

The CAPacity Gazette



Feb 2021

Dispatches from Community Colleges Transforming Remediation

Because students have the capacity to succeed in challenging courses and we have the capacity to support them



A statistics class at MiraCosta College

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AB 705 Research Roundup

By Katie Hern and Leslie Henson

Student completion of transferable, college-level English and math rose dramatically during the first year of California's landmark legislation AB 705, with large gains across every student group examined to date. But more work is needed to address racial inequities in implementation and ensure that all colleges are meeting their AB 705 obligation to maximize student completion.

Those are the key takeaways from three recent reports on AB 705 implementation. The reports include:

- A Public Policy Institute of California ([PPIC](#)) study of implementation and outcomes in the first semester of AB 705, fall 2019,
- A Research and Planning Group ([RP Group](#)) analysis of the first year of AB 705 (fall 2019-spring

2020), disaggregating outcomes by different student groups,

- An analysis of college course offerings in the second year of AB 705 implementation (fall 2020) by the California Acceleration Project ([CAP](#)) and civil rights law firm Public Advocates.

Highlights from these reports are summarized below.

Dramatically More Students Enroll in and Complete Transfer-Level Courses

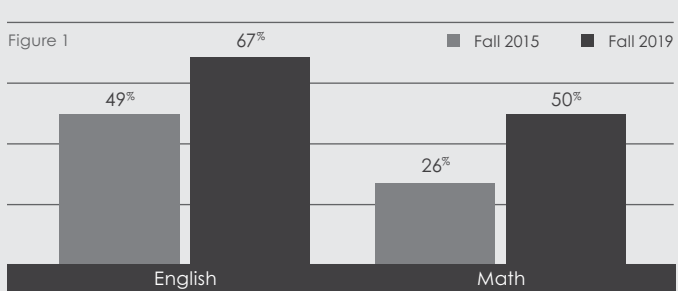
As AB 705 removed barriers in student access to transfer-level courses, direct enrollment in these courses has doubled in English -- increasing from 44% to 95% -- and tripled in math, increasing from 26% to 79% between fall 2015 and fall 2019, according to the RP Group.

AB 705 Research Roundup

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In the first year of AB 705, students also completed transfer-level courses at much higher rates than in 2015, the period before colleges began broadening access. Across all first-time English students, transfer-level completion increased from 49% to 67% in a year, with an additional 63,975 students attaining this important academic milestone. Among first-time math takers, one-year completion rates increased from 26% to 50% statewide, and an additional 37,941 students completed transfer-level math.

Large Increase in One-Year Completion of Transfer-Level Courses (Throughput)



Throughput = % of first-time English/Math takers who complete a transfer-level course from any starting level

Higher, More Equitable Completion When Students Enroll Directly in Transfer Level, Especially with Corequisite Support

In the first year of AB 705 implementation, completion was much higher among students starting at the transfer level than those who started in a remedial course one level below.

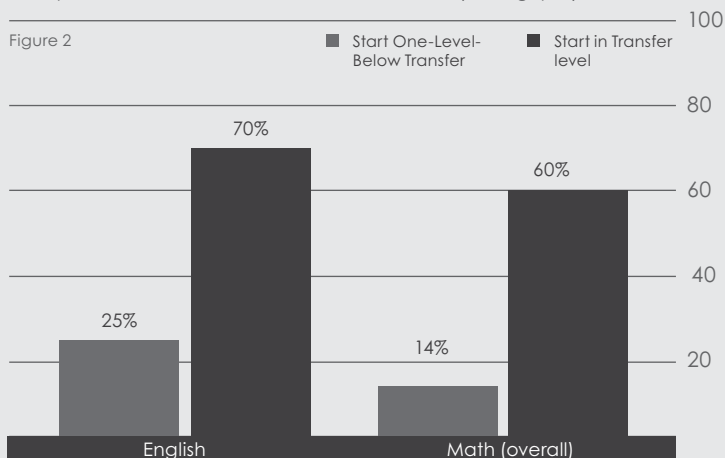
RP Group researchers found that 70% of students who enrolled directly in transfer-level English successfully completed it within a year, compared to just 25% of those who started one remedial course below this level. In math, 60% of those starting at the transfer level completed the course in a year, compared to just 14% starting one course below transfer level.

PPIC examined completion rates for students receiving corequisite support at the transfer-level as an alternative to taking a remedial prerequisite course. They found that, in both English and math, corequisite students completed transfer-level courses at rates at least 30 percentage points higher in one term than the students in remedial courses did in twice the time.

In Statistics/Liberal arts math pathways (SLAM), for example, corequisite students completed transfer-level math at a rate of 49% in fall 2019, compared to just 8% of students who began in a remedial course the prior year (fall 2018-spring 2019). For those starting in a remedial course, even four terms wasn't enough to catch up to corequisite students' completion -- just 13% completed a transfer-level course between fall 2018 and the end of fall 2019. The same pattern held true for Business and STEM pathways (B-STEM).

Completion Much Higher Among Students Starting in Transfer-Level Than Those Taking One Remedial Course

Completion of Transfer-Level Course in One Year (Throughput), 2019-2020



1 in 5 students took transfer-level with corequisite support

Every California community college saw substantial completion gains in fall 2019, but the size of the improvement varied widely across the system. According to PPIC, one-term completion of transfer-level courses ranged from 34% to 81% in English and from 17% to 63% in math.

How can we explain such different results? The key factor, according to PPIC, is enrollment in transfer-level courses. The researchers found that more than half of the differences in college completion gains are explained by the extent to which colleges ensured that students started in a transfer-level course.

"Given the complexity of factors affecting educational outcomes, it is an important finding that a single variable, within the direct control of colleges, is associated so strongly with improvements in completion," the researchers note.

