FROM INNOVATION TO INSTITUTIONALIZATION:

A Case Study of Developmental Education Redesign at Two Oregon Community Colleges

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> **"** *It used be just a teacher here or there working on it ... Now our campus is very aware of developmental education."* – *Southwestern Oregon Community College Administrator*

Introduction

Nationally, approximately two-thirds of community college students are considered academically underprepared each year, which means they must pass developmental education courses in math, reading, and/or writing before they can progress into college-level English and math courses (Bailey, Jeong, & Cho, 2010). Students who take developmental education courses persist and graduate at lower rates than their counterparts who start college in college-level coursework (Attewell, Lavin, Domina, & Levey, 2006; Jaggars & Hodara, 2011). In addition, students must invest time and money on these courses without earning credit toward a degree. Across Oregon's 17 community colleges, the approximate cost of developmental education in 2010/11 was nearly $41.5 million (Oregon Department of Community Colleges & Workforce Development, 2011).

In response to these concerns, community colleges across the country are working to improve developmental education by changing how they assess and place students, adopting reforms that accelerate students' progress through developmental education, and enhancing student services (Edgecombe, Cormier, Bickerstaff, & Barragan, 2013; Hodara, Jaggars, & Karp, 2012; Quint, Jaggars, Byndloss, & Magazinnik, 2013).

> **Developmental Education in Oregon**
> *(Hodara, 2015)*
>
> • Nearly **75 percent** of recent high school graduates took at least one developmental course upon enrolling in an Oregon community college
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> • After five years, **less than a third** of students who took the lowest level math (22%) and writing (27%) courses persisted and completed
>
> • After five years, l**ess than half** of the students who took the highest level math (49%) and writing (36%) courses persisted and completed

Developmental education redesign in Oregon

Oregon's 17 community colleges have also been implementing developmental education reforms in recent years. Facilitated by the Oregon Community College Association (OCCA), the Developmental Education Redesign Work Group formed in November 2013 to examine national reforms and identify those with a high potential to decrease student attrition and time to completion. The work group included faculty, administrators, and student services professionals from all 17 community colleges, who met monthly for 10 months. In August 2014, the group published its recommendations in "Developmental Education Redesign: Decreasing Attrition and Time to Completion at Oregon's Community Colleges" (Oregon Community College Association, 2014). The recommendations included reforms in mathematics, reading and writing, student services, assessment and placement, professional development, and data collection.

Since 2014, Oregon's community colleges have all voluntarily undertaken these reforms. Each college has assigned a campus lead to coordinate its reform efforts, and these 17 staff members meet quarterly as a community of learners to discuss implementation challenges and share best practices.

Overview of this study and report

The challenges of scaling up developmental education reform have been well documented (Edgecombe et al., 2013; Mayer et al., 2014; Price, McMaken, & Kioukis, 2015; Quint, 2013). Many reforms reach only a small fraction of students and thus have a limited impact on institutional outcomes. To better understand how developmental education reforms are being implemented in Oregon, REL Northwest partnered with the OCCA to conduct a survey of stakeholders from all 17 Oregon community colleges and a case study of two colleges.

The survey provides a snapshot of the progress each campus is making in implementing the reforms advanced by the Developmental Redesign Work Group, while the case study offers an in-depth examination of redesign processes and interim outcomes at Clackamas Community College (CCC) and Southwestern Oregon Community College (SWOCC). This report focuses primarily on the case study findings and is intended as a resource to support the adoption, adaptation, and scaling of developmental education redesign in Oregon. The lessons learned can also inform national reform efforts, particularly the Guided Pathways work, which seeks to transform the way community colleges serve all students.

Key findings and recommendations

Four key strategies supported the redesign efforts at CCC and SWOCC:

- Careful messaging about the value and purpose of redesign
- Commitment and engagement of both administrators and faculty
- Additional resources and capacity building
- Leveraging external networks such as OCCA

Early signs of progress at CCC and SWOCC include:

- Improvements in academic indicators and reports of student satisfaction
- Enhanced culture and increased collaboration among faculty and staff
- Aligned and transparent policies, practices, and investments, suggesting that the reforms are being embraced throughout the institution

The transition from adoption to adaptation and scaling of developmental education redesign presents daunting challenges for both campuses, including:

- Steering the reform
- Establishing transparent and supportive policies and practices across campus
- Communicating with students, staff, and faculty about redesign
- Using data to support redesign

To support scaling of developmental education redesign to reach a larger number of students, we recommend the state—through OCCA and the Higher Education Coordinating Commission (HECC)—do the following:

- Provide flexible and sustained funding
- Continue to provide professional development and models of successful reform
- Work with colleges to identify further opportunities for brokering and alignment

As community colleges embark on implementing Guided Pathways reforms, lessons from the developmental education redesign can inform this institutional transformation work. We recommend the colleges do the following:

- Coordinate and align reform efforts across the campus to ensure a systemic plan that promotes sustainability
- Collect implementation and outcome data to track reform progress and effectiveness
- Focus on staff and student outreach to communicate clearly about reforms

Study design

There is a small body of research on the process of developmental education reform. To understand factors that support or hinder developmental education redesign, we drew heavily on two multisite studies (Edgecombe et al., 2013; Price et al., 2015).

