WASHINGTON STATE OPPORTUNITY SCHOLARSHIP

BOARD MEETING AGENDA
WEDNESDAY, SEPTEMBER 5, 2018 | 1:00-3:00 P.M.
MICROSOFT CAMPUS, BUILDING 34

CONFERENCE CALL DIAL IN #: 425-616-0754 / PASSCODE: 49081078

I.	Meeting Called to Order		**Brad Smith** WSOS Board Chair	1:00p
II.	Approval of Minutes from April 16, 2018 Meeting	[Tab A]	**Brad Smith**	1:00-1:05p
III.	Joint Legislative Audit Review Committee Presentation	[Tab B]	**Keenan Konopaski** Legislative Auditor	1:05-1:15p
IV.	Mission Moment: OEF Grant Updates	[Tab C]	**Dean Michael Bragg** UW College of Engineering	1:15-1:40p
			Jennifer Dechaine Central Washington University	
			Perry Fizzano Western Washington University	
V.	Program Update	[Tab D]	**Kimber Connors** WSOS Deputy Director	1:40-1:55p
			Erin Ashley WSOS Development Director	
VI.	Finance and Program Administrator Update	[Tab E]	**Mack Hogans** F&I Committee Chair	1:55-2:05p
VII.	Pathways Scholarship Discussion	[Tab F]	**Naria K. Santa Lucia** WSOS Executive Director	2:05-2:55p
VIII.	Closing		**Brad Smith**	2:55-3:00p

Important Upcoming Dates

2018 Board Meetings - all meetings at Microsoft campus at 1:00-3:00p
- Monday, December 10th

OpportunityTalks, November 1, 2018, 7:00-9:00a at Sheraton Seattle

Tab A

Minutes from the April 16, 2018 Board Meeting

WASHINGTON STATE OPPORTUNITY SCHOLARSHIP BOARD MEETING
MONDAY, APRIL 16, 2018, 1-3 PM, MICROSOFT CAMPUS

MEETING MINUTES

The Board of Directors of the Washington State Opportunity Scholarship (WSOS) met on April 16, 2018 at the Microsoft headquarters in Redmond, Washington.

Board members: Miller Adams, Diane Cecchettini, Joelle Denney, Mack Hogans, Jane Park, Gary Rubens, and Jim Sinegal present; Antony Chiang and Mike Wilson by phone

Additional attendees: Naria Santa Lucia, Erin Ashley, Youcef Bennour, Gina Breukelman, Theresa Britschgi, Jane Broom, Klondy Canales, Meg Chambers, Kimber Connors, Karyl Gregory, Cindy Gustafson, Mesa Herman, Reiko Kono, Jessica Monger, Patrick Okocha, and Aileen Tubo present; Caroline King, Jenna Magnotti, Joanna Moznette, Dave Stolier, and Keith Swenson by phone

Meeting Called to Order
Mack Hogans called the Board Meeting to order at 1:00 pm.

Approval of Minutes
Hogans identified each person who joined the meeting in person and by phone. Diane Cecchettini moved that the minutes of the January 8, 2018 Board Meeting be approved. Miller Adams seconded the motion and it carried unanimously.

Hogans reported that board member Stan Deal has been transferred by Boeing to Texas and expressed thanks to Stan for his valued service on the Board. Hogans then welcomed new WSOS board member Joelle Denney, who is also from Boeing. Denney shared her background at Boeing and conveyed her excitement to serve on the Board.

Scholar Spotlight
Naria Santa Lucia introduced WSOS Scholar Youcef Bennour, a senior at UW-Tacoma. Bennour shared his personal story living first in Algeria, then to Federal Way where he experienced homelessness, to being accepted to UW and receiving a scholarship from WSOS. Bennour reported that Husky 100 is an annual honor which recognizes students who have made the most of their time at UW. Bennour shared that he was recently named to the Husky 100.

Cohort 7 Applications & Selection
Next, WSOS staff Kimber Connors and Reiko Kono presented the Cohort 7 application and scholarship selection recommendation to the Board.

First, Kimber Connors compared earlier cohorts with the new cohort, Cohort 7, and reported on the evolution of the selection model with earlier cohorts. Connors then presented the proposed selection model factors for Cohort 7 and how those factors would be measured. Changes from Cohort 6 to Cohort 7 include refreshed job openings as they relate to specific majors, showing family income by decile rather than quartile, reading every essay, and adding two new factors: home county and an accommodation for extenuating circumstances. Connors reported that the weighting of previous factors would be adjusted for the inclusion of new factors.

Reiko Kono presented preliminary outcomes using the proposed selection model factors.

After discussion, Diane Cecchettini made a motion to allow discretion of 5-20% weighting for the essays and 0-8% weighting for home county. Jim Sinegal seconded the motion and it passed unanimously. Scholarship

Services will run a new data analysis for preliminary outcomes using these revised criteria and then email this information to the Board for their final decision of the selection model factors.

2018 Legislative Session Update & Expansion Exploration Planning Process
Jessica Monger reported on three bills which were passed with strong bipartisan support. First, HB 1452 expands WSOS to fund high-demand STEM and health care professional/technical certificates and associate degrees and will be called the Opportunity Pathways Scholarship. Second, HB 2177 builds on HB 1452, focusing on students from rural counties. Third, HB 2143 expands WSOS to fund high-demand, advanced health care degrees for students who agree to complete a service obligation in a rural or underserved community upon graduation.

Monger further reported that the state budget includes a $4.3 million state match for existing scholarship funds and $500,000 to fund WSOS expansion with the three new bills.

Monger also reported that WSOS supported the successful passage of HB 1488, which expands access to the College Bound Scholarship and improves access to WSOS for students with DACA or undocumented status.

Santa Lucia reported on the WSOS expansion exploration planning process for implementing the three new bills. Visioning sessions will be conducted over the summer and board members are invited to participate. Implementation recommendations will be presented at the next board meeting in September.
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Program Update
Santa Lucia reported on the WSOS 3.0 Growth Plan including continuing operational development as well as onboarding four new staff members. In addition, the Near Peer Mentoring program has been developed for fall 2018 and the "Scholar Leads" job description has been posted. These second, third or fourth year Scholars will mentor 10-15 younger Scholars with the support of a WSOS Success Advisor. The goal is to hire 225 Scholar Leads who will receive a $1800 stipend for the year.

Theresa Britschgi reported on the rising skills of some of our enrolled Scholars during network events hosted by McKinstry, Boeing, the Infectious Disease and Research Institute (IDRI) and Life Science Washington.

Santa Lucia reported that 199 Scholars are participating this year in the Skills that Shine (STS) program. Board members are invited to attend the STS programming celebration/networking event on April 17th at 415 Westlake in Seattle. Over the next six months, Santa Lucia reported that the STS program platform will be revamped with re-designed modules and new talent will be added to better support future mentors and mentees.

Erin Ashley presented details regarding the fourth annual OpportunityTalks Breakfast which will be held on November 1st at the Sheraton Seattle. The keynote speaker will speak about accessible education. Yarelly Gomez has been selected as the Scholar speaker. Ashley encouraged each board member to begin thinking now about their guest list.

Finance & Program Administrator Update
Hogans reported that WSOS funds are performing at or above benchmarks. Hogans further reported that the WSOS Finance and Investment Committee is comfortable with the current asset allocation.

Hogans expressed thanks to George Zinn for his service on the Committee. Hogans then recommended Beau Damon, also from Microsoft, to serve on the Committee. Hogans reported that Damon has been engaged with the Committee since the beginning so the transition will be smooth. Cecchettini made a motion to appoint Beau Damon to the WSOS Finance and Investment Committee. Sinegal seconded the motion and it passed unanimously.

Cindy Gustafson congratulated WSOS on a terrific year with $22M in revenue earned last year. Gustafson also reported that $11.6M were received in state matching funds and stock market returns were solid.

Gustafson reported that she will be retiring soon and expressed her thanks for the opportunity to partner with WSOS and the Finance & Investment Committee. On behalf of everyone, Hogans shared his sincere appreciation to Gustafson for her valuable assistance and dedicated service.

The meeting adjourned at 2:54 pm.

Respectfully submitted,
Karyl Gregory

Tab B

Joint Legislative Audit Review Committee Presentation

JLARC will evaluate two programs promoting college degrees for high-demand fields: Opportunity Scholarships and Opportunity Expansion

In 2011, the Legislature passed the Opportunity Scholarship Act (ESHB 2088). The Act was intended to mitigate tuition increases and meet market demands for skilled workers in high-demand fields. These fields include science, technology, engineering, math, and health care.

Opportunity Scholarships:
Serve low- and middle-income college students in high-demand fields (e.g., technology, health care).

Opportunity Expansion:
Fund new programs in high-demand fields at WA colleges and universities.

The Act:

- Created the Opportunity Scholarship and Opportunity Expansion programs.
- Established the Opportunity Scholarship Board to oversee the programs.
- Directed the Joint Legislative Audit and Review Committee (JLARC) to evaluate the programs.

Four study questions address program participation, funding, and outcomes

JLARC staff will address the following for the Opportunity Scholarship and Opportunity Expansion programs.

1) What was the approach used to select the students and institutions that received funds? How many received funds?

2) What were the sources and amounts of funding? How much has been spent on scholarships, expansion awards, program administration, or other costs?

3) How many students receiving scholarships or benefiting from expansion programs earned degrees in high-demand fields? What are their employment outcomes after graduation?

4) How much has the scholarship program reduced the cost of higher education for students, and how do costs compare to accepted measures of affordability?

Study team to deliver preliminary report in May 2019

Preliminary Report: May 2019   Proposed Final Report: July 2019

Team Lead:	Casey Radostitz	360-786-5176	casey.radostitz@leg.wa.gov
Research Analyst:	Jennifer Sulcer	360-786-5181	jennifer.sulcer@leg.wa.gov
Research Analyst:	Ryan McCord	360-786-5186	ryan.mccord@leg.wa.gov
Research Analyst:	Josh Karas	360-786-5298	joshua.karas@leg.wa.gov
Project Coordinator:	Valerie Whitener	360-786-5191	valerie.whitener@leg.wa.gov

Programs created after task force recommended public-private collaboration for higher education funding

In 2011, Governor Gregoire's Higher Education Funding Task Force issued a report that suggested public-private collaboration for higher education funding programs. The Legislature incorporated some of these ideas into the Opportunity Scholarship Act.

- The Opportunity Scholarship program is funded by a combination of private contributions and state match.

- The Opportunity Expansion program was previously funded through voluntary contributions from businesses that received a tax preference for high technology research and development. Until the preference expired in 2015, businesses could donate the amount of the credit to the Opportunity Expansion Program.

Opportunity Scholarships provided to students from low- and middle-income families who pursue certain undergraduate degrees

Eligible students must be Washington residents, meet eligibility criteria including family income limits, and be seeking a bachelor's degree in science, technology, engineering, math, or health care.

Students may receive annual scholarships for up to five years. The maximum total award amount is $22,500. The program also offers services such as mentoring, career counseling, and professional development for students.

In 2018, the Legislature passed bills to expand the program (e.g., available to students seeking a professional or technical degree). Due to timing, the impact of this legislation cannot be evaluated in this study.

Opportunity Expansion funds awarded to colleges and universities

Colleges and universities can use Opportunity Expansion funds for new programs that offer undergraduate degrees in high-demand fields. Three institutions received awards in 2016.

Opportunity Scholarship board and program administrator oversee the programs

The Governor appoints the 11-member board of directors to oversee the Opportunity Scholarship and Expansion Programs. As set in statute, the board contracts with a private nonprofit program administrator to manage the programs. The board and program administrator provide an annual report to the Legislature that includes information such as applicant characteristics, scholarships awarded, and program funding.

JLARC Study Process

Study Mandate		Proposed Study Questions		Legislative Auditor's Preliminary Report		Legislative Auditor's Proposed Final Report		Final Report
• Budget, legislation, committee direction	▶		▶		▶	• Agency Response Included	▶	• Option to Append Committee Comment Committee votes to distribute completed audit

A Stakeholder's Guide to the
JOINT LEGISLATIVE AUDIT & REVIEW COMMITTEE

WASHINGTON JLARC

JULY 2018

JLARC: THE LEGISLATURE'S AUDITOR

We answer the Legislature's questions
The Legislature sets policy — JLARC evaluates how well programs deliver on it.

We are the Legislature's performance auditors
JLARC has been providing this service since 1973.

JLARC and the position of Legislative Auditor are established in statute (Chapter 44.28 RCW).

We give the Legislature accurate and unbiased answers to their questions
Answers are prepared independently by non-partisan staff, in accordance with professional audit standards.

The Committee, with 8 Senators and 8 Representatives evenly split between the parties, helps ensure this independence.

QUESTIONS RECENTLY ASKED OF JLARC

Tax incentives
Is a tax incentive on trade-in vehicles stimulating enough new car sales to offset lost revenue to the state?

State government
Does the state appropriately identify services for outsourcing, and is the process consistent with statute?

Social services
Are programs serving homeless youth achieving their intended goals?

Natural resources
Does the state need to purchase land that is already being regulated?

Labor and employment
Is a program that provides training benefits to unemployed workers helping them find higher paying jobs?

FOR MORE INFORMATION ON JLARC'S WORK

Visit our website at **www.jlarc.leg.wa.gov** to view
- The Legislative Auditor's Annual Report
- JLARC's Work Plan
- All JLARC Studies

CONTACT

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STUDY PROCESS

- Study Mandate
  Budget, legislation, committee direction
- Proposed Study Questions
- Legislative Auditor's Preliminary Report
- Legislative Auditor's Proposed Final Report
  Agency response included
- Final Report
  Option to append committee comment
- *Committee votes to distribute completed audit*

JLARC COMMITTEE MEMBERS

SENATE		HOUSE	
Joe Fain	Rebecca Saldaña	Jake Fey	Ed Orcutt, *Secretary*
Bob Hasegawa	Shelly Short	Larry Haler	Gerry Pollet
Mark Miloscia	Dean Takko	Christine Kilduff	Derek Stanford, *Chair*
Mark Mullet, *Assistant Secretary*	Lynda Wilson, *Vice Chair*	Vicki Kraft	Drew Stokesbary

Tab C

Mission Moment: OEF Grant Updates

2018 OPPORTUNITY EXPANSION FUND GRANT REPORT

Name of Program:	STARS Program, College of Engineering
Name of Institution:	University of Washington, Seattle
Date of Grant Report:	July 31, 2018
Grant Amount:	$2,189,987.00
Funds Used to Date:	$1,040,341.73
Report Submitted By (Name/Title):	Dr. Eve A. Riskin, Associate Dean

1. **Please describe how the program/project funded by the Opportunity Expansion Fund grant increased the number of WSOS students, or WSOS-like students, who graduate in computer science, engineering, or teaching of STEM (k-12), resulting in an overall increase in the total number of Washington state graduates in those fields.**

The WSOS Opportunity Expansion Fund grant enabled the STARS program to accept a larger cohort of students for the 2017-18 and 2018-19 academic years, which we expect ultimately to result in an additional 20-35 engineering and computer science degrees awarded to Washington residents from low-income backgrounds in the intensive STARS intervention. Because STARS students are on a five-year degree plan, we anticipate students in the first expanded cohort to graduate sometime during AY 2021-22 with students in the second expanded cohort graduating during 2022-23.

In addition to serving an expanded cohort of intensive STARS participants, WSOS Opportunity Expansion funding enabled the Engineering Academic Center (EAC) to enroll greater numbers of WSOS and WSOS-like students in supplemental workshops. In AY 2016-17, 119 individual non-STARS intensive students registered for a combined 190 workshop spaces. In AY 2017-18, this increased to 127 individual non-STARS students registering for a combined 206 workshop spaces. The total number of students served through EAC supplemental workshops (including intensive STARS participants) was 185 in AY 2016-17 and 215 in AY 2017-18.

The College of Engineering is actively pursuing additional funding to continue support programs for Washington residents from diverse or low-income backgrounds. (Please refer to item #5 below for a detailed overview of efforts to sustain the STARS program.) The College's diversity efforts have very successful thus far; the percentage of underrepresented minority students in engineering departments has increased from 6% in 2012 to 9.2% in 2017, and the percentage of female students in engineering departments has increased from 24% in 2012 to 31% in 2017.

Students from the first WSOS cohort and the first STARS cohort have begun to graduate from UW, starting in AY 2016-17 and increasing in numbers in AY 2017-18. (Appendix 1 details the number of WSOS graduates in Engineering and Computer Science during AY 2017-18. A number of these WSOS graduates are also STARS students.) Finally, the UW College of Engineering has been in a period of strong growth in its number of Bachelor degrees awarded each year. The Table 1 below indicates the number of degrees awarded per academic year since AY 2012-13. The number of Bachelor degrees awarded in AY 2017-18, while not confirmed, is projected to exceed 1150. The WSOS Opportunity Expansion fund grant to UW is ensuring that the new degrees are available to Washington residents from low-income and underserved backgrounds.

Table 1. UW College of Engineering Bachelor Degrees Awarded by Academic Year

Academic Year	Bachelor Degrees Awarded
2012-13	827
2013-14	910
2014-15	958
2015-16	987
2016-17	1062
2017-18	≥ 1150

2. **Please describe (1) key activities, (2) the timeline for achieving these activities, (3) any outstanding activities yet to be taken, and (4) the timeline for implementing those activities.**

The WSOS Opportunity Expansion funding included allocation for an increase in STARS program staffing. Table 2 below provides an overview of the staff hiring timeline.

Table 2. Timeline for Staff Hiring to Accommodate STARS Program Expansion

Month	Activity
Jul 2016	STARS academic counselor hired (100% FTE)
Sep 2016	Temp STARS/EAC math workshop facilitator hired (75% FTE)
Oct 2016	STARS program operations specialist hired (100% FTE)
Feb 2017	Second STARS academic counselor hired (100% FTE)
Apr 2017	Temp STARS/EAC workshop facilitator position ends (75% FTE) Temp STARS math instructor hired (100% FTE)
Sep 2017	4 teaching assistants hired (50% FTE)
Nov 2017	Temp STARS workshop facilitator/tutoring lead hired (75% FTE) STARS academic counselor position vacated (100% FTE)
Jan 2018	Advancement staff person (50% FTE) hired
Mar 2018	Temp STARS math instructor position ends (100% FTE) STARS math instructor hired (100% FTE)
Apr 2018	STARS academic counselor position filled (100% FTE)
May 2018	1 additional teaching assistant hired for AY 2018-19 for a total of 5 teaching assistants (50% FTE)
Sep 2018	STARS tutoring lead/workshop facilitator 9-month project appointment begins (100% FTE)

STARS Year 1 Intensive Intervention

Transition Week
Transition Week is a one-week residential bridge program for Year 1 students that takes place the week before the autumn quarter begins. Students move into the Engineering Living Learning Community a week early and begin familiarizing themselves with the campus before classes begin.

Transition Week programming includes sessions on a variety of topics:
- Academic and health resources on campus
- Differences between high school and college
- Developing strong time management skills
- Notetaking, metacognition, and learning how to learn

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- Effectively identifying and addressing academic and personal obstacles
- Cultivating an open mindset
- Making good choices in college

Community building occurs throughout Transition Week as students get to know one another and engage activities together. For the first time last year, Transition Week included a community building activity/workshop on identity. Each year incoming students build community and gain trust in one another through participating in a ropes course. The ropes course facilitates the group coalescing into a team as students turn to their peers for support and begin to feel like they are "all in this together."

Transition Week culminates the Monday before classes begin with an industry visit to the Microsoft campus in Redmond where each student receives a new Surface laptop or tablet

STARS provided Transition Week programming to 29 incoming students in AY 2016-17 and 51 incoming students in AY 2017-18. STARS will welcome 40 Cohort VI students in autumn 2018.

Specialized Curriculum

Summer Homework

STARS students begin intensive academic preparation with homework assigned during the summer before their first quarter at UW. Summer homework assignments include reading and reflecting on *Grit: The Power of Passion and Perseverance* by Angela Duckworth, reading a math problem-solving book, and completing Khan Academy modules on algebra and trigonometry.

STARS Seminars

The STARS specialized curriculum includes a first-year seminar with a different theme each quarter. In the autumn quarter, the focus is on intensive study-skills development and navigating the transition from high school to college. Throughout winter and spring, students explore engineering disciplines through independent research, attending Engineering Exploration Night, interviewing a faculty member, and hearing presentations by students and faculty from engineering departments. They also learn about cultivating relationships with faculty and becoming involved with undergraduate research. During the spring quarter, students engage in career and professional development activities, culminating in the completion of a Career Success Certificate through the Career Center @ Engineering. Appendix 2 includes a full list of STARS seminar programming and activities.

STARS Problem-Solving Courses, Workshops, and Tutoring/Office Hours

Students are required to take a STARS problem-solving course in math, chemistry, computer science, and physics before they take the first UW course or sequence of courses in these disciplines. First-year STARS courses, workshops, and intensive tutoring/office hours designed to supplement the general engineering prerequisites are listed below. An asterisk (*) denotes that a course/workshop includes a tutoring or office hours component.
- Autumn Quarter
  - Math problem-solving course*
  - Algebra intensive tutoring (as needed)
- Winter Quarter

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- o Chemistry problem-solving course*
- o MATH 124 (Calculus I) supplemental workshop*
- o Algebra intensive tutoring (as needed)
- Spring Quarter
  - o CHEM 142 (General Chemistry I) supplemental workshop*
  - o MATH 125 (Calculus II) supplemental workshop*
  - o Algebra intensive tutoring (as needed)

In addition to participating in the STARS workshops, STARS students also make use of academic support services provided by the Engineering Academic Center. These services are available to all engineering students with an emphasis on providing support to STARS and STARS-like students. During AY 2017-18, the Engineering Academic Center served 263 individual students who logged a combined 18,394 visits. The WSOS Opportunity Expansion funding enabled the increase in the number of students utilizing these academic support services.

Academic Advising

Intrusive academic advising is a high-impact form of advising that aims to anticipate concerns, obstacles, and roadblocks to success in a proactive manner. STARS advisors meet with students at least twice per quarter (often more frequently), teach the STARS seminar, and work closely with the STARS director, instructors, teaching assistants, and tutors to help each student succeed.

Professional Development

Students participate in a variety of professional development activities through the Career Center @ Engineering and through the career development activities embedded in the STARS seminar. When possible, STARS students attend the Women in Science and Engineering Conference during the winter quarter.

For a comprehensive list of professional development activities, see Appendix 3.

Placement into an Engineering Major

The original proposal described students' placement into a major as occurring "upon completion of all first-year STARS requirements." Students entering the STARS program between AY 2013-14 and AY 2016-17 were placed into a major after one year. However, students entering the program in AY 2017-18 and thereafter will be placed in a major only after satisfying the program's second-year requirements.

