position.	Fee rates and fee increases vary significantly by program, due to differing costs for program delivery. Gross revenue for the fee-based program category is expected to increase by 4% per year over the next biennium. Due to fewer launches of new fee-based program and slower rates of program growth, this rate of increase is lower than in previous years. Due to the delay in launch for the full GIX program, projections for that degree group have been significantly reduced for the upcoming biennium; however, strong performance by GIX could result in 7% to 9% growth for incremental revenue.
360	University of Washington	4100	Contract Instructional Offerings (with organizations)	No	n/a	Increased	-	-	75	180	Fee change is to support increasing expenditures.	This change is proposed by the UW. Fee payers (students in fee-based programs) have not expressed a position.	Contract pricing is demand-driven and is based on the scope of each contract. The variation in net revenue from year to year is considerable, as revenue is reported at contract completion and multi-year contracts are not uncommon. The demand from UW colleges, schools and departments for non-traditional curricular options (e.g. offsite activities, weekend programs, etc.) is expected to increase by 20% between FY17 and FY18. The pricing for FY18 (and, thus, the incremental revenue) reflects this increase in demand. An additional increase in demand is expected for FY19.
360	University of Washington	5100	Application Fee, Graduation Application Fee, Transcript Fee	No	n/a	Increased	-	-	928	928	Fee change is to support increasing expenditures.	This change may be initiated by the UW. Fee payers (applicants and graduating students) have not expressed a position.	- In spring 2015, the UW began adding an electronic transcript service, which will allow all students to send transcripts electronically. This service will allow quick, secure delivery, both domestically and abroad. In addition, the service expansion will allow the UW to link vital forms (e.g. LSAT and MCAT forms) to a transcript, so that they can be sent together to a requested destination. To support increased expenses associated with this service, the transcript fee is expected to increase from its current \$9 rate to a new rate between \$11-15. Assuming the number of transcript and form requests remain relatively stable, the new fee would generate \$120,000-\$378,000 in incremental revenue. The average of this range (\$294,000) is included in the total to the left. - A 15% increase in application volume for domestic and international students is expected in the 2017-19 biennium. Based on this, we estimate receiving approximately 42,550 (+5,550) domestic applications and 12,650 (+1,650) international applications FY18. To fund necessary activities associated with this growth (e.g. admission counseling, application processing, holistic review, financial aid counseling, etc.) the application fee is expected to increase from the current \$70 rate to \$80 for domestic applications and from the current \$80 rate to \$100 for international applications. These proposed fee levels would generate approximately \$678,500 in incremental revenue (\$425,500 from domestic and \$253,000 from international fee sources).
360	University of Washington	5200	Diploma Replacement Fee	No	n/a	Increased	-	-	41	41	Fee change is to support increasing expenditures.	This change may be initiated by the UW. Fee payers (graduating students) have not expressed a position.	The diploma replacement fee may increase from the current fee rate of \$20 to somewhere in the range of \$30-50. This fee increase is in the preliminary exploratory assessment stages and will need to be vetted with campus stakeholders. If the appropriate UW parties approve, the UW may choose to implement this fee in the next biennium. The rate change would support increasing demand and expectations from students with respect to degree audits, degrees awarded, and official diplomas. In addition to more efficient auditing and degree verification services, students request that more modern, electronic, and secure access and delivery processes be associated with these services. Vendor costs for these services as well as the numbers of students demanding them are steadily increasing. This fee increase would support the costs of current tools and service levels for students who need a replacement diploma. Additionally, students in professional programs, international students, and students who are seeking employment or educational opportunities outside of the United States are requesting certified diploma copies. Depending on the size of the fee rate increase, it could generate between \$20,000 and \$62,000 in incremental revenue. The average of this range (\$41,000) is included in the incremental revenue field to the left.

							Incremental Revenue				Tied to Expenditure Change?	Fee Payer Position	Explanation of Change (See instructions)
							GF-S		Other Funds				
Agy #	Agency Name	Fee Code	Name of Fee	Is a bill required?	Z-Draft # (or Pending)	New, Increased, Continued?	FY 2018	FY 2019	FY 2018	FY 2019			
360	University of Washington	5200	New Student Enrollment and Orientation Fee	No	n/a	Increased	-	-	37	153	Fee change is to support increasing expenditures.	The change may by the UW, in consultation with students. Students have not expressed a position.	The New Student Enrollment and Orientation Fee (NSEOF) is a one-time pre-matriculation fee paid by all new undergraduate students who accept admission to the UW. The NSEOF fee funds programming and staffing to support new student transition and academic success. Fundamental programming supported by the NSEOF includes a majority of services offered by First Year Programs, all services provided by Academic Support Programs, advising services in Undergraduate Academic Affairs, and retention services provided by the Office of Minority Affairs and Diversity. The number of students confirming enrollment is expected to increase by 1% per year at Seattle and by at 4% per year at Bothell and Tacoma. The NSEOF fee rate is expected to remain at its current level in FY18 at all three campuses; however, in FY19, the fee rate is expected to increase by 3% at both Seattle and Bothell, but by 0% at Tacoma.
Additional Comments													

