

2016
Supplemental
Operating Budget
Request



Active Minds Changing Lives



October 5, 2015

The Honorable Jay Inslee
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002

Dear Governor Inslee,

I am pleased to submit Western Washington University's 2016 Supplemental Operating budget for the 2015-17 biennium.

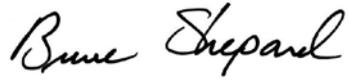
Western Washington University has a proven track record in the retention and graduation of our students and as a result is well positioned to serve the incoming first generation, low income, and underrepresented students who are the state's future. Significant increases in student demand coupled with decreased funding have limited Western's ability to offer key support services such as academic advising, tutoring and retention services to our students. Western is requesting an investment in student support services that is effective and will provide a strong return on investment for the state in terms of increased retention and graduation rates, shorter time to degree, and increased success for traditionally underserved students.

Computing infrastructure is essential to the University's mission. Western's existing data network and wireless access infrastructure is outdated and significantly fails to meet basic needs of the University's core academic functions. Most, if not all, of Western's academic and administrative workload uses the data network at some point, and the proliferation of mobile devices and the need for wireless connectivity exacerbates Western's need for a more reliable network. Limited wireless capacity and an aging IT infrastructure not only disrupt student, faculty, and staff work on a daily basis, these issues also pose significant safety and security threats, including increased vulnerability to data security breaches, network outages and insufficient wireless connectivity for emergency responders. Replacement equipment for the IT network is currently funded out of cash reserves, and most wireless capacity is funded through a limited student fee. This decision package provides for an ongoing source for maintaining and improving the IT foundation as technology advances to ensure a world class education for the students, and support a workplace of choice for the faculty and staff.

We at Western are grateful for the legislature's decision to reinvest in higher education with the 2015-17 budget, and the trust it represents in our ability to apply our strengths to meet the critical needs of Washington. That simple but powerful charge—to leverage our strengths to meet the state's needs—sits at the center of our strategic plan and guides the submissions before you here. We are confident that this supplemental operating budget will further enable the fulfillment of that mission.

Thank you again for your consideration of these proposals, and the recognition of higher education's power to build brighter futures. We look forward to working closely with you to protect this shared commitment to deliver for the people of Washington.

Sincerely,

A handwritten signature in black ink that reads "Bruce Shepard". The signature is written in a cursive, flowing style.

Bruce Shepard
President

Enclosure

CC: Brent Carbajal, Provost and Vice President for Academic Affairs
Becca Kenna-Schenk, Director, Government Relations
Linda Teater, Director, Western Budget Office

Recommendation Summary

(By Agency Priority)

Agency: 380 Western Washington University
Version: S1 2015-17 1st Yr Supplemental Request

12:43:16PM

10/1/2015

Dollars in Thousands

Annual Average FTEs	General Fund State	Other Funds	Total Funds
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2015-17 Current Biennium Total

Total Carry Forward Level

Percent Change from Current Biennium

Carry Forward plus Workload Changes

Percent Change from Current Biennium

Total Maintenance Level

Percent Change from Current Biennium

PL PA Student Success and Achievement	11.0	1,187	1,187
PL PB Network/Wireless Renewal Initiative		2,000	2,000
Subtotal - Performance Level Changes	11.0	3,187	3,187
2015-17 Total Proposed Budget	11.0	3,187	3,187
Percent Change from Current Biennium			

PL PA Student Success and Achievement

Western Washington University has a proven track record in the retention and graduation of our students and as a result is well positioned to serve the incoming first generation, low income, and underrepresented students who are the state's future. However, as significant increases in these important populations has dramatically increased there is an inability to meet the student demand. Western receives less funding per student on average than other public universities and colleges in the state and this limits Western's ability to offer key support services such as academic advising, tutoring and retention services to our students. Western's ratio of advisors and its retention related services are severely restricted by the lack of resources. Western is requesting an investment in student support services that is effective and will provide a strong return on investment for the state in terms of increased retention and graduation rates, shorter time to degree, and increased success for traditionally underserved students.

