

SJSU's Four Pillars of Student Success:
College Readiness, Advising,
Student Engagement and
Clearing Bottlenecks

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PREFACE

As the oldest public institution in California, San José State University has a long and proud history as a supplier of excellent higher education, a contributor to the skilled workforce in the Bay Area and an incubator for innovations that have significant local and global impact. Through the decades, our priority has remained the same -- to offer an exceptional and affordable education to all of our students, so they find success in their careers and become engaged citizens of California and the world.

When our students receive a quality education and complete their degrees on time (e.g. in four years for college-ready freshmen) they:

- pay less in tuition and accrue less student loan debt;
- begin full-time employment sooner, thus gaining more work experience and a higher potential lifetime salary;
- enter the workforce with valuable skills that are sought by Silicon Valley companies, including high-tech and business firms; government and public service; arts, literature and entertainment; health professions; education and many other fields and industries; and
- provide the ability for new students to access educational opportunities at SJSU.

Once admitted, our students join a network of Spartans committed to supporting academic, professional and personal success. Together, we should provide our students with a clear and timely pathway to an outstanding degree. However, we often fail to live up to this promise: for the student who starts the fall semester in need of college readiness support in English and math; for the student who needs advice when advisors are booked solid for weeks; for the student who feels disconnected from the campus and drifts away; and for the student whose progress is blocked because a bottleneck course is unavailable semester after semester. We can and must do better for our students, especially those who need additional support on their road to success.

We have a significant percentage of students who work to finance their education, including 27 percent of freshmen and 64 percent of seniors, according to the most recent National Survey of Student Engagement. A small portion of undergraduate students opt to enroll part time, with 14 percent of 2015-16 baccalaureate degree recipients taking fewer than 12 units most semesters. Many more students desire to take a full course load each semester to make timely progress toward graduation.

While we have made great improvements in six-year graduation rates, not all students share the benefits of that progress. SJSU reported a six-year graduation rate of 62 percent in 2016, up five percentage

Figure 1

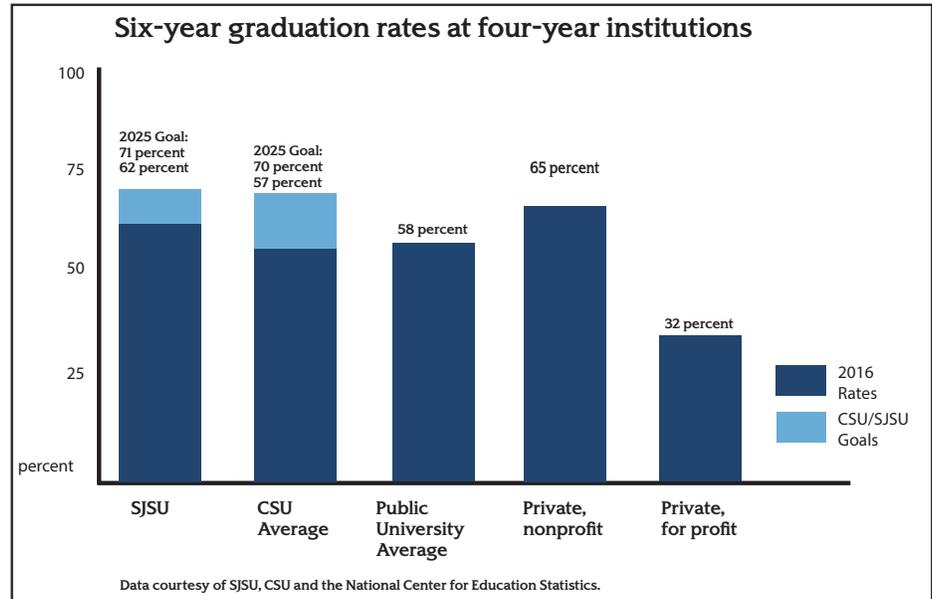


Figure 1 displays San José State University's six-year graduation rates as compared to other CSUs and institutions nationwide.

points from the previous year. This rate is above the national average for public universities of 58 percent, as reported by the National Center for Education Statistics for 2015, but we know we must continue to improve. The university's four-year graduation rates remain stubbornly low at 14 percent.

