

Redesigning Colleges at Scale: Fall 2019 Guided Pathways Scale of Adoption Assessment Update for the Washington State Community and Technical Colleges

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Report Summary

- Develop meta-majors and program maps as a foundation for further guided pathways reforms. Washington State's system of community and technical colleges (CTCs) have made a great deal of progress creating and publishing meta-majors and program maps to clarify the program choice process and help students understand what a program requires and what it will prepare them for.
- Use meta-majors to redesign onboarding. Colleges are using meta-majors to organize outreach and student recruitment so that students can learn about programs available in meta-major areas and the jobs and transfer degrees those programs lead to. Further, some colleges are contextualizing onboarding experiences, entry advising, and early-term courses to align with meta-majors.
- Work on redesigning the first-term experience. Some colleges use the mapping process to critically examine how courses contribute to learning outcomes and the development of skills at the program level. Mapping can help faculty identify critical program courses in which students may need additional embedded academic supports or which provide an opportunity to "light a fire" and engage students in the foundational concepts and paradoxes of a discipline.
- Ensure that students are helped to take field-relevant college-level math and English in their first year. Although many Washington colleges are moving toward shortening or eliminating sequences of pre-curricular developmental requirements, the majority still mandate that students complete multiple levels of pre-curricular math and/or English.
- Use data to target equity. Colleges are making progress using administrative data to address equity gaps for specific student populations, in particular by programs of study, and identify periods when students would benefit from increased support. Importantly, colleges are considering the demographic composition of competitive admissions programs that lead to high-paying jobs; examining discrepancies between the demographic composition of these programs and the college population overall; and making changes to admissions criteria that have disproportionately barred access to particular groups of students.

Introduction

In fall 2019, the Washington State community and technical colleges (CTCs) completed the Scale of Adoption Assessment (SOAA) for the second time, having completed the assessment initially in the spring of 2018. The purpose of the SOAA is to help colleges plan for and reflect on their progress

implementing guided pathways reforms at scale. After completing the SOAA, all 34 colleges in the system brought together teams of administrators and faculty members to participate in 75-minute follow-up calls with Community College Research Center (CCRC) staff and Washington's change facilitators. The calls provided additional insights as to how colleges are implementing guided pathways reforms, how reforms affect equity gaps in student outcomes, and the challenges and opportunities that arise from this work.

Since the beginning of the pathways redesign work in Washington, the CTCs have made a point of using pathways to advance conversations about equity in student access and outcomes. Reflecting this priority, the Washington State SOAA includes a section on institutional progress toward addressing equity gaps in student outcomes by establishing a common language to discuss equity across campus; setting goals to reduce gaps; defining measures to assess progress; identifying specific populations at each college to target support; and redirecting resources toward those populations and efforts. These equity questions on the SOAA have since been adopted and used by several other states.

This report summarizes key findings from the SOAA and offers recommendations for how the Washington State CTCs can continue their work on guided pathways to ensure that every student is helped to explore, enter, and complete a program of study that prepares them for transfer and/or a career. Note that this memo will not be released publicly and is intended for use by the Washington State CTCs and Washington State Board for Community and Technical Colleges (WA SBCTC) leadership to support ongoing planning and implementation of pathways reforms. Please send corrections or clarifications to Maggie Fay, CCRC research associate (fay@tc.columbia.edu).

Main Findings

Since the Washington State CTCs began planning and implementing pathways reforms in 2018, the biggest areas of progress have been in the establishment of meta-majors that group programs thematically or by broad career field and the creation and ongoing refinement of program maps. Twenty-one colleges have meta-majors on their websites, while another eight colleges have this work underway. Six Washington colleges have published student-facing maps for all programs on their websites and another 19 colleges are making progress toward this goal. The remaining eight colleges are in the early stages of discussion and planning to undertake program mapping.

Some Washington colleges are using meta-majors and program maps as the basis for redesigning how students enter the college, explore careers and programs of interest, and engage in academic planning and coursework relevant to a program of interest in early terms. The majority of colleges are in the early stages of this work. While the colleges have made commendable progress creating program maps, these maps are not being used systematically to help every student build a customized educational plan to completion. There has also been limited progress identifying critical program courses. As a result, there has been little integration of contextualized academic supports in those classes to ensure that students are successful. These will be critical next steps in the colleges' pathways redesign work.