PL PB Network/Wireless Renewal Initiative

Western Washington University's existing data network and wireless access infrastructure is outdated and significantly fails to meet basic needs of the University's core academic functions. Most, if not all, of Western's academic and administrative workload uses the data network at some point, and the proliferation of mobile devices and the need for wireless connectivity exacerbates Western's need for a more reliable network. Western's core IT equipment is reaching both the end of its vendor supported life and its functional life, and current wireless functionality is completely inadequate for the number of devices and throughput required, meeting only 20% of the actual need. Limited wireless capacity and an aging IT infrastructure not only disrupt student, faculty, and staff work on a daily basis, these issues also pose significant safety and security threats, including increased vulnerability to data security breaches, network outages, and insufficient wireless connectivity for emergency responders. Replacement equipment for the IT network is currently funded out of cash reserves, and most wireless capacity is funded through a limited student fee. This decision package provides for an ongoing source for maintaining and improving the IT foundation as technology advances to ensure a world class education for the students, and support a workplace of choice for the faculty and staff.

DECISION PACKAGE TITLE: Student Success and Achievement

Recommendation Summary Text

Western Washington University has a proven track record in the retention and graduation of our students and as a result is well positioned to serve the incoming first generation, low income, and underrepresented students who are the state’s future. However, as significant increases in these important populations has dramatically increased there is an inability to meet the student demand. Western receives less funding per student on average than other public universities and colleges in the state and this limits Western’s ability to offer key support services such as academic advising, tutoring and retention services to our students. Western’s ratio of advisors and its retention related services are severely restricted by the lack of resources. Western is requesting an investment in student support services that is effective and will provide a strong return on investment for the state in terms of increased retention and graduation rates, shorter time to degree, and increased success for traditionally underserved students.

Fiscal Detail:

RESOURCES	FY 2016-17	TOTAL
Fund 001, General Fund - State	\$1,187,381	\$1,187,381
Total Resources	\$1,187,381	\$1,187,381
USES (EXPENDITURES)		
Graduate Teaching/Research Assistants	\$37,765	\$37,765
Professional Staff	\$712,102	\$712,102
Salaries and Wages - Total	\$749,867	\$749,867
Employee Benefits	\$279,560	\$279,560
Goods, Services, and Travel	\$157,954	\$157,954
Total Expenditures	\$1,187,381	\$1,187,381
STAFFING FTE		
Graduate Teaching /Research Assistants	6.18	6.18
Exempt Professional	15.96	15.96
Total FTE	22.13	22.13

Package Description

As Western requests additional state dollars to invest in support of higher education, we have listened carefully to the needs of the state. Western’s priorities are focused on student success and achievement as measured by retention and graduation, and are aligned with the state of Washington’s achievement measures. Western is already prepared to produce additional graduates in areas of high need such as engineering,

nursing, science, pre-professional programs, computer science, and business while also ensuring quality in the liberal arts.

However, the demographics of the state of Washington are changing with rapid growth of K-12 students within groups who have not typically enrolled in higher education. Many of these academically bright and capable students will require and deserve increased support necessary to provide mentoring, advising, and counseling that ensures their success. Western is well positioned to provide access and graduation to our state's changing population into the future; and the return on the investment is a successful future in the State of Washington.

Narrative Justification and Impact Statement:

When the State of Washington invests in Western Washington University, Western delivers a great return on the investment. Western is ranked consistently among the top three institutions in the state in retention and graduation. As a publicly purposed University, Western has a mission focused on serving the people of the State of Washington. The 2014 U.S. News & World Report ranked Western the highest public, masters-granting university in the Pacific Northwest and second among top public master's-granting universities in the West. Forbes Magazine ranked Western among the nation's top colleges, second among public universities in the state behind the University of Washington. Kiplinger ranked Western as one of the 100 best values in public colleges for 2014, also second among public schools in the state behind the University of Washington. For the fourth year, G.I. Jobs has selected Western as a "Military Friendly School" for 2014. This translates to an excellent investment in state dollars especially for those students who are underrepresented, low income and first generation.

The rapid growth of K-12 students within groups who have not typically enrolled in higher education is not unique to the State of Washington. The Higher Education Chronicle Special Report dated May 30, 2014, was dedicated to this national shift in higher education with multiple articles on the need to invest in student support systems. The articles in the Chronicle are supported by over 30 years of research analyzed by nationally recognized researcher Ernest Pascarella, and senior scientist Patrick Terenzini in their book *How College Affects Students*.