Changing the placement timeline allows students to gain a deeper level of academic preparation before advancing to upper-division coursework. It also provides students additional time to consider which engineering discipline suits them best. We expect the later placement to be especially beneficial to students having trouble deciding between electrical engineering and computer engineering and computer engineering and computer science.

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Community Building

STARS brings all cohorts together for the annual "Bowling with the STARS" event. First-year students have additional opportunities to build community by having the majority of their classes in common and living in the same residence hall.

STARS Year 2 Program

Specialized Curriculum

During their second year, students continue to complete engineering prerequisites. Second-year STARS courses, workshops, and intensive tutoring/office hours designed to supplement the general engineering prerequisites are listed below. Note that if a student takes MATH 307 or MATH 308 during the winter or spring of the second year, they would also take the MATH 307 or MATH 308 supplemental workshop through the Engineering Academic Center. An asterisk (*) denotes that a course/workshop includes a tutoring or office hours component.

- Autumn Quarter
    - CHEM 152 (General Chemistry II) supplemental workshop*
    - Computer science problem-solving course
    - MATH 126 (Calculus III) supplemental workshop*
- Winter Quarter
    - CSE 142 (Computer Programming I) companion course
    - Physics problem-solving course*
- Spring Quarter
    - CSE 143 (Computer Programming II) companion course
    - PHYS 121 (Mechanics) supplemental workshop*

Academic Advising

Second-year students are required to meet with an STARS academic advisor during the autumn and spring quarters, although some students meet more frequently. During AY 2017-18, the program provided 103 individual advising appointments to second-year students.

Professional Development

Career Services

Second-year students have the opportunity to develop mentorship and leadership skills through serving as peer tutors to first-year students, helping with Transition Week activities, serving as work-study office assistants, teaching a "University 101" course, or serving as an Engineering Peer Educator.

During their second year, most students begin to work with the Career Center @ Engineering to secure internships in industry (see Appendix 3 for a full list of Career Center @ Engineering activities). Last fall, STARS collaborated with Microsoft to offer a "Microsoft Recruiting Process Workshop" for second-year students interested in computer science, computer engineering, and electrical engineering.

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STARS students are eligible to apply for the Boeing ALVA summer internship program at the end of their second year. Over the past two years, 12 STARS students have participated in ALVA during the summer after their second year.

Faculty Mentorship

STARS has partnered with Prof. Sam Burden in the Department of Electrical Engineering to create a faculty mentor program. In January 2017, Prof. Burden held an inaugural meet-and-greet event to connect STARS students with faculty members. To date, 57 STARS students have been matched with 37 faculty mentors. Second-, third-, fourth-, and fifth-year students who have not yet connected with a faculty mentor will be invited to the next meet-and-greet event set for autumn 2018.

Years 3, 4, 5 Program

Specialized Curriculum

STARS students have completed most engineering or computer science prerequisites by their third year but are able to continue taking supplemental workshops through the Engineering Academic Center as needed.

Academic Advising

During students' third year and beyond, STARS advisors continue to offer students advising support and monitor their academic progress. If a student's grades suggest they are encountering challenges, a STARS advisor schedules an individual advising appointment with them. The advisor's role is to support students in identifying and addressing barriers to success. STARS advisors provided:

- 21 advising appointments with 13 third- and fourth-year students in AY 2016-17
- 27 advising appointments with 20 third-, fourth-, and fifth-year students in AY 2017-18

Professional Development

Career Services

Third-, fourth-, and fifth-year STARS students participate in a variety of career and professional development programming (see Appendix 3 for a full list of Career Center @ Engineering activities). Last fall, STARS collaborated with Microsoft to offer a "Microsoft Resume Review Workshop" for 8 third-, fourth-, and fifth-year students. One of the workshop attendees has since graduated and now works at Microsoft as a Software Engineer.

Faculty Mentorship

Third-, fourth-, and fifth-year STARS students who have not yet connected with a faculty mentor will be invited to attend the next faculty mentor meet-and-greet event set for autumn 2018.

<u>Scholarships</u>

Students who have met all STARS program requirements by the end of their second year receive a scholarship for the following year if they have unmet need or loans that could be reduced. The scholarships are funded through a National Science Foundation S-STEM (Scholarships in STEM) grant, awarded to PI Eve Riskin in September 2016. Additionally, 75% of current STARS students are WSOS recipients.

<u>Community Building</u>

The annual Bowling with the STARS event is the main community building activity for STARS students in years three through five. Last year, approximately 120 first- through fifth-year STARS students attended.

Community College Transfer Student Support

<u>AY 2016-17</u>

Community College Transfer Student Welcome and Orientation for 2016 took place from September 15th-17th and provided programming for nine WSOS-like incoming community college transfer students. Programming included workshops on self-advocacy, recognizing and addressing barriers to academic success, and accessing academic and health resources on campus. Participants also attended a workshop about how to ask about and obtain research opportunities led by staff from the Undergraduate Research Program. Research shows that community college transfer students often feel disconnected and isolated at their transfer institutions, so community building was emphasized across all programmatic activities (Wood & Moore, 2015).

Programming to support community college transfer students continued after the Welcome and Orientation. The Career Center @ Engineering presented two workshops for community college transfer students—a workshop on "Mapping Out Your Time at UW" in autumn quarter and another about resumes, cover letters, and interviewing during the winter quarter.

<u>AY 2017-18</u>

Twenty students participated in Community College Transfer Student Welcome and Orientation for 2017. In addition to community building activities and a workshop on communication skills and teamwork, off-site programming included a "Fantastic Careers" workshop presented by the Career Center @ Engineering and a Myers-Briggs Type Indicator® assessment and workshop offered through the UW's Louis Stokes Alliance for Minority Participation.

The on-campus orientation from September 20th-21st coincided with UW's Dawg Daze welcome activities and included a workshop about study abroad opportunities in engineering and a presentation by staff from the College's Office for the Advancement of Teaching & Learning about navigating the transition from community college to university learning.

Career Center @ Engineering Activities

Please see Appendix 3 for a summary of Career Center @ Engineering activities provided by Gail Cornelius, Director of the Career Center @ Engineering.

Outstanding Activities/Implementation Timeline

There are no outstanding activities to report at this time.

3. Please provide a budget detailing when and how Opportunity Expansion funds were utilized.

Increasing the size of incoming STARS cohorts required a commensurate increase in staffing to meet students' academic advising and instructional support needs. Since the expansion, the program has used both Opportunity Expansion funds and College of Engineering resources to fund staff salaries and benefits.

- Director's salary/benefits funded by NSF grant through January 2018
- Math Instructor (40% FTE) salary/benefits funded by NSF grant through June 2017
- Chemistry Instructor's salary/benefits funded by a combination of outside gifts and state funding throughout the OEF award period.
- Instructor/Assistant Director of the Engineering Academic Center salary/benefits moved from state funds to WSOS OEF award. This enabled all Teaching Assistants to be paid from state funds, resulting in savings of over $137,000 through tuition waivers (graduate student tuition is only waived if a graduate student appointment is paid from state funds).
- In lieu of hiring a Physics Instructor, we hired two physics Teaching Assistants on state funds.
- Curricular planning for math and student support in math were provided through a variety of temporary staff/project appointments. A temporary and later permanent Math Instructor were hired to supplement the existing 40% FTE Math Instructor during AY 2017-18 when the program welcomed the first expanded cohort.

Please refer to Appendix 4 for an overview of expenditures through FY 2018.

4. What were the top three challenges for the program/project, and how did you address these challenges?

Hiring Delays

Initial challenges related primarily to the speed with which we were able to fill the new grant-funded positions. The initial search for the second STARS academic counselor resulted in canceling recruitment and re-posting the position. The second search was successful and we welcomed a second new STARS academic counselor in February 2017.

Supporting Students in Mathematics Courses

With an expanded cohort, it became clear that the tutoring model employed in past years would not sufficiently meet participating students' needs. Students in the expanded cohort entered with weaker math preparation, particularly in algebra, than in previous cohorts. Group dynamics and tutor-to-student ratios also changed as the number of students in tutoring increased.

These factors prompted the hire of a 75% FTE STARS tutoring lead/workshop facilitator to plan the curriculum and supervise undergraduate tutors. STARS math tutoring now aligns more closely with the math course and workshops. The STARS math instructor, tutoring lead/workshop facilitator, teaching

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assistants, and tutors meet more frequently to identify challenges students are encountering with math. The team then develops a plan to address students' needs—whether this involves a mini-lecture about a specific topic, additional practice questions, individualized one-on-one tutoring, or a workshop activity.

The STARS tutoring lead/workshop facilitator now attends lectures of math department courses alongside STARS students. This has helped the STARS math team identify critical concepts from the lecture (and sometimes concepts omitted from it) that need to be reinforced in math workshops or tutoring sessions.

Student Commitment to STARS

STARS continues to enjoy an excellent reputation among students on campus. Program participants typically understand the role that STARS plays in their academic success. Additionally, STARS' reputation for excellence and inclusion increasingly extends to UW faculty who speak highly of STARS students in their classes and research labs. However, it continues to be challenging to help incoming students and their parents understand that they need the additional support STARS provides in order to be successful in engineering or computer science.

Incoming STARS students did well enough in high school to be admitted to a flagship university, yet they tend to be overconfident in their ability to succeed in engineering or computer science in a highly competitive university environment. In the past two years, several students who were accepted to STARS and declined the offer to participate contacted program staff after their first or second year to ask if they could still participate in the program.

We are concerned that in the future, incoming students' overconfidence may become more widespread due to the College's adoption of the DTC admission model. The STARS applicant pool for the autumn 2018 incoming cohort included 21 DTC admits, of whom 15 were offered a place in STARS and only 9 accepted. Additionally, 5 general UW admits were offered a place but declined to participate. In total, 22% of students offered a place the autumn 2018 incoming cohort declined to participate.

At the STARS showcase in May 2018, Kimber Connors, Senior Director of Strategy and Programs at WSOS, mentioned the possibility of disseminating information about STARS through the WSOS network of students. We very much welcome this opportunity to collaborate on recruitment for STARS.

5. How will you continue the program/project? What is the plan for sustainability?

The STARS team is in serious conversations with the College of Engineering and external supporters and donors. Because of the success of STARS, Dean Mike Bragg has asked University of Washington leadership to include permanent funding for STARS in its request to the State of Washington for consideration for the 2019 biennium. The College is seeking to secure permanent funding that would enable it to award an additional 200 degrees per year in high-demand, high-impact engineering disciplines. This targeted growth is in addition to the anticipated increase in computer science and computer engineering degrees resulting from new state funding for the Allen School of Computer Science & Engineering. An increase in permanent state funding would allow the College to expand high-demand, high-value educational opportunities to Washington state residents. The increased funding would also enable the STARS program to continue l with 30 students per year in the intensive intervention. In addition, state funding to the College of Engineering Diversity & Access programs

provides further support to STARS and STARS-like students. PI Riskin is also in discussions with Dean Bragg about other sources of funding for STARS in the event the request to the State is unsuccessful.

Associate Dean Eve Riskin and STARS Director Sonya Cunningham are working very closely with UW Engineering Advancement. Jessie Muhm, a Major Gifts Officer, has been assigned to the Diversity & Access unit and with Lisa Tran, a 50% FTE WSOS-funded Development Services Officer, has been working with the STARS team to increase fundraising activities. STARS had a "STARS Showcase" in May 2018 with friends and supporters. As a result, one attendee pledged $50K with an additional $50K matching challenge for donations to STARS. The next showcase will take place August 14, 2018. In addition, College of Engineering front-line fundraisers have now become very familiar with STARS and meet with potential donors often.

6. **Please provide one student's success story.**

Below is a reflective essay written by Jyoti Lama. Ms. Lama is a WSOS Scholar and entered the STARS intensive program in autumn 2017 as part of the first WSOS expansion cohort.

In the first week of STARS, I was climbing up 30 feet onto a small wooden platform with students whom I had met only a week ago to rely on my security. The harness and ropes did little to calm my overactive imagination; however, the cheers from my new friends helped eased my nerves. Looking back I realize now that after a year, this was just a snapshot of how my first-year in college was going to be. From the late nights in the Engineering library to attending to career fairs, with each new challenge, I have had the privilege of the STARS community supporting me.

The STARS community is made up of students, mentors, tutors, instructors, advisors, and more who work tirelessly to make everything possible. This past year, STARS has pushed me to become better in various ways. One that comes to mind are the Math Till You Drop (MTUD) sessions that occur on Saturdays a week before midterms and finals for seven hours, to help students get into the right mindset to perform their best. The first couple MTUDs were difficult. The challenge came from the amount of focus and endurance required to be productive for the whole day; however, through the efforts of instructors and tutors, us students were able to get through the MTUDs. Another way STARS wanted to better prepare us students, was through the colossal pile of math final packets. Together we persevered by holding each other accountable and accomplishing the given task. Through all these experiences, I came to learn that this is the level of hard work and dedication is required to succeed in competitive STEM courses as well as future rigorous major classes. As a result, I have been able to grow academically throughout the year and hope to continue honing my skills.

"What works is work" is the STARS motto, and the people who work to guide and support the students exemplify this belief. The most difficult STEM classes I have taken so far, was the STARS taught math and chemistry courses because coming into college, my high school had not prepared me for the rigor of college. At first it was frustrating because while I knew the material, I was not used to the high standards that was required of me. Nevertheless, every time I felt completely lost on a problem, I was able to turn to the STARS instructors and tutors for guidance. It is due to countless prolonged office hours, and also the intensive courses that I became more confident in my own skills and performed better in my classes.

Another type of mentor I have at STARS are the advisors. College is a new system to that all incoming freshman students must learn to navigate, therefore I knew having advisors would be very useful.

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Throughout the year I have had the opportunity to talk to my advisor about various topic, from planning out my academic year to even just how my day went. For instance, I decided to study abroad in Nepal for bioengineering. The reasons being, I am an immigrant from Nepal, and I wanted to explore how the focus of engineering would be different in a third world country in comparison to first world countries. At first my parents were against the study abroad trip, because from their perspective, I should be utilizing my time in the summer to do something productive and studying abroad had a stigma of being a vocational trip. I talked about this dilemma with my STARS advisor and we set forth a plan to compromise with my parents. I feel fortunate to have a community that understands the cultural difference that give rise to specific obstacles. Through my STARS advisor's guidance, I was able to communicate better with my parents, and so I will be studying about global health and engineering tools for clinics in Nepal this coming August.

This past year has also pushed me to challenge myself in more than just academics. I would say that I am an introvert, and while I love getting to know people, in the beginning it is easy for me to get intimidated. This was definitely an obstacle for me when I was starting to build my professional image. In the STARS seminar class there were various assignments where we were tasked to branch out and do career building exercises. While there were somethings that I had done before such as making a resume and attending career fairs, now that I was in college, the expectations were much higher. I saw the biggest difference in career fairs as they were much more crowded and hectic. This required me to create goals for myself before attending career fairs so I could be productive. Moreover, these assignments helped me see that while I have my STARS community, the university is much bigger, and that I need to utilize this opportunity. From networking events, getting to know the different engineering departments, trying out clubs, and more, the one that was most impactful to me was when we had to interview professors from any engineering faculty. At first, it was hard for me to find any professors who were available. However, after I got to interview my first professor, I felt encouraged to reach out more. I am interested in Computer Engineering, and while I have had exposure to software more, I am also interested in the applications for hardware, specifically circuits. Therefore, I contacted an electrical engineering professor because I knew she was involved with virtual reality, and I thought this would be a challenging yet enjoyable experience. Fortunately, she wanted undergraduate assistants, and so I was able to get know her work in the spring. This summer and the coming fall quarter I look forward to working and learning on the research project.

Additionally, this summer I have been working as the STARS student assistant. This opportunity has helped me learn about time management, being attentive, and asking questions. My job in the STARS office requires me to help the advisors and instructors prepare for the next cohort. I receive a variety of tasks everyday which requires me to learn on the job and find ways to improve the efficiency. I am still growing on this job with both my hard and soft skills and I look forward to continue building my skills. Furthermore, I have gotten the chance to see all the work that is put into making everything possible for the students. It makes me respect and appreciate my STARS community even more for the amount of time and dedication everyone contributes to make sure the STARS program runs.

Now in the coming quarter, I will be starting my second year and I am looking forward to the new year. STARS is a privilege, without the foundational skills and support I have gained from the program, my first year in college would have not been as amazing as it was. I will be getting more involved with research and taking more specific classes for Computer Science. I am both excited and nervous, however I know that whatever obstacle that may come my way, I have the tools to conquer them and prosper.

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7.   Please fill out the attached student metrics form for your institution.

Please refer to Appendix 1 for the UW College of Engineering metrics form.

References

Wood, J. L., & Moore, C. S. (2015). Engaging community college transfer students. In S. J. Quaye & S. R. Harper (Eds.), *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations* (2nd ed.) (pp. 271-287). New York: Routledge.

WASHINGTON STATE OPPORTUNITY SCHOLARSHIP

2018 OPPORTUNITY EXPANSION FUND GRANT REPORT
METRICS FORM

Please provide the following metrics for your institution:

	Student Categories	Current Number of Students				Students Achieving Degrees with this Investment			
		Computer Science	Engineering	Teaching STEM (K-12)	Total	Computer Science	Engineering	Teaching STEM (K-12)	Total
1	Students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	206	862	0	1068	21	40	0	61
2	Students who earned associates degrees in WA state and transfer into computer science, engineering or teaching of STEM (K-12)	59	509	0	568	6	23	0	29
3	Students who earned associates in WA state and transfer into computer science, engineering or teaching of STEM (K-12) and complete 4 year degrees	18	204	0	222	0	3	0	3
4	WA residents achieving degrees in computer science, engineering, or teaching of STEM (K-12)	140	601	0	741	21	40	0	61
5	WSOS students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	7	27	0	35	16	30	0	46
6	WSOS-like students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	35	217	0	252	5	10	0	15

STARS Seminar Programming and Activities

Program/Seminar Activity	Date	Guest Speaker
Autumn 2016		
Mental Health Awareness	Oct 6	Melissa Tumas, UW Health & Wellness
What is Engineering?	Oct 20	Scott Winter, College of Engineering
Stress Management	Oct 27	Amy Collins, UW Counseling Center
Sexual Violence Prevention	Nov 3	Melissa Tumas, UW Health & Wellness
Assertiveness and Learning to Say "No"	Nov 17	Amy Collins, UW Counseling Center
Engineering Disciplines	Dec 1	Dan Feetham, College of Engineering
Winter 2017		
Department Speaker	Mar 3	Human Centered Design & Engineering
Soft Skills Speaker	Mar 9	CH2M Hill Speaker
Spring 2017		
The Interdisciplinary Nature of Engineering	Apr 6	Prof. Don MacKenzie, Civil & Environmental Engineering
Graduate Research Programs	Apr 13	Jan Harrington, UW ARCS
Perseverance in Engineering	Apr 20	Angela Troy, Troy Consulting
UW Undergraduate Research Symposium	May 19	
Autumn 2017		
Mental Health Awareness	Oct 5	Amy Collins, UW Counseling Center
Disability Services and Accommodations	Oct 5	Tal Lev, UW Disability Services
Health and Wellness Resources	Nov 9	Melissa Tumas, UW Health & Wellness
Winter 2018		
Professional Development	Jan 11	Gail Cornelius, Career Center @ Engineering
Implicit Bias Presentation	Jan 18	Mayoore Jaiswal and Lily Berger, UW PEERs
Interdisciplinary Nature of Engineering	Jan 25	Scott Winter, College of Engineering
The Interdisciplinary Nature of Engineering	Feb 8	Prof. Don MacKenzie, Civil & Environmental Engineering
Study Abroad Opportunities	Feb 8	Mike Engh, College of Engineering
Department Speakers	Feb 15	Electrical Engineering
Etiquette Dinner	Feb 20	
Spring 2018		
Department Speakers	Apr 5	Bioresource Science & Engineering Industrial & Systems Engineering
	Apr 12	Aeronautics & Astronautics Mechanical Engineering
	Apr 19	Computer Science & Engineering Human Centered Design & Engineering
	Apr 26	Bioengineering Materials Science & Engineering
UW Vertically Integrated Projects	Apr 26	Kevin Lybarger, Doctoral Student
Department Speakers	May 3	Civil & Environmental Engineering Chemical Engineering

Program/Seminar Activity	Date	Guest Speaker
Spring 2018		
Alumni Panel	May 17	Roy Diaz, PhD, JD Lisette Terry, Jensen Hughes Lezley Smith, Fluke Corporation Nikolas Gordon, Jacobs
Undergraduate Research Symposium	May 18	
Soft Skills Speaker	May 24	Patrick Jenny, F5 Networks

Career Center @ Engineering Programming and Activities

<u>AY 16-17</u>
- **ETIQUETTE/NETWORKING**: An **Etiquette Dinner** was held at the UW Club with approximately 85 students & 20 mentors in attendance. The guest speaker, Lincoln Johnson (Associate Vice Provost - UW Student Life) reviewed the difference between "eating" and "dining" during a three-course meal and allowed students to ask questions about potential situations that may occur. A **Women's Breakfast** was held with approximately 40 students and 10 mentors in attendance. Deb Limb (Chief Operating Officer, CRISTA Ministries, and former Engineering Director at The Boeing Company) discussed her journey and "lessons learned" from a 27-year Boeing career. Students and mentors also got time to hear other women's stories at their respective companies.
- **INTERNSHIP PROGRAMMING**: Our Associate Director led two one-hour workshops (FINDING an internship, SUCCESS during an internship), with 40 students each.
- **CAREER PROGRAMMING**: Our Associate Director supported two STARS workshops for the cohort, specifically to complete the Career Success Certificate; this required her to meet with each student twice during Winter Quarter in order to review their cover letter & resumes. She also conducted a networking tutorial prior to the Winter certificate ceremony, which allowed students to get comfortable with their own "elevator pitches." Additional workshops, as part of the Career Center @ Engineering programming calendar, were also offered on "Career & Major Exploration" as well as "Interviewing" and "LinkedIn."
- **OTHER**: 10 WSOS students received free registration to the inaugural "Career Success Conference," held the first Saturday of Autumn Quarter; workshops included "First Six Months on the Job" hosted by Accenture and an alumni panel "MS or MBA: Which Graduate Degree Should I Get?"

