



STUDENT RETENTION ADVISORY COMMITTEE



**Undergraduate Student
Retention, Success, and Graduation:
Recommendations for Campus Action**

**Student Retention Advisory Committee
Members and Collaborators**

Milton Lang Associate Vice Chancellor Student Affairs Co-Chair		Helen Schurke Frasier Assistant Vice Provost for Undergraduate Education Co-Chair
Deborah Agee Financial Aid	Letia Graening International Academic Advising	Emily Prieto-Tseregounis Student Affairs
Julie Agosto Advising & Retention Services	Neil Huefner Center for Student Affairs Assessment	Timo Rico Center for Student Affairs Assessment
Sheri Atkinson Community Resource Centers	Carol Hunter Student Academic Success Center	Maria Saldana-Siebert College of Biological Sciences Advising
Arnette Bates Student Academic Success Center	Erika Jackson Budget & Institutional Analysis	Jim Schaaf Council of Associate Deans
Kayton Carter Center for African Diaspora Student Success	Alex Lee Associated Students of UC Davis	Abhay Singh Sandhu Associated Students of UC Davis
Edward Caswell-Chen Professor of Entomology & Nematology	Brendan Livingston Undergraduate Admissions	David Spight College of Engineering Advising
Cirilo Cortez Chicanx Latinx Retention Initiatives	Mayra Llamas Student Recruitment & Retention	Dawn Takaoglu International Academic English
Kristin Dees Center for Student Involvement	Elias Lopez Office of the University Registrar	Michelle Villegas-Frazier Native American Retention Initiatives
Brenna Dockter College of Letters & Sciences Advising	Alma Martinez Chicana & Chicano Studies	Donna Vivar College of Agricultural & Environmental Sciences Advising
Beth Floyd College of Letters & Sciences Advising	Hope Medina Transfer Reentry & Student Veterans Success Centers	Catrina Wagner Student Housing
Annaliese Franz Professor of Chemistry	Brett McFarlane Academic Advising	Tanya Whitlow College of Engineering LEADR Program
David Garrison Office of the University Registrar	Marco Molinaro Center for Educational Effectiveness	Wesley Young Services for International Students & Scholars
	Robert Newcomb Professor of Spanish & Portuguese	

**Undergraduate Student Retention, Success, and Graduation:
Recommendations for Campus Action**

**Student Retention Advisory Committee
University of California, Davis
June 2017**

Table of Contents

Members and Collaborators.....	i
Table of Contents.....	ii
Table of Figures.....	iii
Executive Summary.....	1
Introduction.....	3
Campus Retention and Graduation Data.....	4
Committee Approach.....	7
High-impact Practices.....	8
Recommendations.....	9
Next Steps.....	15
Sub-Committee Reports & Appendices	
Student Retention Committee (SRAC) Sub-committee 1.....	16
Student Retention Committee (SRAC) Sub-committee 2.....	23
Student Retention Committee (SRAC) Sub-committee 3.....	34
References.....	39
Appendix A: High-Impact Practices Matrix.....	41
Appendix B: Examples of Data from Budget & Institutional Analysis.....	43
Appendix C: Examples of Data from the Center for Educational Effectiveness.....	53
Appendix D: Examples of Data from the Center for Student Affairs Assessment.....	62

Table of Figures

Actual & Predicted 4-Yr Graduation Rates for Selected Demographic Groups

Figure 1: All Students 4-Yr	5
Figure 2: African American 4-Yr	5
Figure 3: Hispanic 4-Yr	5
Figure 4: First Generation 4-Yr	5
Figure 5: Pell Grant Recipients 4-Yr.....	5
Figure 6: International 4-Yr	5

Achievement Gap Data

Figure 7: Black/White 4-Yr Gap.....	6
Figure 8: Hispanic/White 4-Yr Gap	6
Figure 9: 1st Gen/Non-1st Gen 4-Yr Gap.....	6
Figure 10: Pell/Non-Pell 4-Yr Gap	6

Undergraduate Student Retention, Success, and Graduation: Recommendations for Campus Action

Student Retention Advisory Committee University of California, Davis June 2017

Executive Summary

The University of California, Davis is committed to the success of our students from admissions through coursework and campus life, to graduation and beyond. In 2015, the Division of Student Affairs and the Office of the Vice Provost and Dean for Undergraduate Education formed the Student Retention Advisory Committee (SRAC). The goal of the SRAC is to provide a venue where members of the campus community can come together to discuss factors that contribute to student success and retention, and to develop short and long-term strategic plans for improving the academic success of our students. Mindful of the rapid enrollment growth among all student groups—particularly our first generation, low income, and historically underrepresented students—the SRAC had a keen focus on inclusively addressing the diversity of student needs.

To address the broad range of topics that impact UC Davis students, the SRAC's membership formed three sub-committees, each charged with evaluating and formulating actionable recommendations for the consideration of the larger committee on 4-5 of the following topical areas addressing student characteristics, academic experiences, and co-curricular opportunities:

- Academic intervention process
- Case management
- English language learners
- First-year student development
- Holistic student needs
- Impact of instruction
- International students
- Integration of curricular and co-curricular opportunities
- Internship space
- Involvement in undergraduate research
- Second-year student experience
- STEM retention
- Transfer students

In addition, the SRAC engaged campus partners to explore pathways to establishing UC Davis as a High-Impact Practice/Program (HIP) campus in alignment with the guidelines produced by the Association of American Colleges & Universities (AAC&U). A set of themes emerged from the reports of the three sub-committees and the HIP group. To build on the success of existing initiatives, to facilitate the expansion of programs with greater potential to impact student success, and to align and prioritize campus efforts with best practices, the SRAC puts forth seven actionable recommendations:

1. **ANALYSIS AND ASSESSMENT:** Significantly enhance the availability of, and access to, data analyses at the course and programmatic level in order to evaluate and support High-impact Practices and improve student learning.

2. **MANDATORY ADVISING & CASE MANAGEMENT:** Implement mandatory first-year academic advising for incoming freshman and transfer students; and establish a holistic case management system that partners faculty, advisors, counselors, special program staff, academic support staff, and students themselves to intentionally address student achievement and academic success.

3. **PROGRAM EXPANSION:** Continue to support, expand, and assess potentially High-Impact Programs, including the following:
 - Biology Undergraduate Scholars Program (BUSP)
 - Career Discovery Group (CDG)
 - Center for Leadership Learning (CLL)
 - First-Year Aggie Connections (FYAC)
 - First-Year Seminars (FYS)
 - Language & Writing Support Services
 - Leadership in Engineering Advancement, Diversity and Retention (LEADR)
 - Student Academic Success Center (SASC)
 - Strategic Retention Initiatives & Centers (e.g. the African Diaspora, Chicana & Latinx, and Native American Centers)
 - Student Community Center Programs & Activities
 - Student Living-Learning Communities (LLCs)
 - Transfer Support Services
 - Undergraduate Research Center (URC)
 - University Honors Program (UHP)

4. **ASSESS ORIENTATION & WELCOME OPPORTUNITIES:** Engage campus stakeholders, together with partners from the National Orientation Directors Association (NODA), to ensure that UC Davis' orientation programs introduce incoming students to the intellectual, cultural, and social climate of our institution.

5. **FIRST-YEAR ENGAGEMENT:** Implement a required first-year academic experience for all incoming freshman and transfer students that leverages the strengths of both faculty and staff.

6. **INTERNATIONAL AND MULTI-LINGUAL STUDENT SUPPORT PROGRAMS:** Review admissions criteria and implement programs that provide support services to enhance the academic experiences of international and multi-lingual students.

7. **SECOND-YEAR PROGRAM EXPANSION:** Enhance and expand programs to continue student engagement via second-year experiences.

A cornerstone of the UC Davis campus is the shared commitment of staff and faculty to student success. The work of the SRAC highlights the need for improved communication regarding the programs, initiatives, and opportunities that influence the learning and academic achievements of our students, and ultimately, their journey across the commencement stage. The SRAC members and collaborators look forward to applying these recommendations and furthering an institutional culture focused on student success.

Introduction

The Student Retention Advisory Committee (SRAC) focused on serving the larger UC Davis community to identify current and future strategies that positively impact the rate at which students persist toward a degree and graduate. The committee is a collaborative body comprising faculty, students, and staff from the four undergraduate colleges, the Office of the Vice Provost and Dean for Undergraduate Education, and the Division of Student Affairs. The goals of the SRAC were threefold. First, to align the core values of the institutional mission—teaching, research, and service—to foster the academic success of all students. Second, to look comprehensively at the potential retention issues facing our students via the different lenses and perspectives offered by the various roles and responsibilities of committee members. Third, to provide actionable recommendations to campus leadership to implement or enhance student success-driven improvements guided by best practices.



The SRAC provided a venue where faculty, staff, and students from across disciplines came together to discuss factors that contribute to student success and retention, examine data, review internal processes impeding student success, and develop short-term and long-term strategic plans. During the 2015-2016 academic year, the committee discussed topics ranging from high-impact practices to retention at UC Davis; from the UC Budget Framework Implementation Initiatives to

Academic Advising and Academic Probation/Subject to Dismissal (SD) processes; from the services and opportunities of the Student Academic Success Center (SASC) to the community-building efforts of the Student Affairs Strategic Retention Initiatives; and from the collaborations with the Council of Associate Deans (CAD) to the important role of financial aid in continued student success.

The committee quickly identified that communication across units is a disruptive challenge faced by the campus community. Specifically, members noted that on several occasions, the content shared during SRAC meetings was quite valuable for student success initiatives, yet the information had not been consistently or widely disseminated within and across partner units on campus. In addition, the committee observed that it is not always clear how to engage the correct campus units when problems are observed. For instance, committee discussions of various campus processes revealed a desire for a coordinating venue where frontline staff and faculty can partner to discuss these and similar concerns, and then to direct action requests to the appropriate entity such as the Council of Associate Deans (CAD), the Council of Deans (COD), or the Academic Senate.

Mindful of the need for a communication venue for collaboration among staff, faculty, and students, during the 2016-2017 academic year, the SRAC worked to support and enhance student success initiatives by examining data, reviewing internal processes that impede student

success, and preparing the enclosed report of recommendations to campus leadership aimed at enhancing retention and graduation rates. In the next section, we briefly highlight campus data that influenced the work of the SRAC.

Campus Retention and Graduation Data

Campus leadership, faculty, and staff are mutually committed to the success of our students from admissions through coursework and campus life, to graduation and beyond. To understand the campus landscape, the SRAC looked to Budget & Institutional Analysis to provide analyses reflecting both predictive graduation models based on admission characteristics, as well as campus achievement gap trends.

The four-year graduation rate of entering UC Davis freshman rose considerably from 43% in 2000 to 61% in 2012, but still lags behind several of our peer UC campuses (Irvine, Santa Barbara, Los Angeles and Berkeley). Figures 1-6 display the trend for the campus as a whole, as well as selected sub-groups. The black solid lines show the actual graduation rate over time while the grey dotted lines show what we would have predicted for that cohort based on their entering characteristics alone (high school GPA, SAT scores, college/division in which they started their program, residency, first generation status, sex, race/ethnicity, and Pell grant receipt).

Looking at actuals versus predicted rates helps the campus understand the degree to which increases in the completion rate over time have been a function of changing student characteristics (improved SAT scores, for example) versus an effect of campus efforts to increase graduation rates above and beyond what incoming characteristics alone predicted. It is clear from Figures 1-6 that if the campus wants the 2016 entering cohort to finish with a significantly higher graduation rate than the current prediction, we need to make concerted intervention efforts since the incoming characteristics alone suggest the students will finish at a rate similar to that of our latest graduation cohort. A few sub-populations even have predicted rates that are lower than the analogous group in the 2012 cohort, which can help us know where to focus our attention with the targeted efforts described below.

Actual & Predicted 4-Year Graduation Rates for Selected Demographic Groups

Figure 1: All Students 4-Yr

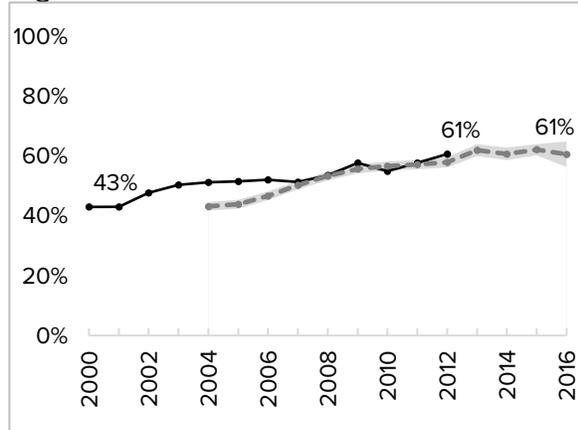


Figure 2: African American 4-Yr

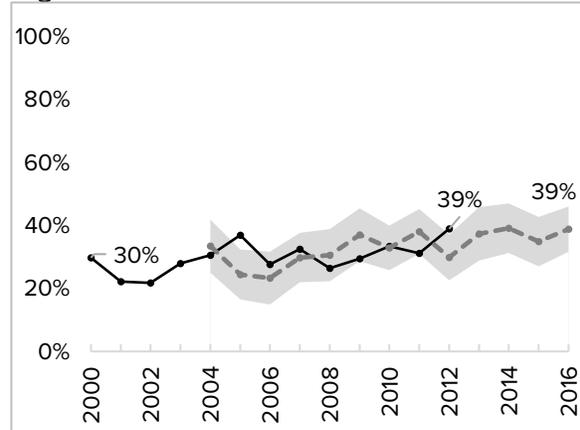


Figure 3: Hispanic 4-Yr

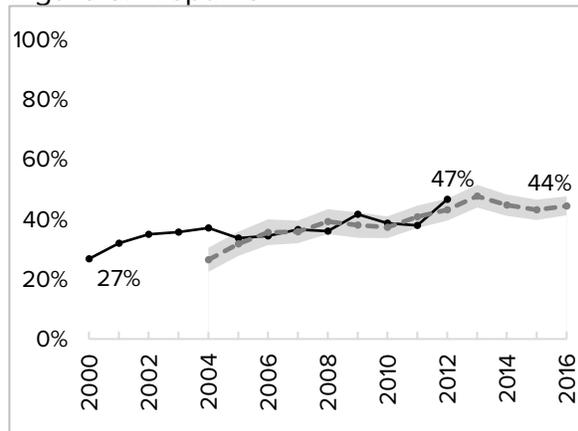


Figure 4: First Generation 4-Yr

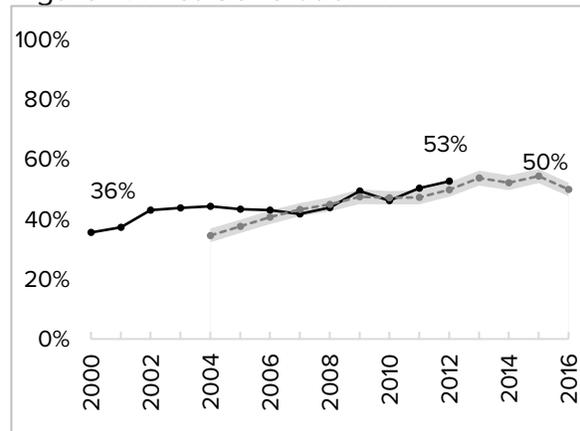


Figure 5: Pell Grant Recipients 4-Yr

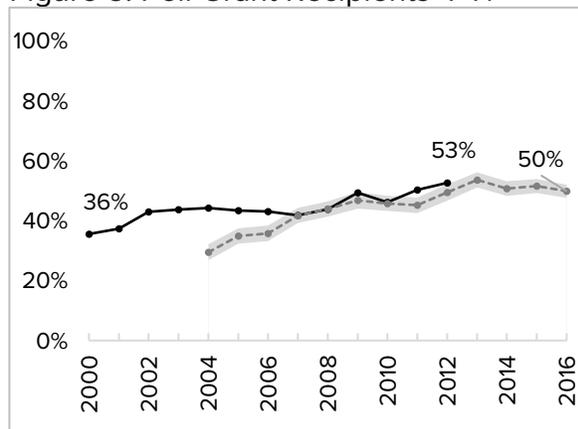
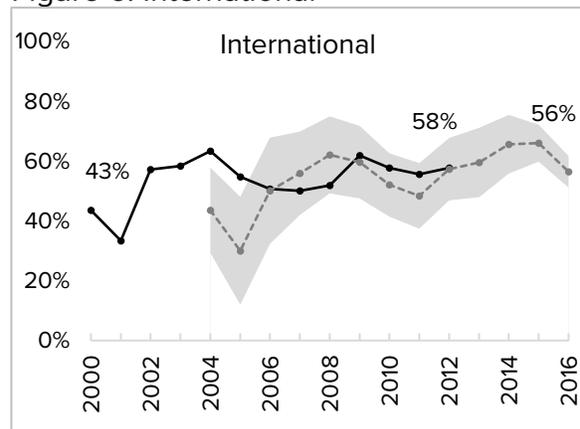


