

Mikia Manley and Lisbeth Goble

Transforming Student Success: Moving from Insight to Action by Democratizing Data across the California State University

What if everyone across campus had access to data-informed insights to better support their most underserved students?

For Dr. Michelle Rippy, a Cal State East Bay assistant professor of criminal justice, this question was central to her quest to provide struggling first-generation students with the support and care needed to successfully navigate their way to a college degree. Having been a first-generation student herself, Dr. Rippy joined campus committees looking for new approaches to promote student success and equity. However, she found it difficult to access the data needed to formulate an evidence-based strategy to help more of her first-generation students succeed. Dr. Rippy wasn't sure how to proceed...until she discovered the power of the **CSU Student Success Dashboard**.

This brief demonstrates how California State University (CSU) practitioners like Dr. Rippy have tapped into vital student data to transform their teaching, advisement and co-curricular support structures to help more students earn the proven, lifelong benefits of a high-quality college degree.

The CSU, the nation's largest and most diverse four-year public university system, developed the Student Success Dashboard to bolster its flagship Graduation Initiative 2025 effort to close equity gaps and improve graduation rates at its 23 campuses. The innovative tool democratizes student data by making them available to faculty, staff, student advisors and leaders across all campus departments and divisions. Fostering a culture of inquiry, the dashboard provides campus

practitioners with an innovative set of analyses and graphics that strategically reframe student data and illuminate opportunities to help more students earn a high-quality college degree.

Once armed with data and insights found using the dashboard, Dr. Rippy was able to secure funding and launch a customized orientation and year-long support program for incoming first-generation students. Retention rates in the cohort soon increased to 95%. (Dr. Rippy's story is highlighted on page 10.)

The dashboard has helped to cultivate data-informed transformations like Dr. Rippey's across the CSU's 23 campuses in five key areas:

1. **Rethinking instruction to boost student learning and retention**
2. **Enhancing course sequencing to streamline paths to graduation**
3. **Matching struggling students with the resources they need to succeed**
4. **Designing programs that address critical barriers to success**
5. **Scaling data-proven programs to reach more students**

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What questions can the Student Success Dashboard answer?

Colleges and universities across the nation are pursuing a variety of solutions to increase graduation rates and eliminate equity gaps.¹ Advancing these ambitious goals is arduous work, requiring transformational change grounded in a university-wide commitment to better serve students. Student data can provide a critical lens for faculty, staff and administrators to identify and dismantle systemic barriers that prevent students from crossing the commencement stage.² Too often, however, campus practitioners don't have access to data in a format that would guide them in effectively supporting students.

The CSU's Student Success Dashboard provides a welcoming gateway and invaluable access to analytic solutions and data-based insights for 53,000 faculty and staff serving students throughout California to help answer key questions:

1. Who are my students and how can I use this knowledge to better serve them?
2. Which courses have the largest equity gaps in grade distributions?
3. How likely are my students to change their major, and what impact does this have on their time-to-degree?
4. Which student academic behaviors, such as taking a full class load or passing all classes, help the most with closing the equity gap?
5. What do we know about students who leave the university? How many complete their studies elsewhere? ▲

Data's role in organizational change, student success, and promoting equity in higher education

U.S. educational policy has shifted in recent decades toward the use of curated data to inform decision making, ultimately improving student outcomes along several key dimensions: enrollment, retention and graduation rates. However, research has shown that data alone will not guarantee improved student outcomes and success. Rather, data must be carefully processed and analyzed to yield actionable knowledge that can be employed to address unique challenges facing students and campuses.³ Leveraging institutional data provides the insight needed to identify and promote student success, as it offers a means by which to advocate for targeted student support.

Data analytics may also help foster a culture of continuous improvement and provide the evidence that many institutions of higher education are seeking to improve student outcomes. For example, organizations within higher education may use student-level data to identify prospective students, predict graduation rates among student subgroups, develop student success plans to address target groups, create early warning systems, or connect resource use to student outcomes. Guided by this research, the CSU dashboard aims to put more data in the hands of those who need them—faculty, staff and administrators—to help inform their decision making, better meet student needs, and break down organizational silos.

Rethinking instruction to boost student learning and retention



When she discovered that none of her transfer students were graduating in two years, Assistant Professor **Dr. Jessica Perez** instituted small-group learning and supplemental instruction and immediately narrowed grade gaps. Better grades are an indicator for timely graduation.

Finding that nearly a third of psychology majors were consistently leaving her department, **Dr. Sharon Furtak** redesigned a bottleneck course to give a more inclusive introduction to the field and retain more students from diverse backgrounds.

Enhancing course sequencing to streamline paths to graduation



When Associate Professor **Dr. Grishma Bhavsar** found that 20% of her students were taking an extra semester to graduate, she worked with her department to institute a simple course-sequencing fix that expedited her students' time-to-degree.

Matching struggling students with the resources they need to succeed



Armed with data showing that students with multiple poor grades in their first two years were more likely to drop out, Associate Provost **Dr. Terri Gomez** pushed for an early warning system to connect struggling students with help sooner, boosting pass rates by 32%.