<u>AY 17-18</u>
- **ETIQUETTE/NETWORKING**: An **Etiquette Dinner** was held in the HUB Lyceum with approximately 120 students & 30 mentors in attendance. Mary Mitchell, a local professional etiquette speaker, provided insight into how to best prepare for interaction during a dining situation. Four courses were served to familiarize students with a very formal setting. A **Women's Breakfast** was held with approximately 50 students and 10 mentors in attendance. A panel of female engineers & leaders from Micron shared stories on a keynote panel.
- **INTERNSHIP PROGRAMMING**: Our Career Coach led two one-hour workshops (FINDING an internship, SUCCESS during an internship) with 40 students each; both workshops were offered in-person as well as virtually.
- **CAREER PROGRAMMING**: Our Career Coaches supported two STARS workshops for the cohort, specifically to complete the Career Success Certificate; this required her to meet with each student twice during Winter Quarter in order to review their cover letter & resumes. Students were also required to utilize UW's online job posting system ("HuskyJobs") to apply for a mock posting with their cover letter & resume. Additional workshops, as part of the Career Center @ Engineering programming calendar, were also offered on "Career & Major Exploration" as well as "Interviewing," "LinkedIn," and "Salary Negotiation." A workshop on financial savviness was hosted by a student club and advertised to the Engineering population.
- **OTHER**: 22 WSOS students received free registration to our second "Career Success Conference," held the first Saturday of Autumn Quarter. An added benefit to this year's Conference was a networking lunch with industry mentors & alumni.

Note: Due to personnel changes and lack of full staff in both academic years, Career Treks could not done but were coordinated through individual student clubs.

Personnel	2016-17	2017-18	Total
Staff Salaries - STARS	$ 154,187.17	$ 365,647.01	$ 519,834.18
Staff Benefits - STARS	$ 50,569.21	$ 123,944.76	$ 174,513.97
Student Employees - STARS Office Assistants	$ 2,408.82	$ 7,261.01	$ 9,669.83
Student Employees - STARS Tutors	$ 1,252.50	$ 15,284.61	$ 16,537.11
Teaching Assistant STARS Salary (Summer Training)	$ 3,806.25	$ 2,386.88	$ 6,193.13
Staff Salary - Advancement Officer	$ -	$ 14,431.82	$ 14,431.82
Staff Benefits - Advancement Officer	$ -	$ 4,690.34	$ 4,690.34
Total	$ 212,223.95	$ 533,646.43	$ 745,870.38

STARS Academic Success Programming	2016-17	2017-18	Total
Chemistry Poster Session	$ 88.55	$ -	$ 88.55
Faculty Mentorship Mixer	$ 1,154.75	$ -	$ 1,154.75
STARS Seminar Activities	$ 544.31	$ 263.28	$ 807.59
Study Til You Drop Sessions (TUDs)	$ 1,109.28	$ 3,837.40	$ 4,946.68
Transition Week 2016	$ 22,534.38	$ -	$ 22,534.38
Transition Week 2017	$ 3,990.43	$ 50,095.17	$ 54,085.60
Transition Week 2018	$ -	$ 6,672.22	$ 6,672.22
Total	$ 29,421.70	$ 60,868.07	$ 90,289.77

Career Center @ Engineering Programming	2016-17	2017-18	Total
Career Success Certificate Program (STARS)	$ 1,236.07	$ 1,671.50	$ 2,907.57
Career Success Conference (WSOS)	$ -	$ 1,250.75	$ 1,250.75
Etiquette Dinner (STARS/WSOS)	$ 3,286.24	$ 9,769.10	$ 13,055.34
WiSE Graduate Tea (WSOS)	$ -	$ 309.03	$ 309.03
WiSE Conference Registration Fees (STARS)	$ 725.00	$ -	$ 725.00
Women's Breakfast (WSOS)	$ 997.62	$ 1,095.10	$ 2,092.72
Total	$ 6,244.93	$ 14,095.48	$ 20,340.41

Community-Building Activities (STARS)	2016-17	2017-18	Total
Bowling with the STARS	$ 1,329.20	$ 1,489.36	$ 2,818.56
End-of-Year Celebration 2017	$ 19.82	$ 1,474.79	$ 1,494.61
End-of-Year Celebration 2018	$ -	$ 4,580.15	$ 4,580.15
Total	$ 1,349.02	$ 7,544.29	$ 8,893.31

Community College Transfer Programming	2016-17	2017-18	Total
Community College Transfer Welcome/Orientation 2016	$ 9,864.09	$ 7,442.74	$ 17,306.83
Community College Transfer Programs/Workshops	$ 1,183.10	$ -	$ 1,183.10
Total	$ 11,047.19	$ 7,442.74	$ 18,489.93

Indirect Cost	2016-17	2017-18	Total
Indirect Cost - Advancement Officer	$ -	$ 2,868.35	$ 2,868.35
Indirect Cost - Career Center @ Engineering	$ 642.58	$ 1,863.61	$ 2,506.19
Indirect Cost - Community College Transfer	$ 1,657.09	$ 1,116.40	$ 2,773.49
Indirect Cost - STARS	$ 37,179.53	$ 90,508.71	$ 127,688.24
Total	$ 39,479.20	$ 96,357.07	$ 135,836.27

STARS Operating Expenses	2016-17	2017-18	Total
Books and Educational Materials	$ 325.73	$ 269.92	$ 595.65
Classroom Technology	$ -	$ 1,875.85	$ 1,875.85
Copying and Printing	$ -	$ 1,581.41	$ 1,581.41
Misc Operating Expenses	$ 390.81	$ 2,422.33	$ 2,813.14
Professional Development/Conference Travel	$ 1,811.40	$ 5,609.73	$ 7,421.13
Student Recruitment	$ 854.53	$ 4,905.51	$ 5,760.04
Supplies	$ 164.45	$ 409.99	$ 574.44
Total	$ 3,546.92	$ 17,074.74	$ 20,621.66

	2016-17	2017-18	Total
Total WSOS Funding Spent	$ 303,312.91	$ 737,028.82	$ 1,040,341.73

WASHINGTON STATE
OPPORTUNITY
SCHOLARSHIP

2018 OPPORTUNITY EXPANSION FUND GRANT REPORT

Name of Program: CWU Teach STEM
　　　　Original Title: CWUTeach: An Innovative Undergraduate STEM Teacher Preparation Program to Increase the Number of STEM Teaching Graduates in Washington State
Name of Institution: Central Washington University
Date of Grant Report: July 20, 2018
Grant Amount: 1,904,175 (Direct Costs)
Funds Used to Date: 814,341 (Direct Costs)
Report Submitted By (Name/Title): Jennifer Dechaine/ Teach STEM Co-Director, Chair Science Education, Associate Professor of Biology and Science Education

1. *Please describe how the program/project funded by the Opportunity Expansion Fund grant increased the number of WSOS students, or WSOS-like students, who graduate in computer science, engineering, or teaching of STEM (k-12), resulting in an overall increase in the total number of Washington state graduates in those fields.*

The proposed goal of CWU Teach STEM is to double the number of STEM teaching graduates from CWU 5 - 7 years after receiving Opportunity Expansion Fund (OEF) funding (by spring 2022-2024). We are working toward this goal by adopting the UTeach STEM teacher training model at CWU, which has been highly successful at recruiting more students into STEM teaching at universities across the country. The first year of the OEF grant funded program planning, and we launched the Teach STEM program for academic year 2017-2018. The first Teach STEM students will graduate in spring of 2019.

Although no Teach STEM students have yet graduated, we are excited to report that the Teach STEM program has increased the number of students who have enrolled in STEM teaching courses. In 2017-2018, 116 students took Teach STEM courses. This is an approximately *25% increase* in enrollment in science and math teaching programs versus the average of the three previous years. This trajectory meets our goal to double the number of STEM teaching graduates by spring 2022. Moreover, we will offer a Computer Science Teaching Endorsement for the first time in 2018 - 2019, which already has several interested students. This opportunity will further increase the number of students graduating with degrees and careers in STEM teaching, particularly in the area of computer science. We are now exploring the possibility of offering the Teach STEM program in the Puget Sound area for fall 2019 (discussed further below). This expansion would further us toward our goal of increasing the number of highly qualified STEM teachers in Washington State, which would help alleviate the statewide STEM teacher shortage.

Finally, we also believe that the Teach STEM program will result in long-term increases in students pursuing STEM majors and careers because of the increased STEM activities and excitement it has brought to central Washington. In the first year, our Teach STEM students taught STEM lessons to students in 24 teacher's classrooms across four school districts and seven schools, reaching well over 500 K-12 students. Those partnerships will be repeated next year, and we will work with at least 19 new teachers, two new school districts, and five new schools in central Washington.

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2. *Please describe (1) key activities, (2) the timeline for achieving these activities, (3) any outstanding activities yet to be taken, and (4) the timeline for implementing those activities.*

The key activities and timeline that we originally proposed are included below as a reference (Table 1, Appendix). To date, we have completed the following key activities.

- **Hiring:** We have now hired the majority of positions proposed for the Teach STEM program. This includes: an Advisor/Recruiter for Teach STEM (hired December 2017), two Master Teachers for Teach STEM (hired September 1, 2017 and September 1, 2018), the Administrative Assistant for Teach STEM (hired August, 2017), and both Program Directors for Teach STEM (salary buyout for Dechaine and Loverro).
- **Advise/Recruit**: Our Advisor/Recruiter worked with the Program Directors and CWU Public Affairs over the last two years to prepare advising and recruiting materials for the program. These include recruiting materials: a logo/mark for Teach STEM (Figure 1, Appendix), a rack card, several types of promotional materials, and a website (www.cwu.edu/teachstem). The Advisor/Recruiter visited many high schools in Washington and CWU classes to promote the Teach STEM program. She also trained several student interns as Program Ambassadors to help promote the program. Teach STEM was featured on two news segments at KIMA in Yakima, WA and several press releases from CWU.
- For advising, our Advisor/Recruiter created degree plans and pathway charts for all majors that are eligible for the Teach STEM program. She meets with every Teach STEM student multiple times per year, advises the Teach STEM club (established in 2017), and mentors and supports students throughout their Teach STEM experience.
- The Teach STEM program also hired eight student interns in 2017 - 2018. These interns helped with the implementation and support of robotics clubs at all three elementary schools in Ellensburg, WA, supported the Kid Wind team at Morgan Middle School in Ellensburg, helped the math circles group in Ellensburg, and served as teaching assistants in several courses. Three of the interns presented a poster about their experiences supporting STEM education in our local community at the 2018 UTeach Conference, and they won an award!
- **Curriculum**: A team of many faculty representing diverse interests in science, math, and education spent many hours adapting the UTeach curriculum to the quarter system and Washington State laws and requirements. This included having to add 100 field hours to the original curriculum, as well as activities to meet Washington State required InTASC and NGSS standards and the extensive edTPA student teaching assessment. This curriculum was approved in spring of 2017. Faculty worked in interdisciplinary teams to develop the courses over the summers of 2017 and 2018 (still ongoing) and revised courses taught in 2017 over summer 2018 in response to student feedback. Eleven faculty members and one CWU administrator have attended UTeach professional development. The first cohorts of students completed their first year of Teach STEM courses in 2017 - 2018. As celebrated above, 116 students took Teach STEM courses in year 1!
- **Pilot Programs**: Program Director Dechaine, and others, met with district representatives from Ellensburg, Cle Elem, Selah, Wahluke, and Yakima School Districts over 2017 - 2018 to present the program and meet with potential mentor teachers. More than enough teachers

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volunteered to mentor students for year-long field/student teaching placements for 2018 - 2017, and all students in the first cohort of the program have field placements for next year.

- **Computer Science Endorsement:** CWU hired a computer science educator to the Computer Science and Science Education departments in fall 2017. The Program Directors worked with the Computer Science Department to develop a proposal to the Washington State Professional Educator Standards Board for a Computer Science teaching endorsement. This proposal was approved in March 2018 and CWU was the *first* in Washington State to be approved to offer this endorsement. CWU will start offering this teaching endorsement in fall 2017 through Teach STEM.

- **Math Competency:** Mathematics faculty member, Aaron Montgomery, analyzed math placement data as proposed and piloted math placement remediation activities in 2017. The data from these activities were promising and the CWU Mathematics Department recommended that CWU would better support students if they changed to a different math placement testing platform (ALEXS) and provided bridging support to students. The CWU Provost's Office funded a math bridge program to start summer 2018. The OEF grant has also provided supplemental support to launch the math bridge program, supporting all STEM and WSOS-like students at CWU.

- **Administration**: Program Directors have worked with the UTeach Institute to launch the UTeach Program for 2017 - 2018. The UTeach Institute extensively reviewed the first year of the program and provided a positive report that is available upon request. The Program Directors created an interdisciplinary Steering Committee that oversees the Teach STEM program. We have also hosted two exploratory meetings with key stakeholders from K-12 education, as well as many follow-up meetings with individual school districts and partners. CWU set a goal of a $3 million endowment for the Teach STEM program, and we are delighted to report that we have received an $800,000 gift for that endowment.

The outstanding activities that we still have to complete are as follows.

- **Hiring/Administration:** The largest new activity for 2018 - 2019 is working to launch the Teach STEM program at our CWU center in Des Moines to start in fall 2019 in order to better support students who are place-bound to the Puget Sound area. This would require hiring a third Master Teacher to support that program. We are currently working with Puget Sound area community colleges and school districts on the details of this program.

- Other major administrative tasks include fundraising for the endowment and grant writing, continuing to work with the UTeach Institute to implement and evaluate the program, and continuing the Steering Committee.

- **Advising/Recruiting:** Our major recruiting foci for 2018 will be: recruiting for our Des Moines program, recruiting more heavily in our partner districts, especially in Yakima, WA, and recruiting students from populations underrepresented in STEM teaching. For advising, our goals will be to continually improve our support systems for students, including the Teach STEM club and more availability of teaching assistants and tutors for our courses, continually improve advising systems, and generally support students in the Teach STEM program.

- We plan to hire at least eight interns for 2018 - 2019. One of these will support the new Spanish language math circles that CWU will be hosting for the community next year. Others

will again support robotics clubs and Kid Wind, serve as teaching assistants/mentors for new cohorts of Teach STEM students, and act as Teach STEM Ambassadors.

- **Curriculum**: Faculty are currently developing the new Teach STEM courses for 2018 - 2019 and revising the 2017 - 2018 courses based on student and UTeach feedback. This will be ongoing through the granting period. Faculty who have not yet attended professional development will have the opportunity to do so in 2019. Students will again have the opportunity to attend and present at the UTeach Conference.
- **Pilot Programs**: We will work with school districts to develop a system to observe and mentor students in their year-long/student teaching field placements for 2018 - 2019. We will also work with recent graduates to develop our induction program for Teach STEM.
- **Computer Science:** The first cohort of students will start the Computer Science Teaching Endorsement in fall 2018. We will also investigate creating another pathway to the Computer Science Teaching Endorsement that will make it accessible to more students. We will purchase our computer science teaching equipment in 2018 - 2019.

3. *Provide a budget detailing when and how Opportunity Expansion funds were utilized.*

We have attached a detailed budget, "WSOS Budget 2018 with Projections", aligned to the originally requested budget with notes in red text for any categories that are overspent or underspent versus our original estimates.

4. *What were the top three challenges for the program/project, and how did you address these challenges?*

The first major challenge was completing all of the internal University procedures and processes in order to make this large of an institutional change. For example, we had to change a University policy for some parts of the curriculum changes to go through. Other curriculum changes had to be approved by the Faculty Senate and multiple administrative levels. We addressed this challenge by engaging stakeholders from many levels of the University system in the change process many times over the entire first year of the grant. We underestimated the amount of time removing University barriers would take, so several of our hires were months later than we had proposed. Despite this, we have caught up to our original timeline and implemented the first year of the Teach STEM program smoothly.

A bigger challenge then we realized was adapting the UTeach model to a quarter-system University following the laws and requirements of Washington State. The entire UTeach curriculum had to be reorganized around the quarter system. Washington State requires over 100 field hours more than Texas, uses the Next Generation Science Standards and InTASC standards (TX does not), and has the intense edTPA assessment of student teachers (TX does not). Furthermore, because of the needs of the many transfer students who come to CWU and the granting period, we are implementing the UTeach model in three years instead of the recommended six years done by most universities. We have addressed this challenge by providing more professional development for faculty than was originally planned and providing summer compensation for faculty to work in interdisciplinary teams to adapt the curriculum.

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WASHINGTON STATE
OPPORTUNITY
SCHOLARSHIP

This has been very successful and faculty are collaborating across disciplines much more than ever before to the benefit of the students and the program.

Another ongoing challenge is providing students meaningful, diverse field experiences mentored by excellent STEM teachers in our rural, Ellensburg location. We have addressed this challenge by partnering with Ellensburg, Thorp, Kittitas, Wahluke, Yakima, and Selah School Districts for field experiences. This has given our students the opportunity to teach STEM in at least two very different schools in terms of K-12 student demographics. As part of developing these strong partnerships, we brought the Wahluke Jr. High students to CWU's campus for three days of STEM lessons in spring 2018, thus also providing the opportunity for the Wahluke kids to experience STEM at a college campus.

5. *How will you continue the program/project? What is the plan for sustainability?*

We are institutionalizing the Teach STEM program at CWU through several avenues. The University and Dean of the College of the Sciences have committed to continuing funding for the program's Master Teachers, Advisor/Recruiter, Co-Directors, and Administrative Assistant salaries and associated costs. The University has provided an excellent physical space for the Teach STEM program and its associated equipment. We are changing some internal University structures to better support the program in the long term. The curriculum adaptation and UTeach implementation will be complete by the end of the granting period and will not require additional funding. For the ongoing program expenses that are difficult to continue funding using University sources (e.g., mentor teacher stipends, internships), the University has committed to working toward a $3 million endowment for the program and has already raised $800,000 toward that goal. The Program Directors will also continue to pursue grants to support program expenses.

6. *Please provide one student success story.*

Ana Garcia is a junior at CWU pursuing a BA in Biology with the Teach STEM program to become a high school biology teacher. She is the first in her family to attend college. In high school in Tacoma, WA, she began working toward becoming a dentist, but after shadowing a pediatric dentist she became disappointed with how little the dentists got to work with kids. After that experience, she was lost at first, but realized that her combined love of biology and mentoring kids might make her a great teacher.

Coming to CWU, Ana was excited to start the Teach STEM program and liked that since she would receive a biology degree, she could still pursue multiple career options after graduation. In her first Teach STEM course, she was very nervous to teach a science lesson to kids for the first time, but her teaching experiences went well and she began to feel confident in front of the classroom. She then applied to be a Teach STEM intern and through that worked with kids and families in the community through CWU's math circles program. Next year she will work with the new Spanish language math circles program. She is really excited for that experience, because when she was growing up her parents spoke little English and she often struggled to find the words in Spanish to explain to them what she was doing in school.

This spring, Ana had the opportunity to create a poster about her Teach STEM internship experience and present it at the UTeach conference in Austin, TX. She traveled on a plane for the first time, the furthest

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away she had ever been from her parents. Not only did she have to present her poster to hundreds of conference attendees, her poster won first place for program exposition! She had to stand in front of the entire conference audience at dinner with the UTeach-Austin Director to receive her award.

Ana left the conference with even more confidence in herself. She learned many new teaching techniques and about the diversity of ways that you can teach and learn STEM. We have loved getting to know Ana this year and can't wait to see what next year brings for her.

7. *Please fill out the attached student metrics form for your institution.*

The metrics table is attached.

Appendix – Tables and Figures

Table 1. Timeline of program enrollment from grant proposal

		CWUTeach				Computer Science Endorsement	Math Competency
		Hiring[1]	**Advise-Recruit**	**Curriculum**	**Pilot Programs**	**Admin**		
Year 1 (2016-17)	**Sum**		Recruiting and marketing materials & website completed	Curriculum draft		Ongoing: fundraising / grant writing; communication with employers and biannual Advisory Board meetings; dissemination, evaluation and revision		Placement analysis
	Fall	Advisor-Recruiter		Final curriculum submitted			Advertise CSed faculty position	Post-course placement testing
	Winter		Recruit at fairs / high schools	Schedule yr2 courses			Interview CSed	
	Spring-Sum	Program Director 1 Master Teacher 1 Adm. Asst.	Contact and register interested students	Yr2 PD[2] Register first students			Hire CSed Plan CS endorsement curriculum	Post-course score analysis & remediation development
Year 2 (17-18)	**Fall**	Program Director 2 Master Teacher 2	Ongoing recruiting and advising*	First students start Course 1	Plan student teacher (ST) pilot		CSed faculty position starts Submit final CS curriculum	Pilot remediation and assess
	Winter		Advertise for internships and interns*	Course 2 Repeat courses as needed*	Recruit STs & mentors Plan induction pilot			
	Spring-Sum		First interns	Course 3 Yr3 PD	ST pilot yr1			Revise remediation

Year 3 (18-19)							
Fall	Master Teacher 3		Course 4	Induction pilot (all of year 3)	First CS students start	Deliver revised remediation*
Winter			Course 5	Recruit STs & mentors		
Spring-Sum			Course 6 Yr4 PD	ST pilot yr2		

Figure 1. Teach STEM logo/mark

2018 OPPORTUNITY EXPANSION FUND GRANT REPORT
METRICS FORM

Please provide the following metrics for your institution:

Student Categories	Current Number of Students 2016-2017 Graduates[1]			NET Students Achieving Degrees with this Investment[3]		
	Computer Science	Teaching STEM (K-12)	Total	Computer Science[4]	Teaching STEM (K-12)[5]	Total
1. Students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	35	25	60	5	30	35
2. Students who earned associates degrees in WA state and transfer into computer science, engineering or teaching of STEM (K-12)	13	6	19	2	12	14
3. Students who earned associates in WA state and transfer into computer science, engineering or teaching of STEM (K-12) and complete 4 year degrees	13	6	19	2	12	14
4. WA residents achieving degrees in computer science, engineering, or teaching of STEM (K-12)	35	25	60	5	30	35
5. WSOS students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	5	1	6	2	10	12
6. WSOS-like students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	14[2]	13[2]	27[2]	3	26	29

[1] Graduates Fall 2016 – Summer 2017, because Spring 2018 data were not available at the time these data were requested

[2] Students in these majors/programs with estimated WSOS eligible family income and GPA at graduation

[3] Predicted NET increase of students achieving degrees in these majors/programs in 3 – 5 years (2022-2024). Data are presented in the same format and projected time period as in the grant proposal for consistency and ease of interpretation.

[4] Computer Science degrees awarded have already exceeded our projections from the grant proposal. They have increased by six graduates in two years; we had predicted an increase of five graduates in five years. This is likely due to increased capacity and recruiting in the CWU Computer Science Department over that time period.

[5] These projections are slightly lower than in our original proposal, because they are based off of doubling the number of graduates in the three years prior to launching the Teach STEM program (2016 - 2018). This lower enrollment reflects a statewide decrease in students pursuing teaching majors, which this investment plans to reverse.