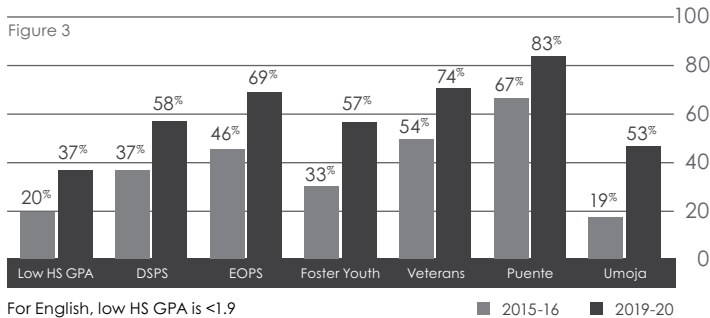
PPIC also found that completion was more equitable for Black and Latinx students in corequisite models than when they enrolled in transfer-level classes without support, with their share of completions in English and Statistics/Liberal Arts math matching their share of overall enrollment in these courses.

Despite these findings – which echo a large body of research from California and other states – many colleges continue to enroll a large share of students in remedial courses, particularly in math. At 69 colleges, remedial courses made up at least 20% of introductory math sections in the fall 2020 schedule, and 75 colleges offered more remedial sections than transfer-level math with corequisite support, according to the CAP/Public Advocates report.

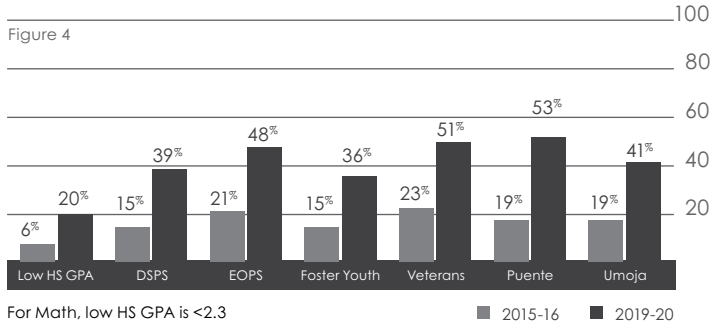
Large Completion Gains for Every Student Group Examined

Examining outcomes for different student populations and programs, the RP Group found transfer-level completion increased across all groups post-AB 705, including veterans, foster youth, low-income students (those participating in EOPS), students receiving support for disabilities (DSPS), students participating in the Puente and Umoja learning communities, and students with the lowest high school GPAs.

English | Large Completion Gains - Special Programs/Populations One-Year Completion of Transfer-Level (Throughput)



Math | Large Completion Gains - Special Programs/Populations One-Year Completion of Transfer-Level (Throughput)



Even students who had not completed Algebra II in high school had higher completion enrolling directly in a transferable B-STEM course than beginning in Intermediate Algebra, the below-transfer course that covers Algebra II content. After adjusting for students' high school GPA, RP Group researchers found that 41% of these students completed transferable B-STEM courses in one year if they enrolled directly but just 21% did if they began below transfer ([RP Group 2020](#)).

Incomplete Progress Toward Racial Equity

Completion of transferable courses increased across all racial/ethnic groups post-AB 705, and Black and Latinx students saw the largest relative gains, with their one-term completion rates tripling in English and quadrupling in math between fall 2015 and fall 2019, according to PPIC.

PPIC also found progress on the “proportionality index,” which measures the extent to which different groups are equitably represented in student completion. For example, if Latino students represent 30% of first-time English/math students and 30% of transfer-level completions, completion is equitable (proportionality score: $.30/.30 = 1.0$). If Latinos only represent 20% of completions, they are under-represented ($.20/.30 = .66$). A score of 1.0 is defined as “at equity”; 0.85 - 0.99 is “near equity”; and 0.85 or below is “below equity.”

Between 2015 and 2019, Latinx student completion of transfer-level courses became more equitable statewide.

Latinx proportionality scores increased from .73 to .92 in English and from .61 to .83 in math. The percentage of colleges where Latinx completion was “below equity” decreased from 75 to 4 in English and from 84 to 36 in math.

Colleges also saw modest progress with Black students, with proportionality scores increasing from .54 to .78 in English and from .48 to .67 in math. The percentage of colleges where Black students' English completion was “below equity” decreased from 86 to 64, but the percentage of colleges “below equity” in math rose from 77 to 81 percent.

Black and Latinx students remain substantially underrepresented in completion of transfer-level math. This is clearest when disaggregating one-term completion rates by racial/ethnic group: Asian 57%, white 49%, Latinx 33%, and Black 27%.

AB 705 Research Roundup

Continued from page 2

What is driving these inequities? The CAP/Public Advocates report found that Black and Latinx students disproportionately attend colleges that are weak implementers of AB 705 -- that is, colleges where course schedules are still packed with remedial math sections. When a college enrolls a larger share of students in below-transfer classes, it automatically depresses the one-term completion rate, because students taking remedial prerequisites can't complete the transfer-level course in a single term.