Furthermore, the Washington CTCs have implemented few pathways reforms at scale. While there are many examples of promising work throughout the system, these reforms tend to happen in pockets, as a result of the efforts of individual faculty members or administrators and often affect a discrete population of students. For example, some colleges described strong practices related to building full, customized

educational plans in the first term only for TRIO students; or offering comprehensive onboarding and career exploration support for students in STEM programs; or excellent examples of engaging, hands-on pedagogical practices led by individual faculty members that have not been widely implemented. While these efforts are important and undoubtedly beneficial to the students who fall into the target populations, they don't benefit most students and are therefore unlikely to have large impacts on success in courses, programs, or degree attainment at the college or program level. We encourage colleges to identify instances where good practice exists, learn more about how students who are experiencing these practices are being impacted, and then develop plans and strategies to scale practice.

The creation of meta-majors and program maps are important milestones. Creating clarity about student pathways from college entry to degree attainment, further education, and employment is central to guided pathways reforms. Once established, it is critically important to ensure that meta-majors and program maps are used to redesign the student experience, starting with how the colleges help students explore, enter, and make early progress in programs of study. In the sections that follow, we provide examples of pathways redesign efforts underway in these areas. We also summarize themes that emerged from the discussion around the equity questions in the SOAA.

Meta-Majors and Onboarding

About half of the Washington CTCs have implemented meta-majors, often called *Areas of Study* or *Pathways*. Meta-majors can help structure the creation of academic and career communities and simplify the program exploration process for students by grouping programs into larger thematic areas. For example, colleges can use the meta-major structure to build common first-term course sequences for programs in the same meta-major, enabling students who are undecided about what they want to pursue to enter a meta-major and explore a group of related programs without accruing excess credits.

Using meta-majors to help structure the program exploration process

Peninsula College created unique landing pages on its website for each of its seven Areas of Study that include short video overviews, learning outcomes for the area of study, a list of the programs clustered within each area, and links to individual program pages for students to explore degree options and peruse sample program maps. **Everett Community College** offers pathway-specific outreach events where students can learn about degrees available in a pathway and the jobs those degrees prepare students for. For example, the Science, Technology, Engineering, and Math (STEM) pathway hosts quarterly events, including a Science Fair, and conducts regular outreach to local elementary schools to put on STEM demonstrations.

Building identity around a field of interest

Displaying meta-majors on websites to help students understand what programs the college offers and how they are related is an important first step. However, if meta-majors are not implemented in a way that changes the student experience at the college, students will not fully derive benefits from pathways reforms. In addition to clarifying the choice-making process, meta-majors can play a critical role in building student identity around a field of interest by connecting students with faculty, advisors, and other students with similar interests. **Renton Technical College** aligned its new student orientation to the college's seven Areas of Study so that students receive introductory information

specific to their area of interest and meet faculty and students in their program area from the start. **North Seattle College** assigned advisors to each of its eight Areas of Study, so that students can engage in program exploration and education planning with a specialist in their area. This also creates the potential for closer collaboration between advisors and faculty to recruit and support students in the given area.

Contextualizing onboarding and advising

Meta-majors can also provide a structure for contextualizing onboarding experiences and entry advising, as well as early term courses to a particular field. Pierce College District contextualized its mandatory, first-term student success course to emphasize program choice affirmation and career exploration within each of its six Career Pathways. Skagit Valley College is aligning curriculum in common introductory courses, like English 101, to the college's nine Areas of Study. South Seattle College uses its eight Areas of Study to track how students move from broad areas into specific programs. The college assigned codes in its data system to the Areas of Study and to programs in order to track how many students enter each Area of Study and how long it takes students to transition from an Area to a specific program. These data allow the college to target support to students slow to transition into a program and to anticipate needs for scheduling and advising in Areas of Study and programs.

Program Maps and First-Term Courses

As mentioned earlier, six colleges have published program maps on their websites so that students can access them to get a clear sense of program requirements and timeline for completion and another 19 are planning to do this. Program maps are among the more tangible work products associated with pathways reforms. However, we find that in Washington, as in other states undertaking this work, many colleges get mired in the mapping process and seek to create a map for every contingency (i.e. full-time, part-time, with developmental requirements and without, starting in the winter, spring, and summer terms, etc.). Maps are a starting point for developing customized educational plans, therefore they do not need to illustrate every possible contingency.