Western is requesting an investment that is proven to work and is committed to measuring the success of these students. At the core of Western's concerns and priorities is the ability to provide quality academic advising, tutoring and retention services. This ability is currently overwhelmed by the increased demand on services. Specifically Western intends to invest in:

- Student Advising/Outreach/Mentoring
- Academic Tutoring Support
- Mental Health Support
- disAbility Support for Students
- Destination Graduation

Student Advising/Outreach/Mentoring

Delayed major declaration and excessive changes in major are among the most significant factors contributing to graduation delays. The importance of providing adequate advising support will become even more critical with shifting student demographics which indicate that Western will be enrolling increasing numbers of students who are less well prepared to navigate college. In general, approximately 33% of our new transfers are undeclared at the end of their second quarter and 70% of native freshmen (those that began their college career at Western) are still undeclared at 90 credits, milestones used to determine pace to graduate in a timely manner. Based on these figures and the support also provided to upperclassmen who are undeclared, the Academic Advising Center and Student Outreach Services are faced with the challenge of providing support for approximately 7,000 students/year.

At current staffing levels, Western utilizes a voluntary advising model with mandated advising enforced only for very high credit undeclared students. This model places the responsibility on the at-risk student to take the initiative to seek out advising when they need it. This is particularly problematic for students whose family members have no experience with higher education. Without support, these students self-advise, resulting in delays in degree completion. Moreover, students often don't realize, or recognize too late, that they are off track and need assistance.

Western has already begun taking steps towards this issue by initiating a three year pilot project using the Student Success Collaborative (SSC), a data-analytics and advising platform designed to identify pathways to graduation and to achieve efficiency by focusing advising and support services to those most at risk - identifying more quickly those students off path for major declaration and/or completion in a timely manner. Early identification allows for a more targeted and developmental advising strategy. This decision package adds three additional components:

- Staffing to create a bridge from Western's highly successful "Compass 2 Campus" program for fifth through twelfth graders. This targeted regional outreach will provide guidance to first generation, low income and underrepresented students in preparing for acceptance and transition to the college environment and ensure they become linked with the support services at Western which will ensure their academic success.
- An on-site residential advising program with direct delivery to first generation freshman students. The first generation advisors will be available in evening hours and will have offices located within residence halls with high numbers of freshmen.
- Leveraging technology for orientation and ongoing first year support. Such an approach provides a means to reach students unable to attend a summer orientation session, as well as freeing up time during orientation for developmental advising and other essential informational needs. This type of early support enables students to acclimate and integrate more fully prior to arrival.

Western's advising ratio (1:700) for undeclared students is double that of industry standards (1:300-350) recommended by the National Academic Advising Association [NACADA]. Funding this proposal will improve academic advising ratios; but more importantly, the investment will be leveraged with SSC data to proactively reach the students most at risk in residence halls and co-curricular program spaces where they live and connect naturally, rather than relying on them to self-identify and come in for assistance.

Academic Tutoring Support

Demand for Tutoring Center (TC) services has increased by nearly 200% over the past six years without a commensurate increase in resources. Analysis of Tutoring Center data over this same timeframe shows that persistence of students visiting the TC in their first year was significantly higher than that of students who did not. This difference was also more pronounced for first generation students, underrepresented, and Pell-Grant eligible students. Additionally, students using the TC were also more likely to select STEM majors than those who did not.

The department has adapted its operations to utilize group tutoring methods wherever effective, but demand exceeds even these efficiency measures. Hiring more peer student tutors is both an effective, low-cost method for providing students with the tools and academic support they need and creates employment opportunities for other students, reinforcing their learning.

Mental Health Support

It has long been documented that students' ability to cope is a critical factor in student retention (Eaton & Bean, 1995) and research clearly demonstrates that students are retained at rates higher than the general student population if they attend counseling. In fact, a recent survey conducted by Western's Office of Survey Research of non-returning students who left in good academic standing revealed that personal health/mental health were cited in the top three reasons for leaving Western. Data from the National College Health Assessment survey clearly shows Western students reporting stress, anxiety, and depression as major contributors to interference with academic success. This mirrors research from UCLA's Higher Education Research Institute that reported in 2011 the lowest level of emotional health in college freshmen in the 25 years the survey has been administered.

The Counseling Center and the Student Health Center continue to see a growing trend in both the number of students seeking mental health services and an increase in the severity of their mental health needs. In the past five years, the number of unique clients in the Counseling Center has nearly doubled and demand for appointments has exceeded counselor capacity, resulting in a waitlist for assessments. Efforts have already been made to try to serve more students by implementing a "brief and focused" model of individual counseling, offering more group sessions and relying on a greater use of therapists in the community. However, staff simply cannot keep up with demand and Prevention and Wellness does not have adequate staffing to expand its primary and

secondary prevention efforts to reach populations at greatest risk (e.g. male students) or to implement effective mental health promotion.