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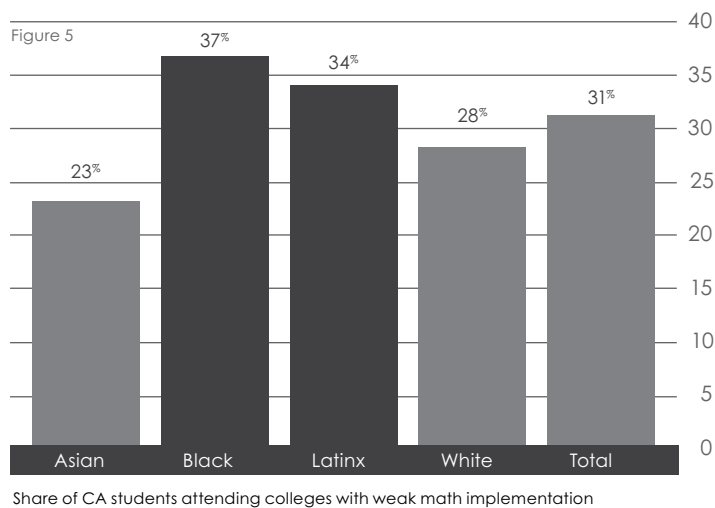
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Enrollment at Weak AB705 Math Implementers by Race/Ethnicity



Among colleges with over 2,000 Black students, 59% are weak implementers of AB 705, more than double the rate of weak implementation in the rest of the system (22%), and 82% of these colleges offer more remedial math than transfer-level math with corequisite support.

“Overall, California community colleges have maintained large remedial course offerings despite clear evidence that these courses do not meet the legal standard of maximizing completion,” the CAP/Public Advocates report concludes, “and this is driving ongoing inequities in access and completion for Black and Latinx students.”

Examining the Impact of AB 705 at Your Own College

In the technical appendices to their report, PPIC researchers provide individual data from 114 California community colleges. Below are sample entries for two colleges with strong AB 705 implementation in math, as a model for how to use the appendix to examine data from your own college.

Both colleges have largely replaced remedial courses with corequisite support at the transfer level, and at both colleges, math completion rates are higher and more equitable than the statewide average, with math completion “near equity” for both Black and Latinx students. For data from your own college, see pages 6-9 for English and pages 11-13 for math.

	Direct Enrollment in Transfer-Level Math (%)		Completion of Transfer-Level Math in One Term		Proportionality Index Latinx Students		Proportionality Index Black Students	
	2015	2019	2015	2019	2015	2019	2015	2019
Porterville	21	100	16	60	0.89	0.98	N/A	N/A
Redwoods	29	95	18	52	0.71	0.90	0.31	0.86
Statewide	21	78	14	40	0.61	0.83	0.48	0.67
Your college								

Proportionality Index measures the extent to which different groups are equitably represented in student completion. 1.0 = “at equity”; 0.85 - 0.99 = “near equity”; 0.85 or below = “below equity.”

N/A = Data not provided in cases of fewer than 20 Black students.

Humanizing Online Learning

by Leslie Henson

Michelle Pacansky-Brock remembers attending her college's graduation ceremony in 2003 and thinking, "I could be right in front of them, but my online students wouldn't even know who I was." This realization prompted Pacansky-Brock, then a full-time art history instructor at Sierra College, to start using asynchronous voice and video tools in her online courses.

"I was amazed at the change I saw in the relationship with my students once they could hear and see me," she says.

Now a faculty developer with the Foothill-DeAnza Community College District, Pacansky-Brock says these early experiments were her first forays into what is now a larger grassroots movement toward "humanizing" online education ([#HumanizeOL](#) on Twitter).

"Humanizing draws on research on culturally responsive and inclusive teaching and validating students, but then designs practices that really enable us to get there online," says Pacansky-Brock. "It ensures that we don't fall back into thinking that the student-instructor relationship is extraneous to students' learning. Humanizing means recognizing that the student-instructor relationship is the connective tissue between students' engagement and rigor."

As described in Pacansky-Brock's [Pocket PD Guide for Humanizing](#), humanizing practices include cultivating human presence, identifying and intervening with "high opportunity students," and being a "warm demander," which derives from the work of Judith Kleinfeld. Human presence is important, Pacansky-Brock says, because online learning can increase students' sense of isolation, particularly for minoritized students who are often "left out of narratives of academic achievement."

Pacansky-Brock cites a 2016 study by Jaggars and Xu that found that most students taking online courses did not experience quality online teaching, with students defining quality as "having an instructor who cared." In the absence of human caring and presence, students reported feeling they had to "teach themselves." Pacansky-Brock credits Southwestern College Distance Education Coordinator Tracy Schaelen with the perfect description of how a student would feel in such an online course: "very lonely, and at the same time very anxious, because there would be all this stuff on my screen that I have to figure out what to do with it, and my grade depends on that."

Pacansky-Brock says teachers can cultivate human presence by telling their own stories in friendly introduction videos; using brief, imperfect videos;

sending video postcards (a concept originated by Glendale College Ethnic Studies Department Chair Fabiola Torres); and leaving voice or video feedback in the Canvas gradebook.

"Ensuring that our human presence is cultivated online helps us remove psychological barriers to learning from that very first click," she says. "How does that first click make students feel? Are you present in that first click?"

Pacansky-Brock recommends using Google Sites or some other platform to host a [liquid syllabus](#) that includes a friendly welcome video teachers can send to students before the course begins, to allay their fears and begin creating what Luke Wood and Frank Harris III taught her to call "a net of support that's so tight students can't fall through."

She also recommends surveying students during the first week to identify those who would benefit from more individualized communications. She says her favorite question for identifying these "high-opportunity students" is, "In one word, how are you feeling about this course?" Pacansky-Brock also suggests using [self-affirming ice breakers](#) in which students share a short video of themselves holding up or talking about something they're proud of. "You can see how that shifts the conversation from worrying about whether their grammar is right," she says.

Then, throughout the course, she says teachers can serve as warm demanders by "monitoring engagement and performance and extending warm, human touch through one-to-one communications to students who will benefit most. When you send an email to follow up with a student who missed an assignment, the subject line should cue that you care about them, as in, 'Danny, everything ok on your end?'"