When Vice President for Student Affairs **Dr. Richard Yao** discovered a 20-percentage-point gap in retention of struggling first-year students who had met with an advisor versus those who hadn't, he worked with his team to make sure all at-risk students were connected with an advisor.



Student Success Coach **Natalia Musgrove** urged her dean's office to launch a successful early intervention program for transfer students when she discovered that they made up 80% of the juniors and seniors on academic probation.

Designing programs that address critical barriers to success



When Advisement Center Director **Dr. Maria Grandone** discovered that undeclared students were more likely to drop out, she ramped up guidance on major selection by reframing student orientation, reaching out to new students and reviewing their schedules to eliminate hurdles.

Scaling data-proven programs to reach more students



Vice Provost **Dr. Thalia Anagnos** noticed that students of color were enrolling in graduate school at higher rates than their peers. She pinpointed campus programs and policies that spurred this success, and is expanding them to reach additional underserved students.

Graduation Initiative 2025

Building upon research on organizational change, behavioral economics and cognitive science, the Chancellor's Office launched the Student Success Dashboard to support campuses in meeting their Graduation Initiative 2025 goals. Systemwide, the CSU aims to eliminate equity gaps in degree attainment rates while dramatically increasing the number of students who earn a high-quality degree. These ambitious goals are anchored in state workforce projections that forecast the need for an additional 1.1 million baccalaureate degree holders by 2030.⁴ Each year, the CSU prepares more than 127,000 new graduates ready to drive California's and the nation's economy.

The CSU Student Success Dashboard

Leveraging over 10 years of systemwide data detailing student enrollment, demographics, academic trajectories and engagement, the dashboard provides the CSU campus community with a set of simple, yet innovative, visualizations, employing predictive analytics, that go beyond numbers to illuminate students' progress – and obstacles – toward a degree.

With more than 15,000 annual visits, the Student Success Dashboard has become a vital resource for CSU campus practitioners to better understand who their students are, how they are progressing

toward their degrees, and where support might be needed. The dashboard presents accessible, compelling and relevant data on student learning and achievement outcomes across demographic subgroups and majors, encouraging faculty, staff and administrators to take risks to change their practices to close equity gaps and improve student success.⁵ The dashboard data intentionally excludes faculty performance metrics, providing practitioners with a non-threatening space to explore student data, reflect upon equity and find inspiration for shaping practices, programs and policies.

“This dashboard has the potential to change minds, change practices, and get quality results to those folks who need it the most – our students.”

As student demographics change, this dynamic dashboard can be extremely useful in nurturing a culture of continuous improvement, inquiry and accountability. A close watch on data may spur faculty, staff and administrators to rethink course designs, provide more targeted advising, develop orientation or support programs, and break down siloes across divisions. The dashboard can prove useful in gauging the impact of these and other interventions on student outcomes and subsequently in expanding best practices systemwide.

Transforming practice for faculty, staff and administrators

How can different practitioners use data from the Student Success Dashboard to inform decisions?



Faculty: Close equity gaps by getting to know your students better and incorporating more responsive and inclusive teaching strategies.



Advisors: Help students adjust their paths to choose the right courses, in the right sequence, and with the right course load to efficiently complete their degree.



Department chairs: Pinpoint courses in which students struggle, and help diagnose and troubleshoot the root causes.



Staff and administrators: Identify and scale campus-wide programs that ameliorate equity gaps, such as customized orientation for first-generation students. Convene campus groups to discuss data and possible actions.

Student Success Case Studies

Rethinking instruction to boost student learning and retention

Instruction is faculty's primary way of influencing student success.⁶ Taking even small steps to adjust their day-to-day instructional practices can reap big rewards in student outcomes and equity. And, as dashboard users shared, using data to understand who their students are and whether their academic outcomes are equitable can help guide change and measure the success of interventions.

"I think the data in the dashboard gave me a vehicle to be an advocate for students."

—Dr. Jessica Perez, assistant professor in electromechanical engineering technology

Dr. Jessica Perez, an assistant professor in electromechanical engineering technology at Cal Poly Pomona, serves as an instructor, student advisor, and first-year program coordinator. While she had always focused on supporting students who are first-generation, students of color, or from low-income backgrounds, it wasn't until she tapped into the dashboard that she discovered a startling fact: none of the transfer students in her department were graduating within two years. What's more, she noted an equity gap in course grades for students of color, which was likely hindering their progress to degree.

Intrigued by the challenge, Dr. Perez turned to EAB, Cal Poly's online advising platform, as a complementary tool to explore additional data. She reflected on her background in equitable teaching practices to try two new strategies.

First, to foster a sense of belonging and connection, Dr. Perez piloted small learning groups in which students worked outside of class together. The self-selected groups met once a week for at least an hour, worked on anything from the class, and then wrote a

Dr. Jessica Perez

Assistant Professor, Cal Poly Pomona



Insight: No transfer students were graduating within two years

Action: Implement small-group learning and supplemental instruction

Measurement: GPA gap narrowed by 0.3 grade points. ▲

weekly reflection. As Dr. Perez suspected, many of the students noted that they had developed a community of support, and even started taking classes together in later semesters.