There has also been an increase in the number of students admitted to the local hospital with mental health diagnoses which are more serious. These students can also cause disruption for other students due to the serious nature of their diagnoses and require extensive follow up and case management to ensure that the student continues to access resources and follows their prescribed treatment plans. A case manager is necessary to monitor students in crises, work directly with students to insure compliance with care recommendations and requirements, and provide outreach to students who have sought assistance through the leave of absence or hardship withdrawal processes.

Access to Counseling and Health Services is critical to the foundational support needed for students to cope. Staffing investments must be made if Western is to address both the mental health treatment needs of students and provide more positive mental health promotion for all students. Prevention efforts and timely intervention will translate into increased student success and retention.

disAbility Support for Students

Students with disabilities add to Western's rich diversity and contribute significantly to institutional outcomes in both academic and community service programs. National research has clearly documented the critical value of degree completion with employability and wellbeing of people with disabilities.

Since 2009, disability Resources for Students [DRS] has experienced a 77% growth in the number of students who qualify for accommodation services with a staffing level that has not kept pace (429 students in 2009 to 758 students in 2014). The current counselor to student ratio and space allocation was aligned with a service population of about 450 students. Staffing levels must be improved to provide availability of counselors for accommodations and services and to conduct proactive outreach in training for faculty and staff who serve these students. Staffing responsible for alternative text services and adaptive technologies to serve our more technically sophisticated academic environment is particularly critical.

Destination Graduation – An Opportunity for Degree Completion for Former Students

Financial issues are often cited as reason that students must take a break from, or stop pursuing a degree. In 2007, Western Washington University launched Destination Graduation with a one-year \$75,000 grant from the College Spark Foundation. Destination Graduation was a program designed to recapture the investment of the state by inviting students who left Western in good academic standing, and who were near completion, to re-enroll, finish and graduate from Western. The specific target for this program was the population of students who prior to leaving, had successfully completed at least 140 credits and had been enrolled within the last 10 years. During the time period

the program was being offered, 229 students re-enrolled and 181 graduated from Western.

According to recent data figures from Western's Office of Institutional Research there continues to be a high number of students (858 dating back to Fall 2007 enrollment) who have not completed their degree elsewhere and could benefit from this type of program. The majority of these students left the institution in good academic standing (69.7%) and therefore are not blocked from re-admittance due to academic reasons.

Destination Graduation promotes simplifying the process for former students to return and allows them to concentrate on their studies by providing graduation and application assistance, fee waivers for those financially-qualified, personalized academic advising, and financial aid resources and scholarship assistance. With ongoing state support, Destination Graduation could be re-introduced at Western with the potential for replication at all of the state's public baccalaureate institutions.

a) What specific performance outcomes does the agency expect?

Through targeted investment in this decision package, the following performance measures will be positively impacted: (1) retention and 4-year and 6-year graduation rates of all students; including first generation, low-income, underrepresented students; (2) total number of Bachelor's degrees awarded; and (3) the number of Bachelor's degrees awarded to Pell grant eligible recipients. Specific anticipated outcomes of this proposal include:

1. Improvements in *retention* rates by 10% each biennium (aggregated by at-risk sub-population)
2. Improvements in *graduation* rates by 10% each biennium (aggregated by at-risk sub-population)
3. Increases in the number of students served, including service through online resources achieving efficiency and easy access to information

b) Performance measure detail.

Outcomes will be measured utilizing a variety of data points:

1. Retention and Graduation Rates: aggregated by sub-populations
2. Academic Performance: Student GPAs and scholastic standing
3. Major Declaration: average completed credits at declaration of major, number of major changes, and timing of major changes
4. Excess Credits: percentage of students graduating with excess credits
5. Utilization and Effectiveness of Services: service contacts, number of students using online orientation/advising resources, student surveys (WELS, NSSE); departmental assessments of retention

c) Is this decision package essential to implement a strategy identified in Western's strategic plan?

Yes. As a publicly-purposed university, Western is committed to expanding access to higher education, creating opportunities for students from a variety of backgrounds and experiences to be successful learners now and in the future, and to ensuring that critical needs of the state are met. This package is critical and essential to Western's success if we are to honor those commitments and the goals we have outlined in our strategic plan.

d) Does this decision package provide essential support to one of the Governor's priorities?

