



California
Community
Colleges



INSTITUTIONAL EFFECTIVENESS
PARTNERSHIP INITIATIVE

High Impact Retention, Persistence, and Success Practices for Strategic Enrollment Management

2019 Spring SEM Program, 2nd Edition

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Preface

The Strategic Enrollment Management (SEM) Project. The SEM Project began in 2016 as part of the suite of resources, tools, and professional development opportunities in the Professional Learning Network provided through the Institutional Effectiveness Partnership Initiative (IEPI) at the California Community Colleges Chancellor's Office. The SEM Project was developed by a core team of community college educators with collective expertise, i.e., instruction, student services, business and finance, and institutional research and planning. The SEM Core Team spent approximately one year researching the field of enrollment management in higher education, and worked with an advisory group comprised of college representatives from across the state of California and across constituent groups. Some of the resulting tools, resources, and services include:

- SEM Institutional Self-Assessment and Facilitator's Guide
- Nine resource guides and companion materials covering various SEM topics
- A bank of SEM Promising Practices
- A one-year cohort-based SEM Program in which 15 colleges participate in a two-day SEM academy and receive support from a team of SEM coaches on their SEM project.

Background: Intentional Focus on Completion. In order to align the California Community Colleges (CCC) system with the national student completion goals, in 2017 the Chancellor's Office spearheaded the development of a new strategic vision and imperative for the CCC system of colleges entitled, *Vision for Success*

(<http://californiacommunitycolleges.cccco.edu/portals/0/reports/vision-for-success.pdf>).

This new strategic vision brought a deeper, more intentional focus on the holistic needs of students and a greater call for student completions. The goals for the system through 2022 in the Vision for Success (VFS) are to:

1. Increase by at least 20 percent the number of CCC students annually who acquire associate degrees, credentials, certificates, or specific skill sets that prepare them for an in-demand job
2. Increase by 35 percent the number of CCC students transferring annually to a University of California (UC) or California State University (CSU).
3. Decrease the average number of units accumulated by CCC students earning associate degrees, from approximately 87 total units (the most recent system-wide average) to 79 total units—the average among the quintile of colleges showing the strongest performance on this measure.
4. Increase the percent of exiting Career Technical Education (CTE) students who report being employed in their field of study, from the most recent statewide average of 60 percent to an improved rate of 69 percent—the average among the quintile of colleges showing the strongest performance on this measure.



5. Reduce equity gaps across all of the above measures through faster improvements among traditionally underrepresented student groups, with the goal of cutting achievement gaps by 40 percent within 5 years and fully closing those achievement gaps within 10 years.
6. Reduce regional achievement gaps across all of the above measures through faster improvements among colleges located in regions with the lowest educational attainment of adults, with the ultimate goal of fully closing regional achievement gaps within 10 years.

In order to help the CCCs accomplish the goals in the VFS, the Chancellor's Office mandated two significant system-wide changes. The first one was Guided Pathways (GP), which creates a highly structured approach to student success and provides all students with a set of clear course-taking patterns and supports. The key principles of Guided Pathways include:

- Programs that are fully mapped out and aligned;
- Redesigned and integrated basic skills/developmental education classes;
- Proactive academic and career advising;
- Structured on-boarding processes;
- Responsive student tracking systems; and,
- Instructional support and co-curricular activities.

The second significant mandate was a change in the formula used to provide the CCCs their operational monies. Traditionally, funding had been allocated based on numbers of Full-Time Equivalent Students (FTES). The Student Centered Funding Formula (SCFF) is a new way to allocate funding to community college districts. The SCFF supports access to funding through enrollment-based funding, as well as student equity. The SCFF targets funds to districts that serve low-income students and student success equitably by providing districts with additional resources for successful student outcomes. The SCFF includes the following three allocations:

Base Allocation. The Base Allocation is based on districtwide enrollments. The sum of the Base Allocation funding formula in the SCFF is comprised of: 1) the number of colleges and centers in a district, 2) the size in terms of enrollments, 3) the enrollments in credit, noncredit, and career development and college preparation (CDCP) noncredit courses, and 4) enrollment of special admit students and inmates in correctional facilities;

Supplemental Allocation. The Supplemental Allocation is based on the number of low-income students enrolled, as determined by the number of Pell Grant recipients, College Promise Grant recipients, and AB540 students; and



Student Success Allocation. The Student Success Allocation is based on the counts of successful outcomes in eight measures: 1) the number of Associate Degrees for Transfer (ADTs) granted, 2) the number of associate degrees granted (excluding ADTs), 3) the number of baccalaureate degrees granted, 4) the number of credit certificates (16 units or more) granted, 5) the number of students who complete transfer-level mathematics and English courses within the first academic year of enrollment, 6) the number of students who transfer to a four-year university, 7) the number of students who complete nine or more Career Technical Education units, and 8) the number of students who attain a regional living wage. Furthermore, through the Student Success Allocation, a district receives additional funds for the same eight outcomes attained by students who received Pell Grants and College Promise Grants.

Additional legislative efforts that augment and support the mandates noted above include: AB19 (College Promise), AB705 (Assessment Protocol Reform), SB1440 (Associate Degrees for Transfer) and the Strong Workforce Program.

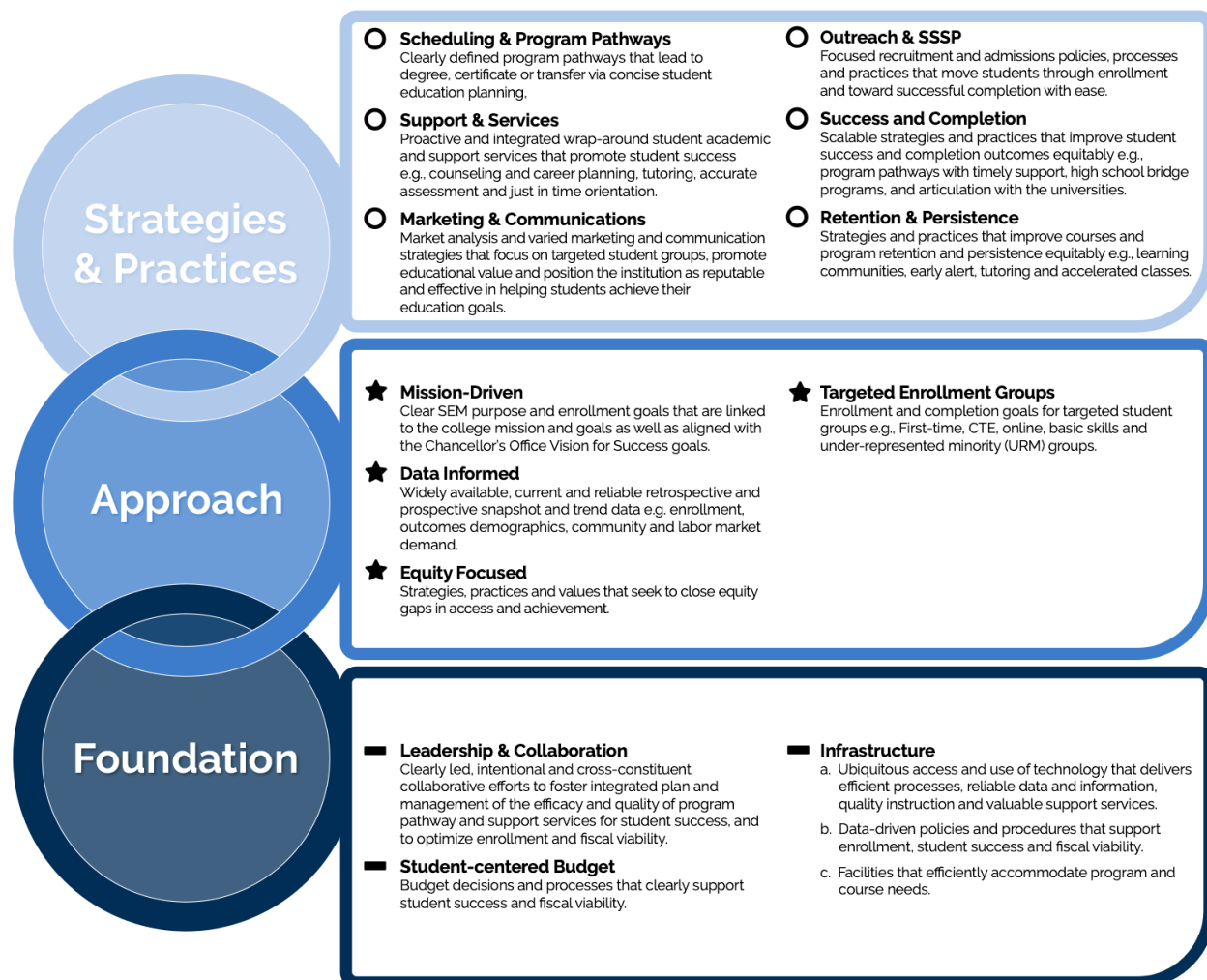
Reframing SEM. With the establishment of the Vision for Success, Guided Pathways, the Student Centered Funding Formula and other supporting initiatives, the SEM Project has continued to update and develop important tools, resources, and services that clearly align with these major statewide initiatives and legislation. The SEM Project continues to support college and district SEM efforts in order to help build and sustain healthy and dynamic community college environments. The strategies and practices for SEM are generally most responsive in a system that is open, dynamic, and responsive to its environment: accepting continuous input, analyzing this input in a timely manner, adjusting as needed in order to achieve organizational goals, and transmitting necessary information back out to the environment. To continue being a vital strategy for student success, enrollment optimization, and fiscal viability, SEM efforts must evolve alongside crucial changes that occur in community colleges.

The SEM Organizing Framework. The SEM Organizing Framework depicted in Diagram 1 was originally designed in 2016 to guide the development of the tools, resources and services for the SEM Project. It evolved out of research including an extensive literature review of SEM in higher education and primary research into current SEM practices in the California Community Colleges. It was revised in 2019 to more closely align with recent statewide initiatives and legislation (e.g., VFS, GP and SCCF), which in turn helped to guide the revisions of the SEM Project tools, resources and services. As the California Community Colleges work to implement these initiatives and legislation, the SEM Project continues to support these efforts through the variety of resources, tools, and services.