Second, to help close GPA-equity gaps, Dr. Perez worked with the director of Cal Poly's Maximizing Engineering Potential program to offer supplemental instruction for her course, with a student mentor leading two sessions a week. Dr. Perez was mindful to hire a transfer student for this position so that students could see themselves in the mentor and feel comfortable sharing their experiences.

After implementing these new practices, Dr. Perez revisited the dashboard and EAB and discovered that the grade-equity gap between students of color and their peers had been cut from 0.4 points, to a difference of less than 0.1 points. Dr. Perez also noticed a trend—in her courses that include supplemental

How can campus advising tools provide deeper insight?

Many campuses have access to EAB, an online advising platform. This platform grants advising centers access to campus data to support early intervention strategies. After identifying a student success barrier in the Student Success Dashboard, advisors can use EAB to identify, reach out and offer support to specific students, based on factors like academic performance. ▲

instruction, average GPAs and pass rates were higher than in her courses without supplemental instruction. She is now examining why one of her courses shows a slightly lower GPA for first-generation students and considering strategies to close that gap.

In these two ways, accessing the data has allowed Dr. Perez to change her teaching practice and validate those changes. Ultimately this has helped her transfer students improve their grades, connect with peers and remain on the path to graduation.

For Dr. Sharon Furtak, a psychology professor and research lab leader at California State University, Sacramento, dashboard data led her to redesign an entire course.

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Dr. Sharon Furtak

Professor, California State University, Sacramento



Insight: 32% of students were leaving the major

Action: Redesign introductory course

Measurement: Will compare pass rates across years ▲

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Dr. Furtak is committed to mentoring both graduate and undergraduate students and promoting their success. In the past, however, she encountered challenges accessing campus data that would illuminate where or how to focus her efforts.

Learning about the dashboard was monumental. Tapping into this resource, Dr. Furtak discovered the fact that 32% of psychology majors were leaving the department within four years – the highest rate within the College of Social Science and Interdisciplinary Studies. This rate was even higher among Pell students (34%) and students of color (37%). To understand this loss, Dr. Furtak used the dashboard to explore course pass rates and pathways through the major, and the findings were surprising. One of the courses with the lowest pass rates was an introductory course meant to familiarize students with graduation requirements, the psychology curricu-

lum, and career pathways (Exhibit 1, following page). From 2011 to 2019, 381 students, or 9%, did not pass this bottleneck course.

With an eye on equity and accessibility, Dr. Furtak redesigned the entire course for fall 2020 to ensure that all students could see themselves and feel confident in succeeding in the discipline.

“Knowing that I had access to data made me feel like I had the tools I needed to identify a problem and actually be able to make an impact.”

—Dr. Sharon Furtak, psychology professor and research lab leader

Dr. Furtak now plans to use additional analytics – both within and outside the dashboard – to analyze changes in student success. She intends to compare the pass rate within her course to the historic rates, collect anonymous student self-evaluations measuring cultural competence and belonging, and access deidentified student data to assess whether inequities still exist. She emphasized that, based on the user-friendliness of the data presentation, anyone can use the dashboard to identify and address student challenges.

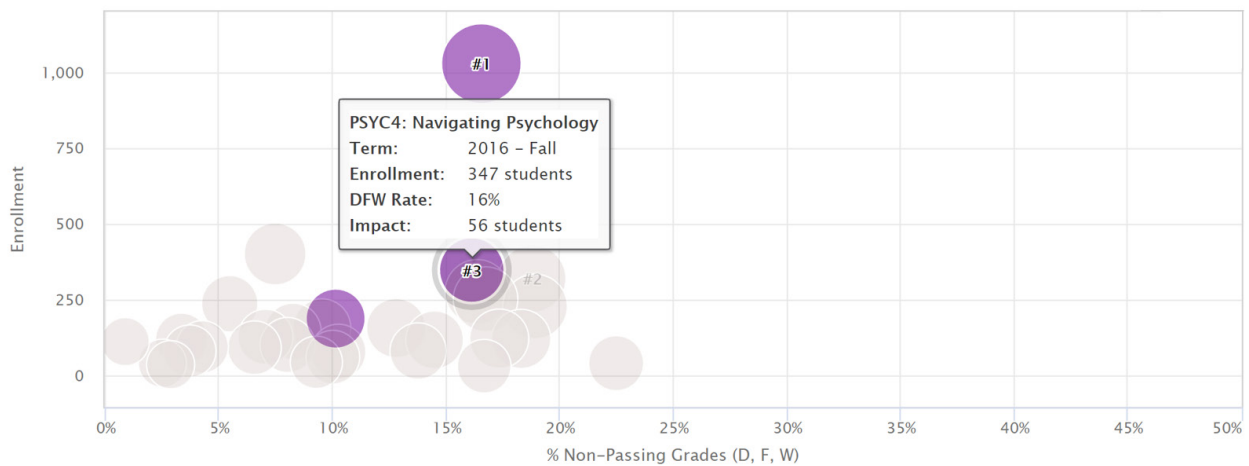
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Support stronger teaching practices