Providing information about program requirements and course sequences

Good maps should strike a balance between specificity and generalizability. Ideally, maps should give students a general idea about what a program requires; its foundational courses, including what math course the program requires; and any embedded certificates or certifications that students can earn on their way to a degree. **Peninsula College** is in the process of publishing maps for all its programs, including degrees and certificates, which include quarter-by-quarter suggested course sequences, program-aligned mathematics, and details on program length, estimated additional program costs, career opportunities, and potential earnings. **South Seattle College** is in the process of publishing maps for all programs, which include recommended courses by quarter and a quarter-by-quarter to-do list that reminds students to meet with advisors, build education plans, apply for financial aid, and plan for transfer. **Big Bend Community College's** program maps specify pre-program entry requirements including reminders to meet with a program-specific advisor. **Pierce College District** created maps for all 110 programs that do not group courses by quarter, but rather recommend an overall order or sequence that courses should be taken to make the maps useful for students, regardless of how many courses they choose to take each semester.

Facilitating the development of program-level learning outcomes

An often overlooked function of the program mapping process is that maps can also facilitate planning for administrators and faculty as well as students. Program maps can help faculty think beyond course-level learning outcomes to critically evaluate what *programs* are preparing students to do. Maps can also help demonstrate which courses are best suited to help students develop the knowledge and skills that they need for good jobs and/or transfer in a major in the given field or how current curricula might be revised to better align to program-level learning outcomes. **Pierce District Colleges'** maps include a short text justification, aligned to the specific goals of that program of study, as to why each course was included in a map and what it will equip students to do. At **Clover Park Technical College**, the process of mapping, which is undertaken by the Student Learning Committee in collaboration with an instructional designer, has resulted in substantial changes to some programs including creating new introductory courses, aligning accelerated developmental math and English, and cutting up to 20 excess credits from a program. **South Puget Sound Community College** is in the process of contextualizing curriculum in common introductory courses (i.e., courses that appear on several program maps) to specific programs. For example, because Criminology appears across several program maps, instructors teaching this course are creating assignments that reflect the contexts of students' specific programs.

Identifying critical courses

Building program maps also creates an opportunity for faculty and administrators to identify critical courses for each program of study. "Critical courses" may be those in which students need extra academic support or which provide an opportunity to "light a fire" in students' interest in a field. As of fall 2019, few Washington colleges have identified critical program courses. A common theme in follow-up calls was that colleges struggle to identify critical courses, particularly program-specific critical courses, and have not developed criteria to define what these are. Colleges typically think of critical program courses as those courses, such as introductory college-level math and English or Anatomy and Physiology, that have high rates of failure and attrition. This is one useful way to identify a "critical course" as one that stalls academic progress for many students and where the college can embed proactive academic supports. We encourage positive framings of "critical courses" when communicating them to students as key to success in their program and as foundational to their future learning in a field.

We did see some promising work along these lines. South Puget Sound Community College analyzed student course-taking patterns and outcomes to identify "toxic" and "beneficial" pairs of courses. Toxic pairs produced lower pass rates when students took both courses in the same term, while beneficial pairs produced a synergy that promoted better outcomes in both courses. The college revised program maps to decouple toxic pairs and couple beneficial pairs. After identifying high-enrollment, high-attrition courses, Lake Washington Technical College sought grant and foundation funding to embed supplemental instruction in those courses, which led to significant reductions in equity gaps in course outcomes. Walla Walla Community College created a dashboard for faculty to track pass rates and explore inequities in course outcomes in its high-enrollment gateway courses across programs.

Another way to define critical courses is as courses that expose students to foundational concepts, theories, and information about a discipline. These courses present an opportunity to "sell" a program and engage students in a field of study by demonstrating the importance and relevance of the disciplinary content to future engagement in a field, whether through work or future education opportunities. These

courses can also provide the opportunity for faculty to "light the fire" for learning more about the field by exposing students to "threshold" concepts¹ that illuminate the core puzzles and paradoxes of disciplines and offer new analytic lenses to students. "Light the fire" courses incorporate active learning opportunities to give students engaging, hands-on learning experiences. Bellevue College created a Dean of Undergraduate Research position to support undergraduate research efforts. The college also offers several undergraduate research programs including the RISE Learning Institute that works across the college and with the local community to create a range of experiential learning opportunities for students.