The SEM Organizing Framework exemplifies a holistic approach to SEM, and represents conditions for excellence in SEM. It contains three core dimensions: Foundation, Approach and Strategies. Each dimension contains multiple components of SEM that together define the essential elements of SEM.



Diagram 1. SEM Organizing Framework



Strategic Enrollment Management (SEM) Operational Definition. The SEM Purpose Statement was created by the SEM Core Project Team in conjunction with the SEM Advisory Committee. It reflects the same values, principles, and approach found in the Vision for Success (VFS) and its implementation framework, Guided Pathways (GP). Ultimately, the overarching purpose of SEM, VFS, and GP is to increase program completion, transfer, and gainful employment, and to close equity gaps in access and achievement. In addition, SEM, VFS, and GP use a holistic, integrative and collaborative approach for developing and implementing related strategies and practices. SEM also includes a focus on optimizing enrollment and maintaining fiscal viability, both of which are conditions needed in order to fully support the VFS goals, GP implementation, and align with the Student Centered Funding Formula (SCFF).



SEM Purpose Statement. As open-entry institutions, California community colleges serve a diverse student body with wide-ranging educational goals. We must regularly adapt our programs and services to meet the changing needs of our students, and to facilitate the achievement of their educational goals. At the same time, we must maintain our fiscal viability to ensure that we can support our communities now and into the future.

SEM is a holistic concept and process which enables the fulfillment of an institution's mission and its students' educational goals¹. SEM directly supports the Community Colleges Chancellor's Office Vision for Success and related goals. As it focuses on all aspects of the student experience, it coincides with the four pillars of Guided Pathways: 1) Clarify the Path, 2) Enter the Path, 3) Stay on the Path, and 4) Ensure Learning. Moreover, with its attention to financial stewardship in service of students, SEM supports colleges by ensuring adequate resources to improve equitable access and student outcomes through the Student Focused Funding Formula.

The purpose of SEM is to:

- Establish comprehensive student enrollment goals that are aligned with the college's mission, and core plans;
- Promote student success by improving access, engagement, persistence, and completion of program pathways;
- Ensure fiscal stability and viability by optimizing enrollments and integrating SEM into the college financial planning, budgeting, and allocation processes;
- Offer quality and relevant programs with clear educational pathways, course offerings, and appropriate student support;
- Implement strategies that lead to equitable access and outcomes;
- Create a data-rich environment to inform decisions and evaluate strategies;
- Design and implement communications and marketing with internal and external stakeholders to increase understanding of SEM and to meet SEM goals; and,
- Increase collaboration among departments across the campus to support the enrollment management program.

¹ Adapted from: Bontrager, B., and K. Pollock. 2009. *Strategic enrollment management at community colleges. Applying SEM at the Community College*. Washington, DC: American Association of Collegiate Registrars and Admissions Officers.



Background

There is a rather simple formula for student success, but it requires a complex array of strategies and practices. These strategies and practices need to be carefully planned, resourced, and implemented in an equitable, sustainable, and scalable fashion. This simple formula for student success that supports student achievement of education goals (e.g., degree or certificate completion, transfer and gainful employment) includes three critical indicators: 1) students must complete their courses successfully, 2) students must be retained until the end of the course with any grade notation, and 3) students must persist or enroll subsequently from term to term, year to year through all of their general education and program requirements. These three critical indicators (retention, successful course completion, and persistence) provide the focus and intention for strategic enrollment management strategies and practices.

There is no denying that colleges need to do more to ensure that students reach their education goals. It is difficult to imagine any other aspect of higher education that has received more attention in recent years than the issues surrounding successful completion, retention, and persistence. As noted in the preface, the California Community College system (CCC) has been challenged to become more intentional about improving student success and completion. The “Completion Agenda” has perhaps become even more prominent over the past decade as the global economy and the importance of skilled and knowledge-based workforce is the new imperative. In California, the 2012 legislation AB1456, Student Success Initiative, brought to light many critical practices that contribute to student success. In fact, this piece of legislation introduced, for the first time in the CCC history, a performance-based funding model that incentivizes colleges to improve student success.

National efforts such as Achieving the Dream and Completion by Design, supported by research conducted by numerous organizations including the Community College Research Center (CCRC), National Center for Inquiry and Improvement, Community College Survey of Student Engagement, Aspen Institute, Jobs for the Future, WestEd, Public Agenda, and the Research and Planning Group for California Community Colleges and early adopters of Guided Pathways, have laid important groundwork for the Guided Pathways movement (CCRC & AACC, 2015).² These collective efforts have helped to establish the key principles or pillars of Guided Pathways, initially articulated in *Redesigning America’s Community Colleges: A Clearer Pathway to Success* (Bailey, Smith Jaggars, & Jenkins, 2015). Nationally, and statewide in California, this effort speaks to a sea change in the way colleges offer programs and provide services, all in an effort to improve success and close widening equity gaps in access and achievement.

Rather than employ a deficit paradigm and blame students, the high schools, or the community for poor student outcomes, many would argue that student success is largely the responsibility of the institution, and that all the staff and faculty need the commitment to share that responsibility. Colleges must be willing to identify their shortcomings by offering nothing less than effective programming with support for students (both inside the classroom and out) to achieve their

² <https://www.aacc.nche.edu/wp-content/uploads/2017/09/TheMovementTowardPathways.pdf>



education goals. In other words, student success is tied to the success of the college's ability to create the environment conducive to success including support services orientation, advising, tutoring, clear program pathways, optimal and convenient scheduling, and instructional support.

In discussing student retention, especially in the first year, Tinto laid out five important learning conditions for retention: expectations, support, feedback, involvement, and learning.³

Tinto posits that students are more likely to persist through to completion when there are clear and consistent expectations by the institution of student achievement.

Moreover, he claims that students succeed when there is both academic and social support, particularly when the support is relevant to student lives and their challenges (e. g., tutoring, remedial courses, counseling and learning communities, feedback on assignments or progress reports), and when students are provided regular feedback by faculty and staff about their performance (e. g., student learning outcomes assessments). The last two conditions are both related to student efficacy. The more students are involved in their learning, the more they value their learning and are likely to stay and complete their education goals. All of these learning conditions are highly influenced by the policies, practices, programs and services that colleges offer to students, and all are considerations for strategic enrollment management.

As a result of the increasing demand to improve retention, persistence and completion, the Center for Community College Student Engagement at the University of Texas at Austin launched a Gates funded initiative in 2014 to research practices in community colleges around the country that demonstrated a high positive impact on student outcomes. Table 1 displays what the research found to be some of the most common high impact SEM practices:

Table 1. Thirteen Promising Practices from the Community College Institutional Survey (CCIS)

- | | |
|--|---|
| 1 First-year experience | 7 Experiential learning beyond the classroom |
| 2 Learning communities | 8 Tutoring |
| 3 College orientation | 9 Supplemental instruction |
| 4 Student success course | 10 Assessment and placement |
| 5 Accelerated courses or fast-track programs in developmental/ remedial education | 11 Registration before classes begin |
| 6 Academic goal setting and planning | 12 Class attendance |
| | 13 Alert and intervention |

³ Tinto, V. (1999). Taking Student Retention Seriously: Rethinking the First Year of College.



In light of the new statewide and local focus on ensuring student success (e.g. Guided Pathways, the Chancellor's Office Vision for Success, the Student Centered Funding Formula), the impact of a college's improved strategies for success become vital; strengthening retention, persistence and success practices means the college will realize the statewide and local goal: student achievement. There are many potential challenges along the way that community college students face when pursuing their education goals. These challenges will often force students to either stop-out temporarily, prolonging their time to completion, or drop out altogether, not completing their education goal. In order to recruit and retain students, and facilitate the achievement of their education goals, strategic enrollment management practices related to retention, persistence and success are used to address students' challenges in a planned and impactful way. The challenges vary depending on the education goal and of course the individual student. Community college students have complex lives with a diverse array of interests and reasons for enrolling in college classes (e.g., basic skills, certificate, degree, transfer, or job re-tooling), but for most students the ultimate goal is gainful employment. However, the pathway a student chooses and how a student pursues a particular pathway can vary greatly. Through coordinated and planned efforts, a college can help to improve student retention, persistence, and success via support services (e.g., intrusive counseling, early alert systems) and programming (e. g., clear program pathways, and cohesive alternative scheduling options).

In 2004, Bob Bontrager, then Assistant Provost for Enrollment Management at Oregon State University was one of the first to suggest a holistic approach to strategic enrollment management (See Diagram 2). This holistic perspective takes into account the whole student experience along a continuum that is aligned with the potential support a college can provide its students. The approach suggests multiple intervention points in which the college can influence enrollment, and the student's experience. Each intervention point provides an opportunity for a college to employ strategies and practices that help students successfully move along the success continuum. Ideally, the interventions are linked and all-encompassing, covering a wide swath of strategies and practices including: marketing and communications, recruitment, outreach and in-reach, orientation and financial aid packaging, instruction, scheduling, campus environment, academic supports (e. g., tutoring, and academic and career counseling), and wrap-around co-curricular activities. Moreover, the approach takes into account the student progression to completion, and suggests that in order for students to succeed and reach their education goal, they must be retained in their classes, complete their courses, and persist through their program requirements.



Diagram 2. Student Success Continuum



Description

Colleges have a multitude of viable options for implementing strategies and practices that help improve student retention, persistence, and success. These strategies and practices can be institutional (e.g. improved orientation and scheduling) or pedagogical (e.g. frequent feedback and academic support). A strategic enrollment management approach — because it is holistic and puts students first — can provide the means for determining the right mix of strategies and practices needed to effectively demonstrate measurable positive impact on the outcomes that a college seeks. This resource guide provides a sampling of strategies and practices that have been proven to have high positive impact on retention, persistence, and success outcomes. Most colleges will be able to implement these strategies and practices and achieve benefits for their students (e.g., successful completion), as well as optimize enrollment.