Figure 6: International



SOURCE: Budget & Institutional Analysis, Figures 1-6, 06/02/2017

- NOTES: 1. Predicted rates are logistic regression models built on the latest data available when the cohort entered the university (i.e. the cohort that had entered four years earlier).
 2. Black solid lines reflect actual graduation rates.
 3. Grey dotted lines reflect predicted graduation rates based on the cohort's incoming student characteristics (SAT, GPA, college/division, residency, first generation status, sex, race/ethnicity, and Pell grant receipt).

Despite the fact that all groups have experienced improvements in their four-year graduation rates over the past 15 years, unfortunately the gaps in achievement between traditionally more and traditionally less advantaged groups are stubbornly persistent, as shown in Figures 7-10. White students are twenty-seven percentage points more likely to graduate in four years than black students (65% vs. 39%). Hispanic students are almost twenty percentage points less likely than white students to graduate in four years (47% vs. 65%).

The gaps along socioeconomic lines are smaller but still concerning: first generation students are 13 percentage points less likely to finish in four years (53% v. 66%) and students receiving a Pell grant are 12 points less likely to finish in four (53% vs 65%). To some degree these differences in outcomes are connected to differences in academic preparation. In the charts below, the trend in the achievement gap is plotted for selected sub-groups in dark blue. The dark gold line in Figures 7-10 plots the gap that remains after controlling for incoming academic characteristics (SAT, GPA, and AP credits). While the gaps are indeed reduced (they are generally cut in half) there still remains a persistent gap in the likelihood of finishing in four years that deserves our attention and best efforts at reducing.

Achievement gap data

Figure 7: Black/White 4-Yr Gap

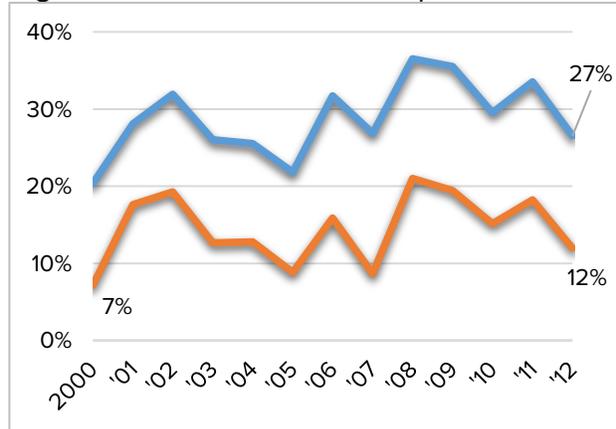


Figure 8: Hispanic/White 4-Yr Gap

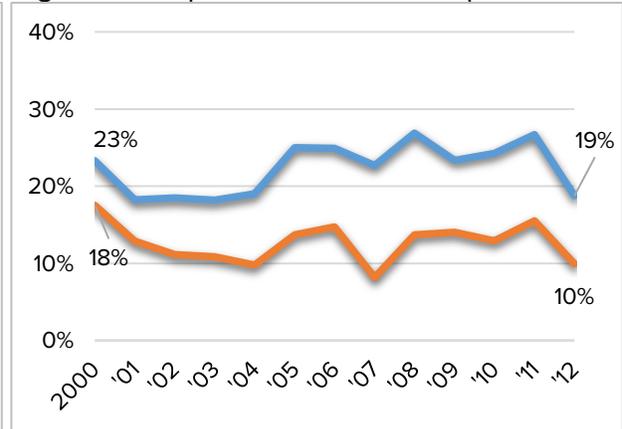


Figure 9: 1st Gen/Non-1st Gen 4-Yr Gap

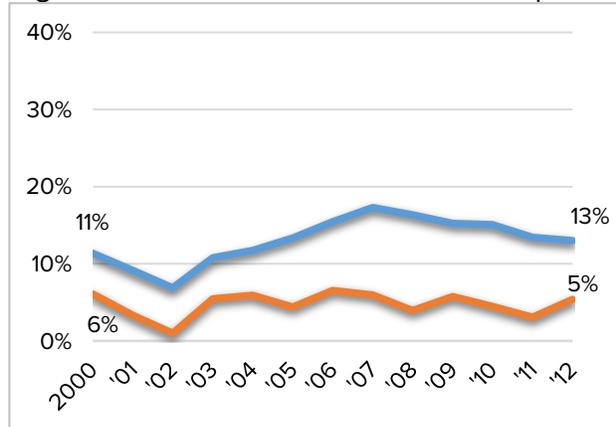
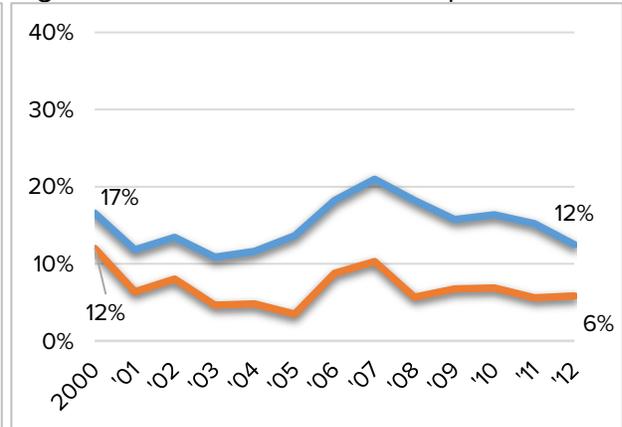


Figure 10: Pell/Non-Pell 4-Yr Gap



SOURCE: Budget & Institutional Analysis, Figures 7-10, 06/02/2017

NOTES: **Dark blue lines** represent the achievement gap between the two groups of interest.
Dark gold lines represent the gap that remains after controlling for SAT, GPA, and AP credits.

The predicted vs. actual data and the achievement gap data provided in Figures 1-10 provide an informational foundation, from which the campus can consider the recommendations of the SRAC in the context of retention, academic progression, engaged persistence, and graduation for UC Davis students.

Committee Approach

Since its formation in late-fall 2015, the SRAC has taken a collaborative approach to campus dialogue regarding the myriad issues that either impede or enhance student success. At the outset of the SRAC, the co-chairs introduced the guidelines from the Association of American Colleges & Universities (AAC&U) for High-Impact Practices/Programs (HIPs) as a lens through which to view and align the retention efforts of the campus. Guest speakers discussed the UC Systemwide Budget Framework Implementation Initiatives (BFI), efforts to build an Academic Advising community, the college and division approaches to and interpretations of the Academic Probation/Subject to Dismissal (SD) processes, the Council of Associate Deans (CAD), the First-Year Aggie Connections program, the First-Year Seminars program, the Student Academic Success Center (SASC), Student Financial Services, and the community-building efforts of the Student Affairs Strategic Retention Initiatives.

To address the broad range of topics that impact UC Davis students, in Fall Quarter 2016, the committee honed its focus by using the HIP lens to evaluate current campus programs in the context of a Start-Stop-Continue framework. Specifically, monthly meetings addressed practices and programs that should be continued, started, or stopped in order to positively impact retention, persistence, and student success. To capture these discussions in the form of recommendations regarding current programs, the SRAC formed three sub-committees to conduct in-depth evaluations, and to discuss, develop, and categorize recommendations. The sub-committees agreed to meet, at a minimum, once a month in order to develop a theoretical framework and prioritized list of recommendations. Each sub-committee evaluated campus programs and activities associated with 4-5 of the following topical areas addressing student characteristics, academic experiences, and co-curricular opportunities:

- Academic intervention process
- Case management
- English language learners
- First-year student development
- Holistic student needs
- Impact of Instruction
- International Students
- Integration of curricular and co-curricular activities
- Internship space
- Involvement in undergraduate research
- Second-year student experience
- STEM retention
- Transfer students

In preparing reports, and ultimately a presentation of their work, each sub-committee was asked to provide:

- An introduction and theoretical framework guiding the committee's recommendations and support of campus retention efforts on the specific topical areas;
- A summary of programs that exemplify success that the campus should consider expanding;

- Recommendations for new programs that the campus should consider;
- A prioritized overview of short and long term goals, including rationale for the prioritization; and
- Closing remarks regarding the importance of the sub-committee’s recommendations and the anticipated impact on student success.

High-impact Practices

As previously noted, the SRAC collectively adopted the AAC&U lens of High-Impact Practices/Programs as the framework through which we moved forward with efforts and recommendations to enhance the persistence and graduation rates of our undergraduate students. The committee coalesced around the idea that the nationally accepted HIP guidelines would allow us to evaluate and, in some cases, develop high-touch programs that will enhance student success. HIPs are identified as such when students are involved and engaged in activities defined as “active learning practices.” In addition, best practices suggest that the regular assessment and evaluation of HIPs allows students and campuses to be responsive to student learning and engagement needs. Examples of HIPs include, but are not limited to: First-Year Seminars, Living Learning Communities, service learning, undergraduate research with faculty, internships, and writing intensive courses. Participation in HIPs offers many benefits and meaningful outcomes for student success, such as expanded opportunities and interactions with faculty and peers, increased experience with diversity, greater frequency of feedback from faculty and staff, and the opportunity for students to work with their peers in small group settings. In addition, HIPs contribute to cumulative learning, increased retention, and increased student engagement. Appendix A provides an outline and guidance from the AAC&U regarding HIP best practices.

The SRAC recommends, as noted in recommendation #3, below, that the campus move forward with the implementation of a HIP model for UC Davis. It is critical that we identify the current HIP programs at UC Davis to ensure that they have the necessary high-impact infrastructure and assessment tools to successfully be identified as HIPs. Furthermore, the committee recommends that the campus explore additional opportunities to implement HIP across the campus where active learning, high engagement, and cumulative learning will produce beneficial outcomes for student retention and success.

Finally, the SRAC recognizes that every UC campus is a member of the AAC&U, and therefore has access to the guidance and best practices for implementing a HIP framework for programs and practices on the campus. The SRAC wants to see UC Davis demonstrate systemwide and national leadership through the adoption and implementation of the HIP model by intentionally supporting and advancing student retention and success programming.



Recommendations

The SRAC's membership of faculty, staff, and students from across the UC Davis campus sought to create opportunities for all committee members, and ultimately the broader campus community, to learn about the profound work that is currently taking place across the campus. The committee also acknowledges that while much work is being done, many opportunities are being missed due to lack of communication or unnecessary implementation of duplicative efforts.

As previously noted, the SRAC's work was ultimately distributed into three focused sub-committees. Following the completion of the work of these collaborative groups, the SRAC reconvened for presentations of each sub-committee's work. The Co-Chairs wish to publicly acknowledge the valuable and thoughtful work that is reflected in the reports of the three sub-committees, enclosed in full with this report (see pages 43, 53, and 62).



From these reports seven themes overlapped across at least two—or in several cases, all three—of the sub-committee reports. The SRAC co-chairs, together with the six co-chairs of the three sub-committees, aligned the seven themes with the recommendations offered by each sub-committee. Seven actionable recommendations emerged, each of which—if implemented—will build on the success of existing initiatives, facilitate the expansion of programs with greater potential to impact student success, and align and

prioritize campus efforts with best practices for HIPs. These seven recommendations represent the first phase of actionable, collaborative intervention to improve student retention, persistence, and success, and the SRAC encourages the UC Davis community to view them as part of a living document with enduring relevance for meeting the success, retention and graduation needs of our students.

1. **ANALYSIS AND ASSESSMENT:** Significantly enhance the availability of, and access to, data analyses at the course and programmatic level in order to evaluate and support High-impact Practices and improve student learning.

To make meaningful, measurable improvements to retention, time to degree, and student success, we need to create an accessible source for consistent, accurate data and analysis that is communicated throughout campus. Improving programs, retention, persistence, and graduation rates and assessing the effectiveness of high-impact practices begins and ends with accurate data. The lack of consistent data accessible across campus makes it difficult to define accurately and completely the factors that negatively impact retention and persistence. In addition to the data

provided in Figures 1-10 by our campus partners in Budget & Institutional Analysis, Appendices B, C, and D offer glimpses of the types of data that could be produced and utilized to inform faculty and program directors regarding the efficacy of instruction and programmatic workshops.

Transfer data: We currently have many sources for transfer data, which have created inconsistencies in how we report on our transfer students, ultimately impacting the kinds of programming and services we believe we should be developing and offering. Our short term goal is to have a consistent process for requesting data that will provide the same information for any campus colleague to access.

Assessment of high-impact programs & practices: Design assessments, collect and analyze data, and continue to improve current programs known to be high-impact educational practices. UC Davis offers several programs that literature documents as high-impact educational practices, but we do not have data or analysis on their delivery. There are currently pockets of local data for both Student Affairs and Undergraduate Education. Pilot studies should be evaluated to determine scalability and next steps.