In a survey of what worked in fall 2020 online teaching, Porterville College English Professor Melissa Long says humanizing practices were key, in particular, including her own talking head in the corner of her instructional videos. Long says,

"I have been overwhelmed with how many students have thanked me for these videos and how they feel more of a connection with me because they see me. No matter how inferior I think my videos are, my students prefer them."

Long says she also uses the notes she takes on her students' responses to her first-week survey ("has a three-year-old daughter named Emma," "Works at Home Depot," "Lost job due to Covid," "Cares for younger siblings") to call students by the name they go by and to generate conversation before jumping into class material during her office hours. Says Long, "Students have commented on how personal my class feels compared to other online classes."

Cuyamaca College ESL department chair Guillermo Colls says reaching out by email and office hour invitations as soon as students began missing assignments has helped Cuyamaca ESL teachers retain Latinx students, "who feel a little more isolated in a remote setting since 95% of our ESL students are Middle-Eastern." Colls says that consciously focused on mentioning his Latinx students by name when praising work "elicited positive responses on discussions and in emails."

"I give my students anonymous surveys throughout the semester to really be able to get into their thoughts/feelings," says Kelicia Galvin, Associate Professor of ESL and English at Irvine Valley College. "Some are just general 'check in' surveys to see how they're doing and how I can help, and then others are assignment specific in order to see what they do and do not understand. This again allows me to tailor the class to their needs."

Pacansky-Brock says that teachers sometimes perceive humanizing practices as "being a pushover" because of dominant cultural perceptions that rigor and emotion are mutually exclusive opposites, and that you can't be both firm and caring. She says reading Zaretta Hammond taught her that "emotion is actually the ground floor of cognition and not its opposite, so we have to push and care simultaneously. It's hard, because we have to make ourselves vulnerable."

She says that as a white educator, "It's been very eye opening to see the values of white dominant culture and the way they influence who I am and how I teach. And once you see it, you can't unsee it. That's not something you can achieve by watching a video or reading one book, it's a continuous process. So that equity mindset is a place to get started, acknowledging that everything you do as a teacher is based on certain cultural values and advantages some students over others."

"The other place to get started at any point in your class," she says, "is with brief imperfect videos, which I think are the most underutilized online teaching tool. Get familiar with the tools that are supported at your institution for recording, hosting, captioning, and embedding videos. You can even use your smartphone to record yourself in different settings. What can you show students outside of an office space that would

make your content or human presence come to life?" she asks. "It opens so much room for creativity that makes online teaching really fun and meaningful." Making sure your online courses are mobile-friendly is also an anti-racist teaching strategy, she says, "because we know that Latinx and Black students are more likely to use their phones as their means of internet access."

At the same time, Pacansky-Brock says, "That sense of self-criticism and needing to be perfect can be overwhelming for online teachers, especially when you're new and the work is so time-consuming." She says when she shares inspirational examples of successful online teaching, she often thinks, "At this moment there is someone shrinking in their chair and telling themselves, 'Mine isn't that good.'" Her advice, she says, is "to make little changes based upon how much you have to give at that moment. As educators, we need to approach this with boundaries, because we too are humans living through some very heavy times."

"The bottom line is that students just want to know a human is in this with them," Pacansky-Brock says. "That has to be part of their learning online."

More on Humanizing Online Education

- California Acceleration Project guest blogger Maritez Apigo's posts [Conveying Care Online](#) and [Humanizing Your Online Courses with Flipgrid](#).
- Michelle Pacansky-Brock's [website](#), including her infographic, [How and Why to Humanize Your Online Course](#).
- California Virtual Campus - Online Education Initiative/Online Network of Educators (CVC-OEI/@ONE) resources:
 - [Humanizing Online Teaching & Learning course](#) (4 weeks)
 - [How to create brief, imperfect videos](#) (public Canvas course)
 - [How to create a Liquid Syllabus](#) (public Canvas course)

Supporting English Learners in Online College Composition

By Leslie Henson



Jose Cortes – faculty member, Solano College

"I've never felt so terrible about my job in twenty years," says Solano College English and ESL instructor Melissa Reeve about teaching fully online for the first time this fall. "Every day between August 15 and December 15 I was like, This is a disaster. I cannot believe how much I suck at this."

"Teaching online put me back in the position that many students -- especially language learners -- feel when they're coming into a class in a subject that they don't feel is their best, feeling that fear and dread but just having to take a deep breath and say, Every day and every week, here goes nothing. Let's see if this works."

Reeve says reaching out to her colleagues helped her cope with the challenges of learning to teach online, "seeing that we were all struggling with the same things." Another thing that helped was "being vulnerable with my students, saying, I feel like I'm not doing some of the things I think the class needs. My students were actually really encouraging and supportive."

The experience drove home for Reeve "how important it is to remember how vulnerable and afraid our students are."

Jose Cortes, who also teaches English and ESL at Solano, says fears about writing can be especially pronounced for language learners. He says two of his former ESL students contacted him about their experience taking college composition online. "They were nervous about the discussion posts," he says, "because they saw the other students' writing and they didn't think their English measured up."

Cortes says he began letting students know that "discussion posts don't have to be scary, we're just hopping on and generating ideas. It's a place to interact with the ideas." He began using more informal, casual language in his discussion post assignments and made expectations transparent by communicating, "It's not about how well-formed your sentences or ideas are. This is where we get the idea seeds -- ideas you're going to use later on in your essays."

Cortes also tries to validate language learners' identities by asking early on, in class or a student information survey, what languages other than English students speak. "One time when I asked that in class," he says, "one student said they spoke seven languages. It gives monolingual students this feeling of awe to hear that, and it takes away the stigma and makes multilingualism into an asset and not a deficit."