	Code	Title
AGENCY	360	UNIVERSITY OF WASHINGTON

NON-BUDGETED LOCAL FUND SUMMARY

DATE 9/15/2016

FUND CODE	FUND NAME	7/1/15 FUND BALANCE*	6/30/17 ESTIMATED FUND BALANCE	2017-19 ESTIMATED REVENUES	2017-19 ESTIMATED EXPENDITURES	6/30/19 ESTIMATED FUND BALANCE
145	GRANT & CONTRACTS ACCT	593,301,155	432,573,496	2,987,021,000	(2,987,021,000)	432,573,496
148	DEDICATED LOCAL ACCT	827,827,704	771,145,620	1,343,336,000	(1,343,336,000)	771,145,620
149	OPERATING FEES ACCT	38,151,963	80,757,521	1,263,203,000	(1,263,203,000)	80,757,521
252	HIGHER ED NON-PROP LOC CAPITAL ACCT	117,694,819	39,180,407	428,321,393	(428,321,393)	39,180,407
387	UW FACILITIES BOND RETIREMENT	2,942,571	3,416,571	5,720,000	(5,600,000)	3,536,571
403	SELF INSUR REVOLV FUND	2,765,629	661,629	50,400,000	(33,800,000)	17,261,629
440	STORES	246,367	124,367	3,926,000	(3,926,000)	124,367
448	PRINTING	1,118,166	1,018,166	21,728,000	(21,728,000)	1,018,166
450	OTHER FACILITIES	34,482,206	27,982,206	359,576,000	(359,576,000)	27,982,206
460	MOTOR POOL	(635,110)	(7,135,110)	350,815,000	(350,815,000)	(7,135,110)
505	UW HOSPITAL	639,944,017	627,209,721	3,378,665,000	(3,378,665,000)	627,209,721
522	ASSOCIATED STUDENTS	114,541,080	122,574,080	218,798,577	(218,798,577)	122,574,080
528	INST OF H ED - PARKING	24,290,905	31,235,905	37,768,000	(37,768,000)	31,235,905
570	OTHER ENTERPRISES	59,634,549	61,875,549	208,847,352	(208,847,352)	61,875,549
573	HOUSING & FOOD	14,743,309	20,667,309	182,078,063	(182,078,063)	20,667,309
846	GRATS IN AID SCH FELL	38,342,549	107,997,549	691,029,988	(691,029,988)	107,997,549
849	STUDENT LOAN	87,951,652	88,084,652	52,434,000	(52,434,000)	88,084,652
857	H/E ANNUITY & LIFE INC	83,042,635	77,806,635	(1,178,034)	1,178,034	77,806,635
859	ENDOWMENT LOCAL	2,522,561,998	2,294,561,998	207,000,000	-	2,501,561,998
860	HI ED LT LOAN FUND	9,461,892	11,014,062	1,870,027	(144,000)	12,740,089

* This column must agree with the 6/30/15 CAFR balance.

TAB E

(Higher Education Supplement)

- 1. Higher Education Supplement Forms**
- 2. Collective Bargaining Agreements**

Attachment A-1
Locally-Authorized Salary Increases

**Estimated Cumulative Value
Of Locally-Authorized Salary Increases
Initially Reported As GF-S or Operating Fee Expenditures on CIM
(Dollars in Thousands)**

Institution: UNIVERSITY OF WASHINGTON

	Non-Represented Employees	Represented (Collectively-Bargained) Employees		
		SEIU	WFSE	UAW
FY 14	14,245	548	409	424
FY 15	29,087	1,259	939	865
FY 16	2,099	452	606	545
TOTAL	45,431	2,259	1,954	1,835

Please report only the estimated cumulative value of (a) the locally-authorized amounts in excess of the standard state-funded salary increases in the biennial budget; that (b) were reported as a GF-S or 149-6 cost on your institution's most

Attachment B-1

State-Supported Tuition Waivers by Purpose

Institution: University of Washington										
Purpose for Granting The WaiverRCW			FY 2015				FY 2016			
			Residents		Non-Residents		Residents		Non-Residents	
			Headcount	\$ (actuals)	Headcount	\$ (actuals)	Headcount	\$ (actuals)	Headcount	\$ (actuals)
UNDERGRADUATE STUDENTS										
	International Exchange	28B.15.556	8	\$72,689	3	\$40,959	2	\$20,406		
	Child/Spouse Deceased Fire/Police/Highway	28B.15.380	2	\$17,900			2	\$20,406		
	Military/Veterans/Dependents	28B.15.621	341	\$2,017,898	8	\$26,171	331	\$1,937,654	2	\$3,437
	Need Waivers	28B.15.740	4,016	\$13,129,667	8	\$19,388	5,420	\$14,542,836	9	\$4,873
	Merit Waivers	28B.15.740	1,178	\$2,727,155			1,021	\$2,902,361		
	Gender Equity	28B.15.740	99	\$489,348	196	\$3,274,864	98	\$423,490	198	\$3,270,650
	Child/Spouse/Fac/Staff NR	28B.15.014			1	\$20,225			1	\$14,253
	Subtotal State-Support		5,644	\$18,381,969	216	\$3,340,648	6,874	\$19,826,747	210	\$3,293,214
GRADUATE STUDENTS										
	TA/RA Resident	28B.15.615	773	\$7,764,011	1,844	\$19,009,617	703	\$7,015,633	1,948	\$20,450,697
	TA/RA Nonresident	28B.15.014			3,382	\$37,552,012			3,547	\$39,903,443
	>18 Hour Exemption - Professional Programs	28B.15.100	180	\$816,232	66	\$548,156	235	\$1,356,409	48	\$360,062
	International Exchange	28B.15.556	4	\$30,462	124	\$2,288,953	6	\$45,276	114	\$2,051,750
	Child/Spouse/Fac/Staff NR	28B.15.014			6	\$29,866			4	\$26,482
	Military/Veterans/Dependents	28B.15.621	47	\$460,818	13	\$96,808	43	\$440,102	11	\$98,417
	Need Waivers	28B.15.740	519	\$3,724,238	2	\$5,591	479	\$3,537,069		
	Merit Waivers	28B.15.740	212	\$1,145,076			194	\$1,163,764		
	WWAMI	28B.15.225			259	\$6,860,478			280	\$7,789,440
	WICHE	28B.70.050			36	\$510,902			55	\$729,597
	Subtotal State-Support		1,735	\$13,940,837	5,732	\$66,902,382	1,660	\$13,558,252	6,007	\$71,409,887
	TOTAL STATE SUPPORT		7,379	\$32,322,806	5,948	\$70,243,031	8,534	\$33,384,999	6,217	\$74,703,101