Graduation rates for underrepresented minority (URM – Black or African American, Hispanic/Latino and Native American) students are increasing at a slower rate than non-URM students, a national trend. While we are narrowing the gap for six-year graduation rates of URM students and their peers, it remained at 11 percent in 2016. Read the [Graduation Rate FAQ \(2015\)](#) online for more details. Between 2003-2013, 77 percent of universities in the United States increased URM graduation rates, but only 46 percent of those universities were successful in decreasing the gap between URM and non-URM students, according to a report by the Education Trust that reviewed more than 255 institutions. At SJSU, we want to eliminate the URM gap entirely.

To lift our rates even higher for all students the campus needs a unified plan to guide our efforts so that we are all moving in the same direction. We need to come together to find the greatest opportunities for improvement, the most important areas for coordination and the most strategic places for investment.

A CAMPUS PRIORITY

SJSU serves more than 33,000 students, including 3,500 incoming freshmen, 3,600 new transfer students and 2,000 new graduate students a year. The university has a large number of first-generation students, with 27 percent of students identified as the first in their families to attend college, according to Institutional Effectiveness and Analytics' [Student Profiles \(2010-2014\)](#). The university also serves a diverse population, with more than 37 percent of students identifying as an underrepresented minority. While incoming first-year students have completed the requirements to be accepted at a CSU, 36 percent of students who enrolled at SJSU in fall 2015 required college readiness support in math, English or both. SJSU is committed to improving access to high-quality degrees for all students, regardless of their background.

Figure 2

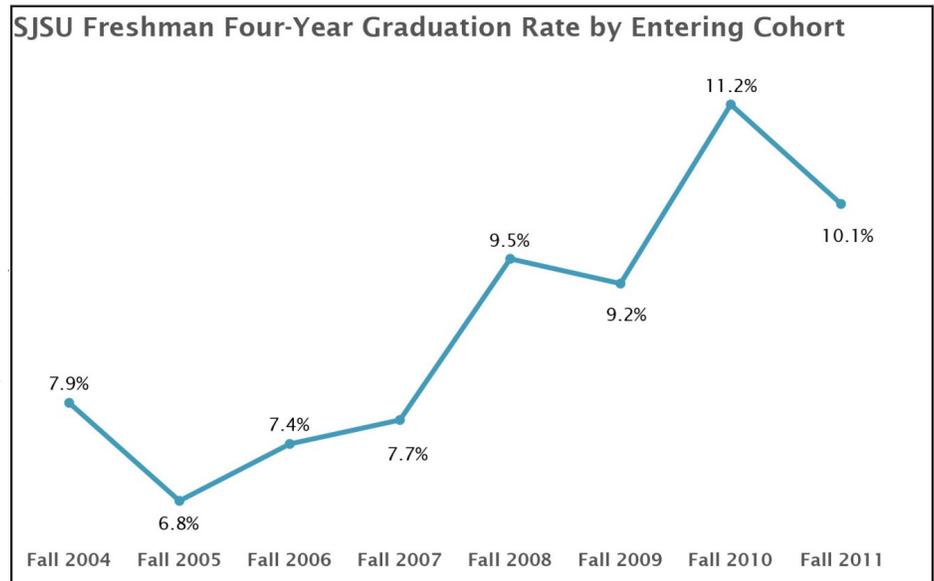


Figure 2 displays four-year graduation rates for fall cohorts of incoming first-time, first-year students who enrolled at SJSU between 2004-2011 (graduation years 2008-2015).

SJSU's Academic Affairs Leadership Team (AALT) identified student success as a priority for its [2014-16 working plan](#). The [Educational Excellence and Student Experience priority group](#) that included student, faculty, staff and administrator representatives worked on initiatives to support student success. Through the priority group, student success centers were established or expanded in each of the colleges; initial steps were taken to establish a data warehouse that will support predictive analytics; MyScheduler was launched, a tool that supports students in course selection; writing support services were expanded; and GE pathways were developed around the topics of creativity, sustainability and globalization.