While Cortes still prefers face-to-face teaching, he sees some benefits for language learners in online courses. "All of their writing is right there in front of them and they can see the growth," he says. He pulls sections from students' papers to hold up as models, making sure to include writing by English language learners, and creates low-stakes assignments asking students to reflect on what makes each example strong, with a focus on how students are engaging with ideas.

Cortes also uploads to YouTube videos of himself giving [mini-lessons](#) on different grammatical features and how students can apply these in their essays. He says, "Language learners sometimes want to know, What can I do now to see some progress? They want and need those incremental wins." At the same time, he says, he reminds students, "Trust the process. This isn't something that happens immediately."

Reeve compares literacy development to running. "I've hated running since I was ten," she says, "because I wasn't fast and they graded us on that, so I avoided it, the way people do when they don't get positive feedback on something they tried to learn." But then she started using a 5K training app. "Four months ago, I couldn't run for more than three minutes," she says. "I'm still a slow runner, but last week I was running and my heart filled with joy. Running was making me feel happy."

Reeve shared this experience with her spring 2021 students, encouraging them to see that even if they're not confident in English, they can reach the place where "the thing that you dreaded becomes a source of joy."

While her online teaching hasn't reached that stage yet, Reeve says that one strategy that has worked for her is requiring students to meet with her individually before each major writing assignment. "Even though I was having the same conversation six times in a day, students really benefited from these meetings," she says.

When Reeve asks students about their own positive learning experiences, “They say the same things I said about what helped me get through fall 2020. Support. Positive feedback. Examples.” But she notes that her students don’t always receive the kind of treatment she did as a new online teacher.

“Once you reach a place of professional status and security, people just give you the benefit of the doubt,” says Reeve. “Nobody told me, Oh, you aren’t going to be able to make a good Canvas course because you’re new at this. They said, You’re capable. You’ll figure it out. Here are some resources.”

“That’s all that I’ve ever been trying to say about ESL students,” Reeve says. “As they move through learning language while learning to be college students and everything else, can we just give people the benefit of the doubt and say, I believe that this is a capable person who can reach their goals? The work that they do a year from now isn’t going to look like the work they do today, and we shouldn’t hold them back because we think they won’t be able to handle the next thing.”

CAP’s ESL Webinar Series

For more on how Reeve and Cortes support linguistically and culturally diverse students, check out their webinar [Across the False Divide: Supporting English Learners in College Composition](#), which includes examples of English learners’ growth across multiple semesters.

Additional ESL resources:

[Window into ESL-Designated Models of Freshman Composition](#)

An ESL instructor from Irvine Valley College shares how she addresses the writing and language needs of English language learners inside transfer-level English.

[Real Talk: Discussing Complex Issues in the beginning ESL Classroom](#)

ESL faculty from Cuyamaca and Palomar colleges share how they integrate topics like race, civil rights, and immigration into beginning ESL classes.

[The Changing Landscape of ESL in CA Community Colleges](#)

Research from the Public Policy Institute of California (PPIC) and the Multiple Measures Assessment Project (MMAP) share findings on ESL pathways across California and how colleges can maximize completion for different groups of English language learners.

[Tips and Tricks for Taking ESL Courses Online](#)

ESL faculty from Cuyamaca College share how they put their courses online in Spring 2020 while staying true to CAP’s design principles for high-challenge, high-support pedagogy.



Student Spotlight

Mariam Shamon

Mariam Shamon was a political science major and afraid of math when she enrolled in Statistics with Support at Cuyamaca College.

She left the class with an A and the realization that she was better at math than she thought. She began considering a STEM career.

The next semester she tried precalculus with support. “The support helped, a lot,” says Shamon. “We reviewed material that I had done before, but forgotten or never really understood.” Earning

another A led her to calculus, higher level math classes, and a civil engineering major.

Shamon transferred to San Diego State University and is on track to graduate in May. She passed the six-hour national certification exam for engineers in training and got a great internship with CalTrans. “Sometimes I don’t believe in myself,” she says, “Then I realize that when I work on it, I can do almost anything.”

“A lot of people underestimate themselves. They put up walls and say, ‘I can’t do it’ and ‘I’m not good at that.’ I got bad grades in math during high school. To see myself now means anyone can succeed in math, if they work and get the right support.”

Grading for Equity

By Hal Huntsman and Leslie Henson

"If we are going to dismantle the inequities in our educational systems and achieve equitable outcomes, then we must change the way we grade," says Joe Feldman, a career educator and author of *Grading for Equity*. "We should not reward or punish students for non-academic factors that are tied to the wealth and background of their family. We need to align the way we grade with the purpose of grading -- to assess how well students understand the material."

According to Feldman, most current grading practices have their roots in early 20th century phrenology, IQ tests, and the need to sort people into categories and prepare them to work in factories.

To counter this legacy of inequity, Feldman says grading systems should be:

- Accurate -- based on valid assessment of students' academic performance by the end of the term (e.g., not distorting grade averages with zeros);
- Bias-resistant -- based on methods that prevent subjective, institutional, and structural biases from infecting grading (e.g., not grading on behaviors or timing of the work);

- Motivational -- based in practices that increase students' desire to learn and their sense that they can control their learning (e.g., allowing students to learn from mistakes through re-assessment).

[Data](#) from a cohort of 24 teachers at four high schools in a rural/suburban district (representing over 3,700 grades given) show that grades became more equitable when teachers adopted these principles. Students of color were much less likely to receive D or F grades and white students were less likely to earn As. In an urban district's high school and two middle schools, 37 teachers changed to more equitable grading practices (over 10,000 grades given), leading to similar gains for students who receive free- and reduced-price lunch.