Based on a national scan of developmental education reforms and fieldwork at 11 colleges, Edgecombe and colleagues (2013) introduced an "adoption and adaptation" framework that colleges could use to guide and strengthen developmental education reform. The adoption phases support the planning of reform through diagnosis, selection, and preparation. The adaptation phases support institutionalization of reform through assessment, refinement, and scaling processes.

Price and colleagues (2015) studied the scale up of developmental education reform at four Achieving the Dream (AtD) community colleges. AtD is a network of more than 200 community colleges that supports large-scale, data-driven institutional change. These case studies revealed the following conditions that support scaling: leadership and commitment, financial and administrative prioritization (buy-in), use of evidence, transparent and supportive policies and practices, and networks.

Both of these studies portray developmental redesign as a complex, multiphase process involving stakeholders across campuses. We used this research to inform the survey and qualitative protocols used for this study and to analyze the data, contextualize the findings, and provide recommendations.

Statewide survey methods

The purpose of the survey was to understand the extent to which each of the 17 colleges had implemented the recommendations put forth by the Developmental Education Redesign Work Group. In May 2016 Education Northwest administered the online survey to the Council of Instructional Administrators, developmental education redesign campus leads, and members of each campus' placement and developmental education redesign teams. At least one individual from each college completed the survey. Sixty-five individuals completed the survey, for a response rate of 38 percent. Among the respondents were 17 math faculty, 10 English faculty, and 38 administrators, who included vice presidents and deans of academic and student services departments and divisions.

Case study methods

In order to understand implementation conditions and interim outcomes, we used the survey results to select two colleges to study in depth. Two criteria guided the selection of case study sites: the college had adopted redesign recommendations in multiple areas (math, reading/writing, and assessment and placement), and the college had indicated on the survey that it would be willing to participate in a site visit. After identifying an initial list of colleges that met these criteria, we selected two sites that represented the geographic and size diversity of community colleges in the state. CCC is a fairly large college near an urban area. It is located in Oregon City, near Portland, and had an enrollment of 14,135 students in fall 2014. SWOCC represents a small college in a rural area. It is located in Coos Bay, on the central coast, and had an enrollment of 2,338 students in fall 2014.[1]

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[1] Enrollment numbers are from the Integrated Postsecondary Education Data System (IPEDS) and are based on unduplicated headcounts.

In total, we spoke with 16 individuals about their experiences with developmental education redesign. We conducted individual interviews with administrators and focus groups with faculty (e.g., math, English, reading) and student services staff involved in developmental education reform (table 1).

Table 1. Case study participants

	Administrators	Faculty/staff
CCC	4	5
SWOCC	4	3
Total	8	8

The interviews and focus groups covered the following topics:

- History of developmental education reform on campus
- Evidence that reform efforts are getting traction and making a difference
- Factors that influence the success of reforms
- Lessons learned for other campuses
- Recommendations for statewide efforts

In addition to the interview and focus group data, we reviewed organizational documents related to redesign. Using a coding scheme informed by both the research and the data, we conducted thematic analysis at the site level before conducting analysis to identify patterns across the two sites. We used analytical memos and matrices to track our analysis. We report findings and common themes based on this analysis in the following sections.

Developmental education reforms adopted at colleges statewide

At both CCC and SWOCC conversations around the effectiveness of long developmental education course sequences and small efforts to change developmental education by individual instructors began before the Developmental Education Redesign Work Group met. SWOCC also became an AtD college, and the early data work the AtD data team conducted helped lay the foundation for motivating larger scale reform.

> " *With Achieving the Dream, when we first looked at the areas where our students are struggling it became critical the first year. We looked at about half of our students and [found that] most of them left within the first quarter, in the fall. A lot of them were developmental education students, and I think part of the reason was that they have some expectations about going to college and getting an education, but then you go to college and now you have to take [non–credit-bearing courses] 20, 60, 65, 95, and it's going to take a year and a half before you get to take you first college class.*

[SWOCC faculty/staff]

The initiation of the Developmental Education Redesign Work Group spurred larger redesign efforts on both campuses. Both colleges brought together a cross-campus group of administrators, English faculty, math faculty, and student services staff to attend meetings, discuss national research, and bring findings back to their colleagues. From there—led by champions within the departments and encouraged by college leadership—the colleges implemented reforms simultaneously in math, reading/writing, student services, and assessment and placement. Each college's developmental education reforms are described below (table 2).

Table 2. Developmental education reforms implemented in recent years (2013/14–2015/16) at Clackamas Community College and Southwestern Oregon Community College

Reform area	Clackamas Community College	Southwestern Oregon Community College
Student services	• First-year experience	• Required college success courses
Assessment & placement	• Multiple measures • Decision zones • Directed self-placement	• Multiple measures
Math	• Math 98	• Math 98 • ALEKS[1] in all other developmental math classes
Reading/writing	• Integrated reading-writing	• Integrated reading-writing • Developmental writing corequisite with English Composition[2]

[1] Assessment and LEarning in Knowledge Spaces (ALEKS) is a software program that uses adaptive questioning to continually assess what a student knows and doesn't know in a course and then tailors instruction based on the results.

[2] SWOCC is in the planning stages with this reform.

Student services

The Developmental Education Redesign Work Group made student services recommendations in the areas of foundational student supports, advising, orientation, and first-year experience. According to the survey, the most common change in student services has been mandatory advising for developmental education students, followed by mandatory orientation, early alert systems, and a first-year experience.