In summer 2015, CSU Chancellor's Office representatives met with the AALT and representatives from the Student Affairs Division for a one-day retreat focused on ways to improve student success for mid-career students (those in their third to fifth year at SJSU) and URM students. In a follow-up retreat that summer, the AALT met again to discuss roadblocks to student success and potential solutions.

Based on the groundwork completed in the priority groups and summer retreats, Provost Feinstein and Vice President for Student Affairs Blaylock held focus groups with students, faculty, staff and advisors throughout the fall 2015 semester to gather more input on student success needs. Deputy Provost Carl Kemnitz conducted a [student success program inventory](#), categorizing more than 100 programs and support systems. Kemnitz met with the Council of Deans, the Council of AVPs, AALT, the President's Cabinet, the Academic Senate Executive Committee and the University Council of Chairs and Directors to discuss the existing programs, strengths, aspirations and remaining gaps.

Associate Vice President for Academic Planning and Budgets Marna Genes completed an analysis of SJSU students' average unit load as compared to other institutions and discovered SJSU undergraduates took an average of 12.4 units a semester compared to a full-time unit load of 15. The analysis revealed the impact of course bottlenecks on student progress. As a result, the Joint Enrollment Planning Group recommended a "no limits" enrollment plan for 2016-17 to increase average unit load by removing college enrollment ceilings and clearing bottlenecks. The plan was accepted by the president and supported by a university budget plan that provided \$2.8 million for clearing bottlenecks, with an anticipated 500 additional course sections. The overall plan was presented to the Academic Senate in fall 2015.

In addition to these outreach efforts, campus leaders reviewed the [Campus Climate Survey](#), conducted in spring 2015, the "[Why Students Leave](#)" report, based on research conducted by four faculty members in fall 2015, and the [National Survey of Student Engagement](#), conducted in 2014, to gain more information about student success needs.

In summer 2016, AALT and the Student Affairs Leadership Team met for a joint retreat to discuss ways to further enhance the Four Pillars Plan. A summary of the discussion is available [online](#), and the January 2017 update is based on the priorities developed from the retreat.

CSU GRADUATION INITIATIVE

As the nation faces an imperative to produce an educated workforce accompanied by more than a trillion dollars in outstanding student loan debt that is often debilitating for those who do not complete college, SJSU is not alone in the quest to improve graduation rates. The CSU launched a system-wide [Graduation Initiative in 2009](#) to improve



six-year graduation rates and reduce the gap between URM and non-URM student graduation rates. As the 2015 initiative wrapped up, the Chancellor's Office launched CSU Graduation Initiative 2025 with a [student success dashboard](#) to track the progress of each campus as they increase six-year and four-year graduation rates, and eliminate the attainment gap between URM and non-URM students.

By 2025, SJSU expects to meet the [ambitious targets](#) of a six-year graduation rate of 71 percent and a four-year graduation rate of 35 percent. We are committed to eliminating the achievement gap between URM and non-URM students while also erasing the gap between Pell grant-eligible students and their peers. In addition, we aim to raise the two-year transfer graduation rate to 36 percent and the four-year transfer rate to 80 percent. (Note: The CSU Chancellor's Office revised the initial targets for its Graduation Initiative 2025 released in 2015; the Four Pillars plan has been updated to reference the revised 2016 targets.)

CONCLUSION

Based on the information gathered through 2016, Feinstein and Blaylock identified four recommended pillars of a unified student success plan: College Readiness, Advising, Student Engagement and Clearing Bottlenecks. The plan was shared with campus stakeholders throughout spring 2016 and refined with input before being finalized for implementation in fall 2016. While some proposed initiatives in our College Readiness pillar are primarily focused on improving graduation rates for first-time freshmen, we believe many of the resources in the other three pillars will benefit transfer, mid-career, international, graduate and certificate students through enhanced support services and expanded opportunities for meaningful engagement.