NOTE: Please enter unduplicated headcounts and revenues waived in the cells above. In instances in which a student qualifies for multiple waivers (e.g. a veteran enrolled in excess of 18 credits), please count the student and include all operating fees waived on their behalf on the first row applicable to their situation.

Attachment B-2

Non-State-Supported Tuition Waivers by Purpose

Institution: University of Washington

			FY 2015				FY 2016			
	Purpose for Granting The Waiver	RCW	Residents		Non-Residents		Residents		Non-Residents	
			Headcount	\$ (actuals)	Headcount	\$ (actuals)	Headcount	\$ (actuals)	Headcount	\$ (actuals)
UNDERGRADUATE STUDENTS										
	Various Discretionary Waivers	28B.15.915			30	\$246,143			12	\$254,820
	Subtotal Non State-Support		0	\$0	30	\$246,143	0	\$0	12	\$254,820
GRADUATE STUDENTS										
	Various Discretionary Waivers	28B.15.915			372	\$3,455,391			348	\$3,305,265
	Subtotal Non State-Support		0	\$0	372	\$3,455,391	0	\$0	348	\$3,305,265
	TOTAL NON STATE SUPPORT		0	\$0	402	\$3,701,534	0	\$0	360	\$3,560,085

NOTE: Please enter unduplicated headcounts and revenues waived in the cells above. In instances in which a student qualifies for multiple waivers (e.g. a veteran enrolled in excess of 18 credits), please count the student and include all operating fees waived on their behalf on the first row applicable to their situation.

Attachment B-3
Financial Aid from Non-State Sources

Institution: University of Washington

	FY 2014		FY 2015		FY 2016	
	Headcount	\$ (actuals)	Headcount	\$ (actuals)	Headcount	\$ (actuals)
Federal Grants	11,960	51,125,818	11,965	52,174,830	11,629	51,629,168
Federal Student Loans (Stafford Subsidized)	12,241	49,973,279	11,804	48,200,838	11,199	43,593,698
Federal Student Loans (Stafford Unsubsidized)	16,130	158,317,070	16,034	156,567,242	15,541	155,401,290
Federal Student Loans (Perkins)	4,963	10,521,041	3,254	6,551,157	2,860	11,055,408
Federal PLUS Loans (Parent and Graduate)	5,084	82,281,872	5,444	87,915,965	6,103	90,874,619
Private Grants*	12,569	53,693,207	12,986	63,148,253	14,056	69,815,731
Private Loans	2,352	22,059,728	2,118	22,483,579	2,113	22,708,129
Set aside for Institutional Financial Aid Fund**	7,435	61,107,644	7,928	62,137,581	7,397	60,680,349

* Private Grants: Grants or loans funded with contributions, endowment funds, foundation resources, or other private sources under the institution's control, excluding funds from RCW 28B.15.067(1), (9) and (10).

** RCW 28B.15.031 requires a minimum of four percent of operating fees be retained by four-year institutions of higher education, and a minimum of three and one-half percent of operating fees be retained by the community and technical colleges, for the purposes of RCW 28B.15.820.

Notes:

Waivers: are excluded, regardless of whether they are reported on forms B-1 and B-2. Please let us know if you would like those numbers.

Set-Aside: the set-aside funds are awarded from the same budget number as are other additional amounts for institutional aid. As a result, we cannot separate out the number of awards given from the set-aside funds. Thus, we are including a number of forms of institutionally-funded need-based grant aid on this line, as we cannot separate out set-aside dollars.

Attachment B-4
Cumulative Undergraduate Student
Loan Debt at Graduation

Institution: University of Washington

Academic Year	Total Students Receiving Bachelor's Degree	Number Receiving Bachelor's Degree with Loan Debt*	Percentage of those receiving Bachelor's Degrees Who Have Loan Debt*	Mean Loan Debt* at Graduation	Median Loan Debt* at Graduation	Total Loan Debt* for All Graduating Undergraduates
2010-11	8,805	4,378	49.7%	\$20,316	\$17,622	\$88,941,592
2011-12	9,476	4,666	49.2%	\$20,794	\$18,186	\$97,024,960
2012-13	9,461	4,713	49.8%	\$21,471	\$19,500	\$101,193,043
2013-14	9,629	4,707	48.9%	\$21,555	\$19,554	\$101,459,945
2014-15	9,881	4,581	46.4%	\$22,790	\$20,055	\$104,400,716
2015-16	Not available until November/December 2016					

*Loan debt from Federal, State or Private loans received while attending this institution.