SWOCC has had mandatory advising for all students and an early alert system in place for many years, and mandatory orientation and a first-year experience have long been in place for students living on campus. SWOCC recently expanded its college success course offerings, and students who take developmental education are required to select one college success course from a set of classes (e.g., study skills, math success, career planning). CCC has implemented a first-year experience for students taking at least one developmental education course.

Assessment and placement

The Developmental Education Redesign Work Group's primary recommendation in the area of assessment and placement was the creation of a statewide system based on effective placement processes and strategies and an understanding that students arrive at community college with different needs and backgrounds.

CCC was one of the first community colleges in the state to use multiple measures to determine students' readiness for college-level math and English, along with decision zones and directed self-placement (see table 3 for exact measures). CCC's new comprehensive multiple measures placement process is called Placement Advising for Student Success (PASS). To place students, PASS uses standardized test scores along with self-reported information from students on their high school grade point average; high school math and English grades; feelings about math, reading, and writing; and degree and career goals. SWOCC has also implemented multiple measures (table 3).

Table 3. Clackamas Community College and Southwestern Oregon Community College are using measures beyond standardized tests to determine readiness for college math and English

Measures to determine readiness for college math and English	Clackamas Community College	Southwestern Oregon Community College
Standardized test scores		
Placement exam scores	X	X
SAT	X	X
ACT	X	X
Advanced Placement exam scores	X	X
International Baccalaureate exam scores	X	X
High school grades		
Cumulative grade point average	X	X
Grades in specific courses	X	X
New measures		
Self-reported "nonacademic" measures from an intake tool[1]	X	
Smarter Balanced Assessment scores	X	X
GED scores	X	X
Writing work sample (for college English placement only)	X	
Measures from other Oregon community colleges		
Placement scores from other Oregon community colleges		X
Course grades from other Oregon community colleges	X	X

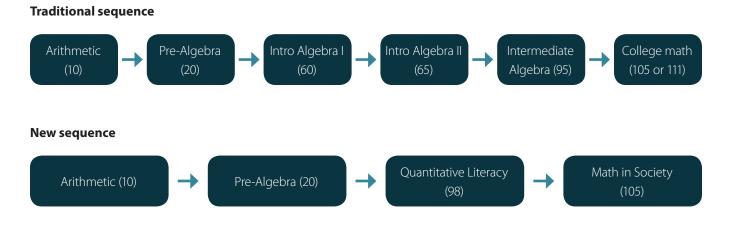[1] The intake form is available at http://www.clackamas.edu/pass/ass/

Math

The Developmental Education Redesign Work Group's primary recommendation in the area of mathematics was an accelerated pathway through developmental math for students in non-STEM (science, technology, engineering, and math) degree fields. This pathway consists of a foundational quantitative literacy course (Math 98) that prepares students to succeed in Math 105.

All but two community colleges in the state reported that they have implemented a new prerequisite course to Math 105, called quantitative literacy (figure 1). The implementation of this course required considerable support from the state, which had to change its policy about approved course prerequisites for transfer-level college math courses that the universities would accept.

CCC began offering Math 98 in the 2014/15 academic year, and SWOCC began offering it the following year. In response to a survey question about how many sections of this course are available to students, respondents at both colleges selected the response "Not enough for all students who are interested or who place into the course."

Figure 1. Nearly all Oregon community colleges have implemented an accelerated pathway through developmental math for students in non-STEM fields

Traditional sequence

Arithmetic (10) → Pre-Algebra (20) → Intro Algebra I (60) → Intro Algebra II (65) → Intermediate Algebra (95) → College math (105 or 111)

New sequence

Arithmetic (10) → Pre-Algebra (20) → Quantitative Literacy (98) → Math in Society (105)

Reading and writing

The Developmental Education Redesign Work Group's primary recommendations for reading and writing were to adopt an acceleration model and revise curricula to include college-level work. The most common accelerated English models being implemented in Oregon are integrated developmental reading and writing courses.

CCC created two integrated reading-writing courses in an effort to replace reading 80 and 90 and writing 80, 90, and 95. SWOCC has piloted one section of integrated reading and writing 90 and reduced the number of credits of their lowest level writing course. SWOCC is also planning to implement a developmental writing corequisite course with English Composition 121. To promote this strategy, the state has provided grant funds to colleges who applied to implement a corequisite developmental writing/college English model.

Strategies for promoting developmental education redesign at Clackamas Community College and Southwestern Oregon Community College

Both colleges implemented nearly all the major reforms recommended by the Developmental Education Redesign Work Group. Four key strategies led to the success of these large-scale implementation efforts: careful messaging, commitment and engagement of administrators and faculty, additional resources and capacity building, and leveraging external networks.