The impact of SJSU's Four Pillars of Student Success plan will be monitored by our overall goals:

- Increase graduation rates steadily to meet our 2025 targets of:
 - Freshmen 4-Year Graduation: 35 percent
 - Freshmen 6-Year Graduation: 71 percent
 - Transfer 2-Year Graduation: 36 percent
 - Transfer 4-Year Graduation: 80 percent
- Increase retention rates
- Remove all differences in retention, graduation rates and GPA for URM and Pell grant-eligible students

We have set metrics specific to each pillar (described below) to ensure we are on track to meet our overall goals. Along with these goals and metrics, we have created a working group that includes AVP for Campus Life Sonja Daniels, AVP for Academic Budgets and Planning Marna Genes, Interim AVP for the Office of Student and Faculty Success Stacy Gleixner, AVP for Transition and Retention Debra Griffith and Deputy Provost Carl Kemnitz to monitor the progress in each pillar and provide regular updates to the campus community.

**PILLAR ONE:
COLLEGE READINESS
BACKGROUND**

Through focus groups with students, staff, faculty and administrators, along with the Campus Climate Survey and research on why students leave before completing a degree, key concerns have been identified around college readiness. Concerns include the high percentage of students needing remediation in math, English or both; a need to expand highly-effective summer transition programs; and the need for stronger partnerships between K-12 schools, community colleges and SJSU to ensure students are prepared for college-level work when they arrive at SJSU.

College readiness at SJSU is a complex and multifaceted enterprise with more than a quarter of our incoming students identifying as first-generation and 37 percent as an underrepresented minority. As a campus, SJSU must continue to provide access to higher education for the many low-income and underserved populations coming to the campus from within and outside of Santa Clara County.

Students who entered SJSU in fall 2014 needing remediation earned an average of 17.5 units within the first year on campus, short of the 30 units needed annually to graduate within four years. In the fall of 2015, 36 percent of first-time freshmen at SJSU were in need of remediation in math, English, or both. Starting with a pilot in 2015-16 and a full campus roll out in 2016-17, the Department of English and Comparative Literature has completely redesigned their first-year English course. SJSU no longer offers remedial English courses. All students choose between a one-semester or two-semester (Stretch English) first-year writing course. Students determine which is the best course option by completing a Directed Self Placement (DSP) before their summer orientation program.

The Educational Opportunity Program (EOP) Summer Bridge has been extremely successful at increasing the SJSU remediation competency completion and retention rate among EOP double remedial students. Since its reintroduction in 2012, the program has had an 89 percent retention rate (or higher) across its last three cohorts and a 100 percent remediation completion among its participants. Access to the program is limited to 60 EOP students each year. The Summer Bridge Program provides a five-week intensive, on-campus curriculum of



remediation, study skills and an opportunity to prepare for college-level work. Participants progress as a cohort through their freshman year with enrollment in a first-year experience class and a year-long Stretch English course.

In addition, some first-year experience programs exist for first-time freshmen and transfer students, but opportunities to participate are limited. Examples include Science 2 and Science 90, classes that teach study skills for first-time freshmen and transfer students while also meeting an Area E General Education requirement, and the Lucas College of Business' first-year experience that provides an iPad as an incentive for students to engage in extracurricular activities.

SOLUTIONS

The following plan looks at college readiness from a perspective of pre-admission, admission and post-admission efforts. These efforts could further reduce the number of students who need remediation and will provide opportunities for SJSU to remove its gap in educational equity by 2025.

- Increase outreach to pre-admission K-12 students to create a college-going culture in Santa Clara County
 - Expand existing programs such as College Day; African American College Readiness Summits; the Advancing Latino/as Achievement and Success (ALAS) Conference.
 - Expand Admission Possible workshops for high school sophomores with SJSU admission counselors.
 - Create programs that support Asian American, Pacific Islander and Native American student recruitment.
 - Create a Spartan “shadow” program for prospective high school students to visit SJSU, attend classes with current students and dine on campus.
 - Implement [Spartan East Side Promise](#) and expand outreach efforts to students in the East Side Union High School District.
 - Create a centralized welcome center for prospective students and their families that provides a positive first impression of campus.
 - Provide a weekend campus tour option for prospective students.
 - Increase partnerships with K-12 schools to improve the college readiness of high school graduates through curriculum

development and focused, college readiness programming that enhances preparation for and response to the Early Assessment Program.