North Seattle and Green River Colleges are working to expand research experiences for students in STEM programs. Overall, we heard limited examples of colleges using critical program courses as an opportunity to engage students' interest in a field by providing them with a transformative learning experience early on, and we have included this in our recommendations as a promising avenue to pursue.

Equity and Guided Pathways

The Washington State CTCs continue to make addressing equity gaps in student outcomes the centerpiece of their guided pathways work. Colleges continue to work to address measures of equity that were included in the first SOAA including defining common, campus-wide language to discuss equity, setting goals for equity work and measures to assess progress toward those goals. In these three areas, we did not hear about substantial developments since the spring of 2018. Colleges are making incremental changes such as continuing to advance a public vision for equity by embedding equity goals in strategic plans and other public documents and working to make the staff and faculty population reflect the student population by adopting equity-focused hiring practices such as including an equity advocate on every hiring committee.

There is a growing emphasis on using disaggregated data to identify specific populations to target equity work and better understand the needs for support. Some colleges are also looking at outcomes at the program and course levels, in addition to the institutional level, to better understand the needs of diverse populations as they progress through programs of study.

Targeting equity work

Many colleges are making progress targeting their work to address equity gaps for specific student populations, in particular by programs of study, and even identify periods when students would benefit from higher levels of support. Clover Park Technical College created a diversity fact book that compiles disaggregated data on persistence, retention, and completion that has allowed staff to identify specific populations that need support. Big Bend Community College has determined that its first generation in college and students from low-income backgrounds need support in early terms of enrollment. The college is using Starfish to identify specific students in these groups and proactively connect them with

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¹ See, Glynis C. (2006) An introduction to threshold concepts, Planet, 17:1, 4-5, DOI: <u>10.11120/plan.2006.00170004</u> and Meyer, J. H., & Land, R. (2005). Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher education*, 49(3), 373-388.

² See, Wang, X. (2020). On my own. Boston: Harvard Education Press and Estrada et al. (2016). Improving Underrepresented Minority Student Persistence in STEM. CBE Life Sciences Education, 15 (5), 1-20 for more on incorporating experiential learning opportunities into gateway coursework.

appropriate support resources in a just-in-time manner. Clark College prioritized addressing barriers to entry and persistence in competitive admissions programs, which currently do not reflect the makeup of the college's overall population. In a similar vein, Everett College revised admissions processes for its nursing program to facilitate the entry of a more representative group of students. South Puget Sound Community College also changed admissions requirements for entry to its nursing program after realizing the GPA requirements for eligibility created a bias favoring admission for middle- to upper-income students with college-educated parents. Based on research showing that students with a 3.3 GPA would be just as successful in the nursing program, the college lowered the GPA cutoff for eligibility and then used a lottery to select among those students for admission to the program.

Examining inequities at the program level

Colleges are infusing their equity work with efforts to facilitate students' learning as they progress through programs of study. In **Pierce District Colleges**, faculty examine disaggregated course completion and retention data by program with attention to when students are most likely to withdraw from and drop courses in order to embed support at the most critical junctures. At **South Puget Sound Community College**, faculty collectively review disaggregated program data as part of the program review process and set goals for improvement at the course and program levels. Additionally, as part of the tenure and post-tenure processes, faculty review equity gaps in their courses and set individual goals for improvement. If faculty fail to make improvements to their course-level equity gaps, they are put on a performance improvement plan.

Suggestions for Addressing Common Challenges

During our calls with the CTCs, teams raised several issues and questions related to the college and statewide contexts and the implementation of guided pathways reforms. These include questions about the applicability of pathways reforms to technical colleges; the challenge of implementing these reforms at small and rural colleges; the challenge of implementing reforms in a context of financial constraint; and how to proceed with advising redesign as colleges await the implementation of ctcLink. We discuss some of these issues below and provide recommendations for how colleges can work within their unique context to redesign student supports within the guided pathways framework. However, colleges also raised some concerns and cited barriers to implementing guided pathways reforms for which we have no direct solutions. After reading this report, other WA SBCTC colleges may have better solutions to offer to colleges experiencing common challenges described in this section.