This resource guide highlights two significant practices that most colleges in California are implementing to help improve retention, persistence, and success: 1) Guided Pathways and 2) Dual Enrollment. In addition to these two significant practices, this guide provides a myriad of other strategies and practices that have been implemented at colleges and have demonstrated high positive impact on retention, persistence, and success. These can be found in the Practical Applications section of this guide.

In addition to this resource guide on retention, persistence, and success strategies and practices for SEM, the Data Tools and Metrics for SEM resource guide includes information on ways in which to measure the impact and effectiveness of a variety of retention, persistence, and success practices. You can find this guide, along with all of the other guides in the SEM Project resource guide series, posted on the SEM Project section of the Vision Resource Center website.

Each section in this guide includes questions for guided discussions. To help you get started, you may want to spend some time with your college constituents reviewing and discussing the *SEM Institutional Self-Assessment*. The Self-Assessment is located on the SEM Project website and is accompanied by a Facilitator's Guide. The Self-Assessment provides a way in which to review your current SEM strategies and practices, and then identify practices that are working well and uncover gaps that may need to be improved.



Strategies & Practices

GUIDED PATHWAYS

A Case for Institutional Redesign

While community colleges serve students with a wide range of goals and aspirations, the vast majority of students come to the community colleges hoping to improve their lives through the completion of a degree, certificate, or transfer to a university, and ultimately to find gainful employment. However, despite best efforts, student success remains persistently flat and often unacceptably low for varying underrepresented minority groups (e. g., African-American and Latinx students, first-generation, and low-income students).

Unfortunately, colleges are often not designed with students in mind. Policies, procedures, and processes can spring up to address an organizational issue, yet unwittingly hamper student entry or advancement. Students must select from an overwhelming number of courses, often without meaningful guidance or links to their life goals. Students may find themselves assessed into basic skills courses, impeding their movement to college-level coursework, and they typically enroll in general education classes that are disconnected from their major. Frequently, they are left on their own to navigate the institution term after term, without solid information about their progress and little proactive support from the college.

Enter the Guided Pathways Movement

The Guided Pathways movement is a national effort based on a student-centered approach to increasing program completion and closing equity gaps. The ultimate goal is to enable dramatically more students to pursue advanced higher education degrees and certificates, transfer to a university, and/or secure gainful employment. Colleges that were early adopters describe Guided Pathways as getting the college “ready for students” instead of “getting students college ready.”

The Guided Pathways (GP) movement and Strategic Enrollment Management (SEM) share a common vision of increasing student success and closing access and achievement gaps. As such, both GP and SEM employ many of the same elements of design and implementation.

California Community Colleges Guided Pathways

In 2017, the California Community Colleges released its *Vision for Success* plan that articulated aggressive five-year goals to improve student achievement and equitable outcomes across the state’s institutions. Shortly thereafter, the Chancellor’s Office launched California Community Colleges Guided Pathways with a one-time, \$150M investment from the state legislature. This



system-wide effort aims to foster Guided Pathways adoption across all 114 colleges as a way to fulfill the Vision for Success. This non-competitive effort is open to any college interested in pursuing Guided Pathways. Participating colleges are receiving their allocations in installments between 2018 – 2022 to support a rigorous planning and implementation process, as articulated in a multi-year work plan (updated throughout the funding period). At the same time, colleges are expected to leverage numerous other streams to augment their allocation and fully pursue Guided Pathways on their campuses.

In 2018, all 114 institutions submitted work plans to access California Community Colleges Guided Pathways funding. The Chancellor's Office and key partners — including the Foundation for California Community Colleges, the Academic Senate for California Community Colleges, the Career Ladders Project, 3CSN, the Research and Planning Group for California Community Colleges, and Jobs for the Future — are developing and disseminating tools and offering ongoing capacity-building assistance to the field, driven by what colleges say they need to succeed to pursue this redesign in a full and meaningful way. Guided Pathways Regional Coordinators facilitate the delivery of additional support to address planning and implementation issues surfacing among colleges in their designated area.

In addition to participation in California Community Colleges Guided Pathways, several colleges are involved with two additional Guided Pathways efforts taking place at both the national and state levels, including the American Association of Community Colleges (AACC) Pathways Project and the California Guided Pathways Project (CAGP).

AACC Pathways Project

In 2015, the American Association of Community Colleges (AACC) began a national pathways effort, initially engaging 30 colleges from 17 states, including Bakersfield College, Irvine Valley College, and Mt. SAC in California. Then in 2017, the AACC launched a second cohort with 13 additional colleges, including Santa Monica College. AACC selects colleges to participate who have demonstrated an existing student success agenda, as the initiative aims to further advance this work through Guided Pathways design, implementation, and evaluation. The project leads colleges through a multiyear, fee-for-service experience that involves a series of six training institutes and ongoing coaching from a national expert. The Bill & Melinda Gates Foundation supports this initiative, and seven key partners are involved in carrying out this effort with AACC including Achieving the Dream, the Aspen Institute, Center for Community College Student Engagement, Center for Community College Research, Jobs for the Future, the National Center for Inquiry, and Improvement and Public Agenda. (AACC, n. d.). For a full project description and list of institutes, visit: <https://www.aacc.nche.edu/programs/aacc-pathways-project/>.

California Guided Pathways Project

The California Guided Pathways (CAGP) project is a state-based effort designed to adapt the AACC Pathways Project model to California. This demonstration project launched in 2017 with a group of 20 California community colleges and will continue through 2019.



Like the AACC effort, CACP is a selective effort; colleges pay a fee to participate and receive intensive support through a series of six institutes that guide their Guided Pathways development and continuous coaching to help them stay on track toward their goals. The Foundation for California Community Colleges serves as the fiscal agent. In addition, many of the same organizations supporting the AACC Pathways Project are involved alongside several key California constituent groups and collaborators. For a full list of partners and project description, visit <https://www.caguidedpathways.org/>.

A Framework for Redesign

Rather than a single practice, Guided Pathways offers an evidence-based framework for restructuring the entire institution. This framework aims to align and integrate numerous policies, programs, and approaches—including SEM efforts--so all students have a more coherent and comprehensive journey into and through the community colleges.

As a highly-structured approach to student success, Guided Pathways offers two fundamental benefits: (1) All students are provided clear course-taking patterns that enable them to make better enrollment decisions and directly prepare them for their next steps, and (2) all students are provided proactive supports from connection through completion (CCCCO, n. d.).⁴ The following four key “pillars” are fundamental to implementing this framework:

1. Clarify paths to student end goals by providing fewer choices and clearer program maps that lead to transfer and/or the workforce.
2. Help students choose and enter a pathway by creating bridges from high school to college, establishing on-ramps to programs of study, and accelerating remediation.
3. Help students stay on a path through intrusive, ongoing advising and educational and nonacademic supports integrated throughout their journey.
4. Ensure that students are learning by establishing clear program outcomes aligned to employer and/or transfer institution expectations, involving students in engaging and applied learning experiences, and pursuing effective instructional practices. (American Association for Community Colleges (AACC), n .d .; Johnstone & Karandjeff, 2017) .5,6

Guided Pathways adoption generally follows an iterative cycle of inquiry, design, implementation, and evaluation (California Community College Guided Pathways, 2017).¹ Through the inquiry process, campus stakeholders engage in actionable research and with local data, and create consensus about Guided Pathways, core issues, and broad solutions. During the design phase, colleges establish and use an inclusive process to make decisions about and design the key components of the Guided Pathways approach. When in implementation, colleges scale and/or adopt student-centered, evidence-based approaches that ensure dramatically more students reach their educational and career goals. Evaluation throughout allows colleges to identify what is working and what course corrections to make.

¹ California Community Colleges Guided Pathways. (2017). *Guided Pathways Self-Assessment Tool*. Retrieved from http://cccgp.cccco.edu/Portals/0/Self-AssessmentTool_CCCGuidedPathways_Fall-2017.pdf.



Strategic Enrollment Management and Guided Pathways

Strategic Enrollment Management and Guided Pathways reform are synergistic and complementary. When looking at the purpose, guiding principles, and approaches characteristic of both efforts, significant alignment emerges:

- **Purpose:** both Guided Pathways and SEM focus on making dramatic increases to student retention, persistence, and completion of education goals and improvements in equitable outcomes
- **Guiding principles:** both Guided Pathways and SEM aim to make change at the institutional level, with a focus on student-centered, data-driven reform
- **Approach:** both Guided Pathways and SEM involve iterative and ongoing strategic planning and action through inclusive and cross-functional processes; both take a holistic view of the student experience that aims to achieve both coherence and comprehensive support from entry through exit

From a practical standpoint, SEM supports virtually all aspects of Guided Pathways adoption, and aligns directly with the four pillars of the Guided Pathways framework. For example, SEM is central to the integrated planning required for effective Guided Pathways design and implementation, whereby enrollment targets are articulated and evaluated, student-centered budgeting occurs, and facilities are managed to match student need. SEM can inform alignment and outreach efforts with K-12 and community partners to help students connect with and enter the college prepared for success. SEM is an essential aspect of effective meta-major design and program delivery--articulating student demand for different programs, ensuring students can establish concise educational plans, and maximizing the likelihood that courses are offered when students need them in order to efficiently make progress and complete. SEM is critical to informing proactive support and ongoing student advising both inside and outside the classroom that is characteristic of Guided Pathways. Having systems and technology in place to track student progress and completion both aids SEM and facilitates monitoring of student success and equity goals and metrics established through Guided Pathways planning.

How Can My College Integrate SEM with Guided Pathways Redesign?

In these and other ways, ensuring your college is making the connection between your SEM work and your Guided Pathways redesign is essential to a coherent and comprehensive approach to institutional transformation and improved student outcomes. One place to start involves connecting and integrating the priorities and action steps outlined in your college's California Community Colleges Guided Pathways Work Plan and your Strategic Enrollment Management self-assessment and plan. Ensure that members of your Strategic Enrollment Management team are also represented on your college's Guided Pathways committee, task force, and/or design teams.