- Launch the [Student Success Summit](#) focused on strengthening partnerships between K-12, SJSU, and legislators. Pilot programs to address college readiness with the Student Success Summit partners will be developed and assessed.
- Increase support services for admitted students:
 - Host additional admitted student receptions at select off-campus locations that are beyond driving distance to campus to share resources for college readiness such as Early Start and DS
 - Expand the [Spartan Scholars Program](#) to serve low-income students who require remediation in math, English, or both subjects with a five-week residential summer transition program.
 - Evaluate best practices for integrating CSU Early Start with other SJSU support services.
- Increase support services for enrolled students:
 - Enhance the reach of the Writing Center through increased personnel and online opportunities, such as online video tutorials, embedded writing fellows in 100W courses, and a writing support supplemental instruction model for first-year composition and Stretch English courses.
 - Create a common definition for first-year experience courses, including revising existing university policies. Pilot different models of FYE and assess their impact on student success.
 - Increase access to first-year experience opportunities that are proven to work that help to connect students to the campus, give them tools to navigate the many resources available to them and teach them valuable study skills that will make them successful throughout their college career and develop programs to support mid-career students.
 - Increase the number of Peer Mentors who support freshmen classes and help first-year students learn to navigate SJSU.
 - Redesign the developmental math sequence and pedagogy.
 - Implement redesigned developmental math pedagogies into Early Start and summer bridge programs.

- Enhance the awareness and utilization of academic success services including peer tutoring and mentoring to all students.
- Utilize a non-cognitive assessment tool to provide focused academic success support to all first semester students.

PILLAR-SPECIFIC METRICS

- Increase the number of students who complete summer transition programs.
- Increase the number of students and families who attend college-readiness programs such as College Day, African American College Readiness Summits and ALAS.
- Increase number of participants in K-12 outreach programming.
- Increase the number of students who accept admission to SJSU after completing college readiness programs.
- Increase participation in student services offered by Peer Connections, EOP, Military and Veteran Student Services and other selected resources; increase retention rate and GPA of students who utilize these services.
- Increase the retention rate and GPA of students who participate in a first-year experience.
- Reduce the percentage of incoming students who require remediation at the start of the fall semester.
- Decrease the average time to complete GE English and math courses.
- Increase the GE math grades of students admitted with remedial math needs.
- Decrease the percentage of students needing remediation from schools involved in the Student Success Summit partnerships.

RESOURCES

SJSU has committed nearly \$2.4 million to support college readiness programs. Notably, \$1.5 million from the Student Success, Excellence and Technology Fee has been committed to the Spartan Scholars Program, a summer bridge program, for 2015-17. The Spartan Scholars Program received additional support from the Koret Foundation (\$800,000). The Program is open to all Pell grant-eligible students who are in need of remediation, with plans to expand in the future. Programs designed to increase participation among underrepresented

groups, such as the Eastside Promise Program, Advancing Latino/as Achievement and Success (ALAS) Conference, College Day and the African American College Readiness Summit received more than \$350,000. The remaining funds support enhancements to the Peer Mentoring program, which aids the transition to college, and a complete make-over of the SJSU Welcome Center. Additional resources will be needed to maintain and expand college readiness programs and to increase support services for admitted/enrolled students.

CONCLUSION

Expanding summer transition programs, establishing fall college readiness forums, collaborating with K-12 schools on partnerships such as the Spartan East Side Promise and other work with local schools will ensure first-year freshmen are prepared for college-level work without the need for remediation or repeating key courses when they arrive at SJSU from high school or community colleges. Associate Vice President for Transition and Retention Services Debra Griffith is leading the College Readiness pillar.

PILLAR TWO: ADVISING BACKGROUND

Through focus groups with students, staff, faculty and administrators, along with the Campus Climate Survey and research on why students leave before completing a degree, key concerns were identified around advising. These issues include long wait times for appointments with advisors, leading to students selecting courses on their own; inconsistent training for advisors; difficulty navigating the complex array of support resources; delayed evaluations; and the need for software to facilitate student progress and empower advisors with better data. The ratio of staff advisors to students was 1:1,848 when the Four Pillars plan was launched in fall 2015 while the national standard for public master's granting institutions is 1:300.

SJSU has a network of advisors to support students, including professional advisors in the [Office of Student and Faculty Success \(SFS\)](#) and the college student success centers, as well as peer and faculty advisors. University-wide advising is coordinated by SFS, which provides advising to undeclared students, student-athletes, URM cohorts and students seeking changes to their academic programs.