Academic program assessment: Continue to assess and evaluate data to determine impact on retention, student satisfaction, education of the whole student, performance in the course series (e.g. Chemistry 118 A, B, & C), in upper division courses, and time to degree. Then, establish a data sharing system from these assessments.

2. **MANDATORY ADVISING & CASE MANAGEMENT:** Implement mandatory first-year academic advising for incoming freshman and transfer students; and establish a holistic case management system that partners faculty, advisors, counselors, special program staff, academic support staff, and students themselves to intentionally address student achievement and academic success.

Expanding mandatory advising, success coaching, financial literacy and tutoring will help incoming students transition to UC Davis. A holistic case management system will put the student at the center, facilitate effective and collaborative use of available resources, and provide a way for the campus to monitor student progress and address challenges and barriers.

The primary goals for centralized data collection, analysis, and dissemination are to support students across social, academic, cultural and personal domains; to identify individual student needs and interests, and to code results in a system; to facilitate strategic, timely and personalized handoff between support team members; and to foster communication between students and their holistic teams to enhance engagement. The proposed collaboration between faculty, advisors, and student support services, combined with the enhanced communication between campus resource units will improve student retention, persistence, and learning as well as student self-efficacy and agency.

Successful implementation of mandatory advising and case management will, in the short term, require the establishment of Sub-committees to (a) research and create in-depth operational and technical requirement specifications for a holistic system; and (b) research potential internal and external vendors and make recommendations to a broader budget

authority stakeholder group. The SRAC recommends that the campus identify an implementation task force with an assessment Sub-committee to create an assessment plan for the new system. In the longer term, perhaps 2-5 years, we envision integration of case management software with broader campus-wide data collection and reporting system, and review of broader assessment and operational data that may suggest changes to original specifications.

3. **PROGRAM EXPANSION:** Continue to support, expand, and assess potentially High-Impact Programs (HIPs), including the following:

- Biology Undergraduate Scholars Program (BUSP)
- Career Discovery Group (CDG)
- Center for Leadership Learning (CLL)
- First-Year Aggie Connections (FYAC)
- First-Year Seminars (FYS)
- Language & Writing Support Services
- Leadership in Engineering Advancement, Diversity and Retention (LEADR)
- Student Academic Success Center (SASC)
- Strategic Retention Initiatives & Centers (e.g. the African Diaspora, Chicanx & Latinx, and Native American Centers)
- Student Community Center Programs & Activities
- Student Living-Learning Communities (LLCs)
- Transfer Support Services
- Undergraduate Research Center (URC)
- University Honors Program (UHP)

Learning communities are consistently identified in the literature as high-impact opportunities to support student learning, engagement, and success. UC Davis offers several programs that current literature indicates are high-impact educational practices, but as a campus, we do not have consistent data or analysis on them. There are currently pockets of local data in both Student Affairs and Undergraduate Education. The SRAC recommends that the campus invest to build the capacity of Budget & Institutional Analysis, the Center for Educational Effectiveness, and the Center for Student Affairs Assessment to design assessments, collect and analyze data, and continue to improve current programs known to be high-impact educational practices in order to support evidence-based decisions that guide the expansion of these programs. Pilot studies should be evaluated to determine scale and next steps.

Additional recommendations include:

- Creating an annual “High-impact Educational Practices Conference” to raise awareness of literature-based high-impact practices, share examples of campus programs and assessment, identify new opportunities, and create collaborations.
- Collecting a comprehensive list of activities, programs, services, including scale of participation for local high-impact educational practices, surveying the data analysis needs for existing programs, and creating a campus database of HIPs.
- Collecting and analyzing card swipe and other data to provide formal assessment and to determine whether something is a high-impact educational practice at UC Davis.

4. **ASSESS ORIENTATION & WELCOME OPPORTUNITIES:** Engage campus stakeholders, together with partners from the National Orientation Directors Association (NODA), to ensure that

UC Davis' orientation introduces incoming students to the intellectual, cultural, and social climate of our institution.

In a parallel effort to the work of the SRAC, campus partners from the Council of Associate Deans, Undergraduate Education, and Student Affairs also identified Orientation and Welcome Week as areas where enhancements or changes could result in students being more academically prepared and connected to key people and resources on campus. The primary objective and desired outcome of an external review of UC Davis' new student orientation and welcome practices will be to afford incoming students with a better understanding of academic structures, policies, and regulations of our campus prior to their first fall quarter. In addition, the SRAC and our campus partners desire to see an increase in self-efficacy and agency related to the use of resources and self-service tools.

The assessment by external partners from NODA will help the campus determine key practices, alignment, approaches, and timing to adapt as appropriate, and to create an implementation plan. In the short term, the SRAC recommends the campus focus on the opportunities to enhance current orientation practices, the feasibility of implementing a welcome week for all incoming students (in lieu of multiple orientations spread out over the summer), and to ways significantly enhance the campus pre-arrival informational and instructional processes. In addition, the SRAC supports the exploration of best practices for incorporating demographic specific orientations into the larger welcome activities of the campus, for instance: international students, re-entry and veteran students, transfer students, University Honors Program students, EOP students, and countless others. In the longer term, the SRAC seeks to align the efforts of orientation, welcome, First-Year, and advising activities to ensure that ALL UC Davis students enter our institution on a path that will lead to their retention, persistence, and graduation success.



5. **FIRST-YEAR ENGAGEMENT:** Implement a required first-year academic experience for all incoming freshman and transfer students that leverages the strengths of both faculty and staff.

Research highlights the impact and value of introducing key curricula for success as early as possible for all students, and it indicates these experiences are even more impactful for first generation, low SES, and racially diverse populations. The first-year academic experience should help students to build critical academic success skills, make academic and social connections,

explore and experience campus resources, and model the shared faculty/staff partnership. The SRAC recommends that the campus focus its efforts to create a mandatory transition seminar for those who do not participate in an incoming freshman or transfer bridge program. To better serve our first-year students, services and programs must be developed to address the real transition experiences of students, being mindful of the distinct and diverse needs of incoming freshman and transfer students.

Desired outcomes for required first-year engagement include, but are not limited to, student learning gains on key factors proven to impact student success, clear understanding of importance of curricular and co-curricular learning, improved persistence of students from their first to their second year, and fewer students in negative academic standing. The successful implementation of a required first-year engagement for all incoming students will, in the short term, necessitate the continued expansion of the First-Year Seminar and First-Year Aggie Connections programs. In addition, the SRAC recommends that the campus establish a First-Year Experience Task Force (FYETF) to explore different models and to assess campus capacity. The FYETF will be charged with drafting a proposal, which will include curriculum development, costs and personnel needs. In particular, the SRAC recommends that campus partners consider all options to offer credit-bearing First-Year Seminars that utilize and leverage the strengths of both faculty and staff. The findings and recommendations of the FYETF will be presented to campus administration and the Academic Senate for consultation and implementation.

- 6. INTERNATIONAL AND MULTI-LINGUAL STUDENT SUPPORT PROGRAMS:** Review admissions criteria and implement programs that provide support services to enhance the academic experiences of international and multi-lingual students.

The enrollment and success of international and multi-lingual undergraduates is a campus imperative. The SRAC recognizes the importance that these undergraduates play in creating an educational environment reflecting global diversity that is necessary to ensure that California residents obtain the type of education that will serve them well, not only in their first job, but also for the duration of their careers.

In 2017, more than half of the incoming freshmen are expected to be multi-lingual. Beyond the 2020 Initiative's goal to grow the international student population, this fact reflects the growing diversity of the State of California. Our top priority must be to offer a learning and



teaching environment that values international and multi-lingual learners, and promotes a greater appreciation for the perspective and skills these students bring to enrich our campus. Most critically, we need to shift the campus culture from one that views this population as remedial to one that recognizes the talents and perspectives they contribute to an educational environment that seeks to provide global education for all.

The SRAC recommends that UC Davis significantly expand Summer Start, the pre-matriculated freshman program for international and multi-lingual students who seek to gain confidence and get ahead of the UC Davis writing and general education requirements. Additionally, implementation of the following actions is necessary to support international and multi-lingual student success:

- Raise TOEFL minimum requirements for admission;
- Require students with lower TOEFL scores to attend the Summer Start program;
- Consistent with Recommendation #1, gather and analyze data on international and multi-lingual student graduation rates, GPA, and retention/persistence rates;
- Evaluate best practice models for transfer student testing in ESL and other relevant courses; and
- Examine the desirability and feasibility of eliminating the TAG program for international students coming from community colleges.

As previously stated, in the short term, the UC Davis campus must gather more data on graduation rates, GPA, and retention/persistence rates for our international and multi-lingual students. The lack of data makes it difficult to define the issues impacting retention and persistence accurately and completely. In the longer term, the SRAC urges Undergraduate Admissions to find a way to balance enrollment targets with a process that will screen out students that do not have the English language skills to succeed at the University with reasonable support.

7. **SECOND-YEAR PROGRAM EXPANSION:** Enhance and expand programs to continue student engagement via second-year experiences.

Several second-year opportunities exist on the UC Davis campus that are not formally identified or strategically linked. Examples include the University Honors Program, the BUSP program, the Strategic Retention Initiative(s), the financial readiness course offered to students in EOP, GSP, STEP and TRIO programs, and the Guardian Scholars Program. The SRAC recommends that the campus take steps to intentionally expand and promote second-year programmatic offerings for our incoming freshman and transfer students. Specifically, the campus should enhance opportunities for faculty and staff to transition students from first-year engagement into second-year engagement in research, internships, and campus involvement.

The successful implementation of second-year programs allows students the opportunity to persist beyond the first year by connecting them to and engaging them in “next step” programs. For instance, in the short term, the SRAC recommends that the UC Davis campus establish non-residential learning communities for students. Non-residential learning communities allow a group of students from the same major—or with similar interests or student characteristics—to take two to three of the same courses together, thereby emphasizing curricular cohesion and relationships among the students and/or the faculty. Similar to the faculty learning communities established by the Center for Educational Effectiveness, these student learning communities have the potential to provide students and faculty alike with many benefits. The SRAC recommends the intentional creation of learning community opportunities to bring together students by major or academic interest, for EOP students, for international

students, for URM students, for first-generation students, for students from low-income backgrounds, and for additional groups defined in consultation with ASUCD, faculty, and staff. The anticipated retention benefits of student learning communities include, but are not limited to:

- Improved student learning and retention;
- Opportunities to offer interdisciplinary courses;
- Academically-based social networks among peers;
- Promotion of community building, identity development, civic engagement, and the mobilization of agency;
- Increased student involvement in learning and college life; and
- Increased opportunities for both faculty-student interaction and faculty-to-faculty interaction and collaboration thereby leading to leading to faculty development.

Next Steps

To ensure the SRAC recommendations have the best opportunity to be implemented, the committee recommends the campus charge an implementation team to be guided by the current co-chairs of the advisory committee—Milton Lang and Helen Schurke Frasier. The goal of the SRAC implementation team will be to strategically assess recommendations and to develop a team consisting of faculty, staff and students that will work with the necessary campus partners to make the recommendations a reality. It will also be the goal of the implementation team to provide quarterly updates to the senior administration regarding their progress, as well as the impact these efforts are having on student success, retention and overall graduation rates.



Sub-Committee Reports & Appendices

NOTES:

Sub-committees 1, 2, and 3 prepared the reports that follow. Questions regarding the content of these reports may be directed to the co-chairs of the SRAC, Milton Lang and Helen Schurke Frasier, or to the respective co-chairs listed for each sub-committee.

The primary SRAC recommendation advocates for additional support, access to, and dissemination of useful data reports and analyses to campus constituents to advance our retention efforts. Appendices B, C, and D are sample reports, prototypes, and analyses currently being produced by Budget & Institutional Analysis, the Center for Educational Effectiveness, and the Center for Student Affairs Assessment intended to model our current reporting capabilities and model their value. It is not the purpose of this report to provide detailed explanation or discussion regarding the interpretations, applications or uses of these data.

- For questions regarding the content, methodology, or proposed uses of the example analyses shared in Figures 1-10 of the main report, or Appendix B: Examples of Data from Budget & Institutional Analysis, page 47, please contact:
Erika Jackson
Assistant Director, Budget & Institutional Analysis
edjackson@ucdavis.edu

- For questions regarding the content, methodology, or proposed uses of the example analyses shared in Appendix C: Examples of Data from the Center for Educational Effectiveness, page 57, please contact:
Marco Molinaro
Assistant Vice Provost for Undergraduate Education
and Director, Center for Educational Effectiveness
mmolinaro@ucdavis.edu

- For questions regarding the content, methodology, or proposed uses of the example analyses shared in Appendix D: Examples of Data from the Center for Student Affairs Assessment, page 62, please contact:
Timo Rico
Executive Director, Center for Student Affairs Assessment
terico@ucdavis.edu

Student Retention Committee (SRAC) Sub-committee 1 Executive Summary

Co-Chairs: Arnette Bates, Student Academic Success Center
Brett McFarlane, Academic Advising

Membership:

Deborah Agee, Financial Aid	Brendan Livingston, Undergraduate Admissions
Julie Agosto, Advising & Retention Services	
Sheri Atkinson, Student Community Centers	Mayra Llamas, Student Recruitment & Retention
Cirilo Cortez, Chicax Latinx Retention Initiatives	Elias Lopez, Office of the Registrar
Kristin Dees, Student Involvement	Maria Saldana-Seibert, CBS Advising
Brenna Dockter, Letters & Sciences Advising	David Spight, Engineering Advising
David Garrison, Office of the Registrar	Donna Vivar, CA&ES Advising
Alex Lee, ASUCD	

Charge:

Sub-committee SRAC1 was charged with reviewing and making recommendations to the broader student recruitment and retention committee on the following areas:

- First-year student development
- Holistic Student needs
- Case management
- Academic intervention process

Theoretical framework:

Sub-committee work was guided by foundational research over several decades aligned with the Sub-committee charge, namely:

- The importance of early, proactive, and purposely integrative experiences.
- Early connections to people and resources that matter to student success.
- Holistic advising that incorporates prescriptive, developmental, and holistic functions is essential.
- Strengths-based and culturally relevant holistic approaches to service delivery are most effective.
- Frequency and timing of interactions and interventions matter.

Student success research has consistently identified that programming, structures, policies, processes, and systems aligned with these important findings create important levers for student persistence. In addition, research point to the cumulative impact when considering activities that support student success. More is better, and programming that is intentionally layered and sequenced across a broad spectrum of services is cumulatively more effective. Finally, these findings have a compounding effect on those student populations who are considered most vulnerable in our institutions, namely those from low socioeconomic

backgrounds, first-generation students, underrepresented minorities, and those students who come from lower performing high schools.