Careful messaging

Developmental education redesign is a paradigm shift that requires careful messaging by leadership to overcome resistance and ensure campuswide support. Since redesign involves multiple departments, campus leaders had to communicate that redesign is both a priority and an expectation. One way the colleges approached this was to link messages about developmental education redesign to other reforms, such as Guided Pathways and first-year experience programs:

> *We've identified it as a strategic priority to implement Guided Pathways as a coherent set of practices. The acceleration and simplification of developmental education and multimodal placement is one entry-level piece.*
>
> *[CCC administrator]*

Leaders also framed their message by emphasizing the basic value of developmental education for students and for the college overall. One administrator described the success of these efforts in building awareness and engagement:

> *It used be just a teacher here or there working on it, or we put that responsibility on that teacher. Now, our campus is very aware of developmental [education]. They know these are the students that are really going to be supporting the school in terms of tuition and enrollment and numbers … Now we realize how significant they are in the entire financial health of the school, as well as academically helping these students who felt they didn't have much of a chance …*
>
> *[SWOCC administrator]*

Some case study participants indicated that aspects of redesign, such as the "holistic" approach, resonate with the "student-centered culture" on their campuses. However, many participants noted that that there is also "resistance" to redesign that may create "conflict" as plans are implemented. Part of this resistance appears to be rooted in a lack of agreement on campus about what it means to be a "college-ready" student, with some faculty unwilling to integrate skill development into their content courses because they expect students to arrive ready to perform at a higher level. One case study participant suggested that to reduce student costs, developmental education workshops should perhaps be offered prior to college enrollment. There are also financial concerns, as shorter course sequences may reduce the number of faculty needed to teach classes. On both campuses, study participants cited faculty turnover as opening the door for reform in some departments. New faculty are hired with an expectation that they will support developmental education, and they are oriented to a culture where that is the norm.

Most commonly, participants suggested that redesign runs counter to campus norms because implementation requires them to break down "silos" and collaborate more frequently across departments. In particular, best practices such as the use of multiple measures for placement are blurring conventional roles by involving a wider range of staff in student advising and placement. While challenging, this "shift" has been mostly positive, both for campus culture and student achievement.

Commitment and engagement of administrators and faculty

The representation and engagement of diverse stakeholders is a cornerstone of successful developmental education redesign (Edgecombe et al., 2013; Price et al., 2015). In line with previous research, case study participants repeatedly returned to the idea that redesign is a "collaborative" process in which both faculty and administrators play an important role in building and sustaining the "momentum" necessary for reform.

Administrators typically viewed their role as seeding redesign efforts across campus and removing barriers for faculty and staff who may champion redesign with their peers. One administrator described cultivating an "institutional growth mindset" that fosters innovation and continuous improvement. On both campuses, administrators told stories of "self-generating" faculty who "asked questions, sought out professional development opportunities, embraced redesign in their own practice, and then brought others along in their department." This approach is based on the idea that redesign can't be top down because faculty place a high value on autonomy and innovation:

> *You can't force those things from the top down anymore. It just doesn't work. You have to plant the seed in their minds ... I think from an administrative standpoint our goal ... is to help steer the faculty the way they need to go, and once you get the champion that has really bought into this stuff and gets excited about it then just let them go and make sure that all the barriers that might get in their way are out of their way.*

[SWOCC administrator]

> *You really need to involve faculty from the beginning and not tell them that this is what's going to happen, but provide them with the data and find people who can be champions among the faculty who will help their peers along.*

[CCC administrator]

On both campuses, faculty in English and math—as well as other subjects such as basic skills development and English as a Second Language—championed redesign, piloted reforms, and provided coaching to their peers. Student services staff also embraced redesign. In focus groups and interviews, faculty and staff often described administrators as being "open" to changes they proposed in courses and supportive of their participation in professional development.

> *For me, when I come up with an idea it's well-received, and we try it and see if it works. I haven't been shut down ... I've experienced a lot of open, excited encouragement from administration.*

[SWOCC faculty/staff]

> *There is a pretty high level of trust in our department. Since I was the one doing these meetings [Developmental Education Redesign Work Group] and bringing back the information to them and others were interested as well ... There's no lobbying necessary. It's been pretty open to innovation. I think we had enough general awareness of the data around the leaky pipeline and everything in our department that people were ready to change.*

[CCC faculty/staff]

Campuses often struggle to implement redesign in the face of campus norms of autonomy and isolation (Edgecombe et al., 2013). SWOCC and CCC are responding to this challenge by creating new norms of collaboration and by encouraging innovation around redesign. These findings are in line with research on the importance of cultivating internal networks (Price et al., 2015) that may be used to support and scale redesign.

Additional resources and capacity building

Additional resources and capacity building help engage faculty and staff and sustain the redesign process. Innovation and collaboration take time. In addition to encouragement, both campuses provided tangible resources and incentives to support participation in redesign. This includes funding and time to participate in professional development conferences as well as

state and national meetings related to redesign. Campuses also offer course releases and sabbaticals to provide faculty with the time to work together on projects such as the redesign of courses or the analysis of course-taking and performance trends. At CCC, faculty applied for "innovation funds" to support several redesign projects. In 2015/16, the Academic Foundations and Connections department, where developmental education is housed, used $225,000 of $400,000 available in innovation funds, mostly for developmental education redesign. These resources helped to accelerate the process of redesign and engage more stakeholders across campus:

> *Another key at this college is we have an innovation fund process that every year, right after budgeting—it's been at least a minimum of $250,000 per year ... everybody gets to submit funded projects to identify if they attach to a larger priority related to the institution or beyond. In that same year [when we started using innovation funds for developmental education redesign] we had a lot of synergy. That was probably one of our more productive movement years.*

[CCC administrator]

The state has also provided funding for specific reforms related to first-year experience, Math 98, and the corequiste model, which helped support reforms the colleges were already considering:

> *We got the $80,000 grant [for the corequiste model]. Well, we didn't go after it because of the money. It's something we've been considering doing all along, and the grant came along so, 'Oh yeah, let's apply for it.' We've always wanted our students to have additional instruction. We keep on thinking that if they just get a little bit more practice, a little more one-on-one, a little bit more direction, then this could work.*

[SWOCC administrator]

In addition to funding, participants cite the need for capacity building to implement and sustain reform. This includes professional development for faculty and staff in taking on new responsibilities, as was noted in the CCC focus group:

> *Writing teachers are having to see themselves as reading teachers. They have to teach students with problems they have never seen before. They might not be able to identify students early enough who are not able to pass.*

[CCC faculty/staff]

CCC study participants cited a particular need for more on-campus professional development to "foster a culture of sharing and learning about pedagogy." Study participants on both campuses cited considerable challenges in keeping part-time faculty informed about developmental education redesign efforts, given the limitations of their schedule.

Capacity building also involves the creation of new positions to respond to the greater demands redesign places on advising, placement, and institutional research staff. In the case of multiple measures, in particular, participants from both campuses highlighted the need for additional staffing to implement these reforms:

> *What we're finding out, though, is that we're understaffed because these processes now take longer. I'm going to be talking with you as opposed to just looking at test scores and placing you, so there's some budget issues with that. I need more advisors to do intake advising if we're going to be going to a multiple measure models then that requires additional conversations with the students. The implementation is the issue. We can talk about the theory behind it and the research and the best practices, but it's hard to implement.*

[SWOCC faculty/staff]

> " *The proven practices around intrusive advising and early alert and pathways that are clear to students and staying on top of them and eliminating barriers—that's a lot of culture change and a lot of work. You can't really do that if you're increasing the number of students and decreasing the number of people who are serving the students.*

[CCC faculty/staff]

At CCC, multiple participants cited the creation of a new staff position to coordinate placement as a critical support for coordinating and sustaining multiple measures across campus.

Leveraging external networks

External networks such as the Development Education Redesign Work Group provide useful perspective, models, and resources that spark or reinforce campus-level reforms. Across the sample, participants cited the value of participating in external networks such as the Developmental Education Redesign Work Group and Achieving the Dream. Administrators frequently described how these networks offered "outside" perspective that they were able to use to generate support for redesign on campus.

On one level, administrators used these networks to make the case to campus leadership, faculty, and staff about the value of developmental education redesign. Participating in these networks made the campuses feel like they were part of a larger movement in which developmental redesign was an "expectation" and "not just us." Administrators intentionally sent cross-campus teams to participate in these activities so that they could support each other in bringing back the momentum and ideas to their own campus:

> " *I'll tell you it's helped me a lot to be able to go to instructional council, go to a general faculty meeting, go to the senate and say, you know, the state is saying we need to do this. I think that's helped tremendously. Then, of course, the faculty that have been going to those meetings can stand up and say, 'Yeah, you're right. We're doing a lot of good things and we think this will be best for us.' When the other faculty hear their peers saying that, it holds a lot of weight.*

[SWOCC administrator]

> " *Not only did we join the statewide conversation, we had our own internal teams actually saying we need to do our own work ... I think they became energized by the [statewide] conversation because that was a really good working group that got better in its second year.*

[CCC administrator]

Not only do faculty and staff leave network meetings feeling "energized" about the work they are doing on campus, they also gain access to new models, research, and resources to support their efforts. For example, participation in the Developmental Education Redesign Work Group sparked CCC to adopt reforms such as looking at transition points between courses and shortening sequences and multiple measures, as discussed below:

> " *John Hetts[2] really pushed them. They were developing the whole thing. He cemented it. He told us everything we needed to know about why we designed PASS ... I was like, go. You just heard why we should do this. So having the outsider, it reaffirmed what we were doing.*

[CCC administrator]

> " *The state [task] force was just sort of the last push that we needed.*

[CCC faculty/staff]

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[2]   John Hetts is senior director of data science at Educational Results Partnership. He speaks widely on transforming the assessment and placement process through using high school grades and presented a number of times to the Developmental Education Redesign Work Group.

Similarly, SWOCC noted the value of the coaching, funding, and training provided by the work group. As one administrator explained: "[The work group] brought in scholarship and research and provided us with resources that a small, rural, overworked community college hasn't had access to."

As these examples illustrate, external networks helped to reinforce work that was underway on campus. In describing the factors that made the Developmental Education Redesign Work Group such a success, administrators expressed appreciation for the way it operated as a campus-driven model that "invited" rather than mandated reform.

> *In the first year it was a little clunkier, I think, but it came together better [in the second year]. It just kind of built on itself, and it didn't impose, it invited. It's supported with funds from the state. It brought in guest speakers and innovators and researchers as information in a way that colleges work. It respected, I think, how they work. It said: 'We're going to bring in information and we're going to let you float around for a while and backtrack and that kind of stuff, and you can kind of set your own timeline.' That mattered a lot. It gave energy to some of the systems. That coupled with our own work here made math and English [faculty] feel like, 'Wow, we're supported.'*

[CCC administrator]

> *I guess I've just been around too long and have seen too many of these statewide things and you go and you just talk, talk, talk and nothing ever happens. But, this group they produced something that basically changed the way the colleges did business. We're doing it again with placement. It was done in a way that was not the HECC coming and saying, 'You will do this.' And, yet it really was, 'We want you all to do this,' but it didn't come across as you have to do this. It was a very strange thing, but it worked. I have to give a lot of credit to Elizabeth [Cox Brand]. Her energy level and the way she organizes is amazing. I'm a true believer now.*

[SWOCC administrator]

These quotes about state support for campus engagement in redesign echo findings about what works best for engaging faculty: respect for autonomy and support for innovation.