Colleges have established student success centers with



professional and peer advisors who offer GE advisement while helping students develop a path to a degree. Faculty advisors in individual departments support students in selecting upper division and major courses as well as advisement around preparations for graduation, careers, graduate studies or professional advancement. The advising system is strained with minimal drop-in advising availability, long wait times for appointments for college advising, and difficulties associated with delayed evaluation of transcripts and graduation applications.

SOLUTIONS

Ultimately progress in this area is only possible via a coordinated and transparent network of well-trained advisors who rely on efficient support systems.

- Improve advising systems to serve student success.
 - Create an effective advising network of staff and faculty advisors that assures all students timely access to an advisor when they need one and reduce the staff advisor/student ratio to 1:600.
 - Transition the campus to mandatory advising for all undergraduate students.
 - Design a system of advising that is seamless to students, making apparent to students throughout their academic career who their advisor is and ensuring their advising record is available to their advisor(s).
 - Create a model for holistic advising that defines comprehensive advising areas and directs students and advisors where to go for academic advising, informational sessions and other needs such as career, immigration, mental health, financial, etc.
 - Provide centralized coordination of advisor training so that students receive consistent and effective information from all advising resources on campus.
 - Monitor students who are not on track for their degree or do not enroll in 15 units; offer early and effective interventions that connect students with resources that will help with retention and degree progress.
- Leverage technology for student success.
 - Create an automated degree audit process that will provide real-time information to students and advisors on what graduation requirements students have completed along with what

they still need to complete.

- Create an online smart planner that will allow students to map out a four-year degree plan for incoming first-year students and a two-year degree plan for transfer students. This function will allow students and advisors to have a clear map of what courses are needed to graduate in a timely manner and allow the university to better match course offerings with demand.
- Upgrade and expand the early alert system and integrate it with the learning management system to identify students at the earliest indication of trouble and provide academic support services to those in need.
- Optimize academic processes for student success with software solutions including automated graduation checking, automated prerequisite programming, online change of major/minor process and a student data warehouse to support predictive analytics.
- Implement a mechanism that allows for transferable electronic advising notes.
- Process transfer credit, test credit evaluation and graduation applications earlier so that students and advisors know what courses students need to pursue each semester. No student should be surprised by the results of a graduation check.
- Engage faculty in reviewing curriculum to ensure students have a clear path to degree and that skills gained in courses within a major map to workforce needs and/or industry standards.

*PILLAR-SPECIFIC
METRICS*

- Align advisor to student ratios (both faculty and staff advisors) with other comparable CSUs with higher four-year graduation rates.
- Reduce the number of courses taken that do not count toward degree progress.
- Increase the number of students with a multi-term plan in the student information system.
- Decrease processing time for transfer credit, test credit evaluation and graduation worksheets.
- Increase student satisfaction with advising as measured by NSSE or similar surveys.

RESOURCES

Initial recommendations include the need for additional staff in key roles such as professional advisors who can assist in multi-term planning and early-alert interventions; programmers for PeopleSoft Student Administration; degree audit and early transcription evaluators; and IEA staff for improved use of data. SJSU has provided more than \$3 million to support these activities in 2016-17.

CONCLUSION

Upgrading the advising infrastructure on campus by adding additional advisors, providing training for all advisors on campus and implementing software solutions will support students in creating attainable graduation pathways. Deputy Provost Carl Kemnitz and interim AVP for the Office of Student and Faculty Success Stacy Gleixner are leading the Advising pillar.

PILLAR THREE: STUDENT ENGAGEMENT BACKGROUND

Students at San José State engage the campus community in a variety of ways. Some work in close collaboration with faculty members on research in laboratories or in the community; others connect through a common interest in one of the more than 500 student organizations; still, others are active in athletics, including Division-I, club sports and intramural. Resources include identity-based centers such as the [MO-SAIC Cross Cultural Center](#), the [PRIDE Center](#), the [Gender Equity Center](#), [Military and Veteran Student Services](#), to name a few; recreation and wellness opportunities, access to [Career Center Services](#) and [University Library](#) programming. Through these interactions, students form relationships with friends, mentors and advisors that will benefit them during their time at SJSU and beyond. Without these connections to the campus, many students would lack the support system they need to be successful.