Collective Bargaining Agreements

Agency Recommendation Summary Text:

The University of Washington is currently negotiating agreements with collective bargaining units and, in accordance with state law, will submit final agreements by October 1.

Fiscal Summary:

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
General Fund - State	TBD	TBD	TBD	TBD

Package Description:

The following represents the status of collective agreement bargaining for all currently open agreements by statute:

Under RCW 41.80

WFSE 1488 – Bargaining is progressing in conjunction with SEIU 925 (the coalition). At this point no financial agreement has been reached. It is anticipated that the final settlement will closely mirror the state’s final settlement with AFSCME (not yet concluded at the time of this writing). It is also anticipated that the Construction Trades group will receive one-time recruitment and retention wage adjustments.

SEIU 925 – As indicated above, this group is bargaining jointly with WFSE. The eventual wage settlement for across the board wage increases will be the same as WFSE. As in the discussion above, there will be targeted recruitment and retention adjustments applied to one or more classifications. These adjustments have not been agreed to at this time.

Teamsters 117 and the UWPD – This session features a push towards catching up with regional police forces and seeking to build in recruitment and retention wages increases that move in the same direction as what the state has agreed to with the WA State Troopers (16 percent starting 07/01/2017 and 3 percent starting 07/01/2018). Any agreement reached will have the vital caveat that approval and allocation of funding by the state legislature will be required to implement the agreement.

WFSE and the UWPD management group (Sergeants and Lieutenants) – A tentative agreement has been reached with this group that contemplates 8 percent across the board

increases in each year of the two-year agreement. The caveats referenced above have been agreed to by the union with the caveat that implementation is contingent upon approval and allocation of funding by the state legislature.

SEIU 1199 – We have not initiated bargaining with this group, which includes Airlift Northwest, as no state funding is approved or funded by the state and thus falls under the \$10,000 exclusion contemplated by RCW 41.80.

WSNA – Same comment as above for SEIU 1199.

Under RCW 41.56

UWHA (Graduate Medical Education Residents) – After two years and roughly 30 bargaining sessions, an agreement still has not been reached. As this is a first collective bargaining agreement, there can be no retroactive wage payment. The parties have tentatively agreed to a prospective wage formula, but in the absence of a comprehensive agreement, this remains tentative.

Teamsters 117 and the Print Shop (former GCIU) – The parties have met three times, with the most recent meeting being the most productive. There is agreement that the duration, vacation schedule and wages will mirror those elements as they agreed to with WFSE 1488 and SEIU 925 (a “me-too”).

IBU (Inlandboatmen’s Union) – The IBU has expressed interest in bargaining their contract for the first time in recent memory. Each agreed-upon date for negotiations has been cancelled by the union and it is likely that our usual pattern of “me-too” agreements will apply here as well.

UAW 4121 (ASE’s) – This contract is closed until April 30, 2018.

AFT (EO ESL Lecturers) – Bargaining will not begin until the spring of 2017.

Contract Details:

TBD

Efficiencies:

TBD

TAB F

(Other)

- 1. Washington State Research Vessel**
- 2. Central Service Fund Splits**
- 3. Electronic Decision Package Confirmation**

Washington State Research Vessel

Introduction

A total of \$16,600,000 in state support is requested in the 2017-19 biennium to support the detailed design, construction and technical operations of a new research vessel dedicated for use in the Pacific Northwest. The vessel is to be operated by the University of Washington and used by local, state, federal, and tribal agencies; Washington institutions of higher education; and other maritime collaborators. The proposed new vessel is designed for research, monitoring, surveying and education purposes, and will function in a broad swath of marine environments in the Puget Sound, the Strait of Juan de Fuca, the inland waterways of western Canada, the Washington coast, and major regional rivers.

A ship designed for and dedicated to use in this region will provide critical access to our state's coastal waters, which are home to some of our state's most valuable and vulnerable natural resources, communities, and transportation infrastructure. As users and stewards of our coastal regions, we need to better understand and predict how our coastal communities and infrastructure respond to environmental conditions so that we can best invest our limited resources to promote in infrastructure designs and systems that will result in both healthy economies and environments.

Direct ship-based access to these environments enables scientists, engineers, and decision-makers to survey and map our coastal waterways to improve the safety and security of harbors and maritime transportation routes; monitor pollution and spills that cause red tides, fish kills, and other harmful events; assess and enable the sustained use of our state's fish stocks; evaluate permit applications; identify geological hazards; and protect and restore coastal ecosystems. A Washington State Research Vessel operated by the UW and shared by users from across the Pacific Northwest provides this critical capability effectively and efficiently.

In 2015-17, the UW requested state operating funds to replace the state's only Local Class Research Vessel¹ (the R/V Barnes). Given the critical need to replace the 50 year-old ship, the UW is now requesting funds from the state's transportation budget, specifically the Multimodal Transportation Account. This request is related to the implementation of the Puget Sound Action Agenda. A new state-of-the-art, collaborative vessel will directly benefit our state and region by ensuring our state's continued ability to provide quality maritime education and training experiences for our future workforce, as well as a platform to better understand and predict a diverse array of issues that impact our marine and freshwater environments, as well as our coastal communities and transportation infrastructure.