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CWU Faculty/Staff Salary	REQUESTED Year 1	Year 2	Year 3	Total		SPENT: 5/30/17 Yr1 Spent	SPENT: 5/30/18 Yr2 Spent	Y3 Projected	Total Spent	Total w/ Projections	Notes
Planning Team	80000	20600	21218	121818		54982.43	28525.56	100000.00	83507.99	183507.99	*This line will be overspent, because we underestimated how much time it would take to plan the new courses. This includes summary salary for collaboration time, salary for teaching some of the courses, and time for attending professional develop (all teaching faculty have attended UTeach professional development). Most of Y3 Projected will fall into August 2018.*
Program Directors	18378	18929	19497	56805		9113.82	21436.57	26000.00	30550.39	56550.39	
Administrative Assistant	10000	20600	21218	51818			25552.82	26319.40	25552.82	51872.22	
Advisor/Recruiter	55000	56650	58350	170000		29316.45	46027.50	74903.50	75343.95	150247.45	will need for westside program expansion
Master Teachers	55556	114444	117878	287878			61000.00	203000.00	61000.00	264000.00	third master teacher for westside program in projection
Observer	-	12500	25750	38250			1079.00	12000.00	1079.00	13079.00	
Website-Marketing	16000	2000	2000	24000				8000.00	0.00	8000.00	will need for westside program expansion
Computer Science	6222	6409	-	12631				12600.00	0.00	12600.00	summer 2018 program development for computer science team
Math Competency	8229	16951	8723	33903		12806.50	13730.40	7071.16	26536.90	33608.06	Dr. Montgomery is completing work for this line in summer 2018.
Subtotal	249384	269083	274633	793101	Fac&Staff Salary Subtotal	106219.20	197351.85	469894.06	303571.05	773465.11	
Student Salary	3600	10800	32400	46800	Student Salary Subtotal	1140.00	8827.08	40000.00	9967.08	49967.08	Internships
Fringe Benefits				839901							
Faculty/staff	82297	88797	90629	261723	ALL SALARY	107359.20	206178.93	509894.06	313538.13	823432.19	
Undergrad Students	108	324	972	1404							
Subtotal	82405	89121	91601	263127	ALL FRINGE	$ 31,128.71	78,072.47	156,265.04	109201.18	265466.22	CWU standard fringe
Administration											
Advisory Board Stipends	5000	3000	3000	11000				4000.00	0.00	4000.00	stipends for teachers who are advising on course/program development
Advisory Board Mileage	600	600	600	1800		483.55	574.06	574.06	1057.61	1631.67	
Student Tuition Reimbursement	-	57600	57600	115200			43400.00	71800.00	43400.00	115200.00	
Mentor Teacher Stipends	-	2500	5000	7500			10789.00	10789.00	10789.00	21578.00	
New CWUTeach Equipment	2000	500	500	3000		1349.26	6725.13	40000.00	8074.39	48074.39	*This line will be overspent, because we were awarded 50K less than requested for equipment. Planning to use money underspent in math competency (CWU has taken on these costs) for equipment instead.*
Recruiting Printing/Mailing	6000	4000	4000	14000		8.66	8041.84	10052.30	8050.50	18102.80	
Recruiting Outreach/Travel	6000	4000	4000	14000		6592.57	5451.00	5451.00	12043.57	17494.57	
Student Organization	-	2000	4000	6000			794.25	5205.75	794.25	6000.00	
Travel/Dissemination	6000	6000	6000	18000		611.35	16778.14	16778.14	17389.49	34167.63	*This line will be overspent because underestimated costs of sending faculty and students to UTeach professional developments in Austin, TX.*
Biannual meeting sustenance	2500	1550	1597	5647		385.00	1408.75	1408.75	1793.75	3202.50	
UTeach licensing and support	400000	-	-	400000		150000.00	125000.00	125000.00	275000.00	400000.00	
Computer Science Equipment	-	-	20000	20000				20000.00	0.00	20000.00	
Math Competency	36000	36000	18000	90000		9025.00	3875.00	15000.00	12900.00	27900.00	*Underspent, because CWU took over costs to start math bridge program due to success of pilot program analysis funded by this award. Projected expenses are math bridge costs supplimented by this award.*
Subtotal	464100	117750	124297	706147		168455.39	222837.17	326059.00	391292.56	717351.56	
Student Teaching Pilot											
Mentor teacher stipend	-	7500	15000	22500				22500.00	0.00	22500.00	*Will have student teachers in year 3, so moved all costs to that year to support those students.*
Sat workshop	-	5000	12000	17000				17000.00	0.00	17000.00	
PD providers	-	1500	3000	4500				4500.00	0.00	4500.00	
Observer Technology	-	6000	8000	14000				14000.00	0.00	14000.00	
Observer Travel	-	2000	4000	6000			309.26	5690.74	309.26	6000.00	
Subtotal	0	22000	42000	64000			309.26	63690.74	309.26	64000.00	
Induction Pilot											
Participant stipend	-	-	15000	15000				25000.00	0.00	25000.00	$1000 per participant
Summer workshop	-	-	12000	12000				12000.00	0.00	12000.00	
PD providers/webinar tech	-	-	4000	4000				4000.00	0.00	4000.00	
Subtotal	0	0	31000	31000				31000.00	0.00	31000.00	
Total direct	799489	508755	595931	1904175		306943	507398	1086909	814341	1901249.97	*We are underspent in quite a few areas because due to internal processes, we had to hire staff and start programs later than projected. We are making up for this and have projected expenses into the next year that are very close to what was requested.*
Indirect (15%)	119923	76313	89390	285626							
Total direct + indirect	919413	585068	685320	2189801							

7/7/16-7/6/17 7/7/17-7/\6/17 7/7/18-7/6/19

2018 OPPORTUNITY EXPANSION FUND GRANT REPORT

Name of Program: Computer Science Department
Name of Institution: Western Washington University, Computer Science Department
Date of Grant Report: July 2018
Grant Amount: $1.62M
Funds Used to Date: $505K
Report Submitted By (Name/Title): Perry Fizzano, Chair

1. Please describe how the program/project funded by the Opportunity Expansion Fund grant increased the number of WSOS students, or WSOS-like students, who graduate in computer science, engineering, or teaching of STEM (k-12), resulting in an overall increase in the total number of Washington state graduates in those fields.

This year we were able to offer 15 more sections of courses as compared to the previous year. This led to us graduating over 150 CS graduates this year along with almost 10 Cybersecurity graduates.

There will be a bubble in the pipeline however as next year we will offer fewer classes than this year because of a sudden death this year to one of our faculty, an earlier-than-planned retirement of another faculty member, and the unexpected departure of one other faculty member. Thus, we will not only be hiring for the one open CS Education position as planned through the expansion grant but we will have three other searches as well.

We still expect to reach 175 BS graduates total per year, and deliver professional development for ten K-12 teachers (pre-service or in-service) per year by 2020 as planned.

2. Please describe (1) key activities, (2) the timeline for achieving these activities, (3) any outstanding activities yet to be taken, and (4) the timeline for implementing those activities.

Our proposal focused on hiring four new tenure-track faculty, two specializing in CS Education, to be able to serve more students and educate K-12 teachers to teach CS effectively.   Three of the positions were filled and those faculty started in September 2017. One position for CS Education is still unfilled and will be searched for again this coming academic year to start in Sept 2019.

WASHINGTON STATE
OPPORTUNITY
SCHOLARSHIP

3. Provide a budget detailing when and how Opportunity Expansion funds were utilized.

From the proposal, we budgeted:

a) Salary (4 fac for 3 yrs) $80K * 4 * 3 $960K
b) Fringe (4 fac for 3 yrs) $80K * 35% * 4 * 3 $336K
c) Library Funds (4 fac for 3 yrs) $10K * 4 * 3 $120K
d) Recruiting Costs $24K
e) Start-up Funds for new faculty $180K

Totaling $1.62M

We have hired 1 CS Education faculty member, and 2 regular CS faculty members. All three just completed their first year of employment. We will be searching again next year to fill the one open CS Education position which this year provided no acceptable candidates. Thus, to date we have spent:

a) Salary (3 fac for 1 yrs) $80K * 3 * 1 $240K
b) Fringe (3 fac for 1 yrs) $80K * 35% * 3 * 1 $84K
c) Library Funds (3 fac for 1 yrs) $10K * 3 * 1 $30K
d) Recruiting Costs $16K
e) Start-up Funds for new faculty $135K

     Totaling: $505K

Note, we will spend all the dollars allocated to us on the specific items we proposed but we're a little behind schedule because one of the faculty positions is still unfilled.

4. What were the top three challenges for the program/project, and how did you address these challenges?

- The top challenge that remains relates to filling the CS Education position. Our requirements for the position are either (1) a PhD in CS Education or (2) a MS in Computer Science and a PhD in Education.

  There are not a lot of PhD programs focusing on CS Education, and there are not a lot of faculty positions like the one we've created. Thus, ideal candidates are sparse and getting the message to them about our position is difficult.

2018 OPPORTUNITY EXPANSION FUND GRANT REPORT
METRICS FORM

Please provide the following metrics for your institution:

Student Categories	Current Number of Students				Students Achieving Degrees with this Investment			
	Computer Science	Engineering	Teaching STEM (K-12)	Total	Computer Science	Engineering	Teaching STEM (K-12)	Total
1 Students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	101 (2016) 155 (2017) 160* (2018) 170* (2020) *projected		31		+35new/yr by 2020 to reach 170		+10 new/yr by 2020	+45 / year
2 Students who earned associates degrees in WA state and transfer into computer science, engineering or teaching of STEM (K-12)	n/a	n/a	n/a					
3 Students who earned associates in WA state and transfer into computer science, engineering or teaching of STEM (K-12) and complete 4 year degrees	n/a	n/a	n/a					
4 WA residents achieving degrees in computer science, engineering, or teaching of STEM (K-12)	126		21					
5 WSOS students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	49 enrolled							
6 WSOS-like students achieving degrees in computer science, engineering, or teaching of STEM (K-12)	66 (pell eligible or first gen)		4 (pell eligible or first gen)					

We have addressed this challenge through extensive networking. We're telling everyone we know in the CS Education field about these positions, and their uniqueness and hopefully that will expand our applicant pool for next year.

- The next challenge is to secure funding from an external agency to offer professional development for in-service K-12 teachers. Our new CS Education faculty member, Qiang Hao, submitted a grant to the National Science Foundation this year which was rejected. However, other plans are underway for other grants. One in particular will be a multi-institutional grant with UW and CWU focusing on CS Education.

- If (make that "when") one of these grants is received the next challenge will be to coordinate efforts at multiple institutions and develop curriculum to effectively prepare K-12 teachers.

5. How will you continue the program/project? What is the plan for sustainability?

The Provost at WWU committed to permanently funding these four new positions from the outset which is why we were able to advertise for and hire people into tenure-track positions. The WSOS funding is serving as "bridge funding" and allows the university three years to shift base dollars to fund these positons indefinitely.

Further evidence of WWU's commitment to the expansion grant funding and to the CS Department's expansion overall is that all of the capital improvements that were needed to house these additional four faculty were all completed at the end of 2017 (these included modifying spaces to create offices, modifying a classroom to turn it into an active-learning lab, and outfitting new spaces to become labs). Also, a 0.75-time office assistant was hired to further help with departmental administration. To be perfectly clear, nothing in this paragraph was funded by the expansion grant but it was all needed to help fulfill the goals of the expansion grant.

6. Please provide one student success story.

The funds are not directed toward individual students. Students as a whole are benefitting from an increased number of classes and fewer wait lists for classes.

More pertinent here may be the CS education research that is now more prevalent than ever in the department. This research will clearly help WSOS-like students.

- Research into student confidence in CS. Faculty are exploring an intervention that seems to help students who come in with little confidence, gain confidence. We've seen students from low-income or rural school districts doubt their ability when they're in class with students who had CS exposure in high school. This intervention that we're developing should help to level the playing field for WSOS-like students.
- Research into providing effective formative assessment for a variety of CS courses. Formative assessment is critical, especially for those students coming in without prior CS experience. The plan is to build a system for a course or two initially that will provide automated, targeted feedback to students in certain programming courses. Students that work hard will get more regular (and hopefully helpful) feedback with this system than they currently do.
- Research into understanding students' sense-of-belonging and identity in the field of computing which is supported by a $1M NSF S-STEM grant entitled "Preparing Students for Careers in Computer Science and Math". This grant focuses on low-income students (low-income as defined by the National Science Foundation) which are WSOS-like students. We have an educational researcher and a program evaluator who are both experienced with equity in STEM education on our team for this effort.
- Monthly events for the NSF S-STEM grant will be focused on career preparation. We will have panel discussions with recent alumni, visits from more established professionals in the field, and workshops on topics such as salary negotiation, imposter syndrome, and ally-ship to name a few. These events will be open to all CS and Math students and thus will benefit all WSOS-like students in CS and Math.

In short, the increase in education-focused research in our department is a direct result of recent hires, especially Qiang Hao, who specializes in CS Education. Further, the level of discourse in our department overall around these issues is increasing in terms of its volume and sophistication as an indirect result of the expansion grant.

This work is helping us achieve our goals of being the best undergraduate CS Program in the state and supporting all WWU students interested in CS regardless of their background or socio-economic standing.

Thank you for your support!

7. Please fill out the attached student metrics form for your institution.

On a separate form

The Opportunity Expansion Fund Grant Report is due on Tuesday, July 31 at 5:00p. Please email your report to Naria K. Santa Lucia at nsantalucia@waopportunityscholarship.org**. If you have any questions, please contact the Washington State Opportunity Scholarship at 206-800-8025.**

Tab D

Program Update

PROGRAM UPDATE | SEPTEMBER 2018

PROGRAM UPDATE

Since the April 2018 Washington State Opportunity Scholarship (WSOS) Board meeting, the WSOS team has been hard at work awarding new Scholars and developing new content for student support efforts.

Highlights of these activities are as follows:

A. WSOS COHORT 7 AND RENEWING SCHOLARS

From Spring-Summer 2018, the WSOS team awarded and disbursed funds to all new Cohort 7 Scholars as well as renewing WSOS Scholars. In August 2018, nearly $5.5M in funds were disbursed to approximately 4,400 Scholars for the fall term.

Also, in partnership with the Scholar Awards team, External Affairs developed a new Scholar orientation and scholarship acceptance process for our most recently awarded Scholars. This new initiative included:

- A mandatory online orientation curriculum through Teachable intended to set expectations around the Opportunity Scholarship including requirements and deadlines.
- A congratulations video featuring WSOS staff welcoming new Scholars to the program and introducing our donors, partners and support services. The video, uploaded on YouTube, remains our most popular video with over 1,300 views.

We believe that this comprehensive and thoughtful onboarding will work to strengthen our relationship and further our goals and brand with our Scholars. In fact, we have already witnessed the impact of this targeted onboarding, including a higher "open" rate for WSOS emails and higher rates of responsiveness from Scholars via phone and text.

B. LAUNCH OF SCHOLAR LEAD PROGRAM

This fall, WSOS implemented our exciting, long-awaited near peer mentorship program. Since Spring, the WSOS Scholar Success team has been working to develop curriculum, training and deliverables for the program.

The Scholar Success team is providing an opportunity for 149 third, fourth and fifth year current Scholars ("Scholar Leads") to mentor 1,667 new, incoming Scholars ("mentees") for the 2018-19 academic year. Each Lead has a caseload of 13-18 Scholars, primarily based on university/college attended and discipline.

By September 13, all Scholar Leads will have been trained. Assignments for all Scholar Leads include:
- Contacting all mentees on their caseload with a "welcome call"
- Reminding and assisting mentees with WSOS questions and activities as well as assistance with the Scholar Portal, campus resources and required activities for new Scholars. These

requirements include submission of an Academic Plan by December 1 and a resume by April 30 (depending upon class standing in WSOS).

Upon completion of each activity (contacting and reaching out to Scholar mentees and taking questions via email or phone/text), Leads are required to complete an Engagement Form for WSOS to gather information.

Each Scholar Lead, upon completion of training, will receive a Playbook of resources and activities, their list of mentees, and an Advisor (WSOS Scholar Success staff member) who will assist them and supervise their work. Scholar Leads will be provided a stipend of $1,800 for the year (given in $600 increments in September, December and May).

We are very much looking forward to measuring the impact and success of the Scholar Lead model.

C. SCHOLAR PLACEMENT AND INDUSTRY MENTORSHIP PROGRAM

The newly refreshed Skills that Shine program is ready for career-launching action!

This summer, WSOS team members have been busily retooling the Skills that Shine curriculum, recruiting new mentors, and creating an online matching platform which will seamlessly connect our third year Scholars to the volunteer mentors from across the state. To date, 133 volunteer industry mentors have signed up for the 2018-2019 Skills that Shine cycle!

We are also grateful for the focused support of multiple Seattle organizations who have hosted Scholars this summer! For example, through the City of Seattle Office of Economic Development Youth Program, eight Scholars were placed at companies like ChickTech, Keiretsu Capital and the Somali Health Board. Many of the 26 Scholars who signed up to participate in our pilot pre-med shadow program with Kaiser Permanente of Washington are just concluding their 40 hour junkets this month, and we are looking forward to reviewing their reflections on the program as we prepare for the new year. Also this summer, three Scholars interned with the Infectious Disease Research Institute - joining the two 2017 alumni who interned last year!

DEVELOPMENT UPDATE

A. 2018 OPPORTUNITYTALKS BREAKFAST

The fourth annual OpportunityTalks is just around the corner – November 1, 2018 at 7:00-9:00am at the Seattle Sheraton!

Please take a moment to register yourself for Thursday, November 1 and start filling your table! Each WSOS Board member plays a critical role as a prominent ambassador of the Opportunity Scholarship program. Thank you for your support as you invite your network connections to join you in 8 short weeks!

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The keynote address will be given by Dr. Sara Goldrick-Rab and the Scholar speaker will be Yarelly Gomez who graduated this spring with a job offer (and acceptance) from Microsoft. Our fundraising goal is to once again raise $1 million dollars through corporate sponsorships, foundation grants, individual giving and the state match.

This year we have launched the OpportunityTalks Challenge Fund to continue to offer the 4:1 match provided by the Rubens Family Foundation for the last three years. This year we are soliciting support for the Challenge Fund from all Board members as well as other supporters. To date, we are half way to our goal of raising $150,000 to match day-of giving at the $250 level and above. Thank you to all who are supporting this initiative.

WSOS will present a new video this year and we are hoping to also make an announcement about the new Pathways Scholarship.

B. 2019 OPPORTUNITYTALKS BREAKFAST

The date, location and Scholar speaker have been confirmed for the 2019 event. Save the date for Wednesday, November 6 next year at the Sheraton Seattle. Our student speaker will be Mariam Mayanja who will be a UW Seattle junior next fall.

We are awaiting confirmation of availability from Adam Grant, author of <u>Originals</u> and two other books, to appear as our keynote speaker.

C. NAMED SCHOLARSHIPS

With a grant from the Rubens Family Foundation, the first named scholarship was created in 2015 with student recipients identified as WSOS Rubens Scholars. Since then, WSOS has received generous support from companies and organizations including Battelle, Hanson Consulting Group, RealNetworks Foundation and the Castner family. This academic year we will add Kaiser Permanente to the list of named scholarship sponsors. A grant of $112,500, coupled with the state match, will provide 10 full Opportunity Scholarships to Kaiser Permanente Scholars, each receiving up to $22,500 over five years. Engaging the interest of other companies and foundations through a named scholarship is a development strategy that will continue to be a priority as WSOS expands to include two-year degrees.

D. GRANT UPDATES

WSOS was invited to apply for a Bank of America Neighborhood Builders grant, to be announced this fall. If selected, WSOS will receive $200,000 in flexible funding, leadership development for our executive director and an emerging leader, and the opportunity to connect to a network of peer organizations.

MEDIA & SOCIAL MEDIA

Our recent legislative expansion to fund high-demand community and technical degree and certificate programs earned strong media coverage between April and August. We also earned media coverage on our most recently awarded cohort of Scholars as well.

WASHINGTON STATE
OPPORTUNITY
SCHOLARSHIP

Coverage summary:
- State scholarship now including community colleges | The Bellevue College Watch Dog, April 9, 2018
- Scholarships for technical schools is sound policy | Walla Walla Union-Bulletin, May 4, 2018
- State STEM scholarship expanding to encompass new skills | The Spokesman-Review, May 4, 2018
- West sound Scholars in line for state STEM scholarships | Kitsap Daily News, May 16, 2018
- Microsoft set the standard for corporate giving in Washington, and other tech companies are following | Puget Sound Business Journal, May 22, 2018
- Through all hardships, she turns toward healing others | Everett Herald, June 10, 2018

Social media:
Social media engagement was strong in the period directly after we announced our most recently awarded cohort of Scholars. We look forward to prioritizing social media as we get closer to our 2018 OpportunityTalks breakfast.

Twitter
- 1,717 page likes as of April 1, 2018
- 1,746 followers as of July 31, 2018 (+1.3%)
- Total impressions from April 1 – July
- 31, 2018: 57,200

Top Tweet earned 2,104 impressions

WSOS is thrilled to announce the selection of Washington's newest cohort of #STEM and health care leaders! Congratulations Scholars! We can't wait to support your college education and help you launch your career. youtu.be/PuHilPxMavw

↻ 4 ♥ 11

[View Tweet activity]   View all Tweet activity

PATHWAYS SCHOLARSHIP

Throughout the summer, WSOS hosted visioning sessions to develop and design the new Pathways Scholarship. Per the new legislation passed in the 2018 supplemental session, the WSOS Board will have the opportunity to provide scholarship funds to low- and middle-income students pursuing high-demand professional and technical degrees and certifications at Washington's community and technical colleges. Over 70 industry, education, philanthropy and community leaders attended visioning sessions and provided input. At the September 2018 Board meeting, WSOS staff will present the initial design proposal for the new Pathways Scholarship.

WELCOME NEW STAFF!

Finally, since our April 2018 Board meeting, we are pleased to welcome our final round of hires to implement the WSOS growth plan (as adopted by the WSOS Board in December 2017). These new staff members include the following individuals:

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Lianda Abraham, Events Specialist - As the Events Specialist, Lianda works with the development team to plan and produce our internal and external facing events. Lianda has hit the ground running and will be integral to the success of the OpportunityTalks Breakfast this fall. Lianda just joined us most recently from Dressed for Success in Bellevue.

Rachel Darany, Communications Officer – As the Communications Officer, Rachel supports all of the WSOS external communications efforts, including our social media presence, web site content, and Scholar, advocacy and fund development communications. Rachel recently completed her Master of Communication from the University of Washington and joins us directly from Washington STEM where she was a communications intern.

Patrick Kang, Scholar Success Advisor – As the Scholar Success Advisor, Patrick will provide support and case management to Scholar Leads (WSOS near peer mentors) and their mentees. Patrick is a native of California and a recent graduate of Dartmouth College where he advised students as a resident advisor.

Hannah Olson, Talent Resource Manager – As the Talent Resource Manager, Hannah works to develop and steward relationships with our mighty WSOS volunteers and partner companies. Hannah has already invigorated numerous partner relationships and has recruited 57 mentors for the 2018 Skills that Shine mentorship cycle! In addition to working on the development team at the United Way of King County, Hannah has worked in communications and PR.