[CommUniverCity](#) is a leading example of a program that provides curricular-embedded opportunities for students to engage in more than 50 community projects in underserved communities surrounding the university in partnership with the City of San José. Students and faculty members from every college are involved in interdisciplinary projects that range from establishing community gardens to STEM education for K-12 students to supporting small business owners with marketing plans.

A key pillar of student success identified by students, staff, faculty and administrators includes improving student engagement at SJSU. While the majority of respondents to the 2015 Campus Climate Survey reported that SJSU has a welcoming environment, some students, staff, faculty and administrators still reported experiencing discrimination on campus. This was especially true for some URM groups as well as those who identified as LGBTQI. Some students also noted that they feel unsafe on campus



despite relatively low rates of crime as reported in the [2015 Annual Safety Report](#). In addition, faculty research from the “Why Students Leave” report found that one of the top three reasons students listed for leaving SJSU included feeling no connection to the campus.

SOLUTIONS

Through discussions with campus stakeholders, improvements to student engagement have been recommended:

- Create a safe and welcoming campus environment.
 - The [Office of Diversity, Equity and Inclusion](#), established in summer 2016, continues to lead Conversations on Campus Climate, and Faculty Fellows have been assigned to the MOSAIC and PRIDE Centers to increase understanding of student needs.
 - The African American Student Success Task Force (Harambee) and the [Chicanx/Latinx Student Success Task Force \(Adelante\)](#) that support URM students have transitioned to permanent programs with base funding in Student Affairs, under the AVP for Transition and Retention Services. A physical home for these success centers will be created.
 - A new center in support of Immigrant and Undocumented students will be created.
 - UPD will continue to communicate about the resources they offer to campus such as the [UPD Safety Escort](#), [Spartan Saferide](#) and [Rave Guardian](#), and other safety initiatives.
 - UPD and the University Library will partner with the City of San José to address safety concerns in the library.
 - UPD and Administration and Finance will conduct regular campus safety tours to highlight needed improvements.
- Evaluate co-curricular programming such as student organizations and clubs, student government and other programs on campus.
 - Increase student participation in co-curricular activities that connect them to campus.
 - Expand co-curricula program opportunities for undergraduate, graduate and international students to work together on research, internships, leadership and volunteer experiences that will help them put into practice the lessons they learn in their classrooms.

- Increase curricula practices and opportunities that engage students more deeply and connect them to faculty and staff.
 - As part of the Academic Affairs 2014-16 priority, the Educational Excellence and Student Experience team created GE pathways around sustainability, creativity, and globalization to provide a common intellectual experience. Coordinators will develop an assessment program to evaluate each pathway so they can be modified if necessary.
 - Implement a system to track participation in and assess the impact of existing high-impact practices on campus including service learning, capstone projects and global experiences.
 - Expand the programming aimed at providing SJSU faculty with strategies and tools to address the diverse needs of our students.
 - Develop a faculty-in-residence program and other strategies to connect faculty and students together outside of the classroom.
 - Expand Coffee with a Professor to include Lunch with a Professor to support further connection with faculty.

*PILLAR-SPECIFIC
METRICS*

- Increase the number of students involved in research, internships, leadership or other co-curricular programs; increase GPA and retention rates of those students.
- Increase the number of students involved in high-impact practices in their classes; increase the GPA and retention rates of those students.
- Improve perceptions of student engagement and campus climate, as measured by the National Survey of Student Engagement (NSSE) and Campus Climate Survey.

RESOURCES

Building a welcoming community will require an increase of resources to the campus. This includes support for URM academic success support services. Increases in staff and resources to support curriculum development are needed to expand high-impact practices in the curriculum. Resources are needed to increase the co-curricular opportunities for students including University Library activities, campus programs, clubs and organizations, leadership and research opportunities.

CONCLUSION

Increasing student opportunities to engage in co-curricular activities and other high-impact practices will enhance students' connection to campus. High-impact practices have been shown to increase student retention and success. Associate Vice President for Campus Life Sonja Daniels is leading the Student Engagement pillar.