¹ The term "Local Class Research Vessel" defines the smallest of the four classes of research vessels in the U.S. Research Fleet. Local Class ships are the smallest (less than 130 feet) and are used primarily in waters adjacent to their home ports. Unlike the three larger classes of research vessels (Global, Ocean, and Regional), most Local Class ships are not federally owned, but critical to agency and academic oceanographic operations, surveys, and research.

Fiscal Summary

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
Multimodal Transportation Acct (218)	\$6,500,000	\$10,100,000	-	-
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	0.25	0.25	-	-

Base Budget

The operations and maintenance of UW-operated vessels are supported by user fees. The users are primarily funded by federal research grants and contracts. State, local and tribal government agencies also fund ship-time for specific research, surveying and monitoring projects, if they do not have the capacity within their own agencies. Additional funding from private sources (i.e., industry, foundations, donors) also supports specific research projects, applied operations, and educational programming. Operating costs for the new vessel are projected to be \$4,000-\$6,000/day and \$350-\$400/hour, depending on usage.

Expenditure, FTE and revenue assumptions, calculations and details

Please see **Attachment 1** for a detailed cost estimate of vessel costs and **Attachment 2** for a proposed spending plan. To summarize, the total cost estimate includes:

- \$1.9 million for project support, including detailed design,² technical support by licensed naval architects and engineers throughout the project, and 0.25 FTE UW marine operations personnel to provide project management.
- \$13.2 million for vessel costs, including \$12.8 million for vessel construction (the remainder will be used for bonding, warranty, and delivery of the vessel).
- \$1.5 million for margin/contingency, and any unused funds will be returned to the state.

Justification and Impacts

Performance Measures and Impacts to State Residents

The national research vessel fleet consists of a sophisticated network of ships that permit scientists, engineers, planners, and natural resource managers to survey and conduct research on the complex coastal, ocean, seafloor, and sub-seafloor environments. These ships are instrumental in understanding how Earth systems interact and for improved modeling, mapping and forecasts. They also play a vital role in providing high-quality data to inform the public and decisions about maritime infrastructure investments and natural

² Please note that predesign for this project was supported by the UW and therefore is not included in the request.

resource management. Research vessels are important educational platforms for graduate students and undergraduates in the marine sciences, providing valuable training and at-sea experiences for new researchers, engineers, and technicians. Ships also provide opportunities for teachers to acquire skills that translate into innovative class projects, thereby inspiring a new generation of our maritime workforce.

With the impending retirement of the R/V Barnes, the construction of a new Washington State Research Vessel ensures that Washington state is guaranteed to have a component of this national network focused on our state's needs and priorities. Specifically, a Washington State Research Vessel will provide a shared platform for the UW and numerous scientific, government, industry academic, and NGO partners to:

- Survey and map high-resolution the details of all of our state's coastal and inland waterways, filling in gaps in nautical charts and updating existing maps.
- Conduct basic research on the physical, chemical, geological, and biological processes and interactions of our region's coastal and ocean systems.
- Support disaster warnings for severe weather, tsunamis, and earthquakes.
- Map, sample, and monitor physical, biological, geological, and chemical features in our waters that influence weather and climate.
- Provide navigational information to support safe and effective movement of commerce and transportation within U.S. ports.
- Construct Earth's geologic and/or climatic history as recorded in the deep-sea corals and on the ocean floor off of the Washington Coast.
- Assess ocean resources and renewable energy for sound management/development.
- Deploy new instruments and technology that extend ocean sensing to other platforms, such as remotely operated vehicles and autonomous underwater vehicles.
- Support biomedical research in the marine realm to enable discovery of new pharmaceuticals and therapies.
- Provide tactical/strategic oceanographic information for national defense and security.
- Discover and protect archeological resources.
- Advance STEM-based education for numerous graduate and undergraduate students.
- Broaden access to our state's marine environments with a vessel that is ADA accessible.

Finally, because of their specialized equipment and the professionalism and experience of their crews, research vessels provide rapid-response support for catastrophic events and natural disasters. For example, research vessels in the U.S. national fleet played key roles in collecting water, fish, shellfish, and sediment samples in the wake of the Deepwater Horizon oil spill (2010) to determine both human-health risks and impacts to the living marine resources. In addition to being a resource for the state and local governments in natural disasters, the new vessel would be a part of the Washington State Department of Ecology Vessels of Opportunity program. This program supplements the system of organized, professional spill responders that are already in place throughout the state and assists in responding to large oil spills, a rare but potentially devastating occurrence.

What are other important connections or impacts related to this proposal?

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Yes	The new Washington State Research Vessel will provide a platform to be used by Regional and County partners in monitoring, mapping, modeling, and understanding the marine and freshwater ecosystems under their authority without the need to own and operate their own vessel.
Other local gov't impacts?	Yes	The new Washington State Research Vessel will provide a platform to be used by local government partners without the need to own and operate their own vessel.
Tribal gov't impacts?	Yes	The new Washington State Research Vessel will provide a platform to be used by Tribal Government partners without the need to own and operate their own vessel. In addition, educators from the region's Tribal Colleges will have access to this unique educational resource to support their maritime education needs.
Other state agency impacts?	Yes	The new Washington State Research Vessel will provide a platform to be used by state agency partners without the need to own and operate their own vessel. In addition, educators from the state's 4-year colleges and universities and technical and community colleges will have access to this unique educational resource to support their maritime education needs.
Facility/workplace needs or impacts?	Yes	Project would replace retiring Washington State Local Class Research Vessel and bring marine operations into ADA compliance.
Is the request related to Puget Sound recovery?	Yes	While this request is not directly an operating or capital funding request, a modern ship-based platform for oceanographic and fisheries research and monitoring is a critical tool for the state to advance its Puget Sound Recovery Action Agenda. (See below for details.)
Identify other important connections		See below: This proposal aligns with the state's transportation goals of economic vitality and environment; the Governor's Results Washington goals of world-class education; sustainable energy and a clean environment; efficient, effective and accountable government, and a prosperous economy; and the UW's strategic plan.