Guiding Questions For Discussion

1. What intersections do you see between your college's current stage of SEM development and the status of your Guided Pathways (GP) and design work?
2. How can your college begin making deliberate connections between your SEM planning and your GP design? For example:
3. Who on your college's GP cross-functional inquiry team can present the SEM work taking place in your institution? (GP Key Element1, Cross Functional Inquiry)
4. How is your college integrating SEM data and benchmarks into your efforts to develop shared metrics? (GP Key Element 2, Shared Metric)?
5. When utilizing the GP framework as an overarching structure for the college's main planning and resource allocation processes, how is your college leveraging your SEM initiative (GP Key Element 3, Integrated Planning)?
6. How is your college actively using the principles of SEM when clarifying course sequences for programs of study and developing predictable student schedules (GP Key Element 8, Clear Program Requirements)?
7. How do your SEM practices change with Guided Pathways?

⁴ <http://cccgpc.cccco.edu/Portals/0/PrinciplesofGuidedPathways-090817.pdf>

⁵ <https://www.aacc.nche.edu/wp-content/uploads/2018/01/12PathwaysModelDescriptionFinal1616.pdf>

⁶ <http://ncii-improve.com/wp-content/uploads/2017/09/GP-Demystified-II-091517.pdf>



DUAL ENROLLMENT

By: Career Ladders Project

While California community colleges have been enrolling high school students in credit-bearing classes for decades, over the past few years, large-scale investments and policy changes have increased interest in, and demand for, dual enrollment. Dual enrollment has shifted from what had largely been characterized by individual high school students coming to colleges for classes in the evenings, weekends and summer, or single courses offered by a college at the request of a high school on the high school campus, to a more thoughtfully designed strategy for student success and transition to college. The new approach to dual enrollment design has been particularly appealing as an embedded strategy within K-16 pathway models. Dual enrollment is growing in California and this high impact practice can be strategically incorporated as a part of enrollment management.

Dual enrollment enables students to earn college credit while still in high school, potentially at great cost savings to them and their families.

Research suggests that dual enrollment also builds a sense that they are in fact “college material,” an important effect particularly for first generation students and for students from communities historically underserved and underrepresented in post-secondary education.

Studies show that dual enrollment courses have a positive effect, and in some cases a stronger effect, for students who are traditionally underrepresented on college campuses including low-income, first generation, English Language Learners, students of color and male students of color (Haskell, 2015; Taylor 2015). Additionally, dual enrollment has shown a number of other benefits for students including:

- Greater high school graduation rates than non-participating peers (Karp et al., 2007; Rodriguez, Hughes, & Belfield, 2012; Cowan & Goldhaber, 2013; Haskell, 2016).
- Higher college enrollment than non-participating peers (Karp et al., 2007; Speroni, 2011; Rodriguez, Hughes, & Belfield, 2012; Struhl & Vargas, 2012; Cowan & Goldhaber, 2013; Taylor, 2015).
- Higher levels of college completion than their non-participating peers (An, 2013; Taylor, 2015; Fink et. al, 2017)



What Is Dual Enrollment?

According to the recent College and Career Access Pathways legislation in California (CCAP, also known as AB 288), dual enrollment is when high school, or other eligible special admission students, enroll in community college credit-bearing courses (see [Legal Opinion 16-02](#)). Unlike articulated credit, which allows high school students to petition for college credit after successfully completing a *high school* course, dual enrollment courses are *college* courses. Many California community colleges use the term “concurrent enrollment” to describe high school students who enroll in college courses on the college campus as opposed to more structured, cohort-based sections offered on a high school campus by the college. While we may think of this process as different, from a programmatic standpoint, it is still dual enrollment.

The purpose of CCAP is to expand dual enrollment to students who otherwise may not be college bound or who are underrepresented in higher education. A primary advantage of CCAP is that colleges may limit enrollment in CCAP sections offered on a high school campus to students at the partner high school while still claiming state apportionment. Students enrolled under CCAP agreements also have a higher enrollment priority and may take more units. However, there are other stipulations for a CCAP partnership: for example, under CCAP, dual enrollment must be designed as part of a pathway and the partners must have a data sharing agreement and share outcomes in additional state reporting, among other requirements.

There are no enrollment fees for high school students in CCAP partnerships. A number of other fees and expenses are not allowed, as detailed in the [CCAP legislation](#). College and high school partners may choose to have CCAP and/or non-CCAP agreements. CCAP is not mandatory. A summary of the differences between [CCAP and non-CCAP](#) dual enrollment can be found in the [Dual Enrollment Toolkit](#) developed to assist the field in understanding and implementing CCAP.

There are many ways to implement dual enrollment. Table 2 outlines common types of dual enrollment, as well as core components of each, and some operational issues to consider including the level of structural support and commitment involved.



Table 2. Dual Enrollment Continuum

TYPES	CORE COMPONENTS	OPERATIONAL CONSIDERATIONS
Students coming to college individually, not as part of a program		
Individual high school students taking courses on the college campus	<ul style="list-style-type: none"> • No established core component • Colloquially often called “concurrent enrollment” 	<ul style="list-style-type: none"> • Structural support and commitment – none to low • Students may be perceived to be regular adult college students to instructors and staff
Single courses		
Single courses offered on a high school campus	<ul style="list-style-type: none"> • No established core components • Courses usually meet a need of the local high school such as enrichment, college success, graduation requirements, etc. • Cannot include developmental courses 	<ul style="list-style-type: none"> • Structural support and commitment – low to medium • Often requested by a high school to meet a specific need • Course offerings are not necessarily part of a planned certificate or degree • Student supports are not necessarily a part of this model, but students would benefit from them
Pathway		
<ul style="list-style-type: none"> • College and Career Pathways 	<p>Pathways are carefully designed sequences of courses, of which dual enrollment is a part; pathways may:</p> <ol style="list-style-type: none"> 1. Include multiple onramps and bridges 2. Span the entire range of programs 3. Be stackable in design 4. Contextualize foundational skills within a group of occupations or programs of study 5. Be aligned with industry needs 6. Engage with employers in development, training, internships, or placement 7. Focus on in-demand careers with family-sustaining wages 8. Incorporate work-based learning 9. Use data for continuous improvement 	<ul style="list-style-type: none"> • Structural support and commitment – medium to high • May be cohort-based • Embedded student supports such as a college success course, tutoring, peer mentors, supplemental instruction • If a dual enrollment partnership is a California Career Access Pathway (CCAP or AB 288), offerings must have a pathway design
Highly Structured Dual Enrollment Program		
<p>Highly Structured Dual Enrollment Program on a College Campus</p> <ul style="list-style-type: none"> • Middle College • Early College • Gateway to College 	<ul style="list-style-type: none"> • Student support services • Rigorous academics • Completion of high school diploma and some college credits • College courses count for dual credit (both high school and college credit) 	<ul style="list-style-type: none"> • Structural support and commitment – very high • Small enrollments (100 or fewer students per grade level) • Usually located on a college campus

*A similar table can be found in the FAQ of the [Dual Enrollment Toolkit](#).



How Can We Implement Dual Enrollment?

Successful dual enrollment involves thoughtful design and collaboration between the college and their high school partners. Course selection should take into account student interest, integration into a certificate and/or degree as with pathways, transferability, and accessibility of content. A pathway design may utilize an introductory college level course that maps onto high school pathway courses. For colleges embarking on Guided Pathways reform, dual enrollment may prove to be a strategic place for early career and major exploration.

Dual enrollment courses are college courses. Instructors need to meet the qualifications to teach a college course. In conjunction with the Academic Senate, the Board of Governors has set [minimum instructor qualifications](#) by discipline. Each college, however, may have more stringent requirements. High school instructors who meet the qualifications to teach a college course may be hired by the college to teach a dual enrollment course. Colleges, however, have their own hiring procedures and practices which may include offering sections to instructors with seniority. Local bargaining agreements must also be followed.

Because dual enrollment is the first introduction to college course content, particularly for first generation college students, student support is an essential design element. It is important to remember that the consequences of college course failure follow students throughout their educational career. Some successful approaches include cohorts of students co-enrolled in a content area course and a college success course that can emphasize college knowledge, communication with instructors, and the importance and impact of transcripts and grades—especially on financial aid. Some college and high school partnerships have implemented data sharing agreements so instructors can share grades and missing assignments with high school liaisons. This allows for just-in-time academic interventions. Other partnerships include supplemental instruction with a coach who is alumni of the high school as a part of their design.

Some partnerships use a co-teaching design where the college instructor and the high school instructor work collaboratively. This collaboration can help strengthen cross institutional partnerships as well as provide professional development for both instructors as they contribute content knowledge and pedagogy.



Guiding Questions For Discussion

1. How does dual enrollment support the mission and vision of your college?
2. What would high quality dual enrollment—designed for student success and equity—look like for your college community?
3. How can your college dual enrollment offerings be integrated within an overall pathway and student success strategy?
4. What are the strengths and/or areas of alignment with your college’s feeder high schools with whom there are dual enrollment partnerships?
5. How will your college communicate concerns and challenges identified and worked through collaboratively among the partners?
6. What outcomes and indicators will help understand your dual enrollment offerings and how to improve them?
7. What professional development and capacity will your college need to support instructors, counselors, and support staff to implement high—quality dual enrollment?



Practical Applications

All of the practices described in this section are actual practices that were submitted by California community colleges and districts to the SEM Promising Practices program. The sample of practices are provided in order to help colleges identify and address the holistic needs of students to support student success. More information on each practice, along with supporting documentation provided by the college or district, can be found on the Vision Resource Center website under the SEM community of practice and the Promising Practices section of the Strategic Enrollment Management:

MATH PATHWAYS: DEVELOPMENTAL EDUCATION REFORM (CUYAMACA COLLEGE)

College Fast Facts

Fall 2017 Headcount: 9,145

Fall 2017 FTES: 2,513

Fall 2016 FTEF: 358

Location: El Cajon, CA

Structure: Multi-college district

Background and Purpose

Cuyamaca College is the first community college in California to undertake a full-scale transformation of mathematics instruction. The college has made three critical changes: 1) the assessment and placement of students into math courses, 2) the paths students take to reach and complete transfer-level math, and 3) the experience students receive in the classroom. Most students at Cuyamaca can complete their math requirements in one semester. Instead of requiring students to take remedial courses that delay their progress toward a degree, Cuyamaca allows students to enroll directly into transfer-level math with 2-units of additional support from their instructors (co-requisite support). Among first-time students who previously would have placed in remediation but enrolled in transfer-level math with support, 67 percent successfully completed the course in one year, up from 10 percent of those starting in traditional remediation the year prior.