Practices to Continue or Expand

The campus has an array of programs and services to support students and enhance their undergraduate experience. As research indicates, impact programs are most effective and students who engage and become a part of the campus community are more likely to stay and complete their degrees. Such programs at UC Davis include cohort-based programs like First-Year Aggie Connections, First-Year seminars, Career Discovery Group, University Honors Program, Foundations for Success, LEADR, BUSP and different learning communities. Special population- and community- focused retention efforts that address cultural needs and foster a sense of belonging are important to student success and should be maintained. Another element critical to student success, especially for first-year students, is getting connected to resources and people who are pivotal to their success. Mandatory advising, success coaching, financial literacy and tutoring are recommended services to expand to help students transition.



Practices to Create

Below please find recommendations from the SRAC1 Sub-committee (prioritized and in order). Short and long term proposed goals have been included as appropriate.

Create a case management system that partners faculty, advisors, counselors, special program staff, academic support staff and students in intentionally helping students successfully achieve their goals. Such a system involves wraparound student services, holistic coaching and advising, early alert, and select interventions.

Rationale:

- A holistic case management system puts the student at the center and facilitates effective and collaborative use of available resources.
- A holistic case management systems provides a way for campus officials to monitor student progress and address challenges and barriers.

Goals:

- Support students across social, academic, cultural and personal domains.
- Identify individual student needs and interests and code results in system.
- Facilitate strategic, timely and personalized handoff between support team members.
- Foster communication between student and team to enhance engagement.

Desired Outcomes:

- Collaboration between faculty, advisors and student support services.
- Enhanced communication between campus resource units.

- Improved student retention, persistence, and learning.
- Improved student self-efficacy and agency.

Short Term Goals (within 1-2 years):

- Sub-committee to research and create in depth requirement specifications of system (operational and technical).
- Sub-committee to research potential vendors (internal and external) and make recommendations to broader budget authority stakeholder group.
- Implementation task for identified.
- Assessment Sub-committee identified to create assessment plan for new system.

Longer Term Goals (2-5 years):

- Integration of case management software with broader campus-wide data collection and reporting systems.
- Review of broader assessment and operational data that may suggest changes to original specifications.

Create a centralized advising center/structure for students.

Rationale:

- Students report confusion, frustration, and inconsistent practices between a variety of advising offices across campus. Academic advising and academic support are dispersed throughout campus
- Over 50% of all UCD students make changes between colleges/divisions; an even higher percentage change majors (many multiple times).
- Advising resource FTE is not maximized across campus due to structural and other assigned work duties
- Advising in many units is not supervised by anyone with advising expertise or qualifications.

Goals:

- Students have one place to go when they have academic advising or advising support needs.
- Staff highly cross trained resulting in improved service to students and availability of advisors.
- Advising culture becomes more holistic, combining academic and co-curricular advising



Desired Outcomes:

- Advising messages are consistent and coordinated.
- Efficient delivery of advising services; students can go to one place or one advisor for multiple needs.
- Advising resources are allocated more efficiently across campus, better allowing for flux in majors/colleges/support units.

Short Term Goals (1-2 years):

- Feasibility study to determine what would be required as far as space, resources, training, reporting alignment changes.
- Explore potential initial models and structures that may serve subpopulations (first-year students, all students in one college, et al).

Long Term Goals (2-5 years):

- Dependent on outcomes and decisions tied with short term goals.

Re-tool orientation and welcome week.

Rationale:

- Academic partners have identified orientation and welcome week as areas where enhancements or changes could result in students being more academically prepared and connected to key people and resources on campus.

Goals:

- Outside review process for new student orientation and welcome week, to include pre-arrival processes.
- Determine key practices, alignment, approaches, and timing to adapt (as appropriate).
- Enact a plan to implement change (as appropriate).

Desired Outcomes:

- Students have better understanding of academic structures, policies, regulations, and contacts prior to fall quarter.
- Incoming students show increase in self-efficacy and agency related to resource utilization and use of self-service tools.

Short Term Goals (1-2 years):

- Outside review of orientation, welcome week, and pre-arrival processes.
- Survey students regarding longer term impacts tied with pre-arrival processes.
- Task force to identify most impactful suggested changes (if any) to current practice.

Long Term Goals (2-5 years):

- Dependent on results of short term goals.

Implement a required first-year academic experience utilizing both faculty and staff.

Rationale:

- Research highlights the impact and value of key success curricula being introduced as early as possible for all students.
- Research indicates these experiences are even more impactful for 1st generation, low SES and racially diverse populations.

Goals:

- Build critical academic success skills.

- Make academic and social connections
- Explore and experience campus resources.
- Model the shared faculty/staff partnership.

Desired Outcomes:

- Student learning gains on key factors proven to impact student success.
- Clear understanding of importance of curricular and co-curricular learning.
- Improved persistence from year 1 to 2.
- Fewer students in negative academic standing.

Short term:

- Continue and expand FYE experiences through FYAC and FYS.
- Establish first-year experience task force to explore different models and to assess campus capacity
- Draft proposal, including curriculum development, costs and personnel needs
- Present to appropriate campus administrative and faculty committees and groups

Long Term:

- All dependent on outcomes and decisions tied with short term goals
- Target resources to implement credit-bearing first-year seminars for all new students, utilizing faculty and staff to teach

Expand summer bridge programming and opportunities.

Rationale:

- Current summer bridge opportunities are limited for incoming freshmen and non-existent for new transfer students.
- Research suggests summer bridge programs are effective in helping students transition and successfully complete their first year.

Goals:

- Introduce students to the academic rigor at UC Davis and strengthen preparation
- Provide opportunities for students to make meaningful academic and social connections
- Introduce students to university expectations, support services and campus resources
- Help students develop critical academic skills, build confidence and develop metacognitive strategies

Desired Outcomes:

- Students complete preparatory or introductory coursework prior to fall quarter enrollment.
- Students can navigate UC Davis systems and gain comfort with college faculty, staff, and students
- Students have increased college knowledge and social capital.
- Greater persistence and degree attainment. Less time to degree

Short term goals:

- Inventory and learn about current summer bridge programs, including STEP, LEADR, Summer Start
- Identify best practices , effective models and targeted student populations
- Convene committee to draft proposal and implementation plan, including financial impact

Long term:

- Provide a summer bridge program for all students who wish to participate and can benefit from the experience

Explore ways to integrate more learning communities across campus

Rationale:

- Learning communities have been identified as an high-impact student-impact service
- Learning community students have higher course- pass rates and higher academic achievement overall.
- They are particularly effective for marginalized communities and other targeted student groups.

Goals:

- Promote faculty and student relationships
- Engage students in collaborative learning and social activities in and outside the classroom
- Help students establish academic and social support networks, including connecting with an affinity group of peers

Desired outcomes:

- Greater campus engagement and satisfaction with UC Davis experience
- Enhanced personal and interpersonal development
- Improved retention

Short term goals:

- Establish a work group to conduct feasibility study to determine practicality of expanding learning communities
- Inventory and learn about current learning communities at UC Davis, including residence hall offerings
- Identify best practices, effective models and student populations that would benefit the most

Long term goals:

- Offer a variety of opportunities for students to participate in a learning community are available to all students

A summary of programs that are examples of success that we should consider expanding

Programs/Activities/Events that support community engagement

- Transfer Tuesdays
- Transfer and Reentry Weekly Brief
- SASC, Advising and Retention Services (ARS) peer training and advising

Programs/Activities/Events that support transition either to or out of UC Davis

- TOP (Transfer Opportunity Program)/TAG (Transfer Admissions Guarantee) Programs
- FYAC Transition courses
- Reentry and Veteran Orientation
- Priority Campus Housing
- Transfer Fall Welcome

Recommendations for programs that we are not currently doing that we should consider

Programs/Activities/Events that support transition to or out of UC Davis

- Transfer Bridge
- Mandatory transition seminar for those who do not participate in the Transfer Bridge program
- Specific programming on the second year transfer experience

Programs/Activities/Events that support community engagement

- Parent and family programming/restoration of family-friendly programming
- Online workshops and programming (meet students where they are)
- Veteran specific housing

To better understand transfer community:

- Consistent and accessible data
- Inventory of all campus services and programming geared toward transfer students
- Campus partner collaborations

An overview of short and long term goals. Please prioritize and state your reasons for the prioritization

Short term goals:

- Data accuracy and access: Currently we have many sources for transfer data and this leads to inconsistencies in how we report out on our transfer students. In addition, this impacts the kinds of programming and services we *think* we should be developing and offering them. Our short term goal is to have a consistent process for requesting data that will illicit the same information for any campus colleague to access.
- Meet students where they are at: Due to the two year timeline of most transfer students, they hesitate to take time away from their academic work to get fully engaged on campus. They fear that by not attending UC Davis their first two years this has left them at a deficit. An area

for potential growth is utilizing technology to reach students where they are at. This may mean online modules, Skype advising and webinars. Utilizing technology would allow some programming and services to be accessed at almost any time and from a place that is convenient to the student. This is particularly important for student parents, working students, commuters and students who aren't available to attend a workshop or event due to their class schedule or other commitments.

- More collaboration and less duplication of programming: Currently, transfer student programming and services are offered in many spaces on campus. If we have a true inventory about what each unit offers, we can reevaluate our unit's efforts and either merge them with others on campus or collaborate with campus partners to offer a more mindful and robust menu of programs and services.

Long term goals:

- Improve the transfer advising process: To address the gaps in information and inconsistencies in the transfer advising process we have set a goal for a seamless transfer experience fostered by a true collaboration between community college transfer advisers, students and UC Davis
- Make UC Davis the UC of choice for transfer students: Currently, there is little that makes UC Davis stand out for students interested in transferring to the University. Financial reasons, proximity to home, and attending UC Davis because they couldn't get into their first choice UC are some of the reasons cited by students as their reason to attend. We aim to make the transfer to UC Davis a mindful and enthusiastic first choice for transfer students.
- Increased focus on second year experience: The University pays significant attention and provides equally significant resources to make UC Davis appealing to potential transfer students. The attention and resources drop off however once the students arrive on campus. Resources are spread throughout the campus and there is duplication of programming. The material allocation of resources and effort drops off again once transfers reach their second year at UC Davis. For this reason we propose programming that will address vital areas of importance to students who are nearing graduation. We envision programming that is equally concerned with a transfer's student life after UC Davis as at the time of application.

Closing remarks of why your recommendations are important and the impact they will have on student success:

Our recommendations are important because they take into consideration who the transfer population is, broadens the scope of the transfer experience to include the second year (and beyond) and streamlines our programs and services to serve more students in a more organized, understandable and meaningful way. In general, our transfer students are successful but there is generous area for improvement. To better serve the transfer population it is important that services and programs are developed to address the real experience of transfer students and not merely tweaking traditional first-year experiences and relabeling them as transfer services. This will mean collaborating with campus partners as well as having input from our transfer community as well.

II. SECOND YEAR EXPERIENCE

Michelle Villegas-Frazier, Kayton Carter

Introduction and theoretical framework guiding your committee's recommendations and support of this effort

Student Involvement

Student Involvement in co-curricular (i.e. activities such as student organizations, leadership positions, and activity in campus residence halls) has a positive correlation with retention and academics. For the second year student - after the student moves off campus - the possible disconnect from campus is easiest if there is no systematic process for them to maintain a connection with campus life.

Issues students face:

- Lack of academic and faculty engagement
Depending on the 1st year academic performance, students need a systematic connection with campus
- Indecisiveness of major or academic plans
The “awakening” is when a student may realize they may want to major in something much different than why they came to the institution
- Lack of campus engagement or connection to campus

The search for a “sense of self/belonging” begins – continuation of cohort model programs are essential for student monitoring/success; someone/something needs to “check-in” with students.

- Need for student self-realization of their place in the future both academically and socially
- Limited programs for sophomore or second year transfer students; existing programs tend to focus on freshmen, and sophomore are left to fend for themselves

Alexander Astin's (1985) Theory of Student Involvement explains how desirable outcomes for institutions of higher education are viewed in relation to how students change and develop in result to being involved in co-curricular activities such as student organizations, leadership positions. And, activity in campus residence halls also has a positive correlation with retention and academics. For the second year student - after the student moves off campus - the possible disconnect is easiest if there is no systematic process for them to maintain a connection with campus life.



- 1) Involvement requires an investment of psychosocial and physical energy.
- 2) Involvement is continuous, and that the amount of energy invested varies from student to student.
- 3) Aspects of involvement may be qualitative and quantitative.
- 4) What a student gains from being involved (or their development) is directly proportional to the extent to which they were involved (in both aspects of quality and quantity).

A summary of programs that are examples of success that we should consider expanding

University Honors Program – The Second-Year program is designed to further enhance the skills and community building that students developed during the first year. It has the same formal requirements as the First-Year program where students are required to take one UHP course per quarter. Second-Year students have the option of substituting one UHP course with an Honors Contract. Students must receive a C- or better in their honors courses, and a cumulative 3.5 or better GPA by the end of the year. An appeal process is in effect for students with a 3.25-3.49 GPA. Second-Year students also receive personalized academic advising and programming that enhances their UCD experience, such as faculty mentoring, meeting with Mondavi Center speakers, and the like.

BUSP: Sophomore year – A yearlong seminar course will further hone your critical thinking, professional development and interpersonal skills. The course includes presentations by guest speakers from science-based professions and campus resource units. Throughout your sophomore year, you will conduct faculty-sponsored laboratory research. Students enrolled in lower-division biology courses participate in small study group tutoring sessions guided by a BUSP staff person who will help organize study programs and offer course-specific expertise.

Retention Initiative(s) – Offering a course that is designed to address unique issues sophomores/new transfer students face and will encourage full engagement in the collective campus community. As well as to support sophomore's transition to juniors, and juniors to seniors by providing resources to better understand academic progress and establishing self-identity. Facilitators will provide necessary information to make life-long decisions regarding extracurricular opportunities such as studying abroad or internships, undergraduate research, majors and careers, and connect with student support services.

Financial Readiness – A two-unit course offered to students in EOP, GSP, STEP and TRIO. Three sections of the course are taught during the winter quarter. Students enrolled in the course are taught basic strategies for money management. The course targets sophomores and juniors.

Guardian Scholars Program – Under the leadership of a peer advisor GSP second year students participate in monthly cohort meetings. Meetings offer peer advising, opportunities for community building and resource awareness

Assembling a Post Graduate Plan – A two-unit course offered each winter exclusively to EOP and GSP students. The seminar is designed to explore and prepare students for life after

graduation. The course is for sophomores and first-year transfer students. If space permits registration is offered to juniors.

Mid-year Conference; Recharge to Claim your Education – Early winter quarter EOP sponsors a full day conference for sophomore students whose GPA is between a 2.0 – 2.4. or SD. If space permits the conference is open to freshmen whose grades fall in the indicated GPA range.

Recommendations for programs that we are not currently doing that we should consider

EOP Cohort

- The EOP Cohort is a four-year program designed to support the retention of first-generation, low-income students through activities that promote community building, identity development, civic engagement and mobilizing agency.
- The 2017-2018 academic year will mark the first year of the sophomore student cohort.