Please provide a detailed discussion of connections/impacts identified above.

This proposal aligns with the following state Transportation Goals:

- *Economic vitality*: The federal- and state-sponsored research and survey fleet provides the data and information that are at the foundation of our nation's navigational, cartographic and hydrographic services and tools. These nautical products and services need frequent updates to fill gaps and identify changing conditions to improve the safety and security of our harbors and maritime transportation routes, stimulating, supporting and enhancing the movement of people and goods. A specific regional example of the gaps in these tools is the lack of complete coverage in Puget Sound, where the average depth is only 450 feet. Detailed nautical charts are critical for safe ship navigation through Puget Sound, an area that supports an active recreational and transportation economy.
- *Environment*: Frequent and *in situ* monitoring of environmental conditions that impact our coastal communities and infrastructure are essential to understanding how best to invest limited state resources in infrastructure projects that will most effectively enhance healthy communities and protect the environment. Ship-based science and monitoring allows access to information and data that scientists, engineers and natural resource managers need to evaluate permit applications; protect and restore coastal ecosystems; map, sample, and monitor features in our waters that influence coastal infrastructure and water quality. In addition, ship-based technologies are critical to our region's ability to understand, mitigate, and respond to large- and small-scale disasters, such as tsunamis, oil or chemical spills, and harmful algal blooms.

As mentioned above, the new research vessel would be a part of the Washington State Department of Ecology Vessels of Opportunity program.

This proposal aligns with the state's Puget Sound Partnership 2016 Action Agenda:

- Scientific advice and review, scientific synthesis, and strategic investments in research, modeling, and monitoring all contribute to Puget Sound recovery. At its foundation, the 2016 Action Agenda is informed by science. It is based on decisions that are supported by science through input from regional science experts with a variety of public, private, tribal, and academic affiliations and different technical and geographic areas of focus.
- A number of sub-strategies within the PSP Initiatives and the Near-Term Actions (NTA) that support them would benefit greatly by the construction of and access to a modern, ship-based research and monitoring platform dedicated to the region. Specific examples include:
 - *Stormwater Strategic Initiative* – Sampling and monitoring sediment and water quality conditions of specific locations to establish baselines and measure improvements/changes. Activities in sub-strategies 9.1 and 10.4.
 - *Habitat Strategic Initiative* – Surveying shorelines to inventory and quantify shoreline armoring; understand if compliance rates have changed; and improve

- projections of community scale changes in sea level, surge and waves. Collecting environmental and biological data to determine the extent, quality and quantity of specific habitats and species (e.g., eel grass beds, zooplankton); and identify especially vulnerable areas. Activities in sub-strategies 8.2, 8.3, 16.1, and 16.2.
- *Shellfish Strategic Initiative* – Water quality monitoring to evaluate and identify upstream practices that influence shellfish production. Activities in sub-strategies 9.6 and 21.4.
 - Finally, the Puget Sound Partnership Strategic Science Plan documents the need to sustain and enhance the Puget Sound region’s scientific capacity in four critical areas. A Washington State Research Vessel operated by the UW and shared by users from across the Pacific Northwest would help support three of these four critical capabilities (monitoring, modeling, and research).
 - Based on historic use, additional capabilities, and user surveys, it is estimated that approximately 60 percent of the ship’s future use will be spent in Puget Sound and the Salish Sea and the other 40 percent off the outer coast.

Governor’s Results Washington Goals

- *World Class Education:* The new research vessel will support postsecondary success in STEM (Section 1.3). Undergraduate programs in the UW’s Schools of Oceanography and Aquatic & Fishery Sciences are designed to broadly prepare students for many environmental science fields, the maritime workforce, and/or pursue graduate studies in oceanography, fisheries, engineering or other STEM fields.
- *Sustainable Energy and a Clean Environment:* The new vessel will support Healthy Fish and Wildlife through the Shellfish, and Pacific Salmon goals (Sections 2.1 and 2.2). The research and education programming focused on the status of living resources (e.g., fisheries) will provide the best available information for policy-makers and conservation managers. It will also support the Working and Natural Lands through Section 4.4 (Habitat Protection) through programming on understanding and mapping the physical, chemical, geological, and biological processes and the interactions of our region’s coastal and ocean systems.
- *Efficient, Effective and Accountable Government:* The new vessel will support Cost Effective Government Section 2.2 (Reduce the cost of energy used by state owned facilities) as the upgrade from a ship built in 1965 to modern technologies will dramatically increase the fuel efficiency of the UW’s local class research vessel.
- *Prosperous Economy:* The new vessel will support multiple goals in Sections 1 (Business Vitality) and 2 (Thriving Washingtonians) of Prosperous Economy. A top priority of the Governor is to create an economic climate where innovation and entrepreneurship can continue to thrive and create good jobs in every corner of our state. Washington’s maritime sector comprises a robust and growing set of industries that contribute to achieving the Governor’s priority goal. Introducing a new research vessel for the State of Washington enables the state’s institutions of higher education to support and participate in the growth of this sector. Furthermore, Washington’s shipbuilders

currently have the capacity to build this research vessel, and an investment from the state could ensure the ship would be built here.