Many staff and administrators discussed how they use the dashboard to help departments identify courses with the lowest pass rates and largest equity gaps, and use this information to augment support structures and enhance faculty professional development. One administrator described how she facilitated a semester-long learning community on inclusive pedagogy for faculty teaching entry-level science courses, which historically had low pass rates. Another administrator described how displaying the data on equity gaps helps to start faculty conversations about changing practices. Highlighting the gap sends “a very powerful message that has prompted a lot of faculty to examine why (there are gaps). It brings to the forefront what may be hidden in the background.”▲

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Exhibit 1. Non-passing rates for an introductory course at Sacramento State



Source: CSU Student Success Dashboard

These experiences illustrate two examples of how data can transform teaching and learning. In both, data-informed attention to equity and inclusion led to new instructional approaches to better serve students. Faculty, however, also fill other roles on campus, in which data are also critical.

Enhancing course sequencing to streamline paths to graduation

In addition to teaching courses, many faculty serve as advisors and mentors for their students. In these roles, data help faculty understand their students’ academic trajectories and identify any obstacles along their degree paths. For Dr. Grishma Bhavsar, an associate professor in health sciences at California State University, Northridge, understanding these structural barriers was integral to her role as a faculty advisor.

Previously, Dr. Bhavsar relied on information directly from students or from more experienced faculty colleagues to better serve her students. With the dashboard, she is now able to tap into system-wide data and explore important outcomes, such as student graduation rates for programs and departments across the CSU. Dr. Bhavsar was particularly interested in understanding how long it takes transfer students in her program to graduate. She also wanted to know which health sciences courses

Using data to target courses for redesign

Which courses in the department need improvement? Several faculty members highlighted that the Student Success Dashboard can identify areas in need of improvement. One professor noted that faculty knew they wanted to redesign their courses, yet they did not have access to the data to advocate for the resources to support a course redesign. Department chairs did not have the data to know where course redesigns were most needed. Using the dashboard can help identify which courses have the lowest pass rates or largest GPA gaps, both of which indicate that a course may be in need of a redesign.

Which courses in the major need improvement?

Data can also increase faculty understanding of which courses are most challenging for students in their majors. As one department chair noted, “Until I showed the data, no one wanted to believe that the actual pivotal course in the program was a class outside of the department.” By using the dashboard, she pinpointed where in the pathway students experienced challenges and then worked across departments to increase student success in the major. ▲

Dr. Grishma Bhavsar

Associate Professor, California State University, Northridge



Insight: 20% of students needed one additional term to graduate

Action: Change approach to course sequencing ▲

had the lowest pass rates. Answers to both questions had the potential to transform her advising approach.

Like Dr. Perez, Dr. Bhavsar expected transfer students to complete their program in about two years; however, she found that one in five students needed an extra semester to graduate. To answer the question of “why,” Dr. Bhavsar spoke with department faculty and staff and learned that they were advising students to save a required internship for their very last semester, and to complete it with no other course load. Faculty advisors felt this sequence best prepared students for a successful internship, but there were unintended consequences: an extra semester, along with added costs and delayed employment for students.

By uncovering this problem, Dr. Bhavsar worked with the health sciences department to change course sequencing and advisement so that students were enrolling in appropriate prerequisites and then finishing their remaining courses as they completed their internships. After this simple switch, an additional 20% of Dr. Bhavsar’s health science students graduated on time, sending them into the workforce sooner.

Faculty advisors play a critical role in guiding students along the pathways that will ensure timely graduation. A data-informed approach, like the one employed by Dr. Bhavsar, can serve as a guidepost for devising creative solutions to facilitating students’ path to a high-quality degree.

Matching struggling students with the resources they need to succeed

Practitioners across the CSU have found the dashboard to be useful not only for identifying how best to support students in finding their path to graduation, but also for determining when that support is needed.

Adopting accessible and inclusive practices

To redesign her course to be more accessible and inclusive, Dr. Furtak included the following components:

- A welcome video on the home page of the course in Canvas to foster a sense of connection and to humanize the course by sharing her own story
- Alignment of each module objective with a student learning objective with opportunities for peer-to-peer interaction through audio, video, and written media
- Assignments in the first week of the course that will encourage students to engage with and learn about their peers
- Assignments that align with the three keys to achieving intercultural competency (based on Janet Bennet’s Model of Intercultural Competence): curiosity, cognitive complexity, and empathy
- Diverse representation of successful psychologists highlighted from all fields of psychology
- Low-stakes assessments, with ample opportunity for feedback
- An affordable textbook
- Consideration for principles of universal design, such as limiting the use of color, adding closed captioning to videos, and making sure all images have alternate text ▲

Dr. Terri Gomez

Associate Provost for Student Success, Equity, and Innovation at Cal Poly Pomona



Insight: Course failure was linked with an increased propensity for students to drop out