Early signs of progress at Clackamas Community College and Southwestern Oregon Community College

Primary indicators of developmental education redesign success often include the change in the number or rate of students that enroll and complete college-level English and math, persist, and eventually complete college (for example see a set of evaluations on developmental education reform in Jaggars, Hodara, Cho & Xu, 2015). In addition to these academic indicators, participants on both campuses cite positive changes in campus culture, more holistic support for students, and the institutionalization of reforms.

Initial academic indicators and reports of student satisfaction are promising. The case study sites shared some early outcome data with us. For example, CCC observed a 5 percent increase in retention among students who took the first-year experience, and math pass rates increased at SWOCC from 52 percent to 73 percent after the introduction of ALEKS.

Participants also said students expressed happiness about the shorter sequences and new courses. In particular, both colleges said students were "grateful" for Math 98 because it removed an enormous barrier of having to master algebra to progress through college and reach their career goals. At CCC, students felt "empowered" by the PASS program and liked the placement advising sessions.

> *There is a joy in their eyes when they learn they need three math courses not five.*
>
> *[CCC faculty/staff]*

Participants also believed there was greater support across the campus to look at students more holistically, both in placement and instruction. In placement, this meant using multiple measures to understand student capabilities above and beyond their proficiency in basic math, reading, and writing. In instruction, this meant developing pathways that aligned with students' academic and career goals.

> *The most important piece of all of this [redesign] has been mutual awareness and respect. Really, to have testing services be so important in the faculty's mind ... I think there is a better awareness across the campus for the evolution of a student over time. I think that holistic understanding ... Everybody agrees with that piece. That awareness is so below the surface that I don't think anybody would have ever said that was an epiphany at any one point. I think there has just been a shift in the way we're doing business, on all accounts.*
>
> *[CCC administrator]*

Aligned and transparent policies, procedures, and investments are positive signs of institutionalization. At CCC, such signs are apparent in the new assessment and placement program, PASS. First, they implemented new policies and procedures related to assessing readiness. This includes using multiple measures and providing students with a 15-minute appointment with an advisor who offers guidance on the best courses to take based on the student's performance across these measures. To make these changes transparent, they created flow charts and concordance tables that explain the order in which to use various measures to determine course placement and the scores on various measures (SAT, ACT, Smarter Balanced levels, GED, COMPASS,ACCUPLACER, ASSET) that align with different courses. Next, they invested resources to sustain these changes by hiring a placement and advising coordinator. The new individual will not only work with prospective students but will also produce and distribute high-quality information about placement, financial aid, and student supports and will evaluate and support the program improvement of PASS. Finally, they made the program common practice by giving it an official name, building awareness of it across the campus, and talking to local high schools about it.

In terms of institutionalization of academic reforms, both colleges are moving from the pilot phase of implementing Math 98 and integrated reading-writing to scaling up shorter math and English sequences so they are available to all developmental education students.

Moving from innovation to institutionalization: Current challenges facing Clackamas Community College and Southwestern Oregon Community College

Now several years into the redesign process, SWOCC and CCC are still figuring out how to move from innovation to institutionalization. During the early phases of redesign, the campuses focused heavily on widespread engagement and innovation. This included "seeding" faculty leaders and adapting new practices to fit their campuses. As their initiatives mature, the campuses are now grappling with the challenges of building the necessary infrastructure to scale and sustain these innovations. Both campuses expressed concern about "burn out" and "initiative fatigue" among faculty and staff leaders.

Edgecombe and colleagues (2013) suggest that four types of infrastructure are necessary to scale developmental education reform: a campuswide steering committee, professional development, outreach, and data capacity. Price and colleagues (2015) highlight the importance of transparent and supportive policies and practices. CCC and SWOCC vary in terms of the degree to which this infrastructure is present on their campus, and we identified four challenges across both campuses: steering the redesign process across campus; establishing transparent and supportive policies and practices across campus; communicating with students, staff, and faculty about redesign; and building data capacity to support redesign.

The redesign process appears to be decentralized at each campus, with no official steering committee or comprehensive plan guiding the work. Instead, CCC and SWOC are both using other institutional structures to organize activities and collaboration. As part of AtD, SWOCC has developed various developmental education plans and committees, such as a data team. More recently, they merged some of those committees into the Student Success Committee. While not specific to developmental education, multiple SWOCC participants cited the Student Success Committee as supporting redesign.

Meanwhile, CCC is exploring the creation of a campuswide committee to support redesign. Until then, the Academic Foundations and Connections department serves as the informal "home" for developmental education redesign, as noted below:

> "The opening of every AFAC division meeting is talk about what's going on in your area. A faculty member in English gets to hear what student enrollment services is doing, when they were never in the same meeting before. It's created relationship opportunities and opportunities for people to be thoughtful about how they come together to talk about things they want to get done.