Technical colleges and pathways

Technical colleges were ahead of the curve in implementing many guided pathways practices, such as mapping out programs from start to finish, carefully monitoring student progress through programs, and engaging students in hands-on, program-relevant learning experiences. However, a common theme among Washington technical colleges at this stage in the guided pathways implementation process is that some elements of guided pathways are an awkward fit for their institutions. For example, it was common for technical college staff and faculty to observe that few students enter their institutions undecided about what they want to pursue. We would respond that most elements of the guided pathways model are still applicable to technical colleges and encourage technical colleges to examine what are sometimes longheld assumptions about students, their goals, and how this might relate to their choice of majors. As with

comprehensive community colleges, students who enter technical colleges are often placed into developmental courses that can result in lengthy delays to starting program courses. During our calls we heard that students in developmental education were a significant source of attrition for technical colleges. This issue underscores the importance of continuing the work to reform placement processes, to shorten or eliminate pre-curricular developmental sequences, and, importantly, to ensure that all students take engaging courses related to programmatic interests in early terms of enrollment. Instead of prerequisite courses, technical colleges could also use the I-BEST model to ensure that students are not delayed in entering a program by long sequences of developmental education.

Implementing pathways at small and rural colleges

Colleges with small enrollments and rural colleges noted that factors specific to their contexts and resource constraints made it difficult to undertake many pathways reforms. Staff at rural colleges noted that their students often have different academic goals than students in urban areas. Staff also observed that rural students are less likely to pursue transfer due to the distance to four-year colleges and the lack of local jobs that require bachelor's degree level education. Again, we would encourage colleges to unpack these observations, perhaps with some student focus groups. For colleges with already low and declining enrollments, fewer resources may be available to undertake what can be expensive reforms such as the expansion of academic supports for students, hiring additional advisors, or acquiring new software. Resource constraints are real and challenging problems, though many pathways reforms, including some of the changes described in this report, can be undertaken without significant capital investments. For example, engaging faculty members in cross-disciplinary discussions to thoughtfully sequence courses in programs of study; identify the most appropriate math course for a program; and discuss strategies to support students' success in gateway program courses can be done without significant additional costs.

Advising redesign and the implementation of ctcLink

One challenge that nearly all colleges discussed stemmed from the implementation of ctcLink. The slow roll-out of ctcLink is limiting campus action on advising redesign work. Many colleges are waiting for the new system to be fully implemented before they acquire the new software needed to create customized education plans for each student or monitor student progress on plans. It is reasonable for colleges to put off purchasing new software given the uncertainty. However, we recommend that colleges still begin planning and implementing a redesign of the onboarding experience to help students explore programs and build full-program education plans. Even if the plans currently developed are on paper, the college will have redesigned the student experience and business processes so that, by the time the ctcLink upgrades are completed, the technology can be used to store the plans and monitor students' progress. We encourage colleges not to wait until ctcLink has been implemented to begin efforts to change their practices on this front.

Recommended Focus Areas for Next Phase of Guided Pathways Reform in Washington

The Washington CTCs have made important steps in implementing guided pathways practices. This, combined with the state board's and colleges' focus on leading with equity, have laid a strong foundation for continuing to implement reforms at scale that are designed to help students into and through programs of study. As the colleges continue their work, we encourage the planning and implementation teams to

pay particular attention to how students enter the college as well as their experience during their first year. As CCRC's presentations to the Washington State CTCs in 2019 highlighted, few students who start college at a CTC in Washington are still enrolled in any college a year later. On average, the Washington CTCs lose 60% of Black, Latinx, and Pacific Islander students and 50% of all students by the beginning of the second year of enrollment. The vast majority of these students drop out permanently and never reenroll at any higher education institution. Accordingly, we believe that in order to create more equity in student outcomes and to move the needle on retention, graduation, and transfer, it is critical to focus on students' initial terms in college. To that end, we conclude with recommendations for how colleges can focus their pathways work around students' transition into and initial terms at the college to promote retention and persistence and to address equity gaps in student outcomes.