Action: Adopt an early warning system

Measurement: Pass rate increased by 32% ▲

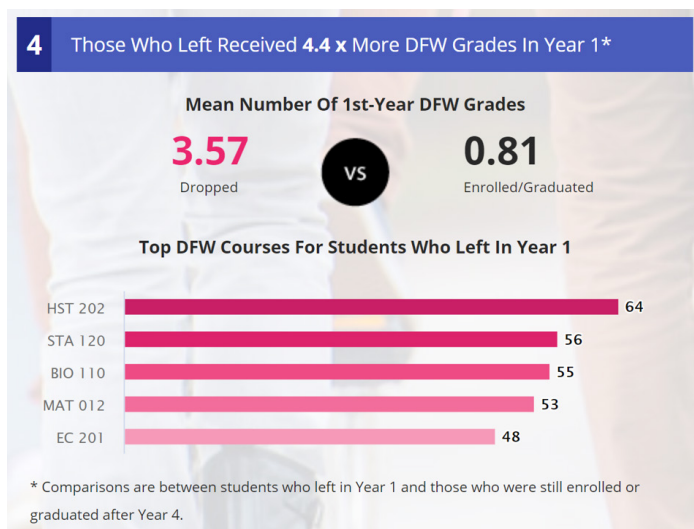
Dr. Terri Gomez, an associate provost for student success, equity, and innovation at Cal Poly Pomona, was tasked with monitoring graduation rates on her campus. Dr. Gomez was in the unique position of having served in many roles at the CSU. In the past, as a faculty member, she focused on getting to know her students individually to determine how and when they needed support.

As she transitioned into broader leadership roles, this approach became infeasible. But her philosophy that “you cannot serve your students if you don’t know who they are” was unchanged. The dashboard enabled her to see who her students were and how they were progressing toward graduation.

The dashboard illuminated the fact that too many Cal Poly students were not making it to the finish line. She worked with her team to understand why, turning first to courses with large equity gaps and then to those with low pass rates. A pattern emerged: Students who failed multiple courses were unlikely to stay enrolled (Exhibit 2). For Dr. Gomez, this meant her team could not wait until students’ second or third course failure to offer support; intervention was necessary much earlier.

To provide more timely support, the campus adopted an early warning system to alert faculty and advisors to students who needed early interventions, such as supplemental instruction through the Learning Resource Center. The campus also began requiring students to consult with an advisor before re-enrolling in a course they had previously failed.

Exhibit 2. Students who dropped out received more non-passing grades in their first year



DFW grades refer to unauthorized withdrawals and course grades of D or F.

Source: CSU Student Success Dashboard

Dr. Richard Yao

Vice President for Student Affairs at California State University, Channel Islands



Insight: Up to a 20-percentage point difference in one-year retention rates between students who accessed support services and those who did not

Action: Proactively connect academically at-risk students with an advisor ▲

Transformations are not limited to academics. Student affairs professionals on other campuses identified similar patterns and adopted creative early intervention strategies.

While exploring the dashboard, Dr. Richard Yao, vice president for Student Affairs at California State University Channel Islands, saw that receiving two or more non-passing grades in the first two years was the significant predictor of students dropping out, particularly among students of color. This raised a question of whether Student Affairs support services might convince these students to stay. Dr. Yao’s team delved into the dashboard for all first-time, full-time students who received a non-passing grade in their first semester and found a 20-percentage-point gap in retention rates between

students who engaged with the Academic Advising Center and those who didn't.

The advising team quickly changed their approach and proactively emailed struggling students who had yet to contact an advisor. Following up with each of these students, the advisors shared course recommendations and degree requirements, assessed additional student needs, such as counseling, tutoring or financial aid, and referred students to appropriate campus resources. Advisors plan to enhance their support by adopting the online EAB student success platform and using texting to enhance student outreach.

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Natalia Musgrove

Student Success Coach at California State University, East Bay



Insight: 86% of the junior and senior students on academic probation were transfer students

Action: Start an early intervention program for academically at-risk students ▲

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Natalia Musgrove, a student success coach at California State University, East Bay, similarly used the dashboard to fine tune her outreach and support efforts for students placed on academic probation. Ms. Musgrove discovered that 86% of juniors and seniors on academic probation in the College of Letters, Arts, and Social Sciences were transfer students, and 52% had just completed their first term. Furthermore, she saw that most students on academic probation who reached senior status could not graduate because some of their completed classes did not align with their Cal State East Bay academic degree plans.

As an advisor, Ms. Musgrove knew she needed to provide preventive support by better communicating degree requirements in advance and collaborating with individual departments to expand their best practices. Partnering with the history department, Ms. Musgrove helped to spur the development of an introductory pilot course, specifically for transfer students and required for their major, that combines regular curriculum with advising information and additional support. Ms. Musgrove is committed to

tracking her target populations using the dashboard and plans to work closely with the Dean's Office to launch similar interventions for other majors in the college.