Stan Pichinevskiy, Scholar Placement Manager – As the Scholar Placement Manager, Stan is responsible for managing Skills that Shine, the WSOS signature industry mentorship program, as well as providing Scholars with career counseling and placement assistance. Prior to joining WSOS, Stan was an advisor in the career center at Eastern Washington University.

Welcome new WSOS team members!

Tab E

Finance and Program Administrator Update

WASHINGTON STATE OPPORTUNITY SCHOLARSHIP

Agenda

WSOS Investment & Finance Committee Meeting
August 30, 2018, 2:00pm - 3:00 pm

Call-in: 800-582-3014 – PIN: 13389906

1.	Call to Order & Introductions Welcome Julie Sandler	Mack H.	(5 min)
2.	Approval of April 5, 2018 Minutes	Mack H.	
3.	Program Administrator Report	Washington STEM	(10 min)
4.	WSIB Report	Chris P.	(15 min)
5.	Asset Allocation Study	Patrick M.	(20 min)
7.	Other Business	Mack H.	(5 min)
8.	Executive Session	Mack H.	(5 min)

2018 MEETING:

Wednesday, December 5th at 1-2 pm

Section 2

Approval of April 5, 2018 Minutes

WASHINGTON STATE OPPORTUNITY SCHOLARSHIP

FINANCE & INVESTMENT COMMITTEE MEETING MINUTES | THURSDAY, APRIL 5, 2018

Members present: Mack Hogans (Committee Chair), Beau Damon and Gary Rubens; via teleconference: Manish Jain, Carolyn Kelly, DeShay McCluskey, Bob Moser and Elizabeth Tinkham

Others present: Naria Santa Lucia (WSOS Executive Director), Cindy Gustafson (Washington STEM), Chris Phillips (WSIB), Patrick Martinell (WSIB), Allyson Tucker (WSIB), Matt Poth (Washington STEM) and Karyl Gregory (WSOS staff)

Mack Hogans called the meeting of the Washington State Opportunity Scholarship (WSOS) Finance and Investment (F&I) Committee to order at 1:00 pm and conducted a roll call and self-introduction of all participants.

Hogans thanked George Zinn (in absentia) for his service as an original and valuable member of the Committee and wished him well as he stepped off the Committee. Hogans then welcomed Beau Damon to the Committee and recommended Damon replace Zinn on the Committee. Damon was brought to the Committee's attention by George Zinn, and he is currently Chief Investment Officer at Microsoft. He is also well known to the Committee as he has been a valuable resource to the Committee, WSOS management and the CFO for several years. Elizabeth Tinkham made a motion to recommend Beau Damon to the WSOS Board of Directors as a full member of the F&I Committee. Carolyn Kelly seconded the motion and it carried unanimously.

Approval of Minutes from December 15, 2017 Finance and Investment Committee
Gary Rubens made a motion to approve the minutes of the December 15, 2017 meeting. DeShay McCluskey seconded the motion and it carried unanimously.

2017 Audit Report and Financial Results
Cindy Gustafson reported that the audit report on WSOS finances is complete and the auditors issued a clean opinion and were satisfied with management's internal controls. Committee members expressed confidence in the audit process and results.

Gustafson recognized Matt Poth's contributions to the Finance team during his first year with Washington STEM. Naria Santa Lucia commended Gustafson and Poth on the heavy lift and clarity of the audit report.

Program Administrator Report
Gustafson presented an executive summary and reported that the State is still reviewing documentation for $759,000 in gifts. This process is going well, and Gustafson is hopeful that the process will be completed in the next few months.

Gustafson also reported that revenues for the eleven months ending December 31, 2017 were $21.8 million, which includes $11.6 million in state match, $8 million in investment returns and $2.2 million in private contributions. Gustafson further reported that the 2018 first quarter financial report will be submitted in May and Form 990 documents will be filed in June.

Gustafson reported a $5,000 savings in Cyber Security Liability utilizing all the same limits required by the State. Gustafson also reported that restrictions on net assets are established by the donor.

Hogans thanked Gustafson for her valued service in light of her upcoming retirement and Gustafson expressed her appreciation.

WSIB Presentation and Asset Allocation Study
Chris Phillips noted that the performance report of funds invested through December 31, 2017 is inside the packet each committee member received.

Patrick Martinell reported that an asset allocation study should be done on WSOS funds every four years and it was last done in 2014. Martinell provided an asset allocation overview and the Committee discussed investment objectives, risk tolerance with time horizon, and liquidity.

Allyson Tucker reported that cash is not included in this analysis, noting that a former discussion with the Committee where it was decided not to add cash to the Endowment Account.

Carolyn Kelly reported that the Committee has previously chosen to be conservative with risk tolerance.

Martinell suggested additional questions could continue off line. Hogans indicated he might call a special meeting of the Committee to provide additional guidance.

Gary Rubens raised the topic of social responsibility screening on the portfolio. Hogans indicated that this topic is still on the table and needs to be discussed further. Chris Phillips reported he would send WSIB's philosophy on social responsibility to the Committee.

Martinell reported he will return to the next Committee meeting and any changes approved by the Committee would take effect in the 4th quarter.

RFP Working Group
Santa Lucia convened a meeting of the RFP Working Group, chaired by Bob Moser, to assess the need to solicit and evaluate proposals from qualified investment fund managers for WSOS funds. Santa Lucia reported that the Working Group agreed that WSIB performed duties as requested and the Working Group for a number of reasons will continue with WSIB as the WSOS fund manager.

The Working Group will ask WSIB to examine options for fixed income, timing with drawdowns, and programmatic decisions about the Endowment account. The Working Group also expressed interest in any new WSOS Board investment goals.

Legislative Update
Santa Lucia reported that work is underway to expand WSOS to technical/professional programs using a statutory change. Santa Lucia further reported that she is looking forward to the visioning process for this new expansion with the goal of implementing it in 2019.

Hogans commended WSOS management for the superb job they are doing.

The Committee then went into Executive Session at 2 pm, had a brief discussion, and adjourned.

Respectfully submitted,
Karyl Gregory

Section 3

Program Administrator Report

Finance & Program Administrator Update
June 30, 2018

WSOS Balance Sheet

Comparative Balance Sheets
June 30, 2018

	Comparison to Last Reported Period				Comparison to Same Period LFY		
	4/30/18	% Change	**6/30/18**	**Notes**	**6/30/17**	% Change	**6/30/18**
Assets							
Cash	16,906,938	-82%	2,983,126	1	36,485,421	-92%	2,983,126
Investments	98,590,398	14%	112,231,254	2	77,509,090	45%	112,231,254
Accounts Receivable	30,097	28%	38,492		1,573	2347%	38,492
Pledges and Grants Receivable, net	12,438,262	0%	12,463,262	3	14,279,779	-13%	12,463,262
State match receivable, net	4,652,610	2%	4,745,530	4	-		4,745,530
Prepaid Expenses	139,618	-14%	120,621		140,714	-14%	120,621
Property and equipment, net	41,725	-4%	40,122		22,454	79%	40,122
Total Assets	**132,799,648**	0%	**132,622,408**		**128,439,031**		**132,622,408**
Liabilities and Net Assets							
Accounts Payable	111,385	-36%	71,050		75,396	-6%	71,050
Payroll Related Liabilities	68,891	-16%	57,576		1,332	4223%	57,576
Scholarship Commitments, net	23,479,533	0%	23,465,518	5	19,372,117	21%	23,465,518
Total Liabilities	**23,659,809**	0%	**23,594,144**		**19,448,845**	21%	**23,594,144**
Net Assets							
Temporarily Restricted Net Assets	84,139,839	0%	84,028,265		83,990,186	0%	84,028,265
Permanently Restricted Net Assets	25,000,000	0%	25,000,000		25,000,000	0%	25,000,000
Total Net Assets	**109,139,839**	0%	**109,028,265**		**108,990,186**	0%	**109,028,265**
Total Liabilities and Net Assets	**132,799,648**	0%	**132,622,408**		**128,439,031**	3%	**132,622,408**

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WSOS Balance Sheet

Notes:

1. Decrease in cash largely due to timing, with $13MM invested with KeyBank in first week of May. An analysis of public-private funds from inception was done in April, compared to investment accounts, and true-up finalized as of 5/3/18. All investments made within policy guidelines.

2. Investments balance as of 6/30/18 includes WSIB Scholarship $64.2M, WSIB Endowment $29.2M and KeyBank Capital $18.8M. $13M invested in KeyBank on 5/3/18.

3. WSOS received a new pledge of $25K from Sinegal Family Foundation in June.

4. Increase in state match receivable of $93K for Q2 2018 based on private receipts. State match is accrued quarterly and recorded in final month of quarter. WSAC is still reviewing resubmitted documentation of $2.8M for 10.1.12-1.31.17 and $2.1M for 10.1.17-3.31.18.

5. Scholarship disbursements of $14K were made in May and June, yielding a resulting balance of $23.5M as of 6/30/18. The Fall disbursement of ~$5.5M will be made in August. Scholarship liability will be adjusted in Q3 with implementation of Cohort 7 data.

WASHINGTON STATE
OPPORTUNITY
SCHOLARSHIP

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WSOS Income Statement

Actual vs. Budget

Six Months Ending June 30, 2018

	Six Months Ended June 30, 2018				December 31, 2018
	Actual	**Budget**	**Variance Fav (Unfav)**	**Notes**	**Annual Budget**
Revenue					
Private	189,154	600,000	(410,846)	1	1,200,000
Public	1,798,845	-	1,798,845	2	-
Investment Income	(86,224)	1,380,000	(1,466,224)	3	2,760,000
Total Revenue	**1,901,774**	**1,980,000**	**(78,226)**		**3,960,000**
Program Expense					
Salaries and Benefits	725,548	951,187	225,638	4	1,922,266
Professional Fees - Program Admin fees	205,219	196,788	(8,431)		418,788
Professional Fees - Contractors & Lobbying	162,565	96,750	(65,815)	5	190,700
Conferences, Conventions & Meetings	42,424	64,499	22,075		286,858
Operating Expenses	84,117	144,970	60,853	6	263,029
	1,219,874	**1,454,194**	**234,320**		**3,081,641**
Income (Loss) before Scholarship Exp	**681,901**	**525,806**	**156,094**		**878,359**
Scholarship Expense	**(399,538)**	**24,197,050**	**24,596,588**	7	**24,071,050**
Net Income (Loss)	**1,081,438**	**(23,671,244)**	**24,752,682**		**(23,192,691)**

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WSOS Income Statement

Notes:

1. Revenue Private: Jan-June 2018 contribution revenue includes Hanson-$50K, Castners-$50K, Seattle Foundation-$25K, Battelle grant-$25K and Sinegal Family Foundation-$25K.
2. Revenue Public: Includes accrual of $1.7M of state match revenues based on private receipts received in Q1 2018 and $93K in Q2. State match revenues were not budgeted.
3. Investment income: Actual YTD includes unrealized/realized loss of $331K, interest & dividend income of $280K and investment expense of $36K. February, March & June incurred losses.
4. Salaries and benefits: ~$60K of variance relates to year-end payroll accruals (will catch-up in Dec '18). Rest of variance is related to true hiring savings.
5. Professional Fees – Actual expense over budget in part to financial-based consultant time ($21K), lobbying ($18K) and I.T. ($17K) related needs.
6. Operating Expenses – Actual expense includes non-recurring and unbudgeted <$54K> in net credit to bad debt expense. $60K pledge payment that was 100% reserved in 2017 was received. $6K was written off as bad debt due to uncollectable accounts from Opportunity Talks event.
7. Scholarship expense for CY 2018 will be recorded in August after incorporating Cohort 7 and the latest assumptions (Budgeted in June). $400K in scholarship refunds received so far.

WASHINGTON STATE
OPPORTUNITY
SCHOLARSHIP

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WSOS Cash Flow

Cash Flow Summary
Inception-To-Date
June 30, 2018

	Scholarship	Endowment	Notes	Total
	Inception - June 30, 2018			
CASH FLOW				
Cash Inflow:				
Boeing	12,600,000	12,500,000		25,100,000
Microsoft	32,500,000	-	1	32,500,000
Other Private	27,122,242	-	2	27,122,242
State	67,274,913	12,500,000	3	79,774,913
Investment Income*	8,107,299	4,168,690	4	12,275,989
Total Cash Inflows	147,604,454	29,168,690		176,773,144
Cash Outflow:				
Scholarships	(49,228,979)	-	5	(49,228,979)
Program Expenses	(12,323,972)	(5,812)		(12,329,784)
Total Cash Outflows	**(61,552,951)**	**(5,812)**		**(61,558,763)**
Net Cash Flow Inception-To-Date	**86,051,502**	**29,162,878**		**115,214,380**
Composition of Net Cash Flow				
KeyBank Checking Account	2,983,126	-	6	2,983,126
Investment Accounts at WSIB and KeyBank	83,068,376	29,162,878		112,231,254
Total	**86,051,502**	**29,162,878**		**115,214,380**

WSOS Cash Flow

Notes:

1. Cash Inflow: Microsoft– Received $1.375M pledge payment in February 2018.
2. Cash Inflow: Other Private – Receipts include Aven Foundation pledge payment-$200K and Kim Harris pledge payment of $60K. Others include Hanson/Castners at $50K each. $4.2K cash donations received May/June.
3. State – Have not collected any state match receivables from WSAC in first six months of 2018. We have reached out multiple times and appears to be a staffing issue at WSAC. The current receivable balance is just over $5M (excluding 10% allowance on resubmission amount).
4. Investment Income – Includes net unrealized gains from inception of $8.53M (Scholarship: $5.88M and Endowment: $2.65M).
5. Scholarship disbursements were $3.3M during the first four months of 2018 and scholarship refunds totaled $399K.
6. WSOS Cash in KeyBank – Cash projections continuously monitored to fund operations while maximizing investment balance in accordance with ST investment policy. $13M invested in KeyBank in early May. Requested expectations from WSAC on timing of State Match payments.

WASHINGTON STATE
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SCHOLARSHIP

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Section 4

WSIB Report

Washington State Investment Board

WSOS Investment and Finance Committee
Performance Review
August 30, 2018

Chris Phillips
Director of Institutional Relations

WSOS Scholarship/Endowment Funds – Growth of Assets
June 30, 2018

Scholarship Account

◻ **Total assets: $64.2 million**

◻ **100% private funds**

Endowment Account

◻ **Total assets: $29.2 million**

◻ **56% private funds and 44% state match funds**

Growth of Scholarship Account Assets
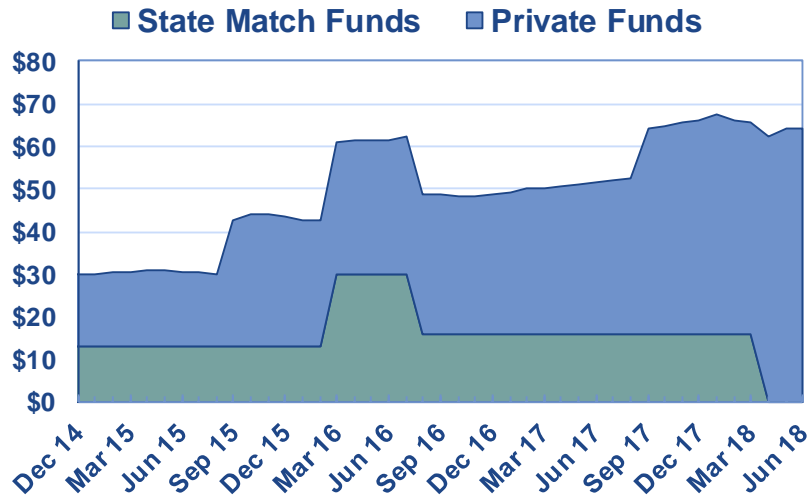
Growth of Endowment Account Assets
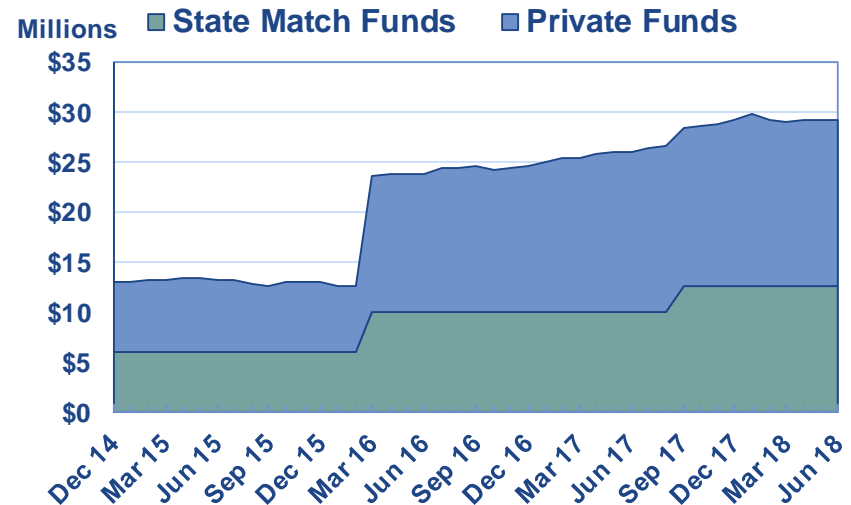
Market Values and Asset Allocation for Private Funds
June 30, 2018

Scholarship Account – Private Funds

Market Value $64,152,646

Fixed Income 40.23%

$25.8M

Equity 59.77%

$38.3M

Endowment Account – Private Funds

Market Value $16,457,761

Equity 82.76%

$13.6M

Fixed Income 17.24%

$2.8M
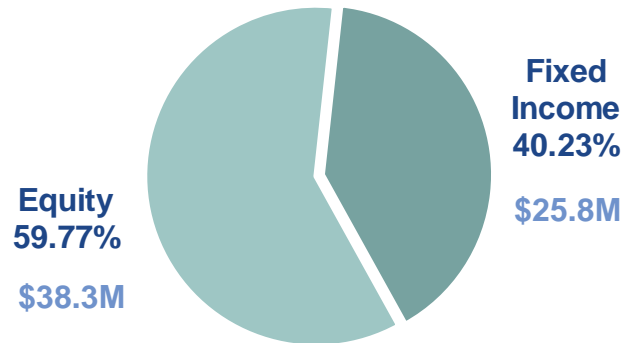
Equity
- Passive equity strategy managed by BlackRock
- Expected to closely track the MSCI All Country World Investable Market Index

Fixed Income
- Actively managed by WSIB staff
- Expected to meet or exceed the Barclays U.S. Intermediate Credit Index

WSIB
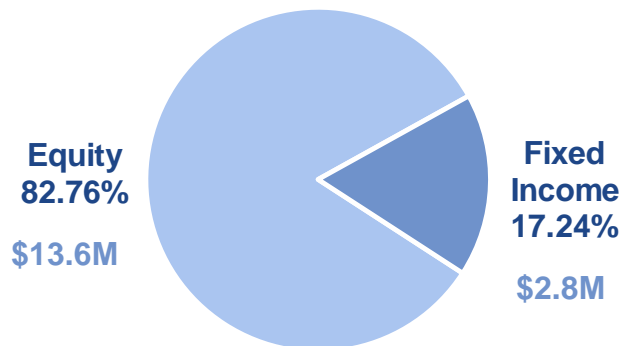
Market Values and Asset Allocation for State Match Funds
June 30, 2018

Asset Allocation for All State Match Funds

Scholarship Market Value $83,131

Endowment Market Value $12,705,116

Cash 100%
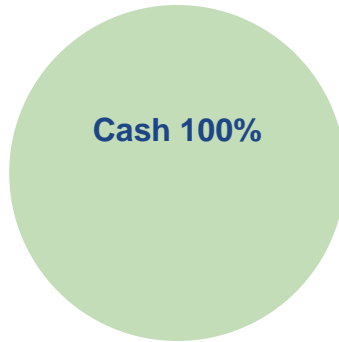
State Match Funds

- ◘ **Both target and current allocations are 100% cash**
- ◘ **Cash is invested in a money market fund managed by BlackRock**

WSIB

Fund Performance Updates
June 30, 2018

Private and State Match Scholarship

Legend: ■ Private ■ Private Benchmark ■ State Match ■ State Match Benchmark

	2nd Qtr. 2018	1 Year	Since Inception*
Private	0.51%	6.72%	5.64%
Private Benchmark	0.45%	6.67%	5.70%
State Match	0.36%	1.15%	0.49%
State Match Benchmark	0.45%	1.37%	0.58%
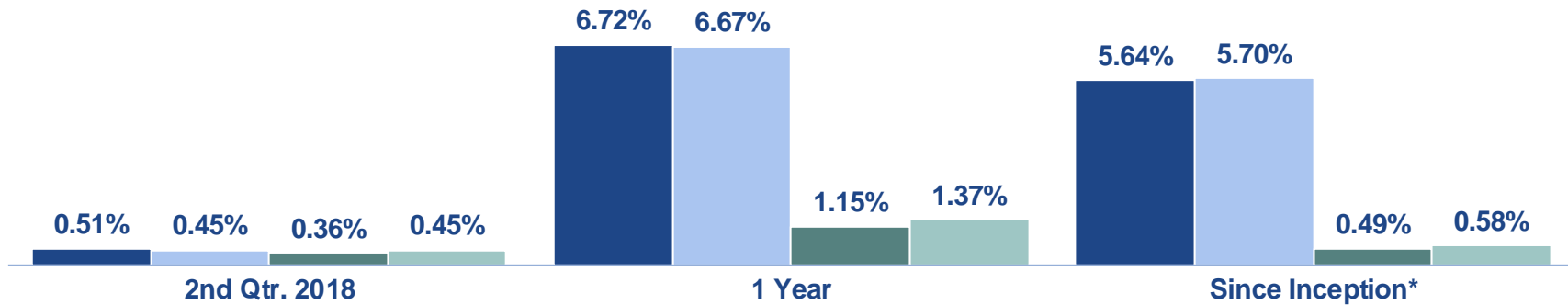
Private and State Match Endowment
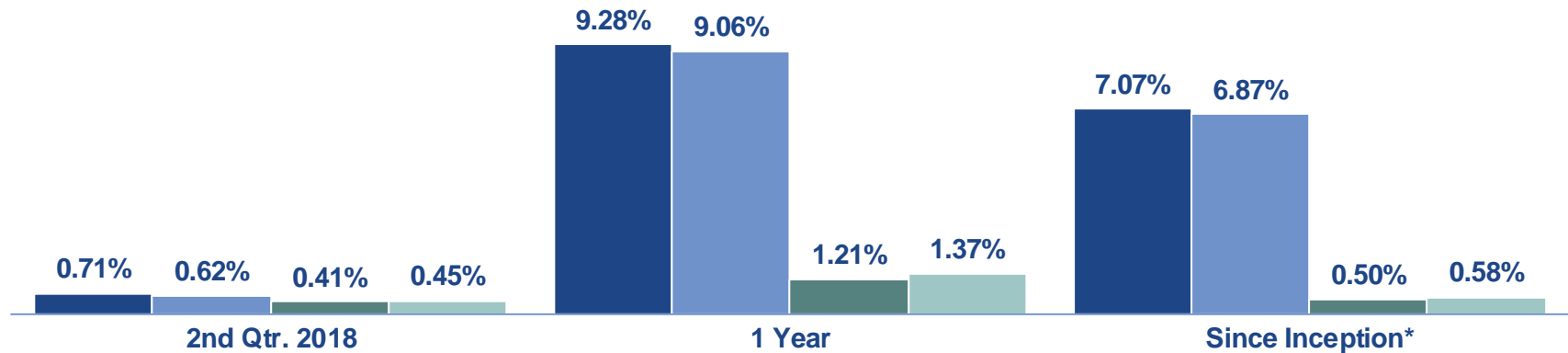
Legend: ■ Private ■ Private Benchmark ■ State Match ■ State Match Benchmark