UW Strategic Plan

A shared vessel operated by the UW represents an efficient and effective collaboration across the state's institutions of higher education and management agencies, thus this proposal will directly support the UW goals of decreasing costs, increasing revenue (such as grant revenue), investing in people, and investing in infrastructure.

What alternatives were explored by the agency and why was this option chosen?

At the end of a ship's usable life, there are three primary alternatives for continued marine operations: (1) modify the existing vessel to meet current and future needs; (2) acquire and convert a used vessel into a research platform, or (3) replace the existing vessel.

Washington's only Local Class Research Vessel—the Research Vessel (R/V) Barnes—was designed as an inland icebreaking harbor tugboat and built in 1965; it was not intended for, and therefore does not accommodate, complex integrated oceanographic and fisheries science research. Specifically, due to its configuration, size, and propulsion arrangement, the current and future academic support functions of the existing vessel are limited. Its laboratory space is inadequate to support integrated science and modern experiential learning opportunities for students. The R/V Barnes' limited lifting capacity precludes deployment and recovery of complex oceanographic sampling devices and instrumentation. In addition, it has virtually no capability to support fisheries research.

The cost of trying to modify it to meet regulatory requirements and current and future science requirements is impractical and would result in a compromised science, monitoring and academic platform. Today's oceanographic and fisheries operations require a vessel with more deck space, significantly better science outfitting, larger laboratory space, substantially greater over-the-side handling capability, and the ability to conduct operations on station for an extended duration. In addition, a larger, more optimally configured vessel is necessary to safely take students to sea and provide experiential learning opportunities.

Acquiring a used vessel that could be converted to a research platform is a possibility, but to date, no viable options have come onto the market. The potential used vessels that have been available have been rejected to date because (1) it would have been more expensive to convert them to an appropriate research vessel than it would be to construct a new vessel; (2) the on-going operations and maintenance would have been unsustainable; and/or (3) even after conversion they would not be well suited for our state's needs. (i.e., They would not be able to get into any of the smaller inlets in Puget Sound or very far up into the Columbia.)

As a result, the UW has invested in the collaborative design of a purpose-built vessel intended to operate in Washington's coastal waters and inland waterways and is pursuing this state funding as our first choice.

The UW will continue to seek federal funding, grants, and private support to acquire and operate a new research vessel. Federal investments are already committed to the scientific equipment and outfitting and private donors have committed funds to support student access to the new ship, but a state investment is critical to leverage other significant funding to construct, operate, and maintain the research vessel.

What are the consequences of not funding this request?

The state's existing Local Class Research Vessel, operated the UW and used by educators, researchers and managers across the state, was built in 1965 and is reaching the end of its service life as defined by the US Coast Guard, the National Science Foundation (NSF) and the federal University-National Oceanographic Laboratory System. Without access to a robust research vessel capable of working in our state's waters, our region's scientists, engineers, educators, and decision-makers are left without a critical tool that allows our state to conduct assessments on a routine basis or to quickly and effectively respond to environmental disasters.

How has or can the agency address the issue or need in its current appropriation level?

The UW will continue to operate the state's 50+-year-old vessel until it becomes too prohibitively costly or unsafe to do so. Once retired from the federal research fleet because of age and inadequate capabilities to meet modern research needs (anticipated to occur by the end of 2017) the ship will no longer be eligible for federal investments in new equipment or technologies, greatly accelerating the timeline for its complete retirement.

Other supporting materials:

Please see **Attachment 1** for a breakdown of vessel costs.

Please see **Attachment 2** for a proposed spending plan.

PROJECT																											
UW New Research Vessel																											
CLIENT																											
University of Washington																											
TITLE																											
Cost Estimate – Design, construction and tech support																											
 1102 SW Massachusetts Street Seattle, Washington 98134-1030 Ph 206.284.1274 www.jensenmaritime.com Fax 206.284.2556		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">EGR</td> <td style="width: 30%;">BN</td> <td style="width: 20%;">DATE</td> <td style="width: 20%;">Jul 30/15</td> </tr> <tr> <td>CKD</td> <td>JS</td> <td>DATE</td> <td>Jul 30/15</td> </tr> <tr> <td>APP</td> <td>BH</td> <td>DATE</td> <td>Jul 31/15</td> </tr> <tr> <td colspan="3" style="padding: 5px;">DOC NO.</td> <td style="padding: 5px;">REV</td> </tr> <tr> <td colspan="3" style="text-align: center; padding: 10px;">140180-814-1</td> <td style="text-align: center; padding: 10px;">-</td> </tr> <tr> <td colspan="2" style="padding: 5px;">PAGE</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">OF 5</td> </tr> </table>		EGR	BN	DATE	Jul 30/15	CKD	JS	DATE	Jul 30/15	APP	BH	DATE	Jul 31/15	DOC NO.			REV	140180-814-1			-	PAGE		1	OF 5
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- Appendix A – Construction Cost Estimate by Groups

1. Objective Statement

The University of Washington (UW) intends to build a new multi-purpose research vessel. This report provides a cost estimate for detailed design, construction and tech support.