Use program maps as a basis for developing full education plans for all students. Even if colleges create well-designed maps, they will have limited impacts if they are not accessible and useful to students. Ideally, maps should serve as guidelines or templates to build full education plans in the first or second term that are customized to each student's situation and objectives. At South Puget Sound Community College, every student builds a full education plan, based on the program maps, in Starfish software during a mandatory first-term student success course. In Pierce District Colleges, students create a full-program educational plan, using advising software, based on program maps in an initial advising meeting and affirm or modify their choices in a mandatory College 110 course.

Engage all students in courses relevant to programs of study early. Preliminary research conducted by CCRC on course-taking sequences in the Washington CTCs indicates that the majority of students take developmental courses in math, writing, and (sometimes) reading; a general student success course; and physical education in their first term in college. Few students take any course related to a field of interest or even in any field that might be of interest. We hypothesize that this type of schedule contributes to student attrition in their first year. We believe that it is critical to engage students in relevant courses in their first term. Many Washington CTCs that have sequenced maps on their websites for the majority of their programs, including Big Bend Community College and Peninsula College, do include programspecific courses in the first or second terms. Early engagement in program-specific courses is a particularly strong practice in technical colleges, whose faculty and administrators have long understood the need to "hook" students with relevant coursework early. To help students see the relevance of coursework to their longer term goals, as well as the value of investing in postsecondary education, colleges should prioritize including a program-specific, "light the fire" course (not just a gateway course in general education) that incorporates active learning in the first term or early in the course sequence on all program maps and all student educational plans. We would also suggest colleges consider using workforce or academic I-BEST in place of developmental math and writing. I-BEST would allow underprepared students to take a course in a field of interest with the academic support integrated into and contextualized to that course.

Focus on helping students complete field-relevant college-level math and English in their first term or two. At both community and technical colleges, students who are placed below college-level are often excluded from program-specific courses in early terms or even in their first year. Although many Washington colleges are moving toward shortening or eliminating sequences of pre-curricular developmental requirements, the majority still mandate that students complete multiple levels of pre-curricular math and/or English. It is well documented that assignment to developmental education courses

and resulting attrition contribute to equity gaps in student postsecondary outcomes. Therefore, in order to address equity gaps and help engage students in program-relevant coursework, we recommend that the Washington CTCs dramatically shorten course sequences or eliminate pre-curricular developmental requirements.

We applaud the Washington CTCs' commitment to closing equity gaps in student postsecondary outcomes and on the progress they have made thus far implementing pathways reforms. We suggest that the CTCs build on their accomplishments by continuing to implement reforms that are well aligned with the overarching goals of guided pathways and with each other. For example, colleges can use metamajors to structure convocation, orientation, and first-year experience courses; use the mapping process to identify critical program courses, which likely contribute to equity gaps in student persistence; and leverage professional development to strengthen curriculum and teaching and learning in these classes. Finally, we encourage the CTCs to focus on strengthening the first year through onboarding that focuses on helping students explore and enter a program aligned to their interests from the start; create a full-program customized educational plan as early as possible; and take an engaging course on topics of interest in the first term. CCRC's new practitioner packet on redesigned onboarding may provide some additional ideas for how colleges can redesign and scale existing practices with these goals in mind.

Postscript: Guided Pathways Priorities during COVID-19

Since we conducted the SOAA and interviewed teams from the Washington colleges in fall 2019, the COVID-19 pandemic has upended higher education. While there is still much uncertainty about the future—including whether enrollments will go up or down, how the student composition might change in the next academic year, and whether classes will be in-person, online, or some combination of the two—we believe that several guided pathways practices will become even more critical to student and college success. There will likely be much more competition for students from four-year institutions and online providers, so it will be critical to ensure that colleges offer relevant, well-taught programs of value to the community and the local labor market. In particular, colleges should ensure that new and returning students are helped to:

- 1. Explore options and interests and develop educational and financial plans that will enable them to secure stable employment in the near term and advance to better jobs over time. To do this, colleges will need to collaborate with employers to create and market program maps by field (or meta-major) to key student groups.
- 2. Connect with faculty, experienced students/alumni, advisors, and others in the student's field of interest starting at orientation.
- 3. Take courses that spark their interest and enable them to develop 21st-century professional skills, which will maximize their chances of success in a highly competitive job market.

In partnership with the Washington SBCTC and the Student Success Center, we plan to offer a webinar this summer that will provide additional insight into how colleges can implement these practices.

Appendix: Washington State Community and Technical Colleges' SOAA Ratings, 2018–2019