	2nd Qtr. 2018	1 Year	Since Inception*
Private	0.71%	9.28%	7.07%
Private Benchmark	0.62%	9.06%	6.87%
State Match	0.41%	1.21%	0.50%
State Match Benchmark	0.45%	1.37%	0.58%

Scholarship Benchmarks: Private 60% MSCI ACWI IMI w/U.S. Gross & 40% Bloomberg Barclays Intermediate Credit, State Match 90 Day T-bill
Endowment Benchmarks: Private 80% MSCI ACWI IMI w/U.S. Gross & 20% Bloomberg Barclays Intermediate Credit, State Match 90 Day T-bill
* Since Inception: Private 10/1/14, State Match 11/25/14

WSIB

Fund Performance Updates
June 30, 2018

Equity Returns
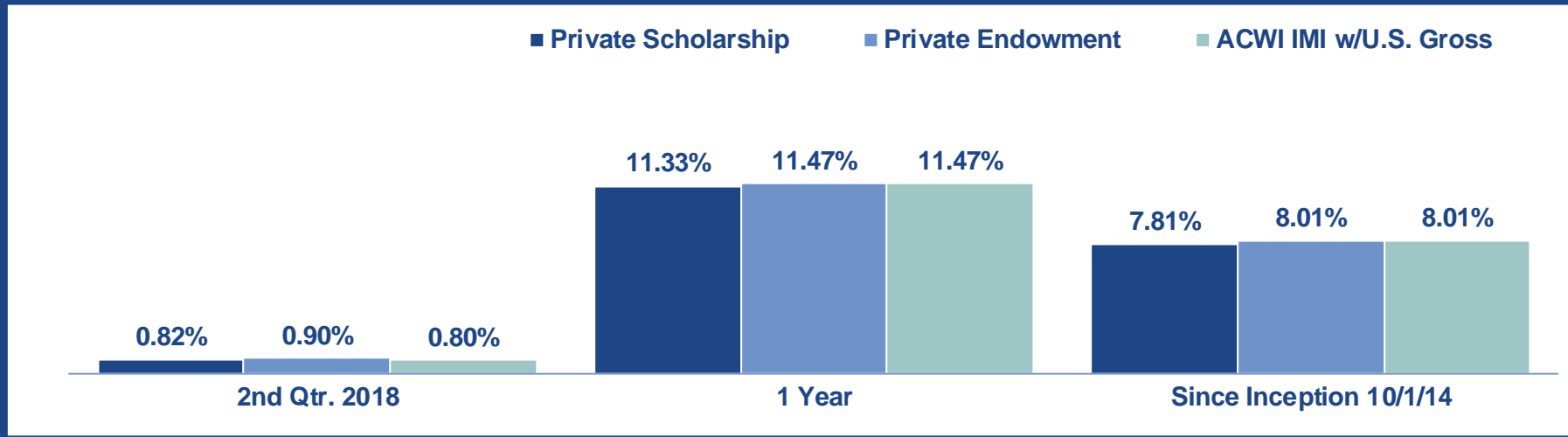
Legend: ■ Private Scholarship ■ Private Endowment ■ ACWI IMI w/U.S. Gross

	2nd Qtr. 2018	1 Year	Since Inception 10/1/14
Private Scholarship	0.82%	11.33%	7.81%
Private Endowment	0.90%	11.47%	8.01%
ACWI IMI w/U.S. Gross	0.80%	11.47%	8.01%

Fixed Income Returns

Legend: ■ Private Scholarship ■ Private Endowment ■ Bloomberg Barclays Intermediate Credit

	2nd Qtr. 2018	1 Year	Since Inception 10/1/14
Private Scholarship	-0.21%	-0.23%	2.28%
Private Endowment	-0.21%	-0.24%	2.28%
Bloomberg Barclays Intermediate Credit	-0.08%	-0.36%	2.01%

Scholarship Benchmarks: Private 60% MSCI ACWI IMI w/U.S. Gross & 40% Bloomberg Barclays Intermediate Credit
Endowment Benchmarks: Private 80% MSCI ACWI IMI w/U.S. Gross & 20% Bloomberg Barclays Intermediate Credit
* Since Inception: Private 10/1/14, State Match 11/25/14

WSIB

Capital Markets at a Glance
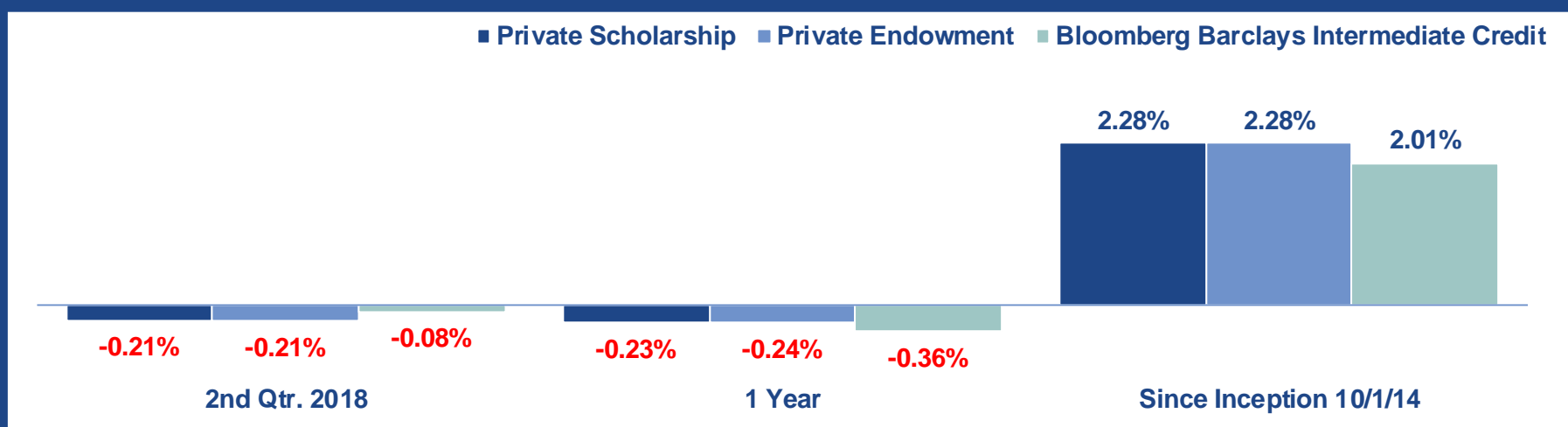*June 30, 2018*

- Robust fiscal year ends with a more than a hint of renewed volatility.
- Global index (MSCI World Developed IMI) returned 11.59% for the fiscal year, 1.94% for 2Q 2018, then -0.09% for June.
- Market's highs contrasted with sell-offs due to the prospects of higher interest rates, trade wars, geopolitical uncertainties.
- Fed raised interest rates June 13 – three hikes in a 12-month period. Target rates are up 75 basis points since June 2017.
- Unemployment dropped below 4%; May's 3.8% rate is lowest since 1969.
- 10-year Treasury rate ended June at 2.86%, 0.55% higher than a year ago; it hovered near 3% as of early August.
- Fixed income returns were mostly negative for the fiscal year ending June, due to negative price impacts spurred by higher interest rates.
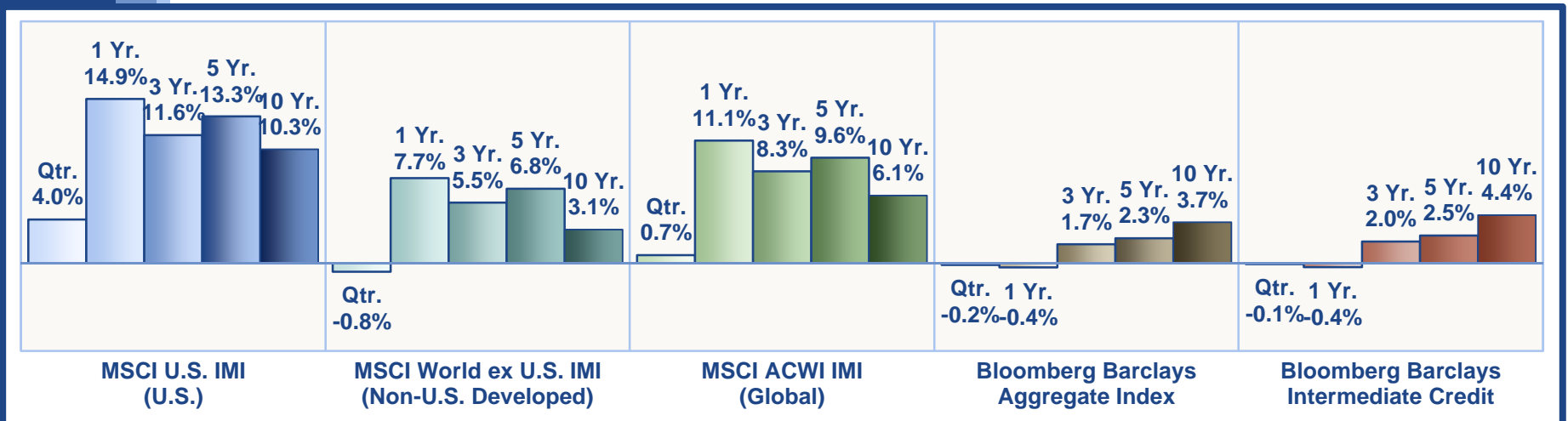
MSCI U.S. IMI (U.S.)
- Qtr. 4.0%
- 1 Yr. 14.9%
- 3 Yr. 11.6%
- 5 Yr. 13.3%
- 10 Yr. 10.3%

MSCI World ex U.S. IMI (Non-U.S. Developed)
- Qtr. -0.8%
- 1 Yr. 7.7%
- 3 Yr. 5.5%
- 5 Yr. 6.8%
- 10 Yr. 3.1%

MSCI ACWI IMI (Global)
- Qtr. 0.7%
- 1 Yr. 11.1%
- 3 Yr. 8.3%
- 5 Yr. 9.6%
- 10 Yr. 6.1%

Bloomberg Barclays Aggregate Index
- Qtr. -0.2%
- 1 Yr. -0.4%
- 3 Yr. 1.7%
- 5 Yr. 2.3%
- 10 Yr. 3.7%

Bloomberg Barclays Intermediate Credit
- Qtr. -0.1%
- 1 Yr. -0.4%
- 3 Yr. 2.0%
- 5 Yr. 2.5%
- 10 Yr. 4.4%

Contact Information

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Address:

2100 Evergreen Park Drive SW

P.O. Box 40916

Olympia, WA 98504-0916

Phone Number:

(360) 956-4600

Section 5

Asset Allocation Study

Washington State Investment Board

WSOS Investment and Finance Committee
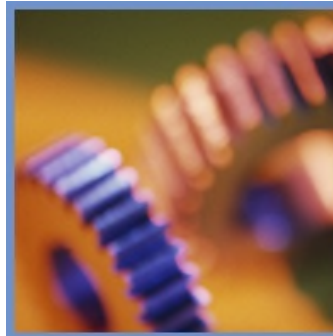
Patrick Martinell
Risk Management and Asset Allocation
August 30, 2018

Today's Objectives

- ◘ **Review quantitative and qualitative inputs**
- ◘ **Present recommended portfolios**
- ◘ **Review projected portfolio outcomes**
- ◘ **Approve recommendations**

Recap from Last Time…

◻ **Defined suitable asset classes for potential inclusion based on risk, return, liquidity, diversification, and implementation constraints**

  ◻ **Passive Global Public Equity**

  ◻ **Active Fixed Income – Intermediate Credit**

  ◻ **Cash**

◻ **Utilize modern portfolio theory to derive the efficient frontier of portfolios with the best risk-return tradeoff**

  ◻ **WSIB's Board-approved capital markets assumptions**

  ◻ **Specific risk, return, and liquidity considerations for the WSOS portfolios**

◻ **Model simulated returns over a long-term (15-year) period to understand range of outcomes**

WSIB Selected Capital Market Assumptions – Quantitative Inputs

	Arithmetic Return	Standard Deviation	Geometric Return
Fixed Income	3.9	5.5	3.8
Global Equity	8.5	18.0	7.0
U.S. Equity	7.8	17.5	6.4
Non-U.S. Equity	9.3	19.0	7.7
Cash	2.3	1.0	2.3
Inflation	2.2		2.2

Correlation	Fixed Income	Global Equity	U.S. Equity	Non-U.S. Equity	Cash
Fixed Income	1.00				
Global Equity	0.15	1.00			
U.S. Equity	0.20	0.90	1.00		
Non-U.S. Equity	0.10	0.90	0.85	1.00	
Cash	0.25	0.00	0.00	0.00	1.00

WSOS Considerations – Qualitative Inputs
Scholarship Account

- ◻ There is a cash flow projection that anticipates spending the account to zero by 2031
- ◻ The number of future scholarship awards can be adjusted, but the IFC expressed a desire to stay close to projections
- ◻ Inflows are expected to be limited beyond 2019
- ◻ State funds are spent first, and then private funds are utilized to make payouts
- ◻ WSOS assumes a 2.9% return from the private funds investment portfolio

Conclusion: High liquidity needs, low expected return, and a low tolerance for volatility. A conservative asset allocation is appropriate

WSIB

WSOS Considerations – Qualitative Inputs
Endowment Account

◻ There is no budgeted payout for the foreseeable future. The account is in accumulation mode

◻ The account may only pay out gains as scholarships; growing the principal is therefore the priority

Conclusion: Zero liquidity requirements, perpetual time horizon, and need to grow the account implies a higher risk/return target than the Scholarship Account

Recommended Changes

As of June 30, 2018

Scholarship Account

Large Shift From Equity to Fixed Income

Asset Class	Actual Allocation	Current Policy	Proposed Policy	Policy Range
Cash	0.0%	0%	5%	+/-5%
Fixed Income	40.2%	40%	70%	+/-5%
Equity	59.8%	60%	25%	+/-5%

Endowment Account

Asset Class	Actual Allocation	Current Policy	Proposed Policy	Policy Range
Fixed Income	17.2%	20%	20%	+/-5%
Equity	82.8%	80%	80%	+/-5%

No Change

Portfolio Statistics

	Scholarship		Endowment
	Current	**New**	**Current**
Cash	0.0%	5.0%	0.0%
Fixed Income	40.0%	70.0%	20.0%
Global Equity	60.0%	25.0%	80.0%
Median 15-year return	6.0%	4.8%	6.6%
Standard deviation	11.3%	6.4%	14.6%
Sharpe ratio	0.6	0.8	0.5
Probability of achieving 2026 budget	73.3%	73.9%	74.0%
Probability of 1-year negative return	29.3%	22.5%	32.2%
Probability of 5-year negative return	11.0%	4.4%	14.7%

Simulated Returns: Scholarship Account

One Year

- 21.6%
- 16.4%
- 9.3%
- 4.5%
- 0.3%
- -5.1%
- -8.6%

Fifteen Years

- 8.8%
- 7.5%
- 5.8%
- 4.8%
- 3.6%
- 2.2%
- 0.9%

One Year

Fifteen Years
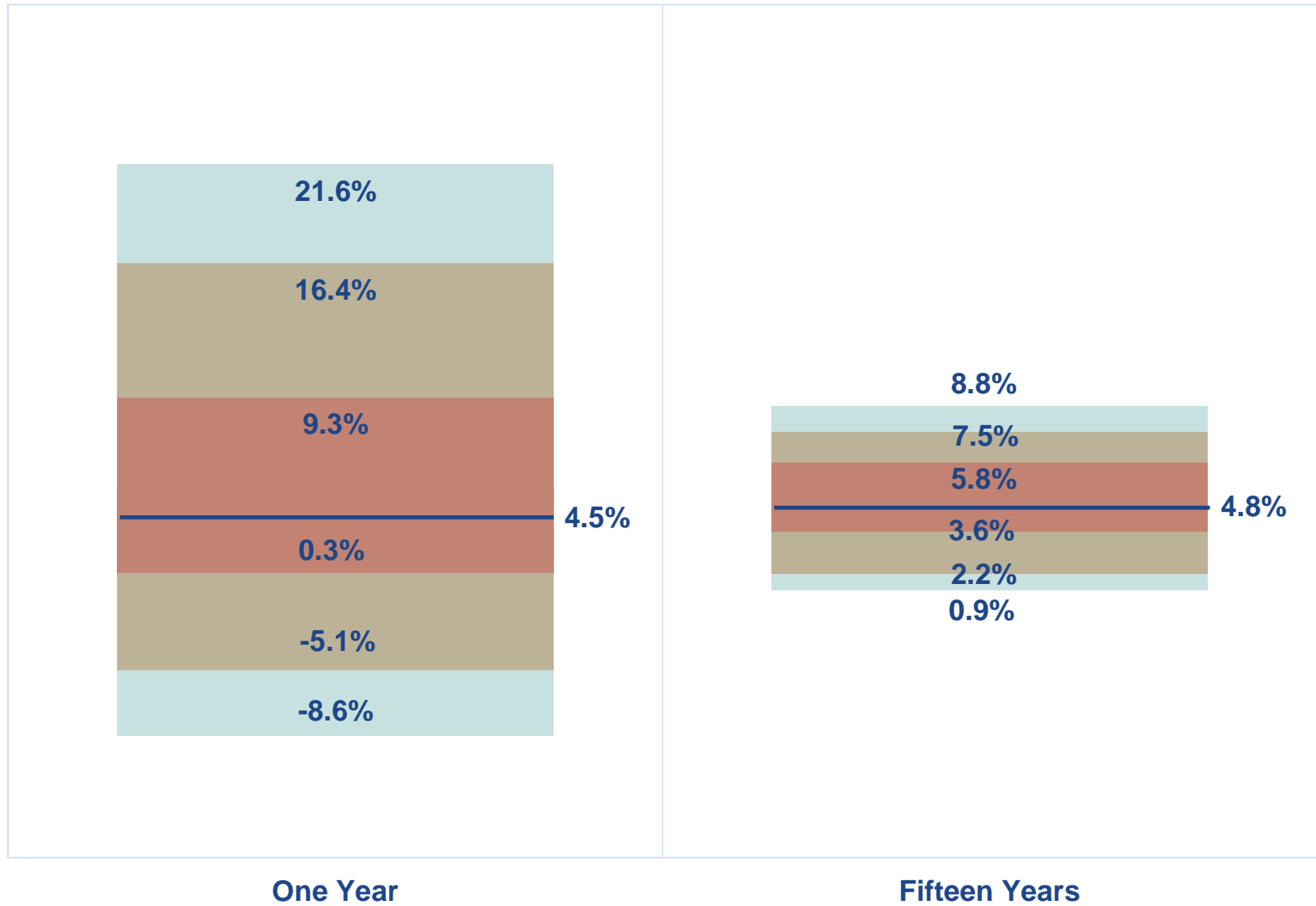
Simulated Returns: Endowment Account

One Year

- 45.2%
- 33.6%
- 16.6%
- 6.0%
- -2.4%
- -14.5%
- -22.3%

Fifteen Years

- 15.9%
- 12.7%
- 9.2%
- 6.6%
- 4.2%
- 0.6%
- -1.7%
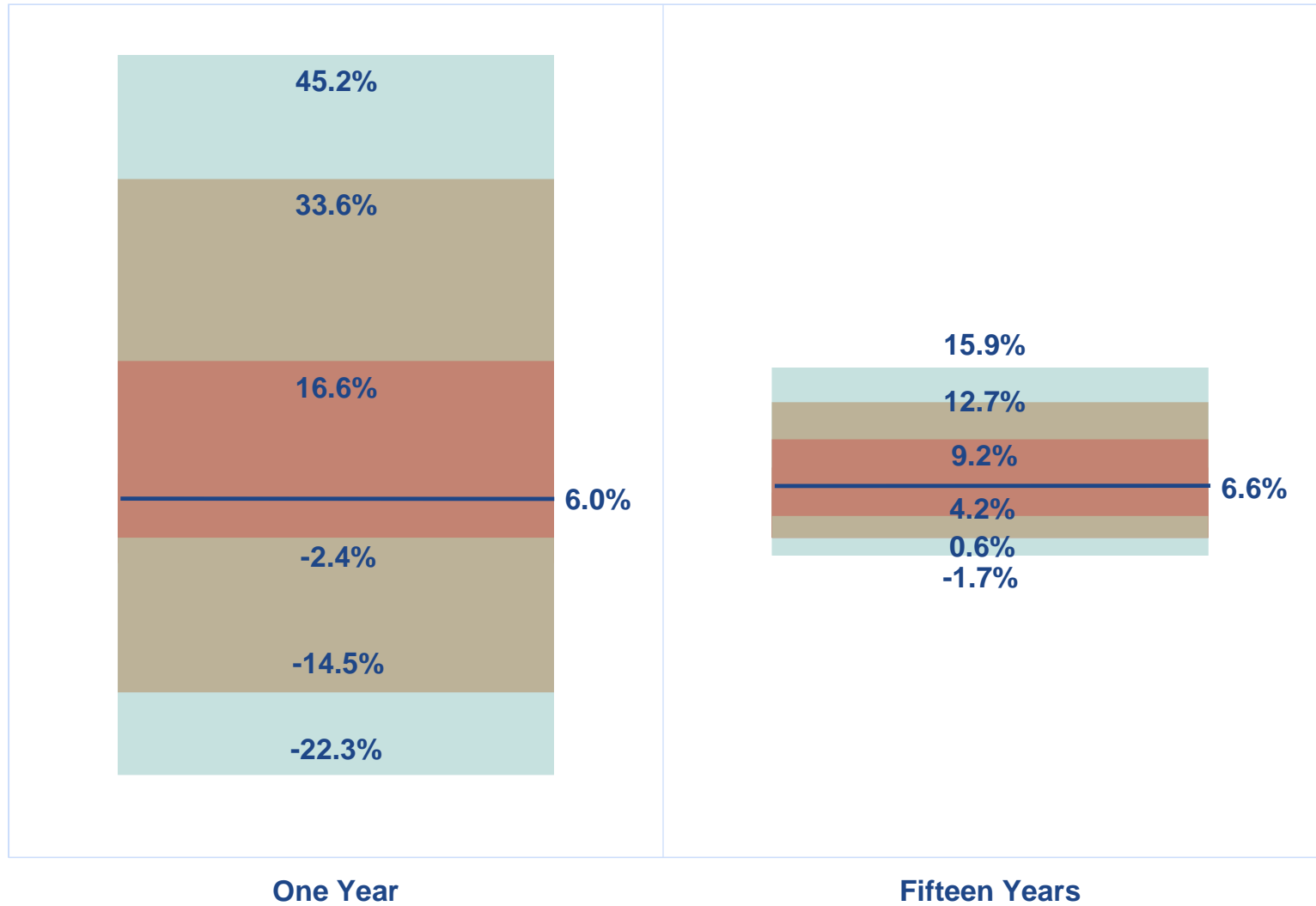
A Note on Equity Valuation