[CCC administrator]

The two campuses are in the process of establishing transparent and supportive policies and practices across campus. As one SWOCC administrator noted, "The devil is in the details" when it comes to scaling these reforms. The two campuses differ in the degree to which they have documented and scaled their redesign plans, policies, and procedures. For example, SWOCC has expanded required student success courses but only offers limited sections of integrated reading-writing and math. CCC created a placement guide that maps math pathways for STEM and non-STEM students, but they have not yet expanded to other content areas or aligned the guide with a new student registration system. There is a lot of concern on both campuses about how to move developmental education redesign beyond their own departments and initial champions to the larger campus:

> "Part of the culture of innovation funds is that they are finite. You get it for a year and you can use it and you produce data based on outcomes and you look at it. Then there is a sense that it's done. All of these pieces that we've started [need to] be sustainable. They're not done. They have to become part of the college culture not just the department culture. I'm not sure how that happens. We kind of had this flurry of money and freedom and now it kind of pulls back and everything should be done, but that's not really how this works.

[CCC faculty/staff]

> *We had a bunch of innovation funding to get the course started, but we're talking about a course that has never been taught in a world that lives in algebra. That's all the world knows of math is algebra. Getting that to stick in other departments—the understanding that this is in fact a math class and there is more to life than algebra. It's huge. It's a huge cultural undertaking. We applied for another innovation fund this year, and we're working with our dean to figure out how our department can continue to sustain it, which is good.*

[CCC faculty/staff]

Clear and consistent communication about redesign to students, staff, and faculty remains a challenge for both campuses. At CCC, administrators highlighted the need for better information about how all the various reforms fit together, perhaps by hanging developmental education redesign on the "skeleton" of Guided Pathways. This is seen as critical to ensuring that reforms do not become "siloed" on campus. To this end, SWOCC has already documented some of its reform plans for AtD.

On both campuses, participants cite a need to standardize advising and placement practices, with better "marketing" and consistent communication with students about their options:

> *We are a huge campus … As we develop a self-service model, if students don't see Math 98, they may not take it. How do we educate a constant, fluid community of staff and faculty and students changing term by term on processes and systems? If we survey 10 students, half of them would still think they have to take Math 65 before they can take Math 98.*

[CCC faculty/staff]

> *The issues we're having with the multiple measures is that it's almost overwhelming to our advisors. It's extremely time consuming. The biggest challenge we have with this is getting it standardized to a point where the advisors know when a new student comes in, we're going to ask them this and this and this, in this order, and then we'll consider this and this and this, in this order, and then make a decision. I think we can get it down to a fairly quick process.*

[SWOCC administrator]

Both colleges continue to work on building data capacity to support redesign. In terms of data practices, SWOCC used data to inform the design of its initial reforms with AtD and is developing an early alert system. However, with one institutional research staff position, SWOCC struggles to provide data reports that would be accessible and useful for faculty. While CCC has significantly more institutional research capacity, administrators would like to see more regular reports of implementation data to help them track the effectiveness of the redesigned courses and placement processes.

Funding to support scaling and sustaining the reforms was also a common concern. Several participants expressed a need for more state funding to enable community colleges—which work with the "most vulnerable" students—to build the infrastructure necessary to sustain these reforms.

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Recommendations to support campuses in sparking and sustaining redesign

Evaluations of acceleration reforms on individual campuses have found positive effects of the redesigned courses on the outcomes of student participants compared to a matched comparison group (Jaggars et al., 2015). However, evaluations of large-scale reform efforts, such as those implemented by the first AtD colleges and the Developmental Education Initiative (DEI) colleges, where colleges have implemented multiple reforms simultaneously, have documented minimal to no progress on institutional outcomes, such as overall persistence, course pass rates, and completion (Mayer et al., 2014; Quint et al., 2013). The first round of AtD colleges and DEI colleges failed to move the needle on institutionwide outcomes because the reforms never scaled up and thus reached less than 10 percent of the student population, so the institutions did not experience large-scale change for students. Barriers to scale up included a lack of adequate resources to support the reforms and inadequate communication to staff and students about the reforms. In many cases students either did not know about the redesigned courses or chose not to enroll in courses that were offered at inconvenient times or locations (e.g., only certain campuses).

Another potential shortcoming of developmental education redesign is its narrow focus on one aspect of the college experience—the intake process and pre-college coursework—which may not be transformative enough to change student outcomes. Guided Pathways addresses this shortcoming by focusing reform efforts on the entire college experience and all community college students (Bailey, Jaggars, & Jenkins, 2015). Under the Guided Pathways model, community colleges provide students with more guidance and structure. This includes intake processes and career counseling that encourage students to select a major and career path, offer clearer curricular maps for majors or fields of interest, and provide ongoing student supports.

Recommendations to the state

To support scaling of developmental education redesign, we have three recommendations to the state (via the OCCA and HECC): provide flexible and sustained funding, continue to provide professional development and models of successful practice, and work with colleges to identify further opportunities for brokering and alignment.

Provide flexible and sustained funding to support innovation and institutionalization. Case study participants most frequently cited a need for more state funding to support the adoption, adaptation, and scaling of developmental education redesign and related reforms such as Guided Pathways. This reflects a statewide need, as 62 percent of survey respondents cited external funding as a needed support. In particular, they cite a need for sustained, noncategorical funding that they rely on to support the roll out of redesign over time.