This decision package is in direct support of Governor Inslee's vision of "a working Washington built on education and innovation." The components of this package are critical to providing an educational experience that is world-class, addressing both the academic and personal support students need to be successful and prepared for the future, and therefore resulting in more students completing a college degree.

e) Does this decision package make key contributions to statewide results? Would it rate as a high priority in the POG process? Does this decision package provide essential support to one or more of the Governor's Results Washington priorities?

A key Results Washington priority is revitalizing Washington's economy and building a 21st century workforce, creating an economic climate where innovation and entrepreneurship can continue to thrive. It has already been recognized that in order to do this, there must be a strong commitment to education and ensuring that investments get results. Western has a proven track record in achieving an exceptional return on investment.

Western is eager to serve the state, but has been stretched beyond institutional capability due to increased demand for services. Key indicators of retention and graduation have been historically high for Western, and while still high in comparison to our peers, the numbers are starting to show the need for reinvestment by the state. Six-year graduation rates have held steady, increasing slightly from 69.0% for the 2002 cohort to 69.3% for the 2007 cohort. However, fall-to-fall retention for freshmen has declined from 84.0% in Fall 2007 to 82.8% in Fall 2012, and is projected to decline again unless additional investments are made.

This decision package is a targeted investment in the continued commitment to provide a quality educational experience and successfully prepare students of the State of Washington to engage as active citizens in the workforce and contribute to the state's economy.

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

This decision package was built on input from various campus stakeholders, including students, faculty, and staff, during Western's transparent, bottom-up budget and planning process. The proposal was reviewed and selected as the top institutional priority by the University Planning and Resource Council (UPRC) – an institution-wide council responsible for resource allocation. In addition, the ADA legal requirements, as well as institutional mission, require additional investment.

g) What alternatives were explored by the agency, and why was this alternative chosen?

Over the past four years Western, along with other institutions, has faced a number of budget reductions. In response, Western employed a number of strategies in the service areas mentioned in this proposal to compensate for staffing shortfalls and space concerns and to ensure that students continue to receive the level of service expected to ensure their success. However, due to known changes in high school demographics and increasing student support needs, Western can no longer meet the demand. Western is experiencing a rising number of service complaints from students and/or their families in areas critical to student success, which is likely to have a negative effect on retention. Western is asking the state to partner with us as we utilize all possible resources to prioritize our commitment to students.

h) What are the consequences of not funding this package?

Western is facing critical challenges if students are to be successful and complete a college degree. These challenges are the result of many factors: known changes in high school demographics leading to an increasing student population who are academically bright and capable, but underprepared for the college environment; increasing student support needs (e.g., academic, mental health, disability-related); and an inadequate amount of resources to fully staff to the levels suggested by industry standards for a number of our service areas.

Western has already taken active steps to use rebasing dollars within the University in order to provide relief in some service areas; however, these resources aren't adequate to meet the growing needs and demands from students and their families. Without increased staffing and support to address the needs of our changing student population Western is very likely to see drops in retention and graduation rates, which has a negative bearing on the state goals for world-class in producing more graduates.

i) What is the relationship, if any, to the state's capital budget?

Providing adequate space for these functions will be critical to service delivery. Requirements are primarily for office space – many requiring confidential spaces for student advising and counseling of sensitive matters. There are several pending requests in the minor capital program budget request that would provide some relief; but a full assessment and plan is being developed.

j) What changes would be required to existing statutes, rules, or contracts, in order to implement the change.

No changes would be required.

k) Expenditure and revenue calculations and assumptions.

Salaries and benefits calculated using university standards.

l) Which costs and functions are one-time? Which are ongoing? What are the budget impacts in future biennia?

All costs listed are on-going costs.

DECISION PACKAGE TITLE: Network/Wireless Renewal Initiative

Recommendation Summary Text

Western Washington University’s existing data network and wireless access infrastructure is outdated and significantly fails to meet basic needs of the University’s core academic functions. Most, if not all, of Western’s academic and administrative workload uses the data network at some point, and the proliferation of mobile devices and the need for wireless connectivity exacerbates Western’s need for a more reliable network. Western’s core IT equipment is reaching both the end of its vendor supported life and its functional life, and current wireless functionality is completely inadequate for the number of devices and throughput required, meeting only 20% of the actual need. Limited wireless capacity and an aging IT infrastructure not only disrupt student, faculty, and staff work on a daily basis, these issues also pose significant safety and security threats, including increased vulnerability to data security breaches, network outages, and insufficient wireless connectivity for emergency responders. Replacement equipment for the IT network is currently funded out of cash reserves, and most wireless capacity is funded through a limited student fee. This decision package provides for an ongoing source for maintaining and improving the IT foundation as technology advances to ensure a world class education for the students, and support a workplace of choice for the faculty and staff.