Process and Procedures

Cuyamaca's Math Department initiated the work to transform its math curriculum in 2010-11 when they implemented an accelerated statistics pathway for non-STEM majors. With the implementation of this pathway the Math Department found student completion rates increased while the equity gaps for both its African American and Latino students decreased. As a result, the Math Department began to consider how acceleration in math coursework might affect all students even those in STEM.

Members of the department attended the California Acceleration Project (CAP) gatherings and brought back ideas for how the Math Department could completely restructure math. The department set the significant goal to "Annihilate the achievement gap at Cuyamaca College," met with their new college President, and applied for grant funds to support the work.



Assessment and Placement into Math

In Fall 2015, the Math Department faculty were interested in implementing multiple measures (using academic high school performance such as GPA and progress in math courses) to place students into math. However, at that time the District still used a placement test as the significant determination of placement into its math curriculum. As a result, the math department created concurrent support courses (co-requisite model) for each of their math courses and placed students into a support course based on the higher of their self-reported high school GPAs and course-taking history or placement test scores.

Students placed into a specific concurrent support course, such as PreCalculus, could register and enroll in the support course and then be automatically enrolled in the corresponding PreCalculus course. The courses were linked so that the same students who enrolled in a specific concurrent support course (e.g., PreCalculus Support Section A) were also enrolled in the linked parent course (PreCalculus Section A), thus creating a cohort model of instruction.

The District has since decided to move to multiple measures placement beginning in Summer 2018. Students will have access to the parent course (e.g., PreCalculus, Calculus) if they meet the placement level in accordance with the required high school performance and the multiple measures placement model adopted by the District.

With the implementation of multiple measures district-wide, at Cuyamaca College, students who successfully complete high school Algebra II and meet the GPA criterion established in the multiple measures model can enroll in a first-tier transfer-level course (e.g., Quantitative Reasoning, Statistics, PreCalculus, Business Calculus). If students complete high school Algebra II but do not meet the GPA criterion, they are still eligible to enroll in the first-tier transfer-level course but must also enroll in the corresponding concurrent support course. The next section describes the concurrent-enrollment support model in more detail.

Math Pathways

At Cuyamaca College, the longest pathway through transferable math is two courses, and the college no longer offers math at two or more levels below transfer. In lieu of the traditional basic skills math pipeline, students classified as “underprepared” enroll in the following courses and co-requisite support courses (depending on their major and placement): 1) Intermediate Algebra with concurrent-enrollment support, 2) an accelerated PreStatistics course or Statistics course with concurrent-enrollment support, 3) Intermediate Algebra, or 4) a transfer-level math course with concurrent-enrollment support.

In the concurrent-enrollment support model, students enroll in a regular math class (Intermediate Algebra, Statistics, Business Calculus, College Algebra, or PreCalculus) with an additional two or three hours of instruction each week through a co-requisite support course. The additional instruction is taught by the same teacher and is intermingled within the regular math class to provide just-in-time remediation. As a result, students classified as underprepared attain prerequisite skills if and when those skills are needed. The support



course and the regular math course must be taken together and constitute a one-semester course combo that students experience as a single class. Consequently, in just one short semester, students who enroll in a transfer-level math course with support could complete their math requirement for the two-year degree at Cuyamaca College and the four-year degree at many universities.

To help students determine the “right” math courses to take, the Math Department created a series of math pathways based on five career clusters or pathways (meta-majors). Students have access to math flow charts for each of the pathways and the department regularly meets with the Counseling Department to ensure both full-time and part-time counselors understand the pathways. Depending upon a student’s designated career choice and/or major, students are directed into one of the math pathways.

Classroom Experience

Cuyamaca College students study in activity-based math classrooms with contextualized teaching and learning. In this learning model, the focus of activity shifts from the teacher to the learner. Class time is spent on discussion, collaborative work, productive struggle, and just-in-time remediation. Additionally, teaching and learning is tailored to fit the needs of small groups of students as they work through brains-on activities and review prerequisite skills. This model also employs a teacher-guided discovery process that allows the instructor to identify gaps in student learning and use class time to remediate those gaps before moving on to the next topic. Consequently, students master prerequisite concepts and skills needed to succeed in the transfer-level course.

Since many teachers, and in particular math teachers, do not typically teach this way, Cuyamaca math faculty developed and implemented a training program. Through the Community of Practice meetings and job-shadow experiences, math instructors learn how to facilitate learning in the activity-based math classroom, lead group discussions that honor every student’s contribution, and encourage productive struggle while preventing that struggle from devolving into frustration. The primary goal of the program is to teach teachers how to lead students to developing important connections for themselves.

Cuyamaca applied for and received the California Community College’s Chancellor’s Office Basic Skills and Student Outcome Transformation program grant which enabled math faculty at Cuyamaca College to produce and implement classroom materials, detailed lesson plans, assessment materials, and materials for the Community of Practice training program. The grant will allow faculty to assess, revise, and re-assess these materials as needed. The materials are readily shared with other colleges through this Box address:

<https://app.box.com/s/vkpu5kutm8lz5ozm65flpjcbvug8vpfs>

Additional Information Related to Process

Showing data and having a vision for the transformation helped the math department communicate to the rest of the college the need for the change. Training and communication



were critical elements during the transformation and continue to be critical throughout continued implementation. Part-time faculty were engaged in the transformation from the start and professional development for math instructors, including part-time faculty, was supported through grant funding. In addition, the Math Department chair meets regularly (each semester) with the Counseling faculty to ensure they understand the various math pathways and to answer questions about the courses themselves.

Finally, College and District leadership support for innovation was key to the success of this transformation. From the new college president to the Chancellor, to the Board, the vision of Math Pathways aligned with the District's goal to "move the needle" on student success and equity. Leadership provided support for the grant and worked to remove barriers and challenges including significant technical support to modify the technology infrastructure in order to implement multiple measures placement.

Outcomes and Effectiveness

Among first-time students who previously would have placed in remediation but enrolled in transfer-level math with support, 67 percent successfully finished the course in one year, up from 10 percent of those starting in traditional remediation the year prior. In addition, the impact on the college's equity gaps is significant. The equity gap for African Americans decreased from 2 .6 to 1 .4 (a value of 1 .0 means no equity gap exists) and the equity gap for Latino students was eliminated (1 .4 to 1 .2). While the primary outcome measure for Cuyamaca's Math Pathway program is completion of transfer-level math, math course success rates have remained stable and in math transfer courses with support, rates have increased. With respect to enrollments, the College has observed an overall increase in math enrollments in addition to observing increases in enrollment in the higher-level math courses. The elimination of the College's basic skills math curriculum and implementation of multiple measures did not lead to a decrease in enrollment.

Future evaluation plans include an assessment of how students perform in subsequent higher-level math courses and other courses requiring quantitative skills, as well as an examination of overall completion outcomes (e.g., degree, certificate, transfer). The Math Department plans to facilitate student focus groups to identify what is working well in the Math Pathway program, and where there might be opportunities for improvement.

The College encountered several challenges and lessons learned while developing and implementing this program including:

- **Curriculum** — making sure everyone across the campus understood what we were doing
- **Articulation** — making sure the changes we made did not affect the articulation of our courses
- **Counseling** — working closely with counseling to ensure they understood the changes and the Math Pathways we created for students; we also learned a lot from these meetings regarding making changes to courses/assessment/placement;



this is an ongoing thing we do with counseling that has worked really well; a good relationship with counseling is essential

- **Information Systems (IS/IT)** — ensuring the technology will work smoothly with the changes made e.g., assessment, placement, and registration
- **Student and Teacher Expectations** — making sure we understand the expectations of both students and teachers and how to best change those with the courses we now offer
- **Marketing** — making sure current students understood what their next courses would be once the changes were established
- **Faculty Training** — continually evolving as the program has evolved; training needs to be frequent and faculty need to be paid for this training
- **Administration** — making sure that administration is on board

Benefits

The most significant benefit of the Math Pathway program is the impact it has had on students, especially students considered traditionally disadvantaged and/or unprepared for transfer-level math coursework. Success is contagious. English and English as a Second Language are also accelerating their pathways and Cuyamaca College is the only college in California to truly transform all of its basic skills programs.



DUAL ENROLLMENT PROGRAM (EAST LOS ANGELES COLLEGE)

College Fast Facts

Fall 2017 Headcount: 39,219

Location: Monterey Park, CA

Fall 2017 FTES: 9,519

Structure: Multi-college district

Fall 2016 FTEF: 1,053

Background

Recent California legislation to support the engagement of historically underrepresented high school students in higher education has led to growing interest in dual enrollment programs. East Los Angeles College (ELAC) actively expanded partnerships with school district administration and community agencies to assist high school students in making a smooth transition into post-secondary education through their dual enrollment program.

The purpose of the dual enrollment program at East Los Angeles College is to provide opportunities to high school students who wish to enroll in courses that provide credits toward graduation equivalency as well as getting a head start in their attainment of a higher education degree. Students earn credit at the community college level that allow them to satisfy high school graduation requirements set by Los Angeles Unified School District. At the same time, students are provided educational experiences within a chosen career pathway. In addition, East Los Angeles College grants credit to students for courses that meet the standards set by the Board of Trustees as allowed under the State of California Education Code.

Process and Procedures

The Outreach and Dual Enrollment Office is transitioning to be the ELAC Family and Community Engagement Services (ELAC-FACES). ELAC-FACES serves as the link between higher education activities and K-12 schools, community partners, and local government agencies. This office serves a variety of partnerships and advisories to promote higher educational attainment and workforce development success. The team at East Los Angeles College has expanded to accommodate an increasing demand for dual enrollment courses for students in middle school, high school, and for the dual enrollment student's parents with English-as-a-second- language courses. In addition to providing early college exposure to K-12 students, ELAC-FACES provides bilingual parent workshops and conferences on college access through their Family and Community Engagement Services Center on campus. ELAC-FACES also chairs the Service Planning Area 7 Community Partnership, in which over forty community agencies meet monthly to form a community resource network.