Non-residential Learning Communities

- Non-residential learning communities allow a group of students from the same major or with similar interests to take two to three of the same courses together; and emphasize curricular cohesion and relationships among the students and/or the faculty.

According to Jodi Levine, a nationally recognized educational researcher and scholar, participation in non-residential learning communities:

- Provides students and faculty with many benefits.
- Improve student learning and retention
- Provide opportunities to integrate courses in an interdisciplinary manner
- Help students to form academically-based social networks among peers
- Increase student involvement in learning and college life
- Provide opportunities for faculty-student interaction
- Create opportunities for faculty-to-faculty interaction and collaboration that lead to faculty development

Overview of short and long term goals; please prioritize and state your reasons for the prioritization

The core concepts of the Theory of Student Involvement are composed of three elements:

- 1) A student's "inputs" such as their demographics, their background, and any previous experiences.
- 2) The student's environment, which accounts for all of the experiences a student would have during college.
- 3) Outcomes, which cover a student's characteristics, knowledge, attitudes, beliefs, and values that exist after a student has graduated college.

The short-term goals must entail assessment, and communication/collaboration surrounding assessment results. Retention starts, and ends with data (#s).

The Long-term goals must include result in some form of retention (by quarter, year) or 2nd year students.

Closing remarks of why your recommendations are important and the impact they will have on student success

Infrastructure has to reflect/mirror the task as hand; human capital will determine the ability to implement accurately.

III. INTERNATIONAL STUDENTS

Wesley Young, Letia Graening, and Dawn Takaoglu

Introduction and theoretical framework guiding your committee’s recommendations and support of this effort

This section on international students was guided by committee members experience with, and perceptions of, the most pressing challenges facing international students. The challenges can be grouped into two general areas, which include academic difficulty and social isolation.



While the majority of international students achieve academic success as measured by graduation and GPA, the number of students on academic probation, who face academic dismissal, or are involved in cases at the Office of Student Support and Judicial Affairs, are proportionately higher than their population in the student body. We believe that the following factors significantly impact this problem, with the low level of English comprehension and

confidence being the single most challenging problem facing those international students who are not academically successful.

- Lack of English comprehension and confidence
- Difficulty in adjusting to a new academic cultural
- STEM fields that that have high unit requirements
- Transfer student shock—students often have difficulty adjusting to less personal support and greater academic difficulty at UC Davis compared to what they found at the community college. International students coming from community colleges are, in general, less prepared academically than their counterparts who began as first-year students at UC Davis.

While the causes of social isolation are also varied, and not simple to address, we know that low levels of English comprehension and confidence create strong impediments to making friends outside of one’s language group.

Other important challenges faced by international undergraduates include a lack of financial support, and uncertainty about future career plans.

A summary of programs that are examples of success that we should consider expanding

Given the challenges noted above, the Sub-committee believes that the existing programs listed below are useful, but require rethinking, or expanding, and in some cases may require additional resources.

- New student orientations
- Programs offered by Global Affairs, Student Affairs, Undergraduate Education, and College Dean's Offices, and other campus units
- ESL courses
- Pre-Arrival Guide for International Students (PAGIS)

Recommendations for programs that we are not currently doing that we should consider

The Sub-committee recommends the following:

- Require students with lower TOEFL scores to attend the Summer Start Program
- Raise TOEFL minimum requirements for admission
- Outreach to Community Colleges regarding ESL courses
- Get more data on graduation rates, GPA, and retention/persistence rates
- Learn from the UCLA model of transfer student testing in ESL and other courses
- Examine the possibility of removing the TAG program for international students coming from community colleges

An overview of short and long term goals. Please prioritize and state your reasons for the prioritization

In the short term, we need to gather more data on graduation rates, GPA, and retention/persistence rates. The lack of data makes it difficult to define the problem of retention and persistence accurately and completely.

In the longer term, Undergraduate Admissions must find a way to balance enrollment targets with a process that will screen out students that do not have the English language skills to succeed with reasonable support.

Closing remarks of why your recommendations are important and the impact they will have on student success

The enrollment and success of international undergraduates is a campus imperative. We understand the importance that international undergraduates play in securing a sustainable financial foundation for UC Davis, as well as their contribution to creating an educational environment that is necessary to ensure that California residents obtain the type of education that will serve them well, not only in their first job but also for the duration of their careers.

The recommendations of this section are intended to ensure that international undergraduates begin their studies at UC Davis with the opportunity to graduate, within a

reasonable period of time, and with a reasonable level of campus support. English language proficiency is fundamental to not only academic success at UC Davis, but also to a sense of community and belonging—that is, a good feeling about their experiences as a UC Davis student. Ultimately successful international students are important in building and maintaining a strong national and global reputation for the campus.

IV. ENGLISH LANGUAGE LEARNERS

Letia Graening and Dawn Takaoglu

Introduction

There has been no evidence provided to indicate that retention rates among UC Davis students with multi-lingual backgrounds are significantly different from their mono-lingual peers. Nonetheless, we recognize that there is always room for improvement and have identified ways that address issues that have been raised at UC Davis and nationwide.

Programs for Expansion

Summer Start

Summer Start is the pre-matriculated freshman program for international and multi-lingual students who seek to gain confidence and get ahead of the UC Davis writing and general education requirements. The program is six weeks in length, running the entire duration of Summer Session 2. Beyond, coursework, students are engaged in both university and regional activities for the purpose of building local knowledge and awareness. As a requirements of the program, students visit the university service centers to learn more about the support structures available to them and they develop student presentations to promote those services to other incoming students.

The program has served approximately ten percent of the incoming international class each year since 2012 largely due to the positive word-of-mouth from past participants. Student evaluations document a 96-97% peer recommendation rate year after year. More importantly, 96 percent of participants persist to their second year, 92 percent persist until their third year with a returning average GPA of 3.25.

One of the most common reasons for not participating in the Summer Start program is that students learn about the opportunity too late and already have other commitments. Expanding this program would primarily require greater investments in marketing, advertisement and promotion early in the UC Davis application process.

PALs in Intercultural Exchange

The PAL program was established at UC Davis in the 70's and continues to serve students interested in developing their communication and intercultural skills. It provides a one-to-one student connection between an international and domestic students for weekly informal meetings to discuss topics of interest. This is a great opportunity for ESL students that are hesitant to speak in larger settings or have concerns about how their accent will be perceived. For domestic students, it provides a window into other cultures and world views. With the new

initiative of Global Education for All, PAL is expected to expand and serve a greater number of UC Davis students in a way that is still very personal.

Faculty and Graduate Student Workshops from the Center for Educational Excellence

In certain years CEE has offered workshops preparing faculty and teaching assistants to work with multi-lingual and multi-cultural students. These offerings have largely been dependent on staffing availability and interest. To make a significant difference, there needs to be a larger, more-consistent base of programming that prepares instructors for working with students from other language backgrounds. Given the significant increase in multi-lingual undergraduates at UC Davis, providing strong foundations to work with this population needs to be a priority.

Recommendations for future development

The first recommendation is that UC Davis offer

Supplemental Instruction (SI) on campus specifically targeted to supporting multi-lingual and international students. SI was initially developed in the 70's at the University of Missouri-Kansas City and there is decades of data supporting its efficacy. More recently, it has been found to be effective in supporting retention and social integration in special populations, specifically

international and ESL students both in the US and the UK. The key to its success is in the selection of the course it targets. For SI to assist with multi-lingual student retention, it would need to target courses this population has found historically challenging and to establish peer-led resources.



The second recommendation is the purchase of plagiarism detection software such as Turnitin.com for the campus-wide use. When employed well, this is an excellent teaching tool in helping multi-lingual learners master the linguistic complexity of summarizing and paraphrasing. It would also indicate a greater commitment on the university's part to developing informational literacy and equity among all learners.

Finally, a higher priority must be placed on collecting data at UC Davis regarding retention rates of multi-lingual students and on finding comparative data from other institutions so that fair and reasonable conclusions regarding the retention rates of this population can be made. Among other variables, TOEFL subset scores, and the new SAT scores need to be reviewed as potential indicators of students' success as measured by GPA and retention.

Closing remarks of why your recommendations are important and the impact they will have on student success

In 2017, more than half of the incoming freshmen are expected to be multi-lingual. This represents much more than the 2020 initiative to grow the international student population; it reflects the growing diversity of the State of California. Our top priority must be to offer a learning and teaching situation which values multi-lingual learners and promotes a greater appreciation for the perspective and skills these students bring to enrich our campus. Most critically, we need to shift the campus culture from one that views this population as remedial to one that recognizes the talents they contribute to an education which seeks to provide global education for all.

Student Retention Committee (SRAC) Sub-committee 3 Executive Summary

Co-Chairs: Carol Hunter, Student Academic Success Center
Annaliese Franz, Professor of Chemistry

Membership:

Beth Floyd, College of Letters & Sciences Advising	Marco Molinaro, Center for Educational Effectiveness
Neil Huefner, Center for Student Affairs Assessment	Tanya Whitlow, College of Engineering LEADR Program

Charge:

Sub-committee SRAC3 was charged with reviewing and making recommendations to the broader student recruitment and retention committee on the following areas:

- Impact of Instruction
- STEM Retention
- Integration of Curricular and Co-Curricular
- Involvement in Undergraduate Research
- Internship Space

Introduction and theoretical framework guiding your committee's recommendations and support of this effort:

Through a review of academic and professional literature as well as UC Davis faculty and staff experiential knowledge on evidence based educational practices, we have identified a broad student success framework that encompasses the following elements (see references at the end of the document):

- Institutional commitment
- Academic and social integration
- Student Involvement
- Student learning engagement
- Accessibility to resources
- Cohort based problem solving outside of the classroom
- Equity based education
- Ongoing necessity for further research on institutional practices effectiveness

A summary of programs that are examples of success that we should consider expanding:

- Co-Class models are used in both curricular and co-curricular (parallel's exist); Co-classes for Chem 2 and BIS 2 (in the colleges, funded by LCFF+) and Workload 991 (SASC, Student Affairs). Co-classes increase concurrent intervention and there is support that this is an evidence-based educational practice with positive retention outcomes. We need to determine what model is most effective for which students at what stages. For example, UC Davis has

several models of co-classes employed, which combine differing combinations of curricular and co-curricular, and also have different levels of interactions with the instructors of the courses that they serve. For example, the recent LCFF+ co-classes are led by the same instructors and TAs who are teaching the main course, and have 2 days a week devoted to curricular work and one day a week devoted to co-curricular activities or speakers.

- While most instruction follows traditional format and is not considered high-impact, especially for large lectures, there are growing efforts and examples on campus that utilize evidence-based teaching practices to improve student learning. For example, there are selected examples in CHE 2 and BIS 2, and also the collaborative efforts to develop a new curriculum for the “CHE 3: Chemistry of Life Sciences”. However, most instruction on campus does not currently utilize evidence-based teaching practices. There should be additional support and emphasis on including more evidence-based teaching practices and increase impact of instruction and especially in STEM classes to increase retention in STEM, and to narrow the “gap” for students coming in from diverse backgrounds.
- First-Year Seminars (Undergraduate Education) and First-Year Aggie Connections (Student Affairs), offering small classes and community building.

General recommendations:

Recommendation: UC Davis has several programs that are documented as high-impact educational practices in literature, but we do not have data or analysis on them at UCD. Design assessment, collect and analyze data, and continue to improve current programs known to be high-impact educational practices. Currently there are pockets of local data that exists for evidence-based results for both Student Affairs and Undergraduate Education. We should create greater data analysis support at the programmatic level to be able to evaluate and support high-impact practices. Pilot studies should be evaluated to determine scale and next steps.

Flow Model 1:

1. Literature Review reflect the HIP
2. Local data determines how it fits/Are we getting the same results
3. Reflect back to make changes as needed

Flow Model 2:

1. Collect local data to identify high-impact practices
2. Literature Review to confirm what we are finding
3. Reflect back to make changes as needed

Recommendation: Provide additional support and emphasis (i.e, faculty rewards) for including more evidence-based teaching practices and increase impact of instruction and especially in STEM classes to increase retention in STEM, and to narrow the “gap” for students coming in from diverse backgrounds.

Recommendation: Currently UC Davis has ad hoc system for Student Affairs and Undergraduate Education communication system; not easy to see what programs exist, who is organizing them,

what the goals are and impact information on those programs. UC Davis could benefit from an institutionalized database system for the campus to share practices, ideas, and research; help connect groups for shared events and seeking funding; opportunities for faculty to connect with existing programs for outreach and broader impacts (e.g. NSF).

- First-Year Seminars (Undergraduate Education) and First-Year Aggie Connections (Student Affairs). Different dimensions with same objective of connecting students to the Aggie community; parallel efforts and sometimes duplicated; could potentially be more effective if they combine forces. Access for Student Affairs Practitioners to be involved in 1st Year Seminars; awareness for Undergraduate Education to be involved in Aggie Connections; required orientations for all incoming freshmen; online training for all incoming staff and faculty about campus programs.
- Student Affairs and Undergraduate Education faculty and staff would benefit from a more complete picture about the students they are serving and the programs that are available. Institutionalize systems that allow faculty and staff to access information about who our students are and what their needs are both academically, personally, and socially.

Recommendations for specific programs that we are not currently doing that we should consider:

- UT Austin has a “Freshman Research Initiative (FRI)” that provides an excellent model for student retention in STEM by involving students in research in their first year in an FYS model. This is related to a course-based research experience (CURE). Here at UC Davis, we have had several first-year seminars that are designated as CUREs to begin to evaluate how this could be feasible to offer at UC Davis - these involve research faculty as well as graduate students. We can replicate a similar FRI or a more wide-scale FYS-CURE program.



An overview of short and long term goals. Please prioritize and state your reasons for the prioritization:

Short Term Goals: List is prioritized based on highest impact related to our four charges.

- Have an annual “High-impact Educational Practices Conference” in order to raise awareness of literature-based high-impact practices, share examples on campus, identify new opportunities, create collaborations, and share current examples of assessment.
- Collect a comprehensive list of activities, programs, services, including scale of participation for local high-impact educational practices. Survey the data analysis needs for existing programs. Create a database.

- Collect and analyze card swipe and other data to provide formal assessment and determine whether something is a high-impact educational practice at UC Davis.
- Provide instructional improvement grants, including collaborative joint grants for curricular and co-curricular activities to promote collaborators that best serve the students.
- Create canvas widgets or similar LMS for integration for faculty to have easy access to services that would benefit their students (example: Library button).
- Create effective communication strategies. Create an SRAC task force to determine communication systems that support collaboration and information sharing.
- Create clear message about labels (Co-Class definition) about parallel services.
- Determine if University 101 should be required for all entering students. A possible HIP conference topic.

Long Term Goals: List is prioritized based on highest impact related to our four charges.