2. Background

As per art. 4.2.4 of the Statement of Requirements (Reference 1), this cost estimate includes vessel construction ("vessel cost"), detailed design, tech support (see note 1), UW project management and contingency. We have also included bonding, warranty and delivery (see note 2).

Notes:

1. Tech support is the technical support to UW throughout the Shipyard Contract.
2. Delivery is a cost estimate of delivering the vessel to UW.

3. Summary of Findings

Table 1 summarizes the cost estimates.

Table 1 – Summary of Findings

Item	Percent of Vessel Cost	Cost Estimate
Subtotal Vessel Cost		\$12,810,000
Bonding	2.5%	\$320,250
Warranty		\$50,000
Delivery		\$25,000
Total Vessel Cost		\$13,205,250
Tech Support	6%	\$792,315
Detailed Design	7%	\$924,368
UW Project Management		\$162,000
Margin / Contingency	10%	\$1,507,893
Grand Total		\$16,592,326

The Annex details Vessel Construction Cost by Group (as defined in the Specifications) and UW Project Management costs.

4. Assumptions

The assumptions were as follows:

- Total cost estimate includes: vessel cost (construction and equipment), bonding, warranty, delivery, tech support, detailed design, UW project management and contingency
- Construction cost was based on a parametric analysis of similar size construction for similar types of vessels
- Equipment costs were based on an analysis of similar equipment for similar vessel types
- 100% bonding
- Delivery cost based on the vessel construction taking place in a Washington State shipyard
- Contingency is 10% of vessel cost, tech support, detailed design and UW project management
- Table 1 percentages are based on an industry standard and may be different depending on the shipyard
- UW Project Management assumptions:
 - o Personnel: three people, two days a month for 19 months. Personnel rate: \$135 per hour
 - o Daily per diem of \$120 per person for two days a month for 19 months
 - o Hotel: \$175 per night per person for two days a month for 19 months
 - o Travel: 80 miles @ \$.55 rate per person per two days a month for 19 months
 - o Shipyard to supply office space, phone, fax, wifi and all other reasonable office supplies and equipment

5. Recommendations and Conclusions

If the detailed design and construction was started this year, then it is estimated that the cost would be \$16.6M.

6. References

1. Statement of Requirements Design a Research Vessel for use by University of Washington on the Salish Sea and Connected Near Coastal Waters, by University of Washington, date: July 30, 2014
2. Dwg. No. 140180-832-1 Specifications
3. Dwg. No. 140180-101-1 Outboard Profile & General Arrangement

Appendix A – Construction Cost Estimate by Groups

Table A1 - Vessel Construction Cost Estimate

Group	Cost Estimate
100 - Structure	\$ 1,430,000
200 - Propulsion Plant	\$ 2,280,000
300 - Electric Plant	\$ 1,400,000
400 - Command & Surveillance	\$ 1,050,000
500 - Auxiliary Systems	\$ 3,500,000
600 - Outfit & Furnishing	\$ 2,250,000
800 - Integration & Engineering	\$ 600,000
900 - Shipyard Contract Service	\$ 300,000
Subtotal Vessel Cost	\$ 12,810,000

New Washington State Research Vessel Schedule and Spend Plan

FY 2018												FY 2019															
2017						2018						2019						Budget									
July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	FY2018	FY2019	Totals	
Project Management																								\$81,000	\$81,000	\$162,000	
Tech Support																								\$400,000	\$392,315	\$792,315	
Bonding																								\$320,750	\$0	\$320,750	
Contingency																								\$753,947	\$753,946	\$1,507,893	
RFP					Contract Award																			\$0	\$0	\$0	
						Detailed Design																\$924,368	\$0	\$924,368			
									Procure Long Lead Time Materials															\$4,000,000	\$2,000,000	\$6,000,000	
												Construction												\$0	\$6,810,000	\$6,810,000	
Warranty																								\$50,000	\$0	\$50,000	
																							Delivery	\$0	\$25,000	\$25,000	
																								Totals	\$6,530,065	\$10,062,261	\$16,592,326

Central Service Fund Splits

360-University of Washington

▼

Save/Update

All Columns by Agency must equal 100%

Agency	Program	Account and Approp Title	Auditor	AttGen	OAH	Facilities & Services Only	CTS	Debt Services	Workers' Comp	All Other Services
Percent Totals (only applies when one agency chosen)			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
360-University of Washington		001-1 General Fund-State	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%
360-University of Washington		149-6 Inst of Hi Ed-Operating Fees Acct-Non-Appr	62.00%	62.00%	62.00%	62.00%	62.00%	62.00%	62.00%	62.00%

ELECTRONIC SUBMITTAL CONFIRMATION FORM

Agency Number: 360

Agency Name: University of Washington

Agencies are required to provide electronic access to each decision package in their budget request as part of the submittal process. Confirm Option 1 or 2 below:

Option 1:

☒ This agency posts all decision packages for our 2017-19 budget request to our public facing website at the following URL:

http://opb.washington.edu/sites/default/files/opb/Budget/2017-19_State_Operating_Submittal.pdf

These decision packages conform to our agency's ADA accessibility compliance standards.

Agency
Contact: Becka Johnson Poppe

Contact Phone: 206-616-7203

Contact E-mail: jbecka@uw.edu

Date: September 16, 2016