Early intervention can make the difference between students stopping out, dropping out or staying on track to graduate. As evidenced by these case stories, CSU faculty, staff, and administrators are using the dashboard to identify patterns of student who are off track, and identifying new strategies to propel them toward meeting their academic goals.

Designing programs that address critical barriers to success

Faculty, staff and administrators also provide early supports beyond advising, such as orientation programs and peer mentors. Yet understanding what programs are needed for which students requires good data.

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Dr. Michelle Rippy

Assistant Professor at Cal State East Bay



Insight: Low retention rates among first-generation freshmen

Action: Develop an introductory program specifically for first-generation students

Measurement: Retention rate of more than 95 percent among program participants ▲

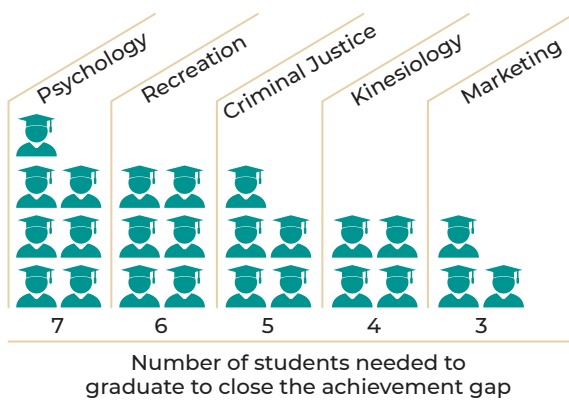
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Dr. Rippy, the Cal State East Bay criminal justice professor introduced on the cover, dove into the dashboard data and immediately noticed particularly low retention rates among first-generation freshmen. Viewing the dashboard graphics helped her connect the numbers with actual students, as she could now see exactly how many students in her department needed extra support to thrive in their studies and persist to the second year. With new clarity, Dr. Rippy approached her Office of Institutional Research for more detailed information on four- and six-year graduation rates, dropout rates and student demographics. This revealed an even larger gap among first-generation students who were also students of color.

Getting concrete data about how many students need support

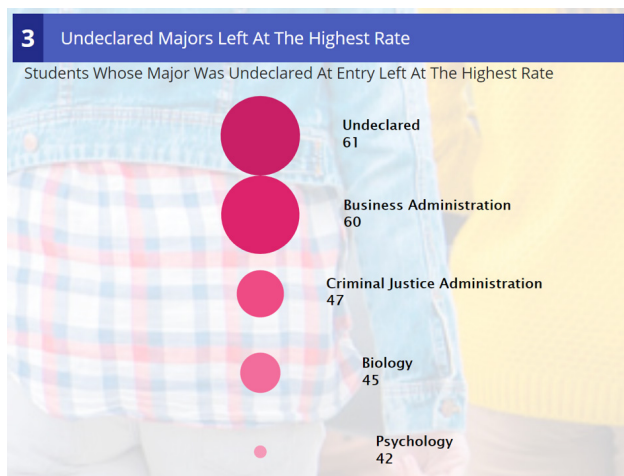
The dashboard enables users to see how many more students need to graduate to close the equity gap. This sets clear parameters for the problem and makes it easier to see the gap as something tangible that can be changed with targeted supports. For example, as the dashboard image in Exhibit 3 shows, the criminal justice department only needed to help five first-generation students graduate to close the first-generation equity gap.▲

Exhibit 3. Five more criminal justice students would have needed to graduate to close the equity gap



Source: CSU Student Success Dashboard

Exhibit 4. Students who were undeclared were more likely to drop out



Source: CSU Student Success Dashboard

Armed with the data, Dr. Rippy applied for funding to launch a year-long support program specifically for first-generation freshmen. The program featured a customized orientation and biweekly meetings facilitated by members of the campus community who had been first-generation students themselves. The meetings were designed to introduce students to the campus, connect them with successful role models, and help them navigate the transition to college.

The data had convinced Dr. Rippy that closing the equity gap was within reach. After its first year, Dr. Rippy observed a retention rate of more than 95% among participants, which was significantly higher than the persistence rate for all East Bay students.

Dr. Maria Grandone

Director of the University Advisement Center at California State University, Dominguez Hills



Insight: Lower retention rates among students with undeclared majors

Action: Reframe orientation, offer pre-arrival modules for new students, and review new-student schedules

Measurement: Will track degree progress and solicit student feedback ▲

Like Dr. Rippy, Dr. Maria Grandone, director of the University Advisement Center at California State University, Dominguez Hills, was focused on barriers to graduation. She was most interested in learning which students were more likely to drop out or take longer to graduate. Although she already implemented an intrusive approach to advising – that is, requiring advising for certain students at critical times throughout their academic journeys – the dashboard data allowed her to take an even more targeted approach. The data showed that students with undeclared majors were more likely than their peers with majors in other disciplines to leave the university without a college degree (Exhibit 4).