**PILLAR FOUR:
CLEARING
BOTTLENECKS
BACKGROUND**

Recent surveys of SJSU students reveal that one of the significant challenges to their success is course bottlenecks – impasses where they cannot enroll in a course they need to make progress toward their degrees, or when they cannot successfully complete a course and move forward toward their degrees.

Barriers to enrollment are typically resource-related: lack of funding for a sufficient number of sections, lack of a qualified instructor, or lack of appropriate facilities (classrooms or class labs). Enrollment caps resulting from limited state support also contribute to the issue. In the easiest of cases, additional resources made available to the colleges would result in additional course sections and begin to clear the pent-up demand for bottleneck courses. A major effort was initiated in fall 2016 to expand course offerings where they are most needed with an infusion of \$2.8 million into the colleges to offer up to 500 additional sections. At the same time, enrollment management practices must be reviewed to remove unnecessary limits on access to bottleneck courses, such as enrollment caps, unit limitations and wait-list policies. The campus must examine these practices to effectively capitalize on the \$2.8 million investment in bottleneck courses.

Barriers to course completion are much more complex and nuanced, but equally impactful in creating bottlenecks. Bottlenecks are created because students have difficulty passing a course the first time, and must retry a second, and even a third time, thus increasing the demand for spots in the course. SJSU faculty have begun to address these issues in numerous ways including through participation in an initiative sponsored by the CSU Chancellor's Office, Course Redesign with Technology (formerly known as Proven Course Redesign and Promising Practices). To date, faculty from several departments within the Colleges of Science and Social Sciences have worked with instructional designers from eCampus to design and implement technology-enhanced solutions to course bottlenecks. Efforts must be expanded to promote student success while maintaining high academic standards.

Clearing these bottlenecks will have a lasting effect – more students will be able to graduate on a shorter timeline thus freeing up capacity for larger cohorts of new students.



SOLUTIONS

Addressing these issues requires a two-prong approach that focuses on making courses available to students when they need them, and taking measures to improve student success in courses with a history of high-failure rates while maintaining our academic standards.

- Ensure students have access to the classes they need to progress towards their degree.
 - Track and assess bottleneck courses every semester. Engage the colleges in determining the hurdles to enrollment in those courses.
 - Implement changes to registration practices to ensure all students can register for a full load.
 - Implement changes to wait list and notifications to facilitate accommodating as many students as possible.
 - Evaluate all degree road maps to ensure they are realistically achievable (the prerequisite sequences are correct and courses are offered during right semesters).
- Improve success rates in high-failure rate courses while maintaining a high-quality curriculum.
 - Provide support for students and faculty in historically high-failure rate courses.
 - Expand the use of peer educators in high-failure rate courses.
 - Expand the use of high-impact practices in high-failure rate classes.
 - Incorporate department plans to address high-failure rate classes into program planning.
 - Utilize the CSU Dashboard to increase awareness of faculty and chairs in performance and success rates in their classes and majors.

PILLAR-SPECIFIC METRICS

- Reduce the number of students on wait lists for bottleneck courses.
- Increase the percentage of students earning 30 or more units in an academic year.
- Increase the number of historically high-failure rate classes using peer educators.

- Increase the number of historically high-failure rate classes using high-impact practices.
- Increase the pass rate in historically high-failure rate classes.
- Decrease the number of students who reference impacted courses as a concern on the Campus Climate Survey.

RESOURCES

SJSU has committed \$2.8 million to clear bottlenecks as identified by data and input from departments for 2016-17 and 2017-18. The university also has grants, such as the CSU Course Redesign with Technology grant and the First in the World grant that support curriculum redesign to clear course bottlenecks caused by low-pass rates. Resources are needed to increase the academic support for students in high-failure rate courses and to expand the use of high-impact practices in these courses.

CONCLUSION

Efforts to address course bottlenecks align well with the efforts to support our students' success through attending to their college readiness, to advising them, and to engaging them more significantly, as outlined in other sections of this proposal. Associate Vice President for Academic Planning and Budgets Marna Genes is leading the Clearing Bottlenecks pillar.