Feldman is currently training faculty at universities across the country, including the College of Engineering at UC Berkeley. He says, "Faculty say things like, 'I didn't realize I was grading unfairly,' and 'I didn't know that you could do anything except find a weighted average to calculate grades.'" He hopes to have higher education data in 2022.

Many of the California community college teachers featured here have been influenced by Feldman's work. In their own ways, each is striving to grade more equitably.





Alma Ramirez:
“Not grading equitably means it’s just meaningless grading.”

“I didn’t get any coaching for how to

be a more equitable grader when I was teaching,” says Alma Ramirez, Dean of Instruction and former English department chair at Mt. San Jacinto College. But gradually, from conferences, experience, and Feldman’s book, she realized, “I am hurting my students when I grade them the way I was graded.”

Ramirez says she used to assign zeros when students didn’t turn in work. “I’d go to my gradebook and see oh, well, who didn’t turn it in, and I’d say OK, zero for you, zero for you, zero for you. It was more so that I knew how many I had to grade. It was for my own bookkeeping and had nothing to do with the students.” Ramirez says Feldman’s book made her realize, “You can’t give a zero to a student if you don’t even know if they’ve mastered it yet. You’re just giving a zero for non-compliance.”

Feldman taught her that a more equitable practice is “reaching out to students: ‘Hey, I noticed you didn’t turn this in, what’s going on?’ and not adding the zero but waiting to have a conversation with the student.”

This doesn’t mean teachers don’t get to set any limits on late work, says Ramirez. She believes teachers benefit from asking themselves Brene Brown’s question, “What boundaries do I need to put in place so I can work from a place of integrity and extend the most generous interpretations of the intentions, words, and actions of others?”

“Faculty get coached and mentored, with conversation around how to improve for the next time,” she says, “and it should be the same for our students.”



Patrick Morriss:
“We see the results we get because the system is built to produce those results.”

Patrick Morriss, Math instructor at Foothill College, has been thinking and working on grading structures for much of the last 15-20 years. He agrees with Feldman about the importance of grading in perpetuating inequity. “The only way to see more equitable outcomes is to rebuild the system,” says Morriss, “and grades are very much a part of that.”

Morriss takes Feldman’s vision further by eliminating the numerical grading scale altogether. According to him, “The points are the problem. I haven’t used quantitative grades since 2008.” Instead, he focuses on providing qualitative feedback that helps a student understand where she can improve, and he allows students to resubmit their work to address those areas.

Morriss says, “There is a myth about objectivity in education. I try to recognize my subjectivity, embrace it, and build bias checks into my grading.” This includes deciding on final course grades without names visible, first. Then he does it a second time with names. Most of the time the grades match or are within a plus or minus of each other -- in that case, he gives the student the higher of the two grades. If there is a larger discrepancy between the grades for a student, he starts the process over. (This has happened in only two cases in the last 12 years).

“Students respond very positively to the way I grade them,” says Morriss. “They feel the authenticity of it. It motivates them to learn more, with less pressure on ‘getting a grade.’”

Grading for Equity

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Clare Heimer:
“I’m not interested in being a gatekeeper.”

“As teachers, our role as gatekeepers is in conflict with our role

as educators,” says Clare Heimer, who teaches math at City College of San Francisco. “We harm learning when we invest in the analytical rigor of a gatekeeping system.”

“I’m looking for evidence of learning and growth in my students. I want students to view feedback in terms of concept knowledge.”

In Heimer’s class, students do assignments and quizzes each week, and she gives feedback on that work, but grades are not recorded in the gradebook. Instead, at the end of each week students submit a grade to her that they think they deserve, along with a brief self-assessment. The grade should reflect how much students think they learned and how well they feel they understand the ideas from that week.

Heimer uses the self-assessment, together with the other evidence of the student’s learning, to assign a letter grade each week for each student. Final grades are based on an average of the weekly grades.

For midterm and final exams, Heimer writes two or three problems for each week’s work. If a student shows improved understanding of a week’s ideas, the new grade replaces the previous one. Students are required to do only those sections of the exam for which they want an improved grade.

While it’s too soon to say what the equity implications of this system are, early indicators are positive. “I think people are learning more,” says Heimer. “And I’m surprised at the level of persistence in my classes.”



Katherine MacKinnon:
“Why would you give people one shot at it when what you really want to do is make sure that they learn the material?”

Feldman’s book inspired Butte College English instructor Katherine MacKinnon to allow all students to revise their work for higher grades “on almost everything I assign.” She says, “Why would you give people one shot at it when what you really want to do is make sure that they learn the material?”

MacKinnon has also adopted a four-point grading scale (ones and twos are not passing and threes and fours are passing). She says, “69% of the traditional grading scale is failing. What does that tell students? We have 69 ways for you to fail and only 31 ways to pass?” The four-point scale “allows you to give feedback on everybody’s stuff,” she says.

“Students who get a four can see that there are still things they can learn to do better, and even students who get a two may only have feedback on two or three things that you want them to do to meet the objectives for the assignment.”

Grading differently has challenges, because students aren’t used to it and don’t understand right away. “Many of our students have had very negative experiences in their educational backgrounds, and there is a lack of trust,” says MacKinnon. “Part of what I need to do as an instructor is build that trust back up. They need to hear it multiple times, from multiple directions, and then they can begin to trust it.”

Expanding Onramps to Business and STEM

By Myra Snell

Katharine Myers got as far as Algebra I in high school, but she says, "I wasn't very good at it, and I didn't put much effort there." Nevertheless, when she started at Citrus College her goal was to be an engineer, like her father.

For most community college students, the traditional route to an engineering degree begins with multiple semesters of algebra remediation, but few students starting in remediation ever make it to the first transferable, college math course required for a university degree.