Fiscal Detail:

RESOURCES	FY 2016-17	TOTAL
Fund 001, General Fund - State	\$2,000,000	\$2,000,000
Total Resources	\$2,000,000	\$2,000,000
USES (EXPENDITURES)		
Goods and Services	\$2,000,000	\$2,000,000
Total Expenditures	\$2,000,000	\$2,000,000
STAFFING FTE		
Faculty	0.00	0.00
Graduate Teaching /Research Assistants	0.00	0.00
Exempt Professional	0.00	0.00
Classified	0.00	0.00
Total FTE	0.00	0.00

Package Description

Background

Western installed its core IT equipment over eight years ago, and it is reaching both the end of its vendor supported life and its functional life, with the data bottlenecks and data security issues that older data network equipment bring. During the past seven years the bandwidth has grown nine-fold, resulting in slowness in response times and potential loss of data. Closely affiliated with the core data network is the need for expanded wireless access. In years past, Western has only been able to provide wireless capacity on a very small and sporadic scale, mainly funded by the Student Technology Fee (a limited, student approved fee) that has focused on student gathering places, although some departments have funded their own wireless access points for administrative use. While there may be some wireless in most buildings, it is completely inadequate for the number of devices and throughput required for many areas, currently meeting only 20% of the actual need. This 20% is spread out over campus which severely limits many areas, providing inadequate density and coverage, resulting in slow or dropped connections and lost productivity.

Major issues due to Western's aged equipment and limited wireless capacity include:

- Negative impact on institutional operations
- Increased repairs and/or service interruption
- Significant health, safety and code issues

Current Situation

Negative impact on institutional operations

The University's computing infrastructure is essential to the University's mission. Most, if not all, of Western's academic and administrative workload uses the data network at some point, and the proliferation of mobile devices and the need for wireless connectivity is one of the fastest growing areas of technology in the world today. Mobile devices have expanded exponentially

with many employees bringing a smartphone to work and students often bring a smartphone, tablet, and portable computer to campus. Large data sets, including high-bandwidth-consuming images and video, are required in classes throughout the campus. Research and teaching labs require the ability to exchange, compile and store ever expanding volumes of work on the computer network.

Western has recently moved the Exchange email environment to Office 365 “in the cloud.” The learning management system, Canvas, is also housed “in the cloud.” As we continue to move software services off-campus to the cloud, the bandwidth usage will increase at a rate not readily predictable. Western’s external broadband connectivity is fine with room to grow, but the internal connectivity is limited. In 2013, we upgraded our internet bandwidth providing 10 GB/s primarily to support student residence needs, but we are still operating the academic side of the network with equipment that limits us and does not allow utilization of the additional bandwidth. Our intrusion protection system is the key system that prevents us from utilizing this additional bandwidth. A 10 GB capable system is needed to mitigate this bottleneck and provide better data security.

Limited data transmission will have significant impact on student learning if sufficient connectivity to the resources, both internal and external that students and faculty are currently using, cannot be provided. Additionally, continued growth is expected as more and more video is incorporated in the teaching and learning process both on- and off-campus. Student and employee productivity will also suffer if email is slowed and access to files stored in Office 365 is hampered.

Western is also in the process of converting its telephone system to Voice Over Internet Protocol (VOIP) which will reduce costs and provide additional productivity features. This system will run over our internal network and require additional bandwidth. Because telephone is also life safety related, VOIP traffic would have a higher transmission priority which will result in more congestion for other operational and teaching/learning traffic. With this network/wireless renewal, Western can both prioritize VOIP traffic and have the capacity for other data traffic to be unimpeded.

Increased repairs and/or service interruption

Western's equipment is at its end-of-life which means that the vendor will no longer update or support it. While every effort is made to prevent interruptions to the core IT systems, end-of-life presents significant data security implications, as well, if the firewalls are not updated. Maintenance costs continue to rise and once end-of-life is reached, the costs become significantly higher. Budget allocated to support current maintenance costs would be saved during the new equipment warranty period and used on future maintenance and upgrades.

In a classroom setting, wireless access may function normally when only a few students are accessing a local antenna, but with increasing numbers of students trying to access service, the network will become too slow or may drop users, leading to student and faculty frustration, thus potentially losing a valuable educational opportunity.