Outcomes and Effectiveness

We assessed the Fall 2016 outcomes for 1,798 students entering ELAC directly from high school in either Summer 2016 or Fall 2016. Of this group, 237 students, or 13 .2 percent, completed at least one credit unit as a dual enrollment student.



The number of units completed as a dual enrollment student had a positive, statistically significant effect on a variety of outcomes even when controlling for gender, ethnicity, educational goal, and BOG fee waiver status (a proxy for socio-economic status).

In particular, we found:

- For every 3 units completed as a dual enrollment student, an additional 0.3 units were attempted in Fall 2016 compared to a student who completed no dual enrollment units.
- For every 3 units completed as a dual enrollment student, nearly 0.5 additional units were completed in Fall 2016.
- Fall 2016 GPA was 0.086 higher for every 3 units completed as a dual enrollment student.

For example, compared to a student completing no dual enrollment units, a student completing 12 units as a dual enrollment student could expect to attempt 1.2 more units, complete 2 more units, and have a GPA that is 0.344 higher when controlling for the demographic factors listed above.

Our dual enrollment program is being measured for effectiveness by monitoring the outcomes above. As long as there remains a positive statistically significant impact, controlling for demographic factors, the dual enrollment program is providing a critical service to our incoming students. Beyond the outcomes above, we also monitor the impact of dual enrollment on our various high school partners in order to ensure that their students, when they arrive at ELAC, also benefit from positive outcomes such as increased GPA.

This program has been very effective in building partnerships with the local school districts. One example of this is an Early College Program being developed with Alhambra Unified School District in which there is a more intentional approach in offering courses with a cohort group of students who will earn between 24-50 college units, and with some on track to complete both a high school diploma and college degree.

Since this program has continued to grow in numbers, it needs additional resources for intentionality and success. As an enrollment management strategy, it has proven itself by serving over 300 dual enrollment courses with about 5200 students. The demand has created a need to develop regional community hubs for consistency, school and agency presence, and sustainability.

Benefits

The dual enrollment program at ELAC provides students with opportunities to meet graduation requirements and enrich their current curriculum. In addition, dual enrollment provides high school students with alternative options for completing a high school diploma, engaging in career preparation, accessing resources (Financial Aid, College Counseling, Student Government) for a smooth transition to successful college and planning for their college



degree. The Outreach team has morphed into the Family & Community Engagement Services team, which uses the socio-ecological model of influence by including the high school students' families and community partners in outreach and recruitment activities. The approach is to work with families and the community agencies that serve them so they work on a micro level by recruiting students, but also with their connecting systems of influence such as the families, churches, community agencies, etc. This approach has produced a value-added benefit that extends beyond dual enrollment and promotes enrollment into adult education courses for the parents. Since we have communities that are interdependent, the parents, in turn, become the best recruiters by bringing their friends or neighbors to the classes.



GO2FOOTHILL ONLINE ORIENTATION (FOOTHILL COLLEGE)

College Fast Facts

Fall 2017 Headcount: 15,982

Location: Los Altos, CA

Fall 2017 FTES: 3,915

Structure: Multi-college district

Fall 2016 FTEF: 612

Background and Purpose

In partnership with Innovative Educators, Foothill College developed a student-to-student online orientation that meets the eight mandated areas for the Student Success and Services Program (SSSP) orientation. The student-to-student online orientation referred to as Go2Foothill, takes less than 30 minutes to complete, and has an additional resource library of 12 specific areas focused on individual student needs. It is available on-demand 24/7, can be updated by the college, and has a 98 percent satisfaction score with students. The system interfaces with Banner so once students complete the orientation online they are moved forward in the priority registration process.

Process and Procedures

The student-to-student online orientation program is managed through Foothill College's Enrollment Services team who ensures that all information is correct and regularly updated. The student-to-student online orientation does not have to be taken down to be updated, can be used in counseling classes, and ties-in with StudentLingo, which includes student success video workshops for students. All of the college departments on campus were involved in developing the orientation by creating questions and answers they felt were important for student information and success. Foothill students were also very involved in the design and presentation of the program.

In an effort to minimize the impact on District IT services, the Go2Foothill online orientation is fully hosted off-site by Innovative Educators. There is no need for any sort of help required by District IT. It is located on the student portal and interfaces fully with Banner. This product is approximately 50 percent of the cost of other packaged online orientation vendor products and is funded with SSSP funds.

This Go2Foothill orientation program is different from other online orientations in that it is completely delivered by students and does not involve administrators, faculty, or staff talking at students. Instead, students present the information adding in their own experiences. The student-to-student format is engaging and focuses on what students really need to know. They can watch at their own pace at any time of day. The most popular watch time is 11:30 pm-12:45 am. Students also have the opportunity to view additional topics of interest.



The following link is a great connection for anyone interested in looking at online orientation highlighting Foothill College:

<https://www.innovativeeducators.org/pages/go2orientation>

Outcomes and Effectiveness

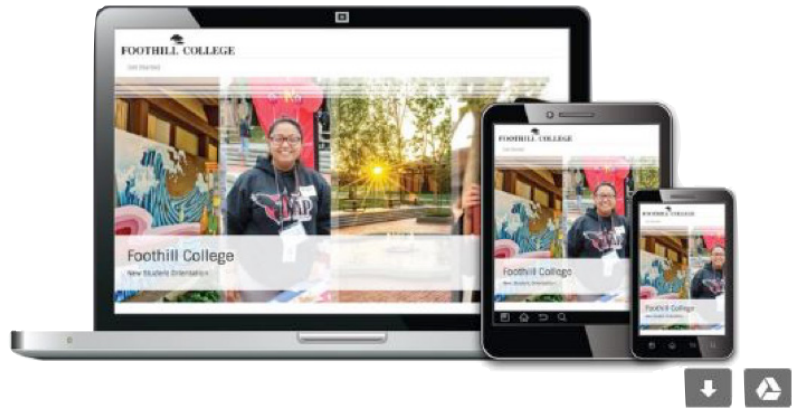
When students complete the online orientation, they answer questions and rate the program.

They can also write comments and suggestions. The College can track all students who complete the orientation as they log into their portal with their student ID. The college can follow up with students who submit questions or ask for additional information. Foothill currently tracks who watches the online orientation, what their completion rate is, how satisfied they are, and if they submit any questions. We are adding a component to now track students who completed the orientation to see if they registered and completed one term and then if they continued.

Benefits

The College and the District are committed to student retention and success. The literature on retention and success shows that student who participate in orientation have much higher persistence and success rates than students who do not participate. Because the program is available to anyone online, students' parents and family members can also watch. Easy access also makes it possible for students to watch more than once and go at their own pace. The orientation is fully ADA compliant and is responsively designed so students and parents can watch it on a computer, tablet, laptop, or smartphone. In addition, fully online students (38% of Foothill's 12,000 students) can now complete orientation online instead of missing the in-person orientations still offered prior to each quarter.

The College also uses this online orientation on the road when they visit high schools, ROPs, adult schools, and have events for home-schooled students to introduce them to college. It is utilized for special orientations for veterans, students with disabilities, international students, foster youth, and re-entry students as a hybrid presentation with in-person campus orientations. The College also uses it as part of their summer bridge programs.





THE STAND: FOOD PANTRY AND PROFESSIONAL CLOTHING CLOSET (MESA COLLEGE)

College Fast Facts

Fall 2017 Headcount: 22,298

Fall 2017 FTES: 6,965

Fall 2016 FTEF: 737

Location: San Diego, CA

Structure: Multi-college district

Background and Purpose

To address the increasing apprehension over food insecurity on campus, San Diego Mesa College Student Services launched a food pantry called [The Stand](#). In addition to providing immediate food relief, The Stand provides information on other support programs (e.g., CAL Fresh and 211 San Diego), and community food pantry resources for students. The primary goal of The Stand is to serve students who experience food insecurities and are in need of emergency food. This generally correlates with low income, but it is not always the case. As noted in multiple studies, a large number of students earn income that may be too high to qualify for financial aid, and as a consequence are barely able to get by. For this reason, The Stand is available to all students, and through embedded follow-up services the college can intentionally focus on disproportionately impacted students.

The other assistance program the College provides students is the Professional Clothing Closet. The Professional Clothing Closet seeks to provide a way for students to access free professional and business casual attire appropriate for career fairs, interviews, and the workplace. Inventory includes suits, blazers, skirts, button-down shirts and more. It is important for students to look professional throughout their job search and when they enter the professional world. This service helps students by increasing their self-esteem, look their best for interviews, and make lasting positive impressions.

Although The Stand is made available to all students, the majority of students currently using The Stand are low-income. We surveyed all students who used The Stand during a semester that it was opened and found that, of the 439 students who made use of the food service, 71 percent indicated that they could not afford to eat balanced meals during the semester. In addition, 76 percent of those 439 students said that they had skipped meals during the semester because they did not have money for food. The ultimate goal, particularly in conjunction with our partnership with Feeding San Diego, is to eliminate food insecurity across the entire campus. Laying the foundation that the feeding of our community is what we do as the leading college of equity and excellence.

Process and Procedures

The Stand is housed under Student Services under the oversight of the Student Success and Equity Department (SS&E). The SS&E Committee is a campus-wide committee made up of all college constituency groups. The primary purpose of the committee is to support and lead innovative campus initiatives that strengthen student access, success, and equity.