Remediation's broken road in California has largely been closed by Assembly Bill 705, which requires community colleges to route students directly into transfer-level courses. Most colleges now have accessible onramps to business, science, technology, engineering or math (B-STEM) programs, with students enrolling directly in transfer-level courses like Applied Calculus, College Algebra, Precalculus or Trigonometry.

Myers attended Citrus College, a college that implemented AB 705 changes before the fall 2019 deadline. She bypassed remediation and enrolled in precalculus with concurrent algebra support, called corequisite support. Without taking Algebra 2 in high school, or its community college equivalent, Intermediate Algebra, she passed precalculus with an A and subsequently completed two semesters of calculus at Pasadena City College. She plans to transfer to a local UC or CSU campus as an engineering major in fall 2021.

Is Myers an outlier? Skeptics of AB 705 have feared that without algebra remediation, B-STEM enrollments would shrink and long-standing underrepresentation for students of color would worsen. But the opposite happened in the first year of statewide AB 705 implementation.

According to a study by the Research and Planning Group, an additional 11,074 students started in transfer-level gateway B-STEM math courses in fall 2019, an unprecedented 32% increase over the previous fall. Enrollment gains were the greatest for students who have been historically under-represented in these pathways. An additional 6,732 Latinx students began in transferable B-STEM math, a 53% increase over the prior year, and Black students' enrollment increased by 59%, with 565 additional students. Asian and White students' enrollment increased by 10% and 5% respectively with 871 and 511 additional students.

Larger enrollments produced a larger and more diverse pool of students successfully completing these courses within one year. The RPL Group study reports an additional 4,366 students passed transfer-level gateway B-STEM courses in 2019-20, an 18% increase over the previous academic year. Latinx students had the greatest gains, with a 32% increase and 2,313 additional successes. Black students had a 29% increase with 149 additional successes, and Asian and White students saw gains of 6% and 2% respectively, with 425 and 117 additional successes.

Even with these gains, Black and Latinx students continue to be underrepresented in B-STEM completion, driven in part by colleges continuing to disproportionately enroll them in remedial courses (see "Research Roundup" in this issue).

As colleges broadened access to transfer-level B-STEM courses in fall 2019 in response to the statewide deadline, critics raised concerns that underprepared students would cause pass rates in these courses to decline, and in fact B-STEM pass rates statewide dropped from 68% to 61% between fall 2018 and 2019. This has led some to call for the return of placing students into remedial prerequisite courses.

But examining course pass rates in isolation removes from view all the students interested in B-STEM who never made it into transferable courses because they were lost to attrition inside remedial algebra sequences.

Post-AB 705, underprepared students like Myers showed that they could be successful in transfer-level courses with corequisite support, attaining far higher completion rates than students who began in remedial courses.

A study by the Public Policy Institute of California found that in fall 2019, 39% of students taking corequisite-supported B-STEM courses passed the transfer-level course, compared to only 7% of students who began in a remedial course the previous year. And the corequisite students did it in a quarter of the time (one term vs. three terms plus summer.) This was true for all 85 colleges offering B-STEM corequisite models, with 80% of these colleges achieving gains that surpassed 25 percentage points.

Expanding Onramps to Business and STEM

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Because most community colleges are new to AB 705 reforms in math, not enough time has passed to study the long-term impact of broadening access to transfer-level courses, particularly in majors like engineering that require multiple semesters of calculus and advanced science and engineering courses with calculus prerequisites. Skeptics continue to express concern that, without remedial classes, students with weaker high school preparation will lack the mathematical maturity required for success in more advanced courses, even if they pass the initial transfer-level math course for their major.

Cuyamaca College, with its 3-year head start in offering corequisites, gives a reassuring window into this issue. At Cuyamaca, almost all STEM students who are not eligible for Calculus I enroll in an intensive precalculus course that includes trigonometry. Students with weaker high school backgrounds -- about a third of precalculus students at the college -- are required to take an additional 2-units of corequisite support. Successful students are then eligible for calculus.

According to an internal program review that spanned three years, students who began in precalculus with corequisite support had cumulative pass rates of about 65% in Precalculus (n=517 enrollments), 70% in Calculus I (n=208), 83% in Calculus II (n=83), and 95% in

Calculus III (n=41). These students comprised 20-25% of the enrollment in advanced physics and engineering courses with Calculus II prerequisites, and they passed at rates ranging from 86% to 100%. (Pass rates include repeated attempts. Not all STEM majors require courses above Calculus I.)

Since implementing reforms in Fall 2016, precalculus enrollments have tripled (an additional 270 students) and subsequent Calculus I enrollments have nearly doubled, with representation of Latinx and Black students matching college demographics.

With most colleges at an early stage of transforming their on-ramps into B-STEM programs, there is certainly more work to do to eliminate racial equity gaps and increase course pass rates in math, but the evidence is clear. As colleges continue to replace remedial courses with corequisite support attached to transfer-level math, California can look forward to more students like Myers making progress toward degrees in business and STEM.



Student Spotlight

Michael Molles

Michael Molles tried going to college right after high school, but, he says, "I wasn't sure I belonged in college, and I dropped out."

After four years working in restaurants, he decided to try again in fall 2019. He chose to major in computer science, partly because he'd become interested in programming and partly because he felt there would be jobs when he completed his degree.

The only problem was math. "I took Algebra II in high school," says Molles, "but it's not intuitive for me. I barely passed."

Nevertheless, Molles jumped right into precalculus with support at Citrus College. "On the first day of class, I had a ton of anxiety," says Molles. "I went up to the teacher and expressed my concerns. She told me that was normal and that if I worked hard, I could succeed."

The class's active learning approach made him "more interested and motivated," he says. "No one had asked me to work hard before. No one had pushed me."