- Continue to assess and evaluate data to determine impact on retention, student satisfaction, education of the whole student, performance in the course series (Chem 118ABC), in upper division courses, and time to degree. From these assessments, establish a data sharing system.
- Implement a Freshman Research Initiative or expand FYS-CUREs program. Utilize 1st Year Seminars and Aggie Connections to develop course-based undergraduate research experience (CURE) model at UC Davis.
- Create a searchable index of programs for faculty and staff. Provide, possibly require, training for all new faculty and staff about campus programs (Example: Video to watch about programs and tools for searching database).
- Incentivize faculty to incorporate evidence-based educational practices that will increase impact of instruction in classrooms, especially large lecture classes and STEM courses. Close gap in student performance and help all students learn (and retain) more.
- Research and change course evaluations to provide more useful feedback to faculty about student learning in a course (current course evaluation system often “punish” faculty for trying new teaching methods or active learning techniques).
- Create panels, retreats, a database, match-making system for faculty and services.

Closing remarks of why your recommendations are important and the impact they will have on student success:

Using both the literature and institutional research that have been identified, the sub-committee’s recommendations all enhance the student experience while increasing learning gains and improving retention. Students will be more successful in terms of quantitative measurements

of GPA, retention and graduation rate, while also being more successful holistically in terms of individual development and their impact on their surrounding community. We have identified potential for increasing faculty awareness of integrating both curricular and co-curricular resources for students. This will allow the opportunity to increase communications between Undergraduate Education and Student Affairs. By incorporating a consistent data collection system to measure outcomes, the campus will be able to see the activities that support GPA, retention, time to degree, and student success as measured by student achievements.

References

- Barefoot, B. O., Griffin, B. Q., & Koch, A. K. (2012). Enhancing student success and retention throughout undergraduate education: A national survey. *John Gardner Institute for Excellence in Undergraduate Education*, 25, 2013.
- Bean, J., & Eaton, S. B. (2001). The psychology underlying successful retention practices. *Journal of College Student Retention: Research, Theory & Practice*, 3(1), 73-89.
- Complete College America. (2011). Transform remediation: The co-requisite course model. Retrieved from [http://www.completecollege.org/docs/CCA Co-Req Model - Transform Remediation for Chicago final%281%29.pdf](http://www.completecollege.org/docs/CCA_Co-Req_Model_-_Transform_Remediation_for_Chicago_final%281%29.pdf)
- Finley, A. P., & McNair, T. (2013). *Assessing underserved students' engagement in high-impact practices*. Retrieved from http://leapconnections.aacu.org/system/files/assessinghipsmcnairfinley_0.pdf
- Grites, T. J. (2013). *New Directions for Higher Education*, no. 162.
- Hanford, E. (2016). Stuck at square one: College students increasingly caught in remedial education trap. *APM Reports*. Retrieved from <http://www.apmreports.org/story/2016/08/18/remedial-education-trap>
- Kuh, G. D. (2012). High-impact educational practices: What they are, who has access to them, and why they matter (Washington, DC: Association of American Colleges and Universities, 2008); M. Visher, M. Weiss, E. Weissman, T. Rudd & H. Wathington. *The Effects of Learning Communities for Students in Developmental Education*.
- Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2011). *Student success in college: Creating conditions that matter*: John Wiley & Sons.
- Rico, T., Huefner, N., Frías, M., & Ning, L. (n.d.) *Framework for unit research & evaluation: A white paper*. Retrieved from [http://csaa.ucdavis.edu/docs/UCD White Paper Condensed.pdf](http://csaa.ucdavis.edu/docs/UCD_White_Paper_Condensed.pdf)
- Rodenbusch, S. E., Hernandez, P. R., Simmons, S. L., & Dolan, E. L. (2016). Early engagement in course-based research increases graduation rates and completion of science, engineering, and mathematics degrees. *CBE-Life Sciences Education*, 15(2), ar20.
- Smith, A. A. (2016). Evidence of remediation success. Retrieved from <https://www.insidehighered.com/news/2016/04/05/tennessee-sees-significant-improvements-after-first-semester-statewide-co-requisite>
- Tinto, V. (2006). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory & Practice*, 8(1), 1-19.

UC Davis Blue Ribbon Committee for Enhancing the Undergraduate Student Experience. (2013, June 30). *Final report*. Retrieved March 20, 2017, from <http://studentaffairs.ucdavis.edu/initiatives/BRC-REPORT-070213-final.pdf>

Appendix A: High-Impact Practices Matrix

High-Impact Educational Practices



First-Year Seminars and Experiences

Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research.

Common Intellectual Experiences

The older idea of a “core” curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community (see below). These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and cocurricular options for students.

Learning Communities

The key goals for learning communities are to encourage integration of learning across courses and to involve students with “big questions” that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link “liberal arts” and “professional courses”; others feature service learning.

Writing-Intensive Courses

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice “across the curriculum” has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one's own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.

Undergraduate Research

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the National Science Foundation and the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

Diversity/Global Learning

Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address U.S. diversity, world cultures, or both—often explore “difficult differences” such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

Service Learning, Community-Based Learning

In these programs, field-based “experiential learning” with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both *apply* what they are learning in real-world settings and *reflect* in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member.

Capstone Courses and Projects

Whether they're called “senior capstones” or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance, a portfolio of “best work,” or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.



Table 1

Relationships between Selected High-Impact Activities, Deep Learning, and Self-Reported Gains

	Deep Learning	Gains: General	Gains: Personal	Gains: Practical
<i>First-Year</i>				
Learning Communities	+++	++	++	++
Service Learning	+++	++	+++	+++
<i>Senior</i>				
Study Abroad	++	+	+	++
Student-Faculty Research	+++	++	++	++
Internships	++	++	++	++
Service Learning	+++	++	+++	+++
Senior Culminating Experience	+++	++	++	++

+ p<0.001, ++ p<0.001 & Unstd B > 0.10, +++ p<0.001 & Unstd B > 0.30

Table 2

Relationships between Selected High-Impact Activities and Clusters of Effective Educational Practices

	Level of Academic Challenge	Active and Collaborative Learning	Student-Faculty Interaction	Supportive Campus Environment
<i>First-Year</i>				
Learning Communities	+++	+++	+++	++
Service Learning	+++	+++	+++	+++
<i>Senior</i>				
Study Abroad	++	++	++	++
Student-Faculty Research	+++	+++	+++	++
Internships	++	+++	+++	++
Service Learning	+++	+++	+++	+++
Senior Culminating Experience	++	+++	+++	++

+ p<0.001, ++ p<0.001 & Unstd B > 0.10, +++ p<0.001 & Unstd B > 0.30

Source: *Ensuring Quality & Taking High-Impact Practices to Scale* by George D. Kuh and Ken O'Donnell, with Case Studies by Sally Reed. (Washington, DC: AAC&U, 2013). For information and more resources and research from LEAP, see www.aacu.org/leap.

SOURCE: https://www.aacu.org/sites/default/files/files/LEAP/HIP_tables.pdf

Appendix B: Examples of Data from Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year) and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
Grand Total	1996	91%	86%	38%	73%	79%
	1997	90%	84%	38%	71%	78%
	1998	90%	84%	39%	72%	79%
	1999	91%	84%	42%	75%	80%
	2000	91%	86%	43%	76%	81%
	2001	91%	85%	43%	74%	80%
	2002	91%	86%	46%	77%	82%
	2003	91%	86%	50%	75%	80%
	2004	91%	86%	51%	78%	82%
	2005	90%	84%	51%	77%	82%
	2006	90%	84%	52%	77%	81%
	2007	90%	85%	51%	76%	81%
	2008	92%	87%	53%	79%	83%
	2009	92%	88%	58%	82%	85%
	2010	93%	88%	55%	81%	85%
	2011	92%	88%	58%	82%	
2012	93%	88%	61%			
2013	93%	89%				
2014	92%	89%				
2015	93%					
All Men	1996	89%	84%	27%	65%	74%
	1997	88%	82%	28%	66%	74%
	1998	88%	94%	30%	66%	75%
	1999	89%	91%	31%	69%	75%
	2000	89%	95%	34%	70%	78%
	2001	90%	93%	34%	69%	76%
	2002	90%	94%	38%	72%	79%
	2003	90%	95%	41%	71%	77%
	2004	91%	94%	42%	74%	80%
	2005	90%	93%	43%	75%	80%
	2006	89%	94%	43%	72%	78%
	2007	89%	94%	44%	72%	78%
	2008	92%	92%	46%	76%	80%
	2009	92%	94%	51%	79%	83%
	2010	91%	94%	47%	77%	81%
	2011	91%	95%	51%	78%	
2012	92%	94%	54%			
2013	92%	95%				
2014	91%	96%				
2015	92%					
All Women	1996	93%	89%	45%	79%	84%
	1997	91%	85%	45%	75%	80%
	1998	91%	85%	45%	77%	81%
	1999	92%	86%	50%	80%	85%
	2000	92%	87%	50%	81%	84%
	2001	91%	86%	50%	78%	82%
	2002	92%	88%	55%	81%	85%
	2003	92%	86%	58%	79%	83%
	2004	91%	86%	58%	80%	84%
	2005	91%	85%	57%	80%	83%
	2006	90%	85%	58%	80%	84%
	2007	90%	85%	56%	79%	83%
	2008	92%	88%	59%	82%	85%
	2009	92%	89%	63%	85%	87%
	2010	94%	90%	61%	84%	87%
	2011	93%	89%	62%	85%	
2012	93%	89%	65%			
2013	94%	90%				
2014	93%	89%				
2015	93%					
All In-State	1996	91%	87%	37%	72%	79%
	1997	90%	84%	38%	71%	78%
	1998	90%	84%	39%	72%	79%
	1999	91%	84%	42%	75%	81%
	2000	91%	86%	43%	77%	82%
	2001	91%	85%	43%	74%	80%
	2002	92%	87%	46%	78%	82%
	2003	91%	86%	50%	75%	81%
	2004	91%	86%	51%	78%	82%
	2005	90%	85%	51%	78%	82%
	2006	90%	84%	52%	77%	82%
	2007	90%	85%	51%	77%	82%
	2008	92%	87%	54%	80%	84%
	2009	92%	88%	58%	83%	86%
	2010	93%	89%	55%	81%	85%
	2011	93%	89%	58%	83%	
2012	93%	89%	61%			
2013	93%	90%				
2014	93%	89%				
2015	93%					
All Out-of-State	1996	82%	72%	49%	80%	85%
	1997	79%	67%	38%	62%	66%
	1998	88%	84%	45%	73%	77%
	1999	87%	78%	49%	72%	76%
	2000	87%	81%	44%	74%	76%
	2001	90%	82%	48%	68%	74%
	2002	87%	77%	50%	73%	75%
	2003	90%	82%	53%	76%	79%
	2004	88%	77%	52%	72%	77%
	2005	85%	79%	51%	74%	79%
	2006	83%	77%	49%	72%	75%
	2007	84%	77%	56%	69%	73%
	2008	89%	78%	51%	71%	74%
	2009	82%	77%	53%	73%	76%
	2010	82%	77%	48%	71%	75%
	2011	84%	76%	54%	73%	
2012	87%	79%	55%			
2013	91%	85%				
2014	90%	85%				
2015	91%					

Source: AAUDE RETENTION/GRADUATION SURVEY, 2016-17 (February 3, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year) and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
All International ¹	1996	95%	92%	54%	79%	85%
	1997	88%	88%	55%	82%	85%
	1998	89%	87%	53%	82%	87%
	1999	83%	73%	50%	70%	70%
	2000	89%	85%	43%	74%	75%
	2001	86%	91%	36%	77%	77%
	2002	87%	77%	58%	71%	74%
	2003	98%	89%	58%	82%	84%
	2004	92%	83%	63%	77%	85%
	2005	87%	83%	52%	72%	80%
	2006	82%	79%	51%	73%	80%
	2007	86%	76%	51%	68%	70%
	2008	84%	72%	52%	67%	70%
	2009	88%	79%	62%	79%	81%
	2010	89%	85%	57%	76%	82%
2011	83%	74%	56%	73%		
2012	87%	79%	58%			
2013	93%	86%				
2014	91%	86%				
2015	92%					
All Hispanic	1996	83%	77%	25%	58%	68%
	1997	84%	77%	23%	55%	66%
	1998	83%	76%	25%	57%	66%
	1999	89%	79%	25%	67%	76%
	2000	86%	81%	27%	66%	73%
	2001	86%	80%	32%	62%	72%
	2002	86%	81%	35%	67%	74%
	2003	85%	79%	35%	61%	67%
	2004	87%	79%	37%	67%	73%
	2005	85%	76%	34%	66%	71%
	2006	83%	76%	34%	64%	72%
	2007	83%	78%	37%	66%	72%
	2008	88%	83%	36%	72%	78%
	2009	86%	82%	42%	71%	77%
	2010	90%	82%	38%	72%	76%
2011	87%	83%	38%	71%		
2012	89%	82%	47%			
2013	88%	84%				
2014	86%	82%				
2015	85%					
All Black or African American	1996	82%	75%	15%	49%	57%
	1997	84%	71%	16%	56%	68%
	1998	92%	81%	24%	62%	75%
	1999	86%	83%	28%	65%	79%
	2000	81%	78%	30%	63%	70%
	2001	84%	79%	22%	60%	69%
	2002	88%	85%	23%	68%	74%
	2003	89%	81%	26%	60%	70%
	2004	84%	79%	31%	65%	75%
	2005	85%	80%	37%	67%	71%
	2006	84%	73%	28%	60%	65%
	2007	87%	77%	32%	64%	69%
	2008	85%	76%	26%	63%	68%
	2009	78%	76%	29%	66%	72%
	2010	93%	92%	33%	69%	77%
2011	91%	87%	29%	68%		
2012	87%	83%	32%			
2013	95%	93%				
2014	93%	87%				
2015	88%					
All Asian or Pacific Islander	1996	94%	91%	36%	74%	81%
	1997	91%	87%	38%	73%	81%
	1998	91%	86%	40%	75%	81%
	1999	90%	85%	42%	75%	80%
	2000	91%	87%	40%	76%	82%
	2001	92%	86%	41%	74%	81%
	2002	92%	89%	47%	78%	83%
	2003	92%	88%	52%	78%	84%
	2004	92%	87%	51%	79%	83%
	2005	92%	85%	51%	78%	83%
	2006	92%	87%	53%	78%	83%
	2007	91%	86%	51%	77%	83%
	2008	93%	88%	54%	81%	85%
	2009	93%	90%	60%	86%	88%
	2010	94%	90%	57%	84%	88%
2011	94%	91%	63%	87%		
2012	95%	92%	66%			
2013	95%	92%				
2014	95%	92%				
2015	96%					
Native Hawaiian or other Pacific Islander, non-Hispanic	2010	86%	86%	43%	66%	88%
	2011	88%	76%	24%	52%	
	2012	90%	90%	59%		
	2013	84%	80%			
	2014	87%	78%			
	2015	91%				
All American Indian or Alaskan Native	1996	67%	50%	17%	33%	40%
	1997	82%	68%	24%	53%	62%
	1998	94%	75%	31%	61%	69%
	1999	76%	68%	36%	52%	60%
	2000	80%	73%	30%	57%	63%
	2001	80%	66%	34%	61%	63%
	2002	87%	81%	45%	68%	84%
	2003	90%	86%	57%	81%	81%
	2004	87%	77%	46%	68%	68%
	2005	95%	95%	37%	84%	84%
	2006	88%	71%	38%	71%	75%
2007	80%	80%	54%	73%	73%	
2008	87%	83%	43%	65%	70%	
2009	94%	89%	60%	69%	89%	
2010	80%	80%	40%	60%	60%	
2011	80%	60%	40%	60%		
2012	100%	100%	43%			
2013	90%	90%				
2014	85%	85%				
2015	100%					