> " *I can harp on the budget, but we really do need more money and not just one-time money. We can't support one-time money. It's tough. It's great to implement it, but we can't, with our budgets, and especially in the smaller schools, we can't guarantee that the next year we'll have that. We work on something, we get it going, then that money goes away and we can't sustain that. That's difficult. I'd like to see more money.*
>
> *[SWOCC administrator]*

> " *If we're not funded at the level we are, even today, then it's predictable that it won't be successful anywhere because providing the kind of service that community college students need as the most vulnerable postsecondary students in higher education requires resources, more than is being delivered. I think community colleges generally … do a lot with a little. If CCWD and HECC are looking for ways that they can help, you know, resources is one.*
>
> *[CCC administrator]*

> *"Throwing money at a problem doesn't guarantee a solution, but not providing the funding guarantees a lack of success. At some level the state is going to have to kick in if it wants to claim seriousness.*
>
> *[CCC faculty/staff]*

Continue to provide professional development and models of successful practice. Participants really like the "opt-in" model of the Developmental Education Redesign Work Group and would like to see more statewide opportunities for professional development. This need was also reflected in the survey: Professional development was the top need identified, with 65 percent of survey respondents selecting it. This includes venues for faculty to connect with their peers in their discipline from other colleges, as well as learning about innovative policies, practices, and models and seeing sample policies and procedures from other campuses. A few participants expressed appreciation for the individualized coaching they have received through the work group and would like to see more opportunities for consultation to help them with the specific challenges on their campus. Given the challenges of moving from innovation to institutionalization, OCCA might consider offering a variety of supports to benefit campuses that are at different points in the process.

Work with colleges to identify further opportunities for brokering and alignment. Across the board, participants cautioned against any mandated "one-size-fits-all" solutions to the problems of developmental education. However, they do like the alignment that is happening around course numbering and high school transcripts. They also like the brokering around ACCUPLACER and would like to see similar work on models such as ALEKS.

Recommendations to campuses

Lessons learned from the developmental education redesign can inform colleges' current efforts to implement the Guided Pathways reforms. We have three recommendations: coordinating and aligning reform efforts across each campus to ensure a systemic plan, collecting both implementation and outcome data to track reform progress and effectiveness, and focusing on staff and student outreach to communicate clearly about the reforms.

Coordinate and align reform efforts across the campus to ensure a systemic plan. The case study colleges are already linking reforms together by sending a clear message that developmental education reforms are an important part of Guided Pathways. The colleges might want to consider formally documenting all new initiatives, policies, and practices to ensure they align to institutional goals and the Guided Pathways framework. They might also consider including plans for sustaining and institutionalizing new student success reforms. In addition, a campuswide steering committee, such as the Student Success Committee at SWOCC, could help coordinate all campus reform efforts.

Collect both implementation and outcome data to track reform progress and effectiveness. An important part of scaling a reform is to assess its effectiveness and to make necessary adjustments (Edgecombe et al., 2013). The case study colleges are using data to examine course pass rates and students' progression through the redesigned courses. They should continue to assess the impact of the redesign on long-term, institutional outcomes to determine whether the changes are transforming outcomes for the college as a whole. Additionally, we recommend tracking interim and long-term implementation outcomes to understand the extent to which reforms are scaling up and sustaining (table 4). The rubric developed for this project and included in the evaluation guide, "Reflecting on the Implementation of Developmental Education Reform at Oregon Community Colleges: An Evaluation Guide for Stakeholders," may help with tracking institution-level implementation outcomes.

Table 4. Student-level and institution-level outcomes and measures to consider tracking

	Interim	Long term
Student-level outcomes	• Increased pass rates of students in redesigned courses (compared to pass rates in traditional courses or in years prior to redesign) • Increased enrollment and pass rates of students in redesigned courses in college-level math/English (compared to prior-year college-level math/English enrollment/pass rates of students who started in traditional courses) • Increased retention of students who participated in first-year experience, college success courses, or redesigned courses (compared to students who did not participate or prior year retention)	• Decreasing trend in developmental education referral rate over time • Increasing institution-level trends in persistence and completion rates
Institution-level outcomes	• There is a campuswide committee/group to guide reform and a plan in place to help align efforts and sustain reform • There are supportive and transparent policies/procedures in place • Outreach is conducted to staff and students to increase campuswide awareness and engagement in reform • Data are available in a timely and accessible manner to inform reform efforts • There is an investment in resources to support scaling	• Reform is common practice/policy • There are enough redesigned courses for all students who are interested/placed into the course • Developmental education sequences are shorter and aligned with college-level content and major/career pathways • Student services reforms reach the majority of the target population

Focus on staff and student outreach to communicate clearly about the reforms. Many efforts to scale up developmental education reforms have failed due to lack of outreach. An investment in visual graphics and other marketing tools can help with communicating new pathways and assessment and placement processes to staff and students. A campuswide steering committee could also support communication of reforms across departments and offices.

Conclusion

Oregon's 17 community colleges have worked to transform developmental education through a grassroots faculty- and staff-driven reform process supported by college leadership and external networks. We observed that by embracing norms of autonomy and fostering a culture of innovation, CCC and SWOCC have been successful in implementing developmental education reforms in multiple areas simultaneously. The challenge now lies in coming together across the campus to align efforts and scale and sustain reforms. Only by using data to ensure innovations are effective and institutionalizing these innovations will there be a potential to realize wide-scale changes in student persistence and completion. This report seeks to support those efforts by identifying conditions that facilitate implementation of reforms, signs of implementation progress, and recommendations for sustaining and institutionalizing reform.

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