Drawing on Tinto’s theory of student departure (1993) and Astin’s theory of involvement (1985), Dr. Grandone’s team proposed grouping undeclared

students in small cohorts at orientation to help them form connections and better support their transition from high school to college.⁷

At the same time, Dr. Grandone shared data with the advisors to illuminate salient characteristics of incoming transfer students and highlight the challenges they faced. The team created modules for students to complete before coming to campus and trained advisors on reframing general education requirements as an important opportunity for major exploration. Actively engaging students in general education empowers them to make a more informed decision about which field they would like to pursue. Dr. Grandone supplemented these interventions by reviewing new student schedules, allowing her to confirm that students were enrolled in the appropriate first-year math and English courses and completing prerequisites for their preferred majors. She used management software and EAB to connect with students about prospective majors, track their progress, and solicit feedback through surveys and focus groups. In the future, the dashboard will be vital to helping Dr. Grandone determine the impact of her work on student outcomes.

For Drs. Rippey and Grandone, data were the catalyst for designing new systems and programs to support students. Using the dashboard helped them identify which students were struggling and prompted them to think creatively about how to intervene to address the specific challenges faced by different groups of students.







Scaling data-proven programs to reach more students

Campus practitioners also use the dashboard to identify existing programs that can be scaled to foster greater student success across campus.

Dr. Thalia Anagnos, vice provost of undergraduate education at San José State University, was particularly interested in understanding student pathways to graduate school. She admitted that, at one time, she felt she was not the type of person to use data to make decisions. However, the dashboard helped instill confidence in her ability to interrogate data and formulate strategies for better serving her students. When she looked at the data detailing the number of SJSU undergraduates who go on to enroll

Six ways to make the most of the dashboard

Faculty, staff and administrators highlighted in this brief have already experienced the value of using the dashboard, both to learn more about their students and to improve their practice. Here is their advice to new users:

-  ► **Seek additional training.** Staff in other departments on your campus may be able to provide additional support.
 -  ► **Use the dashboard to set goals.** For example, if the goal is to close the equity gap in four-year graduation rates, leverage the dashboard to determine how many more students of color need to be better supported through graduation in that time frame.
 -  ► **Focus on where you can have an impact or on a specific problem you want to solve.** Concentrate efforts on your course, your department, or programs run by your office.
 -  ► **Look outside your department or campus to learn from others.** See if similar campuses or departments have smaller equity gaps and determine what strategies they are using to close them.
 -  ► **Be open to improvement, even if discussing challenges is uncomfortable.** Everyone has room to improve and can identify specific actions to promote equitable student success.
 -  ► **Remember that the dashboard is a starting point, not an end point.** Looking at the data may raise more questions. Collaborating with your research office or collecting more information by talking to other faculty, staff, or students can be a great way to learn more.▲
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Dr. Thalia Anagnos

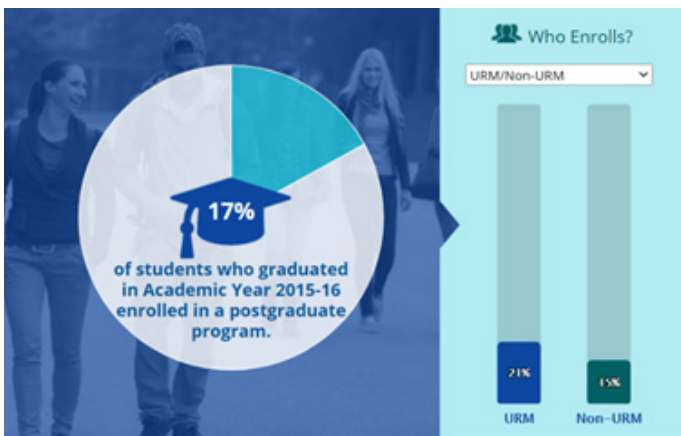
Vice Provost of Undergraduate Education at San José State University



Insight: Students of color were enrolling in graduate school at higher rates

Action: Replicate programs that help prepare students for graduate school ▲

Exhibit 5. Students from historically marginalized populations enrolled in graduate school at higher rates than their peers



Source: CSU Student Success Dashboard

Learning across departments and campuses

Data are useful for identifying practices that might be working in a different department or campus, thereby creating opportunities for meaningful collaboration across the CSU. One faculty member described using the dashboard to find courses with the smallest equity gaps and reaching out to those departments to learn more about the teaching practices and course design being used to minimize equity gaps.

Similarly, an administrator discussed how he uses the dashboard to look at his campus relative to other CSU campuses. He then uses those comparisons to determine what is working on his own campus, and identify other CSU campuses that are facilitating improved outcomes for students from similar demographic backgrounds. ▲

in graduate school, she was surprised to see so few pursuing advanced degrees and wanted to understand why. To learn more, she scrutinized the data across colleges and student populations and found that students of color were enrolling in graduate school at higher rates (Exhibit 5) than their more privileged peers.

This led her to discover the existence of successful programs on campus designed to help students of color build the skills needed for graduate school. Dr. Anagnos now plans to replicate these best practices to serve more students, particularly those who are among the first in their families to attend college.

Across the CSU system, innovative and effective programs support student success. By using data to expand and amplify those programs, faculty, staff, and administrators can help more students reach their goals.