- ▫ **(U.S.) Equity markets are expensive. What long-term return can we expect from this starting point?**

- ▫ **The Shiller P/E Ratio is a valuation measure that uses average 10-year earnings adjusted for inflation**

- ▫ **The chart implies mid-single digit U.S. Equity returns if history is a reliable guide**

S&P 500: Shiller P/E Ratio and Subsequent 15-Year Returns

Today's value: 31.8x
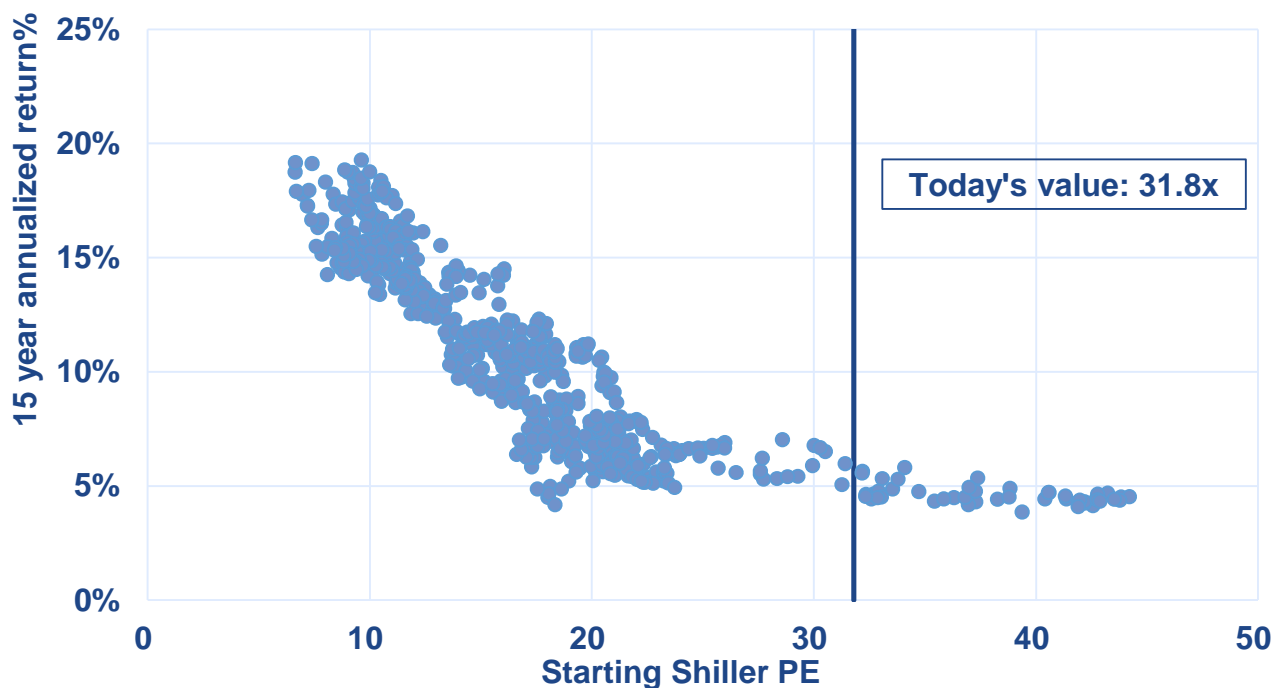
Source: Robert Shiller, Bloomberg

Summary Recommendation

◻ **The Scholarship Account has a limited remaining life, high liquidity needs, and minimal future inflows. The recommended portfolio . . .**

  ◻ **Substantially lowers market risk**

  ◻ **Improves the efficiency of the portfolio (as measured by Sharpe ratio)**

  ◻ **Maintains likelihood of achieving cash flow forecast**

◻ **The Endowment Account has an infinite life, no near term liquidity needs, and limited future inflows. A more aggressive allocation than the Scholarship Account is appropriate. The existing allocation . . .**

  ◻ **Has a high expected return and also high risk**

  ◻ **Should grow the principal of the account over a long time horizon**

Contact Information

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Tab F

Pathways Scholarship Discussion

Pathways Scholarship Design Update & Discussion

Pathways Scholarship Design Process

Background research on best practices

Four visioning sessions held

Input from industry, education, philanthropy, students, policy makers (70+ experts consulted)

Follow-up conversations
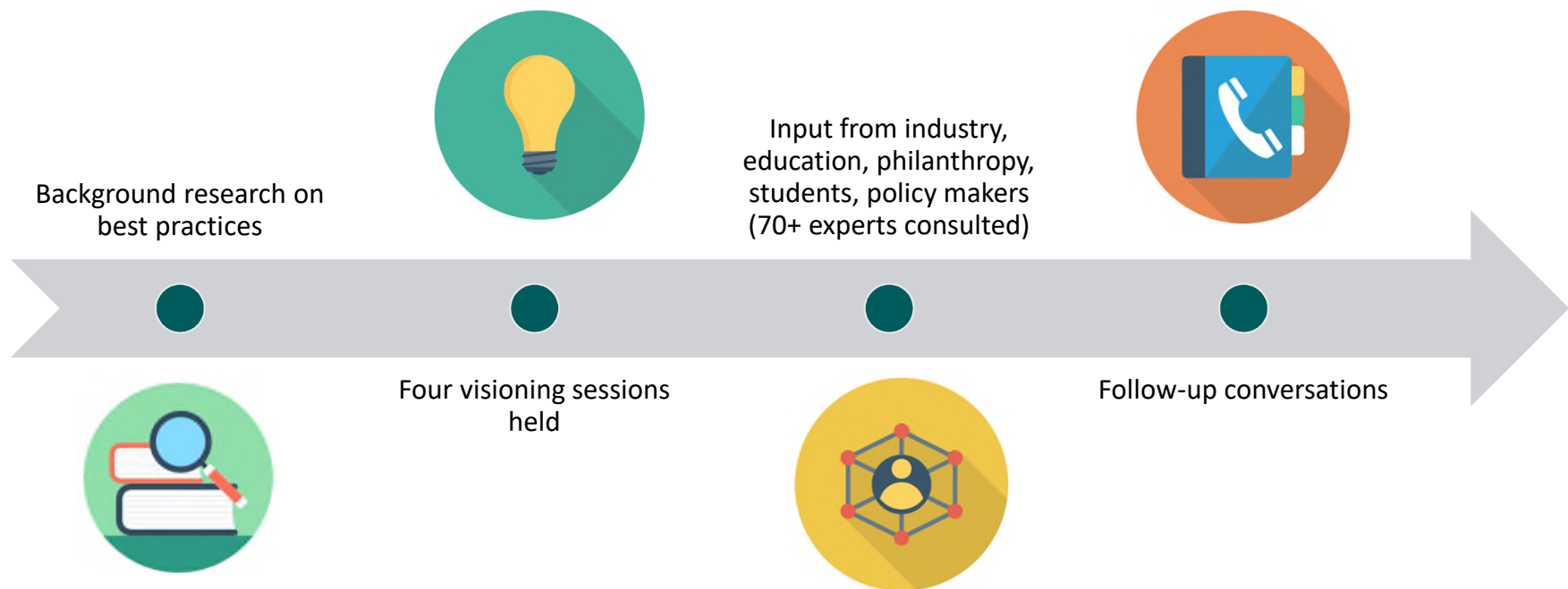
Discussion Topics at Visioning Sessions

Visioning Session Discussion Summary:
Pathways Scholars differ from Opportunity Scholars
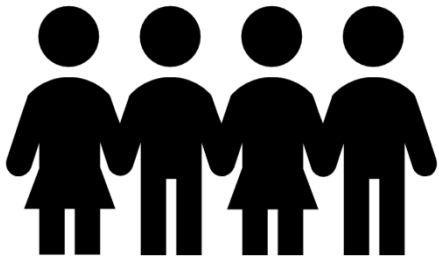
- Average age is older = 26
- Degree completion rates are substantially lower
  - » 25 and younger = 16-24% within 2 years
  - » 25+ = 24% within 2 years
- Less full-time attendance
  - » Only 38% full-time (52% for state funded students)
- Tuition burden is less and tuition is often covered entirely by state and federal aid
  - » $1,132 per quarter/$3,936 per year
  - » 52% receive need-based financial aid (for a majority of these students, financial aid pays for 100% of tuition and fees)

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Visioning Session Discussion Summary:
Award amount of Pathways Scholarship can vary

Uniform award amount per quarter

"First year free" / Coverage of Unmet Need
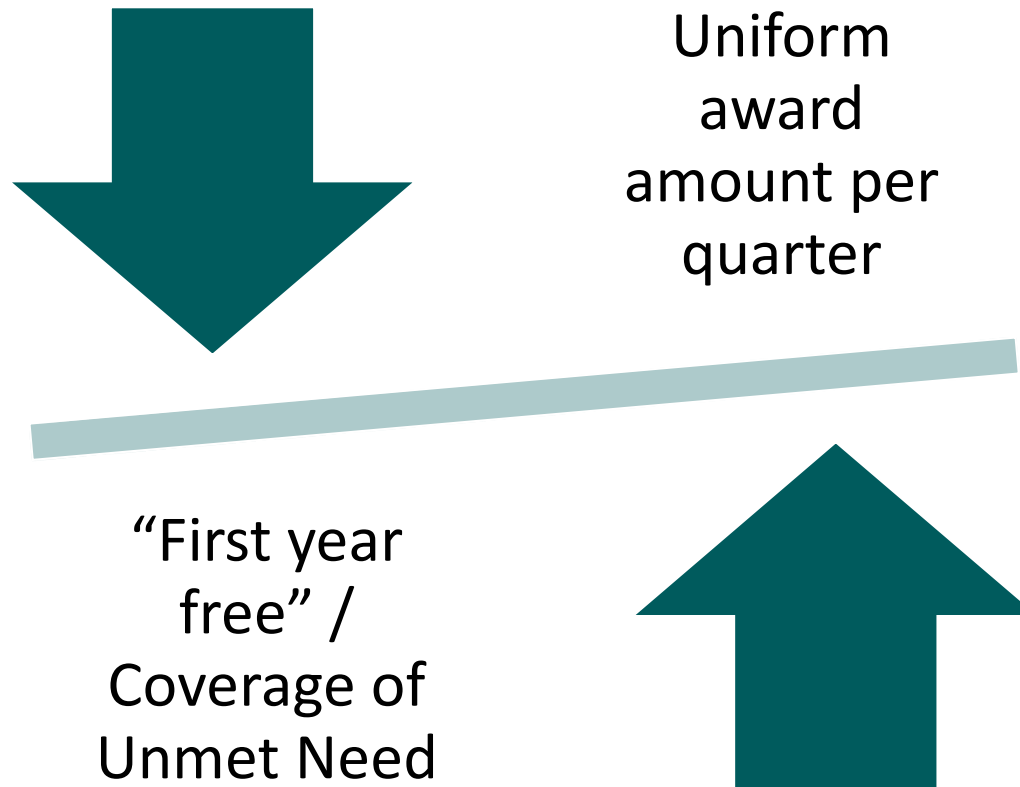
Visioning Session Discussion Summary:
Eligibility similar to Opportunity Scholarship with key differences

Statewide & Regional High Demand **+** Industry Verified **+** Living Wage & Evergreen **=** Eligible for Pathways Scholarship

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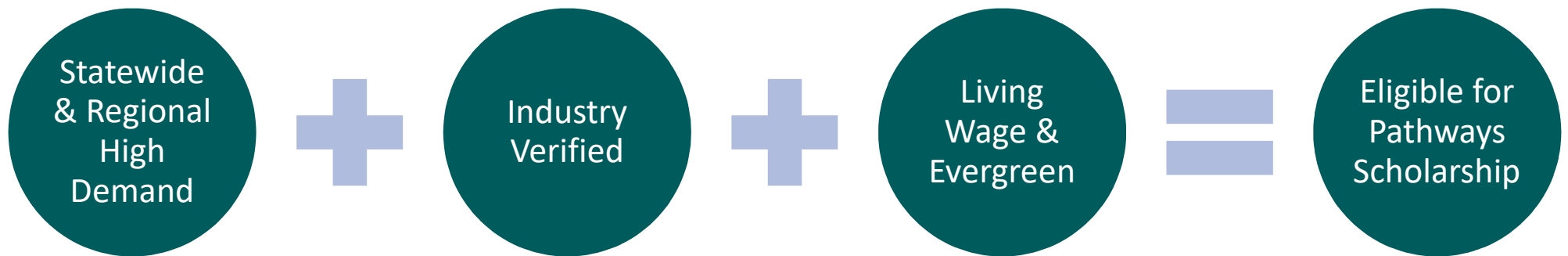
Visioning Session Discussion Summary:
Support services critical to this populations

	Pre-CTC	Early CTC	Late CTC & Beyond
What Scholars Need	Knowledge of pathways beyond HS credential & the importance of these pathways	Financial security above tuition Academic advising	Work-experience Job or BA/BS opportunity
Pathways Scholarship Could Provide	Partnership with SBCTC to identify candidates Warm welcome & Orientation	Industry Mentorship Case management	Connection to paid work-like experience Case Management
Resources to Leverage	CTE education	Guided pathways	Guided Pathways

Career Connect Washington →

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Guiding Principles for Pathways Scholarship

Encourage immediate, successful hand-off from K-12 to CTC

Incentivize enrolled students toward degree completion

Student supports and counseling are essential

Funding should be flexible to cover living expenses

High-demand should include regional specificity

Design Proposal: Pathways Scholarship

WHO: Low- & middle-income **recent high school graduates** WA state with demonstrated interest in high-demand fields

WHAT: Scholarships **PLUS** Differentiated Student Supports

IMPACT
Earn a high-demand, **professional or technical degree or certification** in a **STEM or health care related-field** in **two years** or less

IMPACT
Gain employment in a **living wage, "evergreen" career pathway** in WA State **within 12 months** of graduation

| K-12/CCW, etc | Pathways Scholarship | Employment |

Design Proposal: Pathways Scholarship - Detail

	Design Proposal
Scholarship Award Amount	**$1,500 per quarter** (~32% of non-tuition student budget per quarter)
Targeted Awardees	Recent high school graduates Demonstrated interest in prof/tech career pathway (n < 4,562 per year)
Degree Programs	Regional high-demand degrees, differentiated by institution (verified by industry) Living wage and evergreen
Support Services	Industry mentorship Case management support Assistance with securing paid work-like experiences Post-completion career placement counseling and navigation
Approx. # of students funded with $25M	**5,000 total/500 per year** (Avg. per student award of $4,500 and $500 of support services)
Target completion rate in 2 years or less	**66%** (current SBCTC completion rate for 25 and younger is 16-24%)

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Initial Pathways Scholarship Design Proposal | Board Discussion

- Are we on the right track?
- What other questions do we need to answer?
- Who else needs to be at the table for the conversation?

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Timeline of Key Activities & Next Steps

2019
Pathways Scholars are awarded

Dec 2018
Board approves final Pathways Scholarship

Fall 2018
WSOS Board approves initial design proposal of Pathways Scholarship

Spring/Summer 2018
Background research on best practices; WSOS Board hosts visioning session; other sessions with key stakeholders; student input obtained

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Appendix
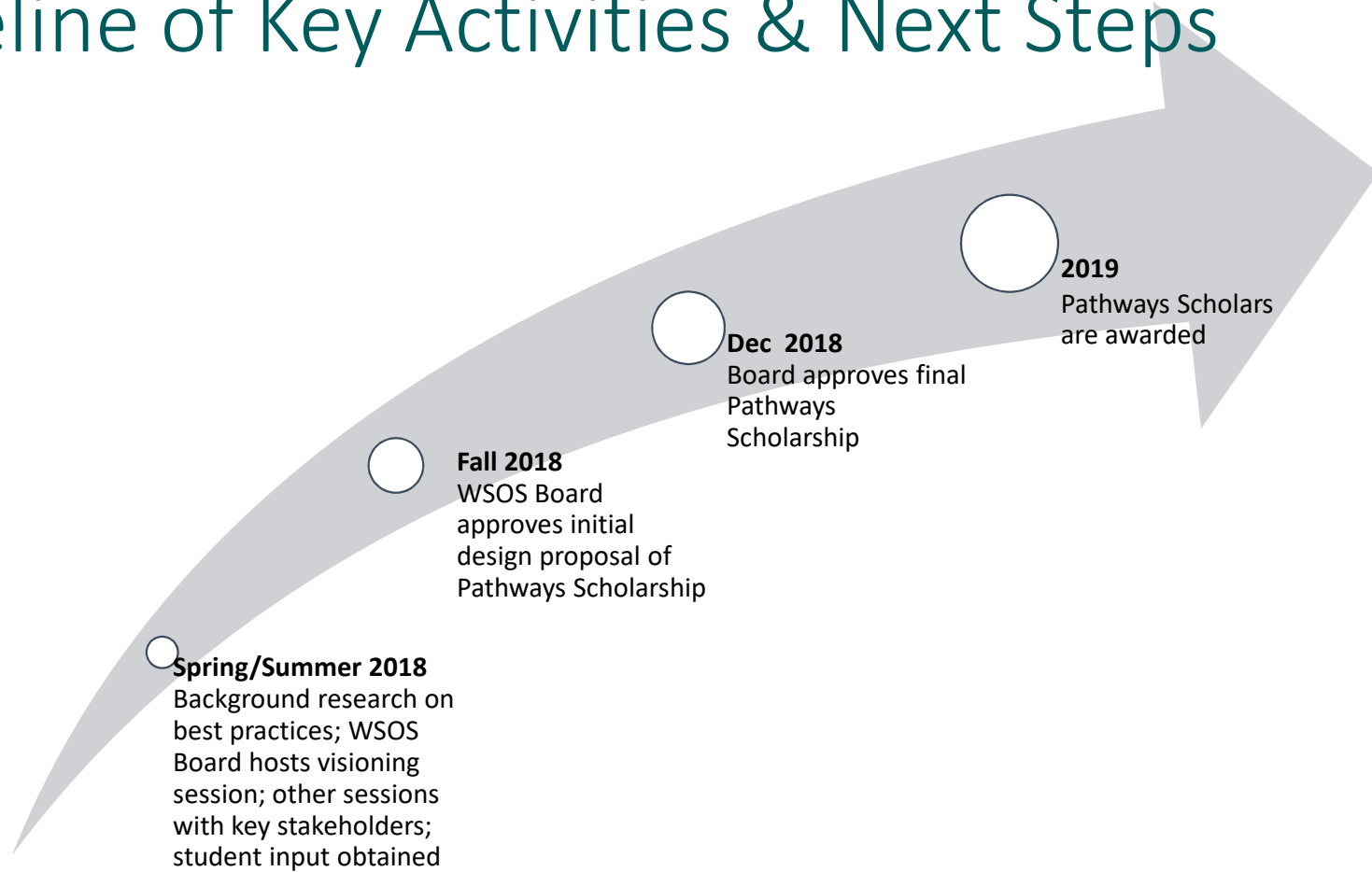
Typical Awards

- Gift Aid
    - Federal Pell Grant / State Need Grant
    - College Bound Scholarship
    - Passport to College
    - Federal Supplemental Opportunity Grant (FSEOG)
    - Institutional Grant (3 ½ %)
- Self Help Aid
    - Workforce Education funding
        - WorkFirst, Basic Food Education and Training (BFET), Worker Retraining, and Opportunity Grant
    - Scholarships
        - Foundation Scholarships, Athletic and private scholarships
    - Federal or State Work Study
    - Federal Direct Subsidized Stafford Loans
    - Federal Direct Unsubsidized Stafford Loans

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2018-19 SBCTC Prof/Tech Degree Tuition

Lower Division Tuition

2018-2019 Tuition*	Resident	Nonresident
One Quarter (15 credits)	$1,342	$3,153
Academic Year (3 quarters/45 credits total)	$4,027	$9,458
* Rounded to the nearest dollar		

2018-19 Student Budget

	Dependent, living with parent	Independent, living with parent	Not living with parent	High-cost regions*
Tuition & Fees				
Books & Supplies	$870	$870	$870	$870
Room & Board	$3,270	$7,860	$9,870	$10,440
Transportation	$1,170	$1,530	$1,170	$1,170
Misc./Personal	$1,860	$1,920	$2,100	$2,340
Total	$7,170	$12,180	$14,010	$14,820

Grant programs serve different students

	State Need Grant	College Bound Scholarship	WA Opportunity Scholarship	SBCTC Opportunity Grant
Number Students	68,495	15,973	2,952	4,618
% Two-Year	58%	42%	14%	100%
% Four-Year	42%	58%	86%	0%
Percent Younger than 24	59%	100%	97%	21%
% Dependent & Avg. Income	46% $29,160	91% $30,005	94% $52,915	10% $22,991
% Independent & Avg. Income	54% $15,980	9% $8,971	6% $15,393	90% $13,389
Full-time in Fall	77%	81%	97%	58%
Students of Color	45%	65%	56%	46%
Have Children	24%	1%	1%	49%

Note: State aid student profile, 2016-17. Unit Record Report.

CHARACTERISTICS OF ONLINE STUDENTS AND ALL STATE SUPPORTED STUDENTS
FALL 2016

	Students Taking All Courses Online	Students Taking Some Courses Online	Students Taking No Courses Online	Total - All State Support Students
Students	14,191	26,253	124,598	165,028
Median Age	27	24	26	26
% Female	68%	62%	54%	56%
% Students of Color	35%	39%	46%	44%
% enrolled Full-Time	26%	72%	46%	48%
% with No Prior College	52%	63%	61%	60%
% Working	57%	45%	44%	45%

Source: SBCTC data warehouse.