The Committee makes recommendations to the President Cabinet regarding student success and equity initiatives, including those outlined in the Student Success and Support Program (SSSP) Plan, the Student Equity Plan, and the Developing Hispanic-Serving Institutions (DHSI) Program - Title V Plan. For this particular program, the SS&E committee established a working group, a collaboration with the Career Center to additionally offer the Professional Clothing Closet for students within the same space as the food pantry. The food pantry is supplied through monthly food drives and campus activities as well as campus and community donations from the following:

- San Diego Mesa College Associated Students
- San Diego Mesa College Foundation
- San Diego County Local AFT
- San Diego Mesa College Financial Aid Department
- San Diego Mesa College Career Center
- San Diego Mesa College Student Success and Equity Office
- College faculty, staff and administrators - through direct payroll deduction

Additionally, the College is in the process of finalizing a memorandum of understanding with the Feeding San Diego organization, which will dramatically increase the College's ability to feed the campus community. This partnership will provide fruits, vegetables and other food resources on an ongoing basis. According to Feeding San Diego, they will be able to provide the college enough food to feed then entire campus community. The college is purchasing a large refrigeration storage unit that will allow us to store and preserve food. We will be receiving a one-time allocation from the Chancellor's Office of \$40,000. This will provide us with the opportunity to purchase portable stands that will serve as distribution points as well as stabilize our supply of food for some time. In addition to these, we will continue to provide opportunity for the campus community as well as the surrounding community to continue to support our efforts as noted in the abstract.

The Professional Clothing Closet is supported by donations from faculty, staff, administrators, and community members. Current staffing is supported by student equity funding and a federal work study program.

Outcomes and Effectiveness

In Spring 2017, The Stand provided 2,097 food services to 439 individual students and provided 283 items of professional clothing to 74 students. Of the 439 students who made use of the food service, 71% indicated that they could not afford to eat balanced meals during the semester. In addition, 76% of those 439 students said that they had skipped meals during the semester because they did not have money for food.

The college evaluates The Stand using data they receive from their program tracking system. This system uses emerging technology that allows the College to track every student who uses The Stand. The Stand employs an innovative tracking system that allows for intentional follow-



up services designed to close equity gaps. The tracking system generates a weekly report on students who may have exceeded their allocated points and or who fall under one of the College's significantly disproportionately impacted student groups (i.e., African American and Latino). Through the Direct Support Program at the College, students are contacted in order to assess their needs and where prudent, offer additional practical resources in the form of meal cards, transportation passes, print cards, book store cards, and other supplies . This effort additionally allows the college to encourage students to complete the core Student Success and Support Program (SSSP) activities. On a monthly basis, the activity outcomes are included in the college's Student Services department updates, and the program is annually reported on at President's Cabinet. The program is also evaluated through semester student surveys.

There is currently no specific data collected on students receiving services at the Stand compared with other services that they might receive. The Stand is open to all students as the food insecurity issue stands alone as an endeavor that the college seeks to eliminate.

Anecdotally however, we know that students from our categorical programs (e.g., CalWorks) and other support programs make a clear point to refer students with food insecurity issues to the Stand. Additionally, the tracking system that is used by the Stand generates a weekly report on students who may have exceeded their allocated points and or who fall under one of the College's significantly disproportionately impacted student groups (i.e., African American and Latino) . Through the Direct Support Program at the College, students are contacted in order to assess their needs and where prudent, offer additional practical resources in the form of meal cards, transportation passes, print cards, book store cards, and other supplies.

Benefits

Addressing the food insecurity concerns of students is a student success measure at San Diego Mesa College. The follow-up services offered through The Stand provide a significant opportunity for the college to connect with each student in an intentional effort to build relationship and community. The follow-up services and direct support efforts for 2016/17 illustrate that the program is making an impact with respect to persistence and retention and that the program is serving the students it is intended to serve:

- 96% of the students served were financial aid recipients as compared to 55% of the general student population.
- 38% were first generation college students as compared to 28% of the general student population.
- 75% of students were either Latino or African American, compared to 42% of the general student population.
- Program participants attempted an average of 12 units compared to 7 .6 of the general student population, and completed an average of 8 .4 units compared to 5 .7 of the general student population.



PCC PATHWAYS (PASADENA CITY COLLEGE)

College Fast Facts

Fall 2017 Headcount: 30,058

Location: Pasadena, CA

Fall 2017 FTES: 11,278

Structure: Single-college district

Fall 2016 FTEF: 1,055

Background and Purpose

Pasadena City College (PCC) leverages the District and federal resources to operate the [PCC Pathways](#). The PCC Pathways is a comprehensive approach for ensuring that students identify and complete their academic goals in a timely manner. PCC Pathways was launched in 2011 to increase the success, persistence, and completion rates of students at Pasadena City College. The program guarantees students access to full schedules, including difficult-to-get English and math courses in the fall and spring semesters in their first year. The PCC Pathways also provides students the critical support they need outside of the classroom. PCC Pathways goes beyond merely a first-year experience by offering students a second-year component as well.

Process and Procedures

The PCC Pathways program uses a prescriptive guided pathway approach. This involves a comprehensive set of support services and high impact practices including: a first-year seminar; access to counselors, coaches and tutors, and a dedicated resource center. PCC Pathways receives 85 percent of its funding from the District, mostly through general operating dollars and the other 15 percent from federal grant monies, primarily Title V.

The Pathways program is currently available to students in their first and second year at PCC. Students who meet all program requirements receive priority registration. To maintain Pathways status in their first year, students must:

- Attend a week-long summer orientation called Jam
- Carry a minimum of 12 units (full-time student status)
- Enroll in math, English, and a first-year seminar
- Meet regularly with their coach and counselor
- Develop an ePortfolio
- Participate in various workshops and activities
- Complete a contract that includes maintaining a GPA of 2 .5 or better and participating in academic, social, and volunteer activities

In Fall 2014, PCC Pathways piloted its second-year component. In their second year, students must attend a summer orientation and participate in career exploration, leadership, and campus engagement activities during the academic year to keep priority registration and have access to the program's resources and services.



Outcomes and Effectiveness

PCC Pathways grew from 385 first-year students in 2011-12 to approximately 3,000 first and second-year students in 2015-16. Approximately 40 percent of new first-time students are enrolled in the Pathways program. The following evaluation findings are from the PCC Pathways Student Success Study, which was prepared by the UCLA Social Research Methodology Evaluation Group in October 2015.

- **Credits.** Pathways students earned significantly more credits each year than non-Pathways students.
- **Persistence.** Pathways students persisted each year at significantly higher rates than non-Pathways students.
- **Transfer status.** At the end of their second and third years, a significantly higher percentage of Pathways students had achieved transfer-directed, transfer-ready and/or transfer-prepared status (as defined by the California Community Colleges Chancellor's Office Data Mart) compared to non-Pathways students.
- **Degrees and Certificates.** A significantly higher percentage of Pathways students than non-Pathways students received a degree at the end of three years. Roughly the same proportion of Pathways and non-Pathways students received a certificate at the end of three years.

Benefits

PCC Pathways is proving highly effective in increasing retention and persistence rates and reducing the equity gap in the critical first year of college for participating students. The UCLA external evaluation team concluded that participation in the PCC Pathways Program significantly increases students' likelihood of attaining transfer-ready status. This is achieved because Pathways students:

- Are full-time students, which is a key factor in persistence and transfer status,
- Persist from year to year,
- Begin the math and English sequences in the first year, helping them reach transfer-level math and English courses more quickly, and
- Earn more credits, positioning themselves for transfer and/or AA/AS degree or certificate attainment.



PRIOR LEARNING ASSESSMENT PROGRAM (WEST HILLS COMMUNITY COLLEGE DISTRICT)

College Fast Facts

Fall 2017 Headcount: 3,399

Fall 2017 FTES: 1,005

Fall 2016 FTEF: 334

Location: Coalinga, CA

Structure: Multi-college district

Background and Purpose

West Hills Community College District (WHCCD) is focused on leveraging prior learning assessment as a means to help all students, but especially post-traditional students (25 and older). WHCCD awards students credit for knowledge and skills gained outside of the classroom upon entering college. Prior learning assessment (PLA) is a term referring to the many ways students earn college credit outside the traditional classroom, such as Advanced Placement (AP) and College Level Education Program (CLEP tests). These are familiar PLA methods used by traditional students (18 to 24). Other PLA methods appropriate for post-traditional students include: DSST exams, the American Council on Education (ACE) credit, and the ACE Military Guide. The practice involves taking the existing PLA practices and packaging them to help students recognize the options for earning course credit. The PLA Program provides students the opportunity to earn college credit for their prior knowledge, helping them recognize the college-level learning they already possess. A Lumina study found the majority of the respondents (87 percent) believe colleges should award credit for the knowledge and skills individuals developed outside of the traditional classroom (“America’s call for higher education redesign,” 2013).

Furthermore, WHCCD is expanding its PLA options to include portfolio assessment so that adult learners can document their prior learning and submit it as a portfolio for evaluation by faculty subject matter experts. By developing a robust PLA program, packaging its PLA options, and expanding it to include portfolio assessment, WHCCD is positioning itself to become an adult learner service institution. Consequently, this provides the means for those who may not have considered college or who have some college but no degree with the opportunity to earn credit for what they already know.

Process and Procedures

The Chancellor of West Hills Community College District proposed the project to the California Department of Education and was awarded a \$2 million award for innovation to fund the implementation of the project for three years (2017-2020). The project partners include the Council for Adult and Experiential Learning and AcademyOne. Additionally, the award funds were used to hire a full-time PLA Coordinator to guide the development of the project throughout the pilot and bring it to scale. Award funds are currently used for faculty and staff development.



To move the project forward, faculty and counselors receive compensation to participate in decision-making meetings and PLA training. As the project continues, the PLA program will use innovation award funds to market to adult learners using various traditional means such as TV and radio, but also for developing social media marketing campaigns with Facebook and Twitter. During the implementation of the project, policies and procedures will be drafted that lay out the workflows for each of the PLA methods. Based on the policies and procedures, recommendations will be made to ensure that the workload is balanced and faculty receive compensation for performing PLA assessments. In addition to refining the practices for the existing PLA methods, West Hills Community College District (WHCCD) faculty and staff will receive training on Portfolio Assessment and adult learner services. The Council for Adult and Experiential Learning (CAEL) is a partner on the project and has several trainings designed for faculty portfolio assessors and counselors who serve adult students. Several colleagues have already received the trainings with additional colleagues scheduled for training throughout calendar year 2018. Further, a small faculty team are preparing a portfolio development course for the students who petition to challenge a course through Portfolio Assessment. The faculty writing the curriculum are trained on portfolio assessment practices having attended the annual CAEL conference in 2017 and CAEL workshops in 2018. Lastly, the WHCCD colleges completed applications to become CLEP testing centers. This will allow any member of the community to schedule a CLEP test at one of the WHCCD colleges in Lemoore and Coalinga.