Additionally, because Western's current wireless network is not adequate, non-institutional wireless devices are sometimes attached to the network. These "rogue" devices are often not compatible with the network, offer unsecured access, and cause interference with nearby legitimate access points, resulting in data security breaches or network outages. This currently requires employees to spend time looking for rogue access points to shut them down. With a ubiquitous wireless network, the need for individuals to add these rogue access points would significantly decrease, providing at least four hours per week for network technicians to focus on other important responsibilities.

Significant health, safety and code issues

The existing slow and overburdened network has a significant impact to emergency response to life safety and seismic events. Federal law requires timely notification of emergencies on campus, and our public safety office utilizes our network both for internal communication and for connections to state and federal law enforcement resources. Emergency messages are broadcast over the network directly to devices, as well as to our emergency vendor for SMS (text) messages.

Wireless coverage and capacity is equally important to our emergency responders in response to fires, active shooters, seismic events, and traffic issues. Responders depend on an ability to send and receive information as fast as possible via portable devices to inform the public and themselves of conditions "on the ground" and to develop strategic responses. Significant service interruption occurs as a wireless device moves in and out of limited coverage areas. Not only is

the connection broken but often the device must be logged back into the network. This results in wasted time and is critical when emergency responders are relying on wireless connectivity.

Western is also in the process of revising the campus access control system. In order to provide access control where hard wiring is either impractical or cost prohibitive, wireless access devices will be utilized. Potential uses include not only external or internal doors on academic buildings but also student residential areas and parking lot gates.

Proposed Solution

In November 2013, a preliminary estimate of the IT equipment costs (excluding installation) was completed by Certified CISCO engineers. That estimate was further refined by a professional estimator, the Wool-Zee Company, Inc., assisting in the development of the project budget. The project scope for increasing wireless capacity was developed through analysis with University IT technicians and a comprehensive engineering study performed by Bill Diephuis, P.E. RCDD, K-Engineers, of Lynden, WA. This study identified the need for 1,500 wireless access points to provide full campus wireless coverage (the existing wireless system only includes 400 access points).

In order to update and improve Western's IT data network and wireless capacity, Western is proposing the use of a certificate of participation (COP) in an amount close to \$9,000,000. Using historic rates obtained from the State Treasurer's Office and the State's capital asset class codes and useful life schedule, the debt service on this financing mechanism would approximate \$2,000,000 per year over the maximum life of five to six years (different assets have different maximum life expectancies). After the initial COP debt service is paid off, the permanent allocation associated with this decision package would enable Western to fund additional IT strategic initiatives from our six-year strategic plan, and maintain a regular replacement schedule for technology, thus maintaining network and wireless capacities needed to provide students a world-class education.

Narrative Justification and Impact Statement:

a) What specific performance outcomes does the agency expect?

An upgraded wireless network with more wireless access points in high density areas would support the campus access control system, provide a better experience with less interference and greater bandwidth for large numbers of students, and result in a seamless transfer of the wireless signal as people, including first responders moved about campus. As Western continues to operate in a more complex and diverse environment, the ability to depend on, expand, or enhance programs requiring significant and stable bandwidth (like the emergency response campus-wide notification system) will be limited without funding for this network/wireless renewal project.

b) Performance measure detail

No current or new performance measures are affected or established by this decision package.

c) Is this decision package essential to implement a strategy identified in Western's strategic plan?

Western's strategic goals are:

- Build upon Western's strengths to address critical needs in the State of Washington.
- Expand student access to rigorous and engaging baccalaureate and graduate education.
- Foster and promote life-long learning and success in an ever-changing world.
- Apply Western's expertise and collaborative approach to scholarship, creativity, and research in ways that strengthen communities beyond the campus.
- Serve as a model for institutional effectiveness, innovation, diversity, and sustainability.

While this decision package is essential to implementing all of Western's goals, it is crucial for institutional effectiveness, innovation, diversity and sustainability. Supporting students with disabilities is critical to Western's mission. More and more solutions that improve their daily experiences relate to portable devices and systems. Another example includes Western's ability to manage facilities development and operations, becoming more dependent upon mobile devices to perform project management during construction in the field, monitoring energy systems for maximizing energy savings, and addressing utility systems operations. Finally, campus safety is extremely important to Western, and the inability to provide for the needs of emergency responders limits our ability to ensure the safety of our campus community.

d) Does this decision package provide essential support to one of the Governor's Result's Washington priorities?