Looking back, looking ahead

Drawing on data available to them through the Student Success Dashboard, faculty, staff and administrators across the CSU have changed their practices and implemented new programs to improve student success on their campuses. From making instructional changes and redesigning courses, to targeting advising, data have helped faculty and staff improve their individual interactions with students. Data have also helped practitioners advocate for campus-wide changes, including developing new programs, scaling programs that work to support specific groups of students, and adopting new approaches to foster early intervention.

Although faculty and staff in higher education may struggle with how to use data to inform their practice, these interviews suggest that even those who do not identify as data users, like Dr. Anagnos, or those who have previously used different methods to learn about their students, such as Dr. Gomez, are passionate about equity and social justice on behalf of their students. This passion has driven them to engage in the dashboard data to help improve student experiences and reduce equity gaps. The democratization of these data has changed the academic landscape—now university staff at all levels can access data to learn about,

understand, and ultimately change and improve what is going on in their corner of campus.

For those interviewed, the dashboard served as a starting point to raise questions or highlight areas for further investigation. After addressing their initial inquiry, they delved deeper to understand their students' journeys. In many cases, these data explorations led the interviewees to partner with their Office of Institutional Research to access and use more data; to collect more information by talking to students, other

faculty or advisors; or to collaborate across departments, offices and even campuses.

Those who have used the dashboard now say they cannot imagine teaching and making decisions without it and would encourage others to follow their lead. The dashboard has the potential to level the playing field and empower all CSU staff – from vice presidents to assistant professors, advisors and lecturers – to make data-informed decisions.

Build buy-in for using data on your campus

Faculty, staff and administrators shared their strategies for encouraging other decision makers on their campus to use data to understand and support student success. Here are strategies that any campus can use or adapt:



When talking about data:

- Use language that promotes data's role in continuous improvement and highlights data as a normal part of shared success.
- Emphasize successes versus deficiencies to generate more buy-in for working toward department or campus goals. For example, focus on sharing best practices in teaching from faculty who have reduced or eliminated equity gaps in their courses.



To increase awareness of the dashboard:

- Include an introduction to the dashboard in orientation materials for all new faculty and staff so they know the tools are available to them.⁶
- Include interesting data points or probing questions in emails to staff and faculty to inspire them to explore the dashboard to learn more.
- Spotlight the ways in which faculty, staff and administrators are already using the dashboard on your campus.
- Encourage your Office of Institutional Research to help build awareness of the dashboard by recommending it to faculty and staff who are requesting data.



To demonstrate how to use the dashboard:

- Ask faculty, staff and administrators what they are curious about and expose them to data that will spark interest in their own deeper inquiry.
 - Focus on data that will be actionable for your audience to help them immediately connect it to their practice. ▲
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Appendix

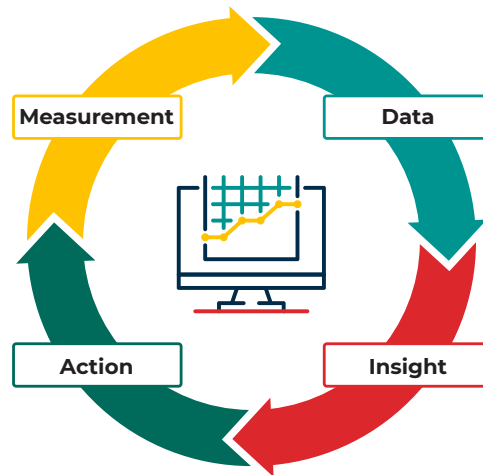
Project overview

The CSU Chancellor’s Office partnered with Mathematica, an independent research organization, to learn more about how the CSU community was engaging with the Student Success Dashboard and identify transformations in practice that resulted from its use. Mathematica interviewed 21 individuals, including 10 faculty and 11 staff members and administrators. These practitioners hailed from campuses big and small, from commuter schools to more residential settings, in varied geographic regions across the state and serving California’s uniquely diverse student population.

The primary purpose of the interviews was to determine how practitioners leveraged data to generate new insights; took action to improve teaching, advising and student engagement based on these insights; and then measured and fine-tuned results. (Exhibit 6).

The interviews revealed that many practitioners use the dashboard for purely transactional purposes—for example, accessing information about the number and types of students served to support a grant application, or determining the number of

Exhibit 6. Life cycle of using data to improve student success



course sections needed. Although positive outcomes can emerge from these transactional uses, this brief emphasizes how the dashboard data have sparked true transformations in practice, helping practitioners identify and dismantle barriers to student success. These case studies offer valuable lessons not only for their CSU colleagues but for other institutions of higher education across the country.

How did the research team select the study sample?

The research team used purposive sampling to choose a sample that reflected a range of backgrounds, experiences, and engagement with the dashboard. All participants had engaged with the dashboard to some extent, and almost all participants completed a certificate program in student success analytics offered by the Chancellor’s Office. The research team conducted hour-long virtual interviews in June and July 2020, either one-on-one or in small groups. Topics included how participants contribute to student success, how they typically use data, and how they were introduced to the dashboard, among others. ▲

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