Molles remembers preparing for the exam on trigonometry. "Everything had gone pretty well up to that point, but I had a lot of difficulty understanding that material. I spent a ridiculous amount of time in the tutoring center -- something like 30 or 40 hours."

His effort paid off with an A on the exam and an A in the course. Molles then went on to earn an A in Calculus I the following semester and, despite the challenges of virtual learning, he was on track for another A in Calculus II when interviewed for this story.

"That PreCalculus class helped me understand what it takes to be competent in future classes."

AB 705 Spurs Dramatic Growth in Statistics and Liberal Arts Pathways

By Hal Huntsman and Katie Hern

As AB 705 removed barriers to transfer-level courses, enrollment has skyrocketed in college statistics and liberal arts math (SLAM), and so has student completion.

The [RP Group](#) reports that in fall 2019, an additional 25,525 students completed a transferable SLAM course within one year, compared to fall 2015, before colleges began broadening access to transfer-level courses. Among students who enrolled directly in transfer-level SLAM, 59% succeeded within one year, four times the rate of students who began one remedial course below a transfer-level math (14%).

The RP Group reports that over four times as many Latinx students completed transfer-level SLAM within a year -- an additional 12,996 students -- compared to fall 2015. Completion also tripled for Black students -- an additional 979 students -- and doubled for Asian and white students -- 3,078 and 5,345 additional students respectively.

Among students who enrolled directly in transfer-level SLAM, racial inequities persist in one-year completion rates -- Asian 76%, White 70%, Latinx 52%, and Black 46% -- but a bright spot appeared in the research into corequisite models. According to [PPIC](#), when Black and Latinx students enrolled in a transferable SLAM course with concurrent support in fall 2019, their completion rates were equitable, matching their presence in the overall population of SLAM students.

Because approximately two-thirds of California community students are in programs with SLAM requirements, colleges have had to dramatically scale up their offerings of introductory statistics. System-wide, a whopping 3,811 sections were offered this fall, according to an [analysis](#) by the California Acceleration Project and Public Advocates. This accounts for 59% of the introductory transfer-level math offered in the state.

Many colleges are offering statistics outside the math department, such as in classes where statistics is contextualized within the study of psychology, business, or sociology. [PPIC](#) found that pass rates in these courses were 13 percentage points higher than in sections taught within the math department.

The growth in statistics has presented a challenge for college math departments, requiring many faculty to teach the course for the first time.

"There's a big difference between teaching statistics and math courses," says Kathy Kubo, math faculty at College of the Canyons. With funding from CAP and the state Chancellor's office, Kubo has spent the last five years organizing workshops for math faculty. Last fall, the workshops were led by nationally recognized statistics educator Roxy Peck.

"Most of us don't have degrees in statistics, so we're hoping to help math teachers feel more comfortable with course content and pedagogy," says Kubo.

"We are in the middle of a paradigm shift in terms of the number of students who take statistics and the way that we teach it," says MiraCosta math instructor Shawn Firouzian, who has been helping Kubo and Peck facilitate the workshops. "We want teachers and students to be protagonists in the process."



Student Spotlight

Andrew Fonticiella

Andrew Fonticiella liked math in high school and got as far as Algebra II, but after a six-year stint in the Navy he had forgotten

a lot and felt uncertain about taking math in college. When he started precalculus with support at Citrus College in Fall 2019, he felt better almost immediately.

"If I had been in a regular precalculus class, I would have struggled because there is so much material

to cover," he says. "Having the time to work together with other students to really think through the problems helped me learn." Fonticiella earned an A in the class.

"People talk about the benefits of working together, but in this class I actually learned how to work with others. That skill has been super valuable in my other classes, even though they weren't taught in the same way," he says.

Fonticiella went on to earn an A in Calculus I and a B in Calculus II. He plans to transfer to San Francisco State University as a biology major (pre-medicine).

The California Acceleration Project's Spring Webinars:

Addressing Inequity in Our Classrooms

[Register Here](#)



Owning Our Data: From Reaction to Action

February 26, 2-3:30pm

Presenters: Carrie Marks, Dawna DeMartini, and Jesus Limon Guzman

Examining the disaggregated success data for our own courses can bring up feelings of defensiveness, shame, frustration, and hopelessness. Three English faculty from Sacramento City College will share how confronting and reflecting on our own data allowed us to move from these initial reactions to concrete, targeted actions that lead to more equitable outcomes, even in our current online environment. We will also discuss three ways our college has supported faculty in this process.



Grading for Equity

March 26, 2-4pm

Presenters: Joe Feldman and Dr. Shantha Smith

In this interactive session, Joe Feldman, career educator and author of the book *Grading for Equity*, and Dr. Shantha Smith will provide a brief overview of the history of traditional grading and how the continued use of those practices can negatively impact teaching and learning, raise stress, and perpetuate disparities. They'll introduce the framework of equitable grading and provide an example, then California community college faculty will share practices they have adopted based on Feldman's work, and their impact on students.



Grappling with Widely Varying Success Rates

April 23, 2-3pm

Presenters: Mallory Newell, Jerry Rosenberg, Ola Sabawi, and Daniel Vernazza

What is going on when success rates range from 20 to 100 percent across different sections of the same course? Is it AB 705? Online vs. face-to-face? Student factors like race or high school preparation? Faculty factors like part- vs. full-time status? Something else? Researchers from De Anza College will present their investigation into the variability in pass rates in transfer-level math and English. Then an English faculty member from Irvine Valley College will share practical tips for addressing variability as a department.



The California Acceleration Project

Supporting the State's 115 Community Colleges to Transform Remediation to Increase Student Completion and Equity

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