This decision package provides essential support to the following priorities:

World-Class Education 1.3.f, g, and h: The data network has evolved into foundational infrastructure that must be maintained to serve the students and faculty both on campus and in off-campus, long distance learning situations. Without a capable and stable data network, severe inefficiencies occur with access to academic resources and business processes. A slow network affects Western's ability to attract and retain students due to the inability to access, and the frustration of trying to get to academic resources such as the learning management system and student research data.

Healthy & Safe Communities: An unreliable, overburdened network and limited wireless capacity results in unreliable notification to Western's students, faculty, staff, and neighbors in the event of an emergency. Emergency response to life safety, seismic events, ADA support, facilities operations and maintenance, and transportation and parking operations rely heavily on using Western's data network and wireless capacity.

Efficient, Effective and Accountable Government 1.1, 1.2, and 3.1: Since most, if not all, of Western's academic and administrative workload uses the data network, it is imperative to have a fully functioning, reliable network to maintain excellent customer service, maintain employee satisfaction, and achieve efficiency, effectiveness and increased transparency.

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

A campus risk analysis was completed in 2014 with recommendations for expanding campus emergency notifications. A critical part of the campus notification system relies on a fully functioning IT system. Additionally, energy efficiency is an important aspect of Western's culture. Western as an institution purchases 100% green electrical power. The replacement wireless antennas proposed for the wireless upgrade and the replacement switches and router proposed for the IT network upgrade will be more efficient than those being replaced. The procurement process that will be utilized will assure new equipment meets State of Washington energy efficiency goals and guidelines. Installation of antennas is much more efficient in providing access to large numbers of student, faculty, and staff than individual hard wired data

jacks. Resource efficiency and sustainability will also be addressed by the plan to reuse most of the optics and interface cards currently in the core router.

f) What alternatives were explored by the agency, and why was this alternative chosen?

Four dollars of the current \$35 fee paid per full-time student is directed toward wireless network renewal and replacement. The remainder of the fee goes to other important resources such as computer lab renewal and replacement, Microsoft licensing/software packages, the student technology center, print quotas, and technology initiative proposals. Replacement equipment for the IT network is currently funded out of cash reserves.

Long-term strategic planning identifies the need to find a more reliable source of funding for this important campus infrastructure. Western requested funding for updates to the data network infrastructure and wireless access capacity in the 2015-2017 Capital Budget request, but was informed by OFM that IT projects of this nature are now considered operating requests, and was advised to submit this as an Operating Budget request.

This decision package provides for updating outdated, at-risk technology. The proposal also provides an ongoing source for maintaining and improving the IT foundation as technology advances to ensure a world class education for the students, and support a workplace of choice for the faculty and staff.

g) What are the consequences of not funding this package?

Technology advances continue to increase the ability of user operated devices to do more, thereby increasing the demand for infrastructure resources and bandwidth. Western is faced with the requirement to keep its infrastructure systems up to date in order to provide the services necessary for the University to function technically and keep pace with the ever increasing demand for data access. In 2013, Western upgraded the internet bandwidth providing 10 GB/s primarily to support student residence needs, but the academic side of the network is still operating with equipment that does not allow utilization of the additional bandwidth.

In the 2011-13 biennia, Western requested funds to upgrade its wireless network. This request was not funded. Since the 2011-13 request, the growth in demand for IT access and wireless

devices has reached the point that Western's IT network cannot support increased access needs and the expansion of its compromised wireless network. An IT network update is required before the wireless network expansion can be implemented. Waiting another biennia for funding would put the Western at significant risk for equipment and network failure.

h) What is the relationship, if any, to the state's capital budget?

None

i) What changes would be required to existing statutes, rules, or contracts, in order to implement the change.

No changes would be required.

j) Expenditure and revenue calculations and assumptions.

While project estimates have been completed by several different entities, the actual cost of this decision package will be determined during the competitive bid process required by state purchasing guidelines. This project will be completed in two phases: first the upgrade to the network, and then the addition of the wireless capacity (dependent on the network upgrade). It is highly likely that multiple certificates of participation will be used to finance this project based on the varying asset life values, the project timeline, and the total cost of the project. Since these are currently undefined variables, the actual cost of the debt service is difficult to quantify exactly, thus the use of the historic rates obtained by the State Treasurer's Office.

k) Which costs and functions are one-time? Which are ongoing? What are the budget impacts in future biennia?

The original costs of the project are one-time costs. The request for ongoing funding enables Western to achieve other IT upgrades identified in our six-year strategic plan, and an ongoing renewal source as equipment reaches the end of its functional and vendor supported life.