Source: AAUDE RETENTION/GRADUATION SURVEY, 2016-17 (February 3, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year) and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
All White	1996	91%	85%	42%	76%	82%
	1997	90%	83%	42%	74%	79%
	1998	91%	85%	44%	76%	81%
	1999	92%	84%	47%	78%	82%
	2000	92%	87%	50%	80%	84%
	2001	92%	85%	50%	78%	82%
	2002	93%	87%	53%	80%	83%
	2003	91%	86%	54%	78%	82%
	2004	93%	87%	56%	81%	85%
	2005	91%	86%	59%	81%	84%
	2006	91%	85%	59%	80%	83%
	2007	92%	87%	59%	81%	85%
	2008	93%	88%	63%	83%	86%
	2009	93%	89%	65%	85%	87%
	2010	93%	89%	63%	84%	87%
All White, non-Hispanic	2011	94%	89%	65%	85%	
	2012	93%	89%	65%		
	2013	93%	90%			
	2014	94%	89%			
	2015	93%				
Two or more races, non-Hispanic	2010	91%	84%	51%	76%	81%
	2011	95%	90%	62%	83%	
	2012	94%	87%	58%		
	2013	94%	89%			
	2014	91%	86%			
2015	91%					
All Unknown Ethnic Origin	1996	93%	89%	40%	76%	81%
	1997	92%	85%	36%	72%	80%
	1998	87%	81%	33%	66%	74%
	1999	90%	85%	42%	78%	82%
	2000	93%	89%	46%	77%	83%
	2001	90%	85%	38%	71%	80%
	2002	90%	84%	36%	73%	80%
	2003	90%	83%	52%	74%	78%
	2004	91%	85%	57%	79%	83%
	2005	90%	87%	53%	79%	84%
	2006	90%	85%	58%	81%	85%
	2007	93%	87%	56%	81%	84%
	2008	94%	86%	56%	79%	84%
	2009	95%	91%	57%	86%	89%
	2010	97%	92%	59%	85%	88%
	2011	89%	85%	65%	82%	
	2012	96%	91%	64%		
2013	99%	96%				
2014	98%	91%				
2015	92%					

Source: AAUDE RETENTION/GRADUATION SURVEY, 2016-17 (February 3, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year) and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
International* Men	1996	88%	88%	41%	71%	78%
	1997	100%	100%	50%	94%	94%
	1998	94%	94%	59%	88%	94%
	1999	100%	75%	42%	58%	58%
	2000	81%	81%	37%	67%	67%
	2001	89%	89%	22%	67%	67%
	2002	73%	82%	55%	73%	82%
	2003	100%	80%	46%	79%	79%
	2004	89%	70%	52%	67%	78%
	2005	85%	78%	41%	70%	78%
	2006	81%	71%	50%	67%	74%
	2007	82%	69%	41%	59%	62%
	2008	82%	65%	44%	62%	68%
	2009	80%	66%	54%	69%	71%
	2010	84%	82%	49%	69%	78%
2011	78%	65%	46%	66%		
2012	84%	70%	46%			
2013	90%	81%				
2014	88%	83%				
2015	89%					
Hispanic Men	1996	80%	72%	22%	49%	61%
	1997	81%	75%	19%	49%	62%
	1998	79%	73%	14%	45%	56%
	1999	88%	76%	16%	57%	67%
	2000	86%	77%	22%	60%	70%
	2001	87%	78%	21%	51%	66%
	2002	83%	76%	26%	59%	67%
	2003	80%	76%	26%	53%	60%
	2004	89%	78%	27%	64%	70%
	2005	86%	78%	28%	65%	71%
	2006	82%	75%	30%	60%	68%
	2007	83%	77%	27%	61%	68%
	2008	88%	82%	29%	70%	76%
	2009	85%	78%	31%	66%	73%
	2010	88%	76%	31%	65%	70%
2011	83%	80%	29%	63%		
2012	86%	79%	40%			
2013	85%	81%				
2014	86%	83%				
2015	89%					
Black or African American Men	1996	79%	74%	15%	35%	44%
	1997	81%	65%	11%	57%	68%
	1998	94%	83%	17%	60%	74%
	1999	73%	73%	10%	60%	67%
	2000	83%	71%	14%	45%	56%
	2001	83%	83%	17%	60%	67%
	2002	90%	84%	16%	68%	77%
	2003	85%	78%	22%	51%	64%
	2004	78%	70%	28%	60%	70%
	2005	92%	87%	28%	72%	74%
	2006	83%	71%	19%	51%	56%
	2007	91%	83%	26%	70%	74%
	2008	81%	64%	10%	53%	56%
	2009	83%	79%	24%	64%	71%
	2010	91%	88%	19%	66%	75%
2011	88%	83%	21%	69%		
2012	84%	78%	18%			
2013	89%	89%				
2014	93%	83%				
2015	91%					
Asian or Pacific Islander Men	1996	92%	89%	24%	64%	74%
	1997	90%	84%	28%	66%	76%
	1998	89%	84%	32%	68%	76%
	1999	88%	82%	31%	67%	74%
	2000	89%	85%	32%	70%	78%
	2001	90%	84%	32%	69%	77%
	2002	91%	85%	39%	73%	80%
	2003	91%	87%	43%	78%	80%
	2004	93%	89%	43%	78%	82%
	2005	91%	83%	43%	75%	81%
	2006	89%	85%	44%	73%	79%
	2007	90%	85%	46%	72%	80%
	2008	94%	87%	47%	78%	82%
	2009	94%	90%	55%	83%	86%
	2010	93%	90%	51%	81%	86%
2011	94%	90%	57%	83%		
2012	95%	91%	60%			
2013	94%	90%				
2014	95%	91%				
2015	95%					
Native Hawaiian or other Pacific Islander, non-Hispanic Men	2010	100%	100%	40%	100%	100%
	2011	80%	80%	30%	40%	
	2012	100%	100%	58%		
	2013	80%	80%			
	2014	80%	80%			
2015	92%					
American Indian or Alaskan Native Men	1996	60%	50%	5%	25%	35%
	1997	73%	53%	7%	27%	40%
	1998	92%	77%	23%	62%	69%
	1999	86%	57%	14%	29%	29%
	2000	100%	83%	25%	67%	76%
	2001	71%	64%	29%	57%	57%
	2002	91%	100%	45%	73%	91%
	2003	89%	78%	44%	89%	89%
	2004	87%	80%	47%	67%	67%
	2005	100%	100%	25%	75%	75%
	2006	89%	58%	22%	67%	67%
2007	67%	75%	42%	75%	75%	
2008	80%	60%	20%	50%	60%	
2009	83%	75%	42%	75%	75%	
2010	100%	50%	50%	50%	50%	
2011	100%	100%	100%	100%		
2012	100%	100%	50%			
2013	89%	89%				
2014	60%	60%				
2015	100%					

Source: AAUDE RETENTION/GRADUATION SURVEY, 2016-17 (February 3, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year) and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
White Men	1996	90%	85%	32%	71%	79%
	1997	89%	83%	33%	70%	77%
	1998	90%	84%	33%	72%	80%
	1999	90%	82%	35%	73%	78%
	2000	90%	86%	39%	75%	81%
	2001	90%	84%	42%	74%	79%
	2002	92%	86%	42%	76%	80%
	2003	90%	86%	45%	73%	79%
	2004	92%	87%	43%	77%	82%
	2005	89%	84%	49%	77%	81%
	2006	91%	84%	49%	76%	80%
	2007	91%	87%	50%	76%	81%
	2008	94%	88%	55%	80%	83%
2009	93%	88%	56%	80%	83%	
White, non-Hispanic Men	2010	92%	88%	54%	81%	84%
	2011	93%	88%	58%	81%	
	2012	94%	89%	57%		
	2013	93%	91%			
	2014	93%	88%			
2015	94%					
Two or more races, non-Hispanic Men	2010	83%	78%	37%	67%	74%
	2011	93%	90%	58%	79%	
	2012	94%	87%	54%		
	2013	91%	84%			
	2014	85%	84%			
2015	91%					
All Unknown Ethnic Origin Men	1996	88%	85%	31%	66%	69%
	1997	91%	86%	24%	66%	78%
	1998	84%	81%	26%	60%	72%
	1999	87%	81%	34%	71%	75%
	2000	92%	86%	33%	71%	79%
	2001	89%	84%	26%	66%	79%
	2002	90%	84%	27%	67%	77%
	2003	90%	85%	42%	68%	76%
	2004	90%	83%	50%	74%	81%
	2005	90%	90%	48%	75%	82%
	2006	90%	86%	49%	80%	85%
	2007	94%	89%	47%	78%	82%
	2008	83%	83%	51%	73%	80%
	2009	95%	93%	52%	85%	89%
	2010	98%	93%	52%	85%	88%
	2011	92%	92%	62%	85%	
	2012	96%	93%	59%		
2013	100%	95%				
2014	100%	97%				
2015	94%					

Source: AAUDE RETENTION/GRADUATION SURVEY, 2016-17 (February 3, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
International Women	1996	100%	95%	64%	86%	91%
	1997	78%	76%	59%	71%	76%
	1998	86%	81%	48%	76%	81%
	1999	72%	72%	56%	78%	78%
	2000	96%	88%	50%	81%	86%
	2001	85%	92%	46%	85%	85%
	2002	95%	75%	60%	70%	70%
	2003	97%	93%	69%	86%	90%
	2004	96%	96%	76%	89%	92%
	2005	89%	89%	83%	74%	81%
	2006	84%	86%	51%	79%	86%
	2007	89%	84%	62%	78%	79%
	2008	85%	77%	57%	70%	72%
	2009	97%	94%	70%	91%	91%
	2010	94%	88%	68%	85%	88%
2011	88%	83%	86%	81%		
2012	90%	88%	67%			
2013	96%	92%				
2014	94%	89%				
2015	92%					
Hispanic Women	1996	86%	81%	33%	64%	72%
	1997	85%	78%	27%	60%	69%
	1998	86%	78%	32%	65%	73%
	1999	90%	82%	30%	73%	81%
	2000	85%	84%	30%	70%	75%
	2001	85%	81%	39%	69%	75%
	2002	88%	84%	42%	73%	79%
	2003	87%	81%	42%	67%	72%
	2004	85%	80%	43%	68%	75%
	2005	84%	75%	38%	66%	71%
	2006	84%	76%	37%	67%	74%
	2007	83%	78%	42%	69%	74%
	2008	88%	83%	40%	72%	79%
	2009	87%	84%	48%	74%	79%
	2010	90%	86%	44%	76%	81%
2011	89%	85%	43%	77%		
2012	91%	84%	51%			
2013	89%	86%				
2014	86%	81%				
2015	90%					
Black or African American Women	1996	83%	76%	15%	55%	63%
	1997	86%	74%	19%	55%	69%
	1998	90%	80%	28%	63%	75%
	1999	92%	88%	37%	68%	85%
	2000	79%	82%	40%	74%	79%
	2001	85%	75%	26%	61%	70%
	2002	87%	85%	26%	69%	72%
	2003	91%	84%	33%	67%	76%
	2004	88%	84%	32%	68%	78%
	2005	81%	76%	42%	65%	69%
	2006	85%	74%	33%	65%	70%
	2007	84%	74%	36%	61%	66%
	2008	88%	83%	36%	69%	76%
	2009	76%	75%	32%	67%	72%
	2010	94%	94%	42%	71%	79%
2011	94%	90%	35%	67%		
2012	89%	88%	42%			
2013	97%	94%				
2014	93%	89%				
2015	86%					
Asian or Pacific Islander Women	1996	96%	92%	46%	82%	87%
	1997	93%	90%	46%	80%	86%
	1998	92%	88%	46%	80%	86%
	1999	92%	88%	50%	80%	84%
	2000	93%	89%	46%	81%	85%
	2001	92%	89%	49%	78%	84%
	2002	93%	90%	54%	83%	88%
	2003	88%	88%	59%	82%	88%
	2004	91%	87%	57%	81%	84%
	2005	92%	88%	58%	81%	85%
	2006	93%	88%	61%	83%	87%
	2007	92%	86%	54%	81%	85%
	2008	93%	89%	60%	83%	87%
	2009	93%	90%	63%	87%	90%
	2010	94%	91%	63%	87%	90%
2011	93%	92%	67%	89%		
2012	95%	93%	70%			
2013	95%	93%				
2014	95%	93%				
2015	96%					
Native Hawaiian or other Pacific Islander, non-Hispanic Women	2010	78%	78%	44%	78%	78%
	2011	91%	82%	18%	64%	
	2012	70%	80%	60%		
	2013	87%	80%			
	2014	89%	78%			
2015	91%					
American Indian or Alaskan Native Women	1996	73%	50%	27%	41%	45%
	1997	89%	79%	37%	74%	79%
	1998	96%	74%	35%	61%	70%
	1999	72%	72%	44%	61%	72%
	2000	67%	67%	33%	50%	56%
	2001	85%	67%	37%	63%	67%
	2002	85%	70%	45%	65%	80%
	2003	92%	92%	67%	75%	75%
	2004	88%	75%	50%	69%	69%
	2005	93%	93%	40%	87%	87%
	2006	87%	80%	47%	73%	80%
	2007	88%	83%	59%	72%	72%
2008	92%	83%	62%	77%	77%	
2009	100%	96%	70%	96%	96%	
2010	67%	67%	33%	67%	67%	
2011	75%	50%	25%	50%		
2012	100%	100%	40%			
2013	100%	100%				
2014	100%	100%				
2015	100%					

Source: AAUDE RETENTION/GRADUATION SURVEY, 2016-17 (February 3, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Freshman Retention (First & Second Year) and Graduation (4-, 5- and 6-year) Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years
White Women	1996	92%	86%	50%	61%	85%
	1997	91%	83%	50%	76%	80%
	1998	92%	86%	52%	79%	83%
	1999	94%	86%	57%	82%	86%
	2000	93%	87%	55%	84%	87%
	2001	93%	85%	57%	81%	85%
	2002	94%	87%	61%	83%	86%
	2003	92%	86%	62%	81%	84%
	2004	93%	88%	65%	85%	87%
	2005	92%	87%	65%	84%	86%
2006	91%	85%	66%	83%	86%	
2007	93%	87%	66%	85%	87%	
2008	93%	89%	68%	86%	88%	
2009	94%	90%	71%	88%	89%	
White, non-Hispanic Women	2010	94%	90%	71%	87%	89%
	2011	95%	90%	70%	88%	
	2012	93%	89%	70%		
	2013	93%	90%			
	2014	95%	90%			
Two or more races, non-Hispanic Women	2010	98%	89%	64%	84%	87%
	2011	96%	91%	64%	86%	
	2012	94%	88%	61%		
	2013	95%	91%			
	2014	94%	87%			
All Unknown Ethnic Origin Women	1996	95%	93%	47%	66%	89%
	1997	93%	85%	44%	77%	81%
	1998	89%	81%	39%	71%	76%
	1999	92%	88%	46%	83%	88%
	2000	93%	91%	55%	82%	86%
	2001	92%	85%	46%	75%	80%
	2002	90%	84%	44%	79%	82%
	2003	89%	82%	61%	79%	80%
	2004	91%	87%	63%	83%	85%
	2005	90%	85%	56%	82%	85%
	2006	90%	85%	64%	81%	85%
	2007	92%	86%	62%	82%	86%
	2008	95%	88%	61%	85%	88%
	2009	94%	90%	60%	87%	89%
	2010	96%	92%	65%	85%	89%
2011	88%	79%	69%	79%		
2012	96%	90%	67%			
2013	98%	96%				
2014	96%	87%				
2015	92%					

Returned category is the percentage of first-time freshmen in a given fall term who returned to the institution in the subsequent fall term. For example, the 2nd-Yr returned percentage for the fall 1996 first-time freshmen is the percentage of fall 1996 first-time freshmen who returned for the fall term, 1997.