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Students Receiving Need-Based Financial Aid
% of Eligible

	15-16	16-17	17-18
System Total	55%	53%	52%
Bates	42%	40%	38%
Bellevue	30%	29%	28%
Bellingham	61%	62%	58%
Big Bend	62%	59%	59%
Cascadia	34%	36%	30%
Centralia	75%	72%	66%
Clark	64%	62%	58%
Clover Park	57%	50%	52%
Columbia Basin	51%	49%	50%
Edmonds	70%	66%	63%
Everett	35%	35%	35%
Grays Harbor	73%	74%	70%
Green River	52%	51%	49%
Highline	57%	49%	45%
Lake Washington	48%	45%	46%
Lower Columbia	77%	72%	67%
Olympic	49%	48%	44%
Peninsula	69%	67%	70%
Pierce Fort Steilacoom	61%	60%	60%
Pierce Puyallup	58%	55%	56%
Renton	48%	44%	51%
Seattle Central/SVI	45%	44%	44%
Seattle North	33%	36%	30%
Seattle South	30%	28%	24%
Shoreline	41%	41%	46%
Skagit Valley	47%	47%	48%
South Puget Sound	61%	62%	65%
Spokane	67%	63%	62%
Spokane Falls	69%	65%	64%
Tacoma	71%	64%	59%
Walla Walla	70%	72%	69%
Wenatchee Valley	59%	56%	56%
Whatcom	68%	63%	59%
Yakima Valley	75%	74%	72%

COMMUNITY AND TECHNICAL COLLEGES
Washington State Board

Specify Measure:
% of Eligible

Specify Timeframe:

Academic Year
Multiple values

Additional Customizations:

Student Type
Prof/Tech

Family Status
All

Full/Part-Time
Full-time

Gender
All

Students of Color
All

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2018-19 Headcount of Professional/Technical Students at SBCTC
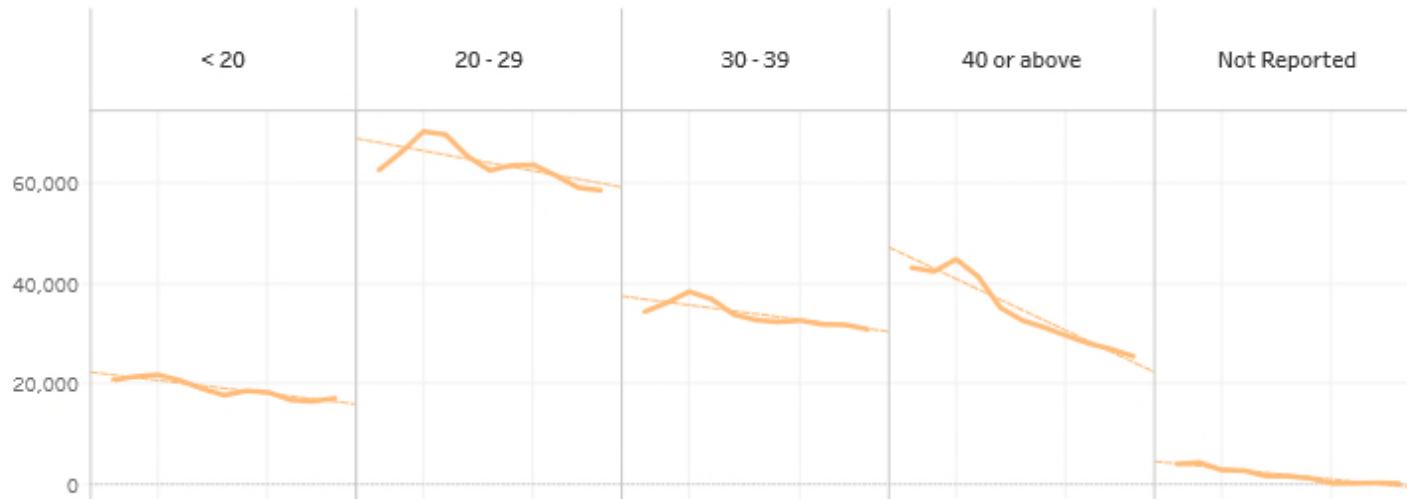
Year	< 20	20 - 29	30 - 39	40 or above	Not Reported	Grand Total
07-08	20,844	62,735	34,466	43,231	4,098	165,374
08-09	21,551	66,248	36,270	42,496	4,394	170,959
09-10	21,904	70,405	38,476	44,922	2,873	178,580
10-11	20,760	69,791	36,983	41,449	2,779	171,762
11-12	19,124	65,436	33,880	35,258	1,699	155,397
12-13	17,815	62,631	32,814	32,725	1,667	147,652
13-14	18,689	63,643	32,438	31,306	1,231	147,307
14-15	18,392	63,725	32,700	29,660	239	144,716
15-16	16,862	61,560	31,931	28,120	264	138,737
16-17	16,594	59,192	31,876	27,009	346	135,017
17-18	17,205	58,689	30,959	25,575	226	132,654

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Completion Rates Professional/Technical Students at SBCTC
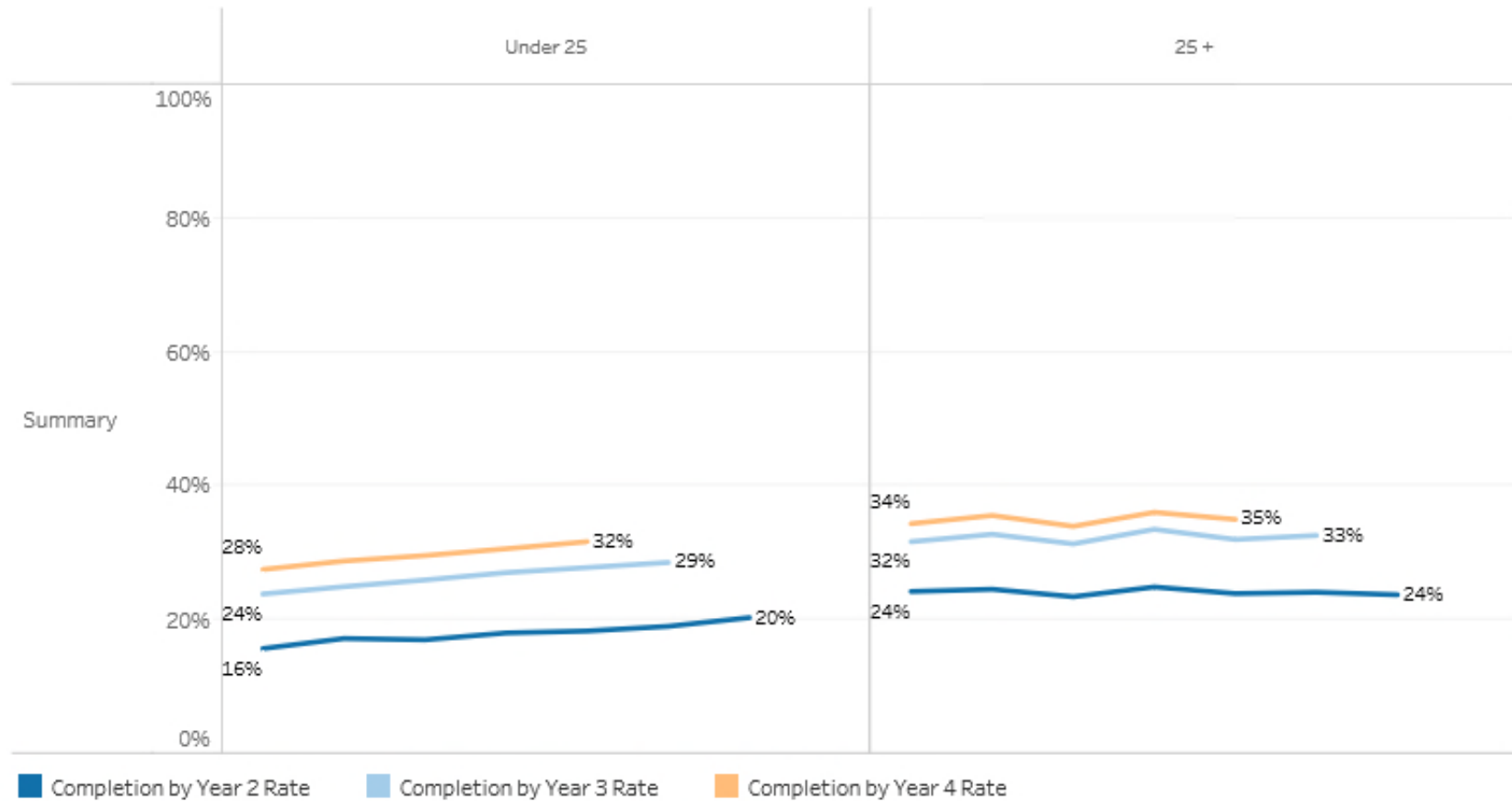
SBCTC Completion Rates

Detail: Professional/Technical Program Completers

	2011-12	2012-13	2013-14	2014-15	2015-16
45 Credits or More	5,929	5,115	5,221	4,934	4,734
Certificate	8,295	8,210	6,912	7,973	7,561
Degree	9,941	9,387	9,565	9,184	8,694
Completers Placed in UI-Covered Jobs	17,854	16,377	15,977	16,174	15,527
Completers Continuing in Education	1,023	934	784	801	735
% Completers Placed in UI-Covered Jobs or Continuing in Education	78%	76%	77%	77%	77%

Detail: Left without Completing

	2011-12	2012-13	2013-14	2014-15	2015-16
Left Without Completing	15,849	13,757	13,901	13,108	13,628
Left Without Completing Placed in UI-Covered Jobs	9,478	7,929	8,789	8,331	8,888
Left without Completing Continuing in Education	716	662	551	446	468
% Left Without Completing Placed in UI-Covered Jobs or Continuing in Education	64%	62%	67%	67%	69%

Source: State Board of Community Technical Colleges

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Living wage, high demand, evergreen STEM or health care opportunities (national)

Career Pathway	Median Annual Wage, 2017	2016-2026 Projected Annual Openings (National)
Automotive service technicians and mechanics	39,550	75,600
Licensed practical and licensed vocational nurses	45,030	62,700
Computer user support specialists	50,210	55,500
Dental assistants	37,630	45,900
Heating, air conditioning, and refrigeration mechanics and insta	47,080	38,700
Emergency medical technicians and paramedics	33,380	19,400
Dental hygienists	74,070	17,500
Phlebotomists	33,670	16,900
Computer network support specialists	62,340	16,500
Medical records and health information technicians	39,180	15,800
Physical therapist assistants	57,430	14,700
Web developers	67,990	14,600
Radiologic technologists	58,440	13,600
Medical and clinical laboratory technicians	Varies considerably by field	12,900
Electrical and electronics engineering technicians	63,660	12,000
Health technologists and technicians, all other	41,800	11,000
Aircraft mechanics and service technicians	61,020	10,900
Veterinary technologists and technicians	33,400	10,700
Surgical technologists	46,310	10,000
Life, physical, and social science technicians, all other	48,090	9,900

Note: Job openings are based on national data. Regional data across Washington state is expected to be available in Fall 2018.

Living wage, high demand, evergreen STEM or health care opportunities (national), cont.

Audio and video equipment technicians	42,190	9,000
Civil engineering technicians	51,620	7,200
Engineering technicians, except drafters, all other	62,230	7,100
Chemical technicians	47,280	6,600
Occupational therapy assistants	59,310	6,600
Electrical and electronics repairers, commercial and industrial e	57,190	6,100
Mechanical drafters	55,130	5,900
Industrial engineering technicians	54,280	5,500
Diagnostic medical sonographers	71,410	5,400
Ophthalmic medical technicians	35,910	4,600
Environmental science and protection technicians, including he	45,490	4,600
Medical equipment repairers	48,820	4,300
Mechanical engineering technicians	55,360	4,200
Forest and conservation technicians	36,130	4,000
Cardiovascular technologists and technicians	55,270	3,500
Electronic home entertainment equipment installers and repair	37,190	3,300
Computer numerically controlled machine tool programmers, r	52,550	3,100
Agricultural and food science technicians	39,910	3,000
Electrical and electronics drafters	59,690	2,600
Healthcare practitioners and technical workers, all other	51,530	2,600
Magnetic resonance imaging technologists	69,930	2,500

Note: Job openings are based on national data. Regional data across Washington state is expected to be available in Fall 2018.

Living wage, high demand, evergreen STEM or health care opportunities (national), cont.

Air traffic controllers	124,540	2,400
Electrical and electronics repairers, powerhouse, substation, ar	78,410	2,100
Motorcycle mechanics	35,680	1,900
Geological and petroleum technicians	54,190	1,900
Environmental engineering technicians	50,230	1,700
Sound engineering technicians	55,810	1,700
Radio, cellular, and tower equipment installers and repairs	56,000	1,600
Avionics technicians	62,650	1,500
Drafters, all other	50,290	1,500
Wind turbine service technicians	53,880	1,400
Nuclear medicine technologists	75,660	1,300
Ship engineers	73,110	1,300
Electro-mechanical technicians	56,740	1,200
Radiation therapists	80,570	1,200
Aerospace engineering and operations technicians	67,240	1,100

Note: Job openings are based on national data. Regional data across Washington state is expected to be available in Fall 2018.

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Outcomes for CTE students (high school)

All achievers in 2012 and 2013 graduating classes	CTE students	Non-CTE students
While in school, were more likely to be low income, have accommodations for a disability under a Section 504 plan, and have a lower GPA	X	
More likely to persist in an apprenticeship program	X	
More likely to persist in a community or technical college	X	
More likely to be employed	X	
More likely to receive a degree or certificate from a community or technical college, or persist in a four-year university		X

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Attendees| 6/19/18 Visioning Session

Jane Broom	Microsoft
Michelle Burreson	Boeing
Diane Cecchettini	WSOS Board
Maud Daudon	Career Connect Washington
Joelle Denney	WSOS Board
Ruben Flores	SBCTC
Ezra Hodge	Amazon
Mack Hogans	WSOS Board
Shaunta Hyde	Alaska Airlines
Sheila Edwards Lange	Seattle Colleges
Michael Meotti	Washington Student Achievement Council
Matthew Muench	Ballmer Group
Steve Mullin	Washington Roundtable
Gary Rubens	WSOS Board/Rubens Family Foundation
Jim Sinegal	WSOS Board
Brad Smith	WSOS Board Chair/Microsoft
Kim Sullivan	Kaiser Permanente
Jan Yoshiwara	SBCTC

High-Level Discussion Topics | 6/19/18 Visioning Session

- $$ - should have maximum flexibility → rent, childcare, tools, fees, etc.
  - Unmet need is important; tuition may be covered via other funding
- We want to incentivize students to participate in meaningful work
- We need employers to engage
- Support services are needed (guided pathways, advising)
  - We need additional advisors and a systemic/policy solution for support
  - All CTC students likely need support

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Attendees | 7/19/18 Visioning Session

Leslie Alexandre	Life Sciences Washington
Kathy DiJulio	Workforce Development Council
Marc Casale	Career Connect Washington
Rosanna Stephens	Seattle Housing Authority
Phyllis Kenney	SBCTC Board/Former State Rep
Amy Morrison Goings	Lake Washington Institute of Technology
Mary Rennekamp	Friends of the Children
Mariam	Recent Graduate, Seattle Central Community College
Fred Krug	YearUp
Chris Alejano	City of Seattle
Caroline Maillard	Descuren Foundation
Walid Malouf	General Assembly
Miller Adams	WSOS Board/Pier 70 Ventures
Tonya Drake	Western Governor's University

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High-Level Discussion Topics | 7/19/18 Visioning Session

- $$ - should have maximum flexibility → rent, childcare, tools, fees, etc.
- Need for career/academic counseling services (currently 800:1)
- Alignment with other efforts in the state ("Promise" programs, CCW, etc.)
- Integration with employers and industry – internships and work while earning program
- Warm hand-off → between high school to degree, degree to job, degree to baccalaureate degree, etc.

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Attendees | 7/25/18 Visioning Session

Mike Wilson	WSOS Board
Jerry Dyar	Rural Schools Alliance
Jodi Strote	Greater Spokane Incorporated
Cheryl Stewart	Inland Northwest AGC
Jim Brady	Spokane Falls Community College
Nancy Szofran	Spokane Community Collage
Chrissy Davis	Spokane Falls Community College
Lori Hunt	Spokane Community College
Janae Carrothers	Spokane Falls Community College
Michael McBride	WDC Spokane
Gwendolyn James	Spokane Community Colleege
Morgan Jones	ESD 101
Jaclyn Jacot	Spokane Community College
Malvika Shriwas	Student, Spokane Falls Community College
Andrew Mark Carolos	Student, Spokane Falls Community College

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High-Level Discussion Topics | 7/25/18 Visioning Session

- $$ - should have maximum flexibility → rent, childcare, tools, fees, etc.
- Degree programs funded should be regionalized
- Mentorship is important; especially for students who are non-traditional students returning back to school (but mentorship should be balanced with time for outside commitments (family, etc.))

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Attendees| 8/16/18 Visioning Session

Elaine Chu	Seattle Foundation
Heather Foss	Green River Community College
Diana Giraldo	HNTB
Caroline King	Washington STEM
Chancellor Pan	Seattle Colleges
Amanda Pelly	Lake Washington Tech
Aparna Rae	Panorama
Carol Rava	AstrumU
Sasha Rayburn	WTIA
Keith Stier-Van Essen	College Success Foundation
Marilyn Strickland	Seattle Chamber
Kim Vu	Bank of America
Veronica Wade	South Seattle
Nancy Yamamoto	City of Seattle

High-Level Discussion Topics | 8/16/18 Visioning Session

- Students get coaching on general life skills - financial planning and personal planning
- Students need differentiated support services; these services are likely different from services provided to four-year degree program participants
- Emergency funds are helpful to assist students when they are in crisis
- Industry mentorship is needed and would be helpful; post-completion navigators can be very successful.

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WASHINGTON'S COMMUNITY AND TECHNICAL COLLEGES

COMMUNITY AND TECHNICAL COLLEGES AT A GLANCE
March 26, 2018

Vision: Build strong communities, individuals and families, and achieve a greater global competitiveness and prosperity for the state and its economy by raising the knowledge and skills of the state's residents.
SBCTC System Direction, 2006

Mission: Our state's most urgent need is to educate more people to higher levels of skills and knowledge. This is the only way we can hope to sustain a prosperous economy that will provide opportunities for all of us, and our children.
SBCTC Mission Study, 2010

Founded

Year	Action
1967	Legislature passed Community College Act
1991	Legislature amended Community College Act to Community and Technical College Act

Colleges & Campuses

Institution	Number
Districts	30
Colleges	34
Campuses and centers	77

State Board Members

Member	City
Larry Brown, chair	Auburn
Anne Fennessy, vice chair	Seattle
Ben Bagherpour	Vancouver
Crystal Donner	Everett
Phyllis Gutierrez Kenney	Seattle
Carol Landa McVicker	Spokane
Wayne Martin	Kennewick
Jay Reich	Seattle
Fred Whang	Tacoma

Executive Director

Jan Yoshiwara

Enrollment[1]

Category	Number
Total headcount	373,997
FTEs (all funding sources)	176,538

Selected programs (headcount)	Number
Applied baccalaureate	3,024
Apprenticeship	12,347
Corrections	8,811
I-BEST	4,887
International	16,907
Running Start	26,303
Worker Retraining	11,077

Student Purpose for Attending[2]

Purpose (FTE)	Percent
Workforce training	47%
Academic transfer	39%
Basic skills	11%
Other	3%

State funding

Operating (FY 2018)	$733,090,000
Capital (2017-19 biennium)	$323,376,000

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CONTACT INFORMATION

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Attendance (headcount)[3]

Type	Percent
Full-time	48%
Part-time	52%

Tuition and Fees (2017-18)

Lower division	Resident	Non-resident
One quarter (15 credits)	$1,132	$3,118
Academic year (45 credits)	$3,936	$9,354

Upper division/Applied Baccalaureate Degrees	Resident	Non-resident
One quarter (15 credits)	$2,105	$6,094
Academic year (45 credits)	$6,314	$18,282

Ethnicity[4]

White/Caucasian	60%
Hispanic/Latino	17%
Asian	12%
African American	8%
Native American	3%
Pacific Islander	1%
Other, Multiracial	2%

Gender[5]

Female	56%
Male	44%

Median age[6]
26

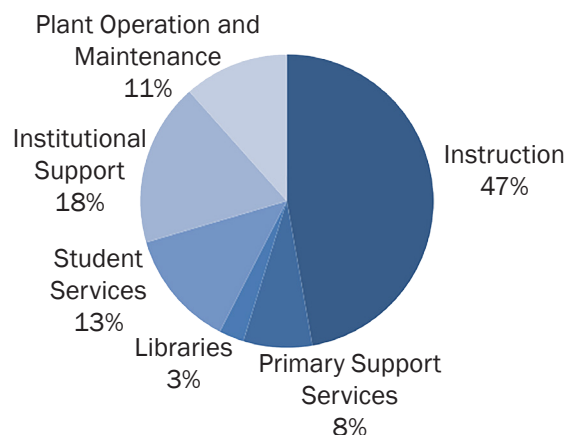## Family and Finances

Students receiving need-based financial aid in eligible programs	38%[7]
Students who work	45%[8]
Students with children	28%[9]

Facuty and staff FTE[10]

Total staff — colleges and SBCTC	17,011
Teaching faculty	7,999
Non-teaching faculty	923
Classified staff	4,949
Administrative and professional-technical	3,141
SBCTC staff only	185

Expenditures by program[11]
State General Funds and Operating Fees: fiscal year 2015-16

Plant Operation and Maintenance 11%; Institutional Support 18%; Student Services 13%; Libraries 3%; Primary Support Services 8%; Instruction 47%

Contributions to higher education

50%+ Washington state will have 740,000 job openings in the next five years. More than half of those openings will be filled by people who have postsecondary education or training.[12]

58% 58 percent of students in Washington's public colleges and universities are enrolled in community and technical colleges.[13] (Includes Running Start students.)

40% 40 percent of public baccalaureate graduates in Washington start at one of the state's community or technical colleges.[14]

Sources:
1-2. 2016-17 SBCTC Academic Year Report dashboard.
3-6. SBCTC Fall quarter 2016 Enrollment and Staffing Report.
7. 2016-17 SBCTC Academic Year Report dashboard.
8-9. 2016 Fall quarter Enrollment and Staffing Report.
10. SBCTC Data Warehouse.
11. SBCTC 2015-16 Academic Year Report.
12. Washington Roundtable and The Boston Consulting Group report, "Washington Kids for Washington Jobs," Oct. 5, 2016.
13. OFM 2014-2015 Budget Driver Report.
14. SBCTC research report: The Role of Transfer in the Attainment of Baccalaureate Degrees at Washington's Public Bachelor's Degree Institutions, Class of 2011, published August 2013.

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