Outcomes and Effectiveness

The PLA Project is guided by the literature on the barriers facing adult students and the factors that influence the decision to return to college. A study of 22 California community colleges found that 32 percent of respondents enrolled in fewer units because of family responsibilities (“On the verge,” 2016). A Lumina study found that, of those who had no degree or certificate, 41 percent had thought about returning and when asked about the barriers to returning only 28 percent cited the cost of higher education (“America’s call for higher education redesign,” 2013) . Given that the barriers to returning to college may have more to do with the amount of time to earn a degree/certificate than the cost of one, the PLA Project intends on serving adult learners looking for ways to reduce time to completion .

The evaluation of the project will proceed in several ways. First, through the institutional research department at West Hills Community College District, student data will be collected to assess the use of prior learning assessment options. This data collection process will provide a picture of PLA usage prior to the implementation of the project. Following implementation, these data will be pulled in order to track a number of outcomes including: the PLA usage at each college, the effectiveness of attracting new students, reducing time to degree, reducing cost of attendance, and completion and performance of students opting for PLA versus those choosing the traditional route. Further, the usage data provided by the AcademyOne system will provide a view that will allow the institution to investigate the use of portfolio assessment. Finally, innovation award funds are used by the Council for Adult and Experiential Learning for evaluating the effectiveness of implementing the project according to the timelines laid out in the proposal.



Benefits

The goal of the project is to contribute to the social mobility of residents of California. Of the California population who is 25 and older (25 million), 20 .6 percent have a high school diploma or GED while 21 .7 percent have some college but no degree. The median earnings of Californians with some college but no degree is \$36,900. Still, despite the obstacles adult learners confront when deciding to return to college, such as financing their education, family responsibilities, and work schedules, a Lumina Foundation (2012) study found 41 percent of Americans without a postsecondary degree or certificate thought about returning to college.

What is more, 75 percent agreed with the statement “If you could be evaluated and receive credits for what you already know, would you be more likely to enroll in a higher education program?” By providing the means for adult learners to earn college credit for their prior learning, this project is set to encourage adults to return to college and complete their degree quickly thereby contributing to the social mobility of California.

West Hills Community College District with its colleges in Lemoore and Coalinga are Hispanic serving institutions. As such, the institutions serve communities where a third of the population speak a language other than English at home. Data on completion rates for those entering below degree-level show a disparity between Hispanic students and non-Hispanic white students. At the Coalinga College, completion rates for Hispanic students entering below degree level have a completion rate of 33 .3 percent compared to white non-Hispanic students 41 .5 percent. The disparity is slightly greater at the Lemoore College, with completion rates for Hispanic students entering below degree level at 29 .3 percent and white non-Hispanic students at 44.7 percent. While a Council for Adult and Experiential Learning (2010) study showed that Hispanic students earned PLA credit at a comparatively lower rate than others, this project seeks to develop a robust PLA program to encourage adult learners -- who may otherwise see themselves as ill-prepared for a college education -- to return to school. PLA programs help individuals recognize that they possess college-level knowledge gained from years of industry experience, and for which they will receive credit toward a degree or certificate. A well-developed PLA program helps institutions reduce disparities in accessing educational opportunities for community members.



USING ACTION RESEARCH TO FOCUS EQUITY EFFORTS IN TOP 12 HIGH-ENROLLED COURSES

College Fast Facts

Fall 2018 Headcount: 17,313

Fall 2018 FTES: 5,541

Fall 2017 FTEF: 527

Location: El Cajon, CA

Structure: Multi-college district

Background and Purpose

As part of the process of integrated planning and goal setting, Grossmont College took an approach of focusing on twelve high-enrollment gateway courses to assess trends in retention and success through an equity lens. The investigation was carried out by the Success and Equity taskforce composed of 42 members including faculty, staff, administration and students from student services and instruction. The committee was interested in students' progress from first contact to completion. Examination of first-year students who enrolled in the 12 gateway courses showed a 68%-72% success rate across all of these general education and basic skills courses, which included, English, biology, communications, history, math, psychology, and sociology. To examine the success rate further, the data were disaggregated by race, ethnicity, and former foster youth to determine if there were disproportionately impacted groups. Similarly the success rates from students' second academic year courses was disaggregated and evaluated. The data revealed disparities in course success between student subgroups.

Process and Procedures

To turn the research into action and introduce discourse about equity, the committee met with department chairs to form an integrated goal of improving course success rates and closing the equity gaps. They also took the data to the academic senate. Doing so revealed some faculty members were unfamiliar and uncomfortable with the approach of disaggregating data to examine the performance and experience of students within subgroups. As result, strategic professional development became a critical step in moving forward.

A survey was developed for faculty members to learn more about their practices regarding factors known to be linked to student success including student learning objectives, grading, reviewing syllabi, welcoming students and acknowledging student support services. Specifically, faculty were asked, "Do you do this? Do you see this as important?" The survey data showed that faculty engaged in practices that had been previously an area of emphasis at Grossmont College and that there was a need for additional professional development to increase awareness of equity issues and practices. This survey served as a baseline to measure changes values and practices.

The next step was to ask faculty what they thought they needed. A forum was held specifically for faculty from the 12 gateway courses with about 80 attendees present. Department chairs and faculty had the opportunity to meet together. The question of why one should examine race when evaluating student success was evident again among some faculty. Successive steps in fostering a culture shift in perspective included inviting Dr. Tyrone Howard from UCLA. In addition, students



have become involved in expressing what they deemed as important. Students in a psychology research methods class in coordination with the chair of the Psychology Department conducted a survey to obtain student feedback.

Additionally, there will be an opportunity to present the research in an annual campus research symposium. Further, students in the 12 gateway courses are slated to participate in focus groups this year. In the spring, professional development FLEX workshops and events will feature outcomes and assessment with the aim of explicitly linking teaching and learning with equity.

Outcomes and Effectiveness

The practice of inquiry and action research to address equity and increase student success is broadening awareness of and aligning student-centered and data-driven planning and instruction. The 12 gateway courses will continue to be examined for success rates to evaluate disparities in course success among student subgroups. The survey and self-assessment originally administered to instructors who teach the targeted gateway courses will be administered again in the spring of 2019.

Benefits

This inquiry-based approach to examining student success has created an opportunity and means for discourse about equity with administration and faculty, which in turn is leading to a cultural shift in practices with students. In addition, students are taking ownership of inquiring about and articulating what they need. Students are empowered and engaged in this discourse.

Lessons Learned

The power of relationships is critically important in building capacity and changing culture. For example, faculty have been responsive because they know that leaders believe in the instructors' success. Making the connections and providing context and background at all levels is necessary. Faculty need context to see that an equity-based approach is a framework not another passing initiative. It is also necessary to allow time for conversations to sink in. Not everyone will be onboard, but start by relying on those who are onboard and have the courage to lead and go forward.

Appendix A

Dual Enrollment Resources

Practitioner Tool - The Dual Enrollment Toolkit, developed in partnership by the RP Group, the Career Ladders Project, and the California Community Colleges Chancellor's Office was launched in Spring 2016 to serve as a resource for California dual enrollment partnerships. Included is the Legal Opinion 16-02 which encompasses all past legal opinions on concurrent enrollment and outlines the two different types of dual enrollment partnership agreements, an extensive FAQ, a comparison between CCAP (AB 288) and non-CCAP tracks for dual enrollment, resources and other tools for practitioners .

<https://www.careerladdersproject.org/areas-of-focus/pathways/ccccode/>

Practitioner Tool - The RP Group launched *A Guide to Launching and Expanding Dual Enrollment Programs for Historically Underserved Students in California* in 2014. This guide includes common elements and approaches, policy supports and challenges, costs and expenditures and indicators of successful programs.

<https://www.asundergrad.pitt.edu/sites/default/files/DualEnrollmentGuideJune2014.pdf>

Practitioner Tool - *Get Focused, Stay Focused*, is a college and career readiness program designed for dual enrollment, housed at Santa Barbara City College. It includes curriculum, materials and a yearly conference to learn more about dual enrollment.

<http://www.getfocusedstayfocused.org>

Practitioner Tool - Jobs for the Future recently released Solving the Dual Enrollment Staffing Puzzle. This report includes multiple case studies from across the country and strategies for practitioners.

http://www.jff.org/sites/default/files/publications/materials/Full%20Report_0.pdf

Research - The Community College Resource Center (CCRC) published a packet summarizing research on dual enrollment in 2012 called *What We Know About Dual Enrollment*. This packet includes an overview of the research, a case study and guiding questions.

<https://ccrc.tc.columbia.edu/publications/what-we-know-about-dual-enrollment.html>

Research - *The Concurrent Courses: Pathways to College and Careers Initiative* is published on the CCRC website and includes a series of research publications and presentations based on a three year study of 3,000 California dual enrollment students enrolled in career-focused dual enrollment courses. Of the total enrolled, 60 percent were students of color, and 40 percent lived in non-English speaking households.

<https://ccrc.tc.columbia.edu/Dual-Enrollment-and-College-Credit-Programs.html>

Research - In Fall 2017 CCRC released a report *What Happens to Students Who Take Community College Dual Enrollment Courses in College*. This report, and accompanying interactive map by state, tracked 200,000 dual enrollment students nationally for six years.

<https://ccrc.tc.columbia.edu/dual-enrollment.html>

SEM Resource Guide in the Series

- A Roadmap for Strategic Enrollment Management Planning
- Understanding and Calculating FTES and Efficiency
- Data Tools and Metrics for Strategic Enrollment Management
- Developing and Managing the Class Schedule
- High Impact Retention, Persistence, and Success Practices for Strategic Enrollment Management
- Support Services for Strategic Enrollment Management
- Targeted Marketing and Communications for Strategic Enrollment Management
- Understanding CCC Budget and Reporting Part I (CCSF-320 Report)
- Understanding CCC Budget and Reporting Part II (Exhibit C, Fifty Percent Law, and FON)