Graduated Percentage is the cumulative percentage of first-time freshmen in a given fall term who had graduated by the end of the summer in the given year. For example, the 6th-Yr graduation percentage for fall 1996 first-time freshmen is the percentage of fall 1996 first-time freshmen who graduated from the institution by the end of the summer of 2002. Degree information is presently available through Summer of 2016; therefore, the most recent year for which 6-year graduation rates are available is 2010.

**International* is equivalent to the NCES IPEDS definition "Non-Resident Alien".

UC Davis Fall California Community College Transfers First Year Retention and 2-, 3- and 4-year Graduation Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 2 years	Graduated within 3 years	Graduated within 4 years
Grand Total	2001	89%	41%	40%	75%	83%
	2002	90%	35%	46%	78%	84%
	2003	90%	34%	47%	78%	83%
	2004	89%	32%	48%	78%	85%
	2005	88%	28%	53%	79%	84%
	2006	90%	30%	49%	80%	85%
	2007	88%	32%	48%	77%	84%
	2008	90%	33%	49%	80%	86%
	2009	89%	35%	48%	79%	85%
	2010	90%	32%	50%	80%	85%
	2011	91%	34%	51%	81%	87%
	2012	92%	32%	53%	82%	87%
	2013	92%	34%	53%	82%	
	2014	92%	34%	53%		
	2015	91%				
All Men	2001	90%	45%	35%	73%	81%
	2002	90%	37%	42%	75%	82%
	2003	91%	35%	45%	75%	81%
	2004	89%	35%	46%	79%	86%
	2005	88%	32%	49%	76%	83%
	2006	89%	31%	48%	77%	83%
	2007	89%	36%	44%	77%	85%
	2008	91%	36%	46%	80%	87%
	2009	89%	38%	43%	77%	82%
	2010	90%	35%	46%	78%	84%
	2011	90%	35%	49%	80%	86%
	2012	92%	33%	51%	81%	86%
	2013	90%	34%	51%	80%	
	2014	91%	34%	51%		
	2015	92%				
All Women	2001	88%	37%	45%	77%	84%
	2002	90%	34%	49%	81%	86%
	2003	90%	33%	49%	79%	85%
	2004	90%	28%	51%	77%	83%
	2005	87%	25%	56%	81%	85%
	2006	91%	29%	51%	82%	86%
	2007	88%	29%	51%	76%	83%
	2008	90%	31%	51%	80%	85%
	2009	90%	33%	52%	82%	88%
	2010	89%	29%	54%	82%	86%
	2011	92%	33%	54%	83%	88%
	2012	93%	32%	55%	84%	89%
	2013	93%	33%	56%	84%	
	2014	92%	34%	54%		
	2015	91%				
All International*	2001	89%	35%	50%	78%	84%
	2002	92%	26%	58%	85%	89%
	2003	93%	15%	74%	86%	89%
	2004	95%	22%	68%	86%	92%
	2005	95%	21%	71%	90%	90%
	2006	93%	12%	75%	92%	92%
	2007	88%	25%	60%	80%	88%
	2008	88%	19%	63%	79%	86%
	2009	85%	19%	64%	84%	88%
	2010	85%	20%	62%	83%	86%
	2011	84%	26%	57%	85%	87%
	2012	88%	20%	65%	84%	86%
	2013	88%	26%	62%	86%	
	2014	89%	27%	61%		
	2015	89%				

Source: 2016-17 CSRDE COMMUNITY COLLEGE TRANSFER STUDENT RETENTION SURVEY (Feb 21, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Fall California Community College Transfers First Year Retention and 2-, 3- and 4-year Graduation Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 2 years	Graduated within 3 years	Graduated within 4 years
All Hispanic	2001	84%	46%	29%	66%	76%
	2002	90%	34%	47%	80%	84%
	2003	86%	38%	36%	70%	77%
	2004	90%	32%	44%	74%	83%
	2005	88%	29%	49%	75%	83%
	2006	89%	33%	42%	72%	79%
	2007	88%	34%	44%	76%	81%
	2008	90%	38%	41%	75%	82%
	2009	89%	38%	45%	81%	87%
	2010	89%	35%	47%	80%	84%
	2011	91%	38%	46%	79%	85%
	2012	90%	36%	46%	78%	83%
	2013	93%	36%	50%	79%	
	2014	91%	40%	45%		
2015	91%					
All Black	2001	79%	37%	16%	56%	65%
	2002	85%	56%	24%	62%	71%
	2003	89%	30%	49%	65%	73%
	2004	90%	45%	31%	65%	82%
	2005	81%	36%	42%	61%	72%
	2006	77%	43%	28%	64%	77%
	2007	84%	49%	36%	60%	73%
	2008	90%	45%	38%	70%	78%
	2009	84%	51%	24%	67%	75%
All Black, non-Hispanic	2010	80%	52%	20%	64%	72%
	2011	88%	40%	40%	78%	90%
	2012	89%	44%	38%	69%	80%
	2013	90%	55%	31%	64%	
	2014	86%	40%	35%		
2015	82%					
All Asian or Pacific Islander	2001	91%	43%	41%	79%	86%
	2002	91%	37%	43%	79%	87%
	2003	91%	36%	44%	78%	84%
	2004	88%	33%	47%	78%	84%
	2005	88%	26%	55%	79%	85%
	2006	91%	31%	49%	81%	86%
	2007	89%	33%	45%	78%	85%
	2008	90%	34%	46%	80%	86%
	2009	90%	35%	47%	78%	85%
All Asian, non-Hispanic	2010	90%	35%	49%	82%	87%
	2011	92%	35%	50%	81%	87%
	2012	93%	34%	52%	83%	89%
	2013	91%	35%	51%	82%	
	2014	92%	35%	52%		
	2015	92%				
Native Hawaiian or other Pacific Islander, non-Hispanic	2010	100%	53%	40%	60%	80%
	2011	94%	50%	44%	81%	88%
	2012	80%	27%	47%	73%	73%
	2013	100%	35%	59%	94%	
	2014	93%	47%	40%		
	2015	90%				
All American Indian or Alaskan Native	2001	84%	37%	26%	53%	68%
	2002	88%	44%	38%	81%	94%
	2003	77%	23%	46%	62%	85%
	2004	84%	47%	21%	74%	84%
	2005	78%	44%	11%	56%	67%
	2006	87%	47%	40%	67%	87%
	2007	92%	44%	44%	68%	76%
	2008	78%	44%	28%	67%	72%
	2009	95%	50%	40%	75%	85%
All American Indian or Alaskan Native, non-Hispanic	2010	89%	44%	44%	89%	89%
	2011	100%	25%	50%	75%	75%
	2012	88%	25%	63%	75%	88%
	2013	71%	0%	71%	71%	
	2014	100%	80%	20%		
	2015	100%				

Source: 2016-17 CSRDE COMMUNITY COLLEGE TRANSFER STUDENT RETENTION SURVEY (Feb 21, 2017)
UC Davis Budget & Institutional Analysis

UC Davis Fall California Community College Transfers First Year Retention and 2-, 3- and 4-year Graduation Rates	Entering Year	Returned for 2nd year	Returned for 3rd year	Graduated within 2 years	Graduated within 3 years	Graduated within 4 years
All White	2001	100%	44%	50%	88%	95%
	2002	100%	39%	51%	86%	93%
	2003	100%	37%	53%	87%	93%
	2004	100%	34%	57%	89%	96%
	2005	100%	31%	61%	92%	97%
	2006	100%	33%	56%	90%	95%
	2007	100%	35%	57%	87%	94%
	2008	100%	36%	57%	91%	96%
All White, non-Hispanic	2009	100%	39%	54%	89%	95%
	2010	90%	30%	51%	78%	84%
	2011	92%	32%	54%	83%	87%
	2012	95%	31%	55%	84%	88%
	2013	93%	33%	55%	84%	
Two or more races, non-Hispanic	2014	92%	31%	57%		
	2015	92%				
	2010	89%	25%	55%	82%	86%
	2011	88%	34%	47%	77%	85%
	2012	89%	36%	49%	81%	87%
All Unknown Ethnic Origin	2013	95%	33%	56%	84%	
	2014	93%	32%	54%		
	2015	92%				
	2001	90%	41%	38%	72%	81%
	2002	89%	34%	48%	77%	81%
2003	92%	44%	44%	81%	85%	
2004	89%	31%	47%	77%	82%	
2005	81%	36%	40%	71%	77%	
2006	90%	29%	49%	75%	86%	
2007	89%	34%	48%	77%	90%	
2008	89%	24%	54%	78%	83%	
2009	88%	36%	46%	78%	82%	
2010	91%	36%	49%	82%	87%	
2011	96%	36%	54%	82%	87%	
2012	96%	34%	49%	82%	90%	
2013	78%	30%	48%	72%		
2014	89%	34%	51%			
2015	95%					

Returned category is the percentage of transfers in a given fall term who returned to the institution in the subsequent fall term. For example, the 2nd-Yr returned percentage for the fall 2010 transfers is the percentage of fall 2010 transfers who returned for the fall term, 2011. Graduated Percentage is the cumulative percentage of transfers in a given fall term who had graduated by the end of the summer in the given year. For example, the 4th-Yr graduation percentage for fall 2010 transfers is the percentage of fall 2010 transfers who graduated from the institution by the end of the summer of 2014. Degree information is presently available through Summer of 2016; therefore, the most recent year for which 4-year graduation rates are available is 2012.

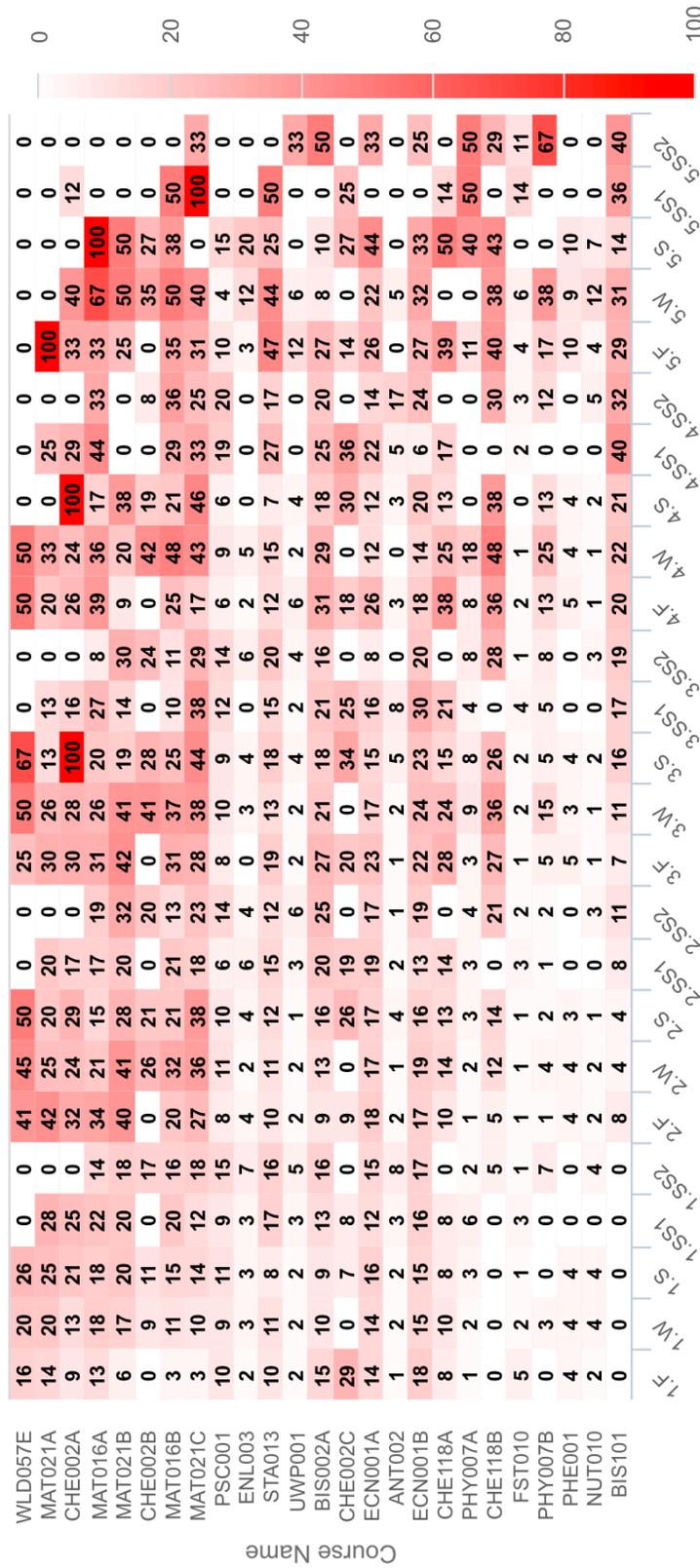
*"International" is equivalent to the NCES IPEDS definition "Non-Resident Alien".

Source: 2016-17 CSRDE COMMUNITY COLLEGE TRANSFER STUDENT RETENTION SURVEY (Feb 21, 2017)
UC Davis Budget & Institutional Analysis

Appendix C: Examples of Data from the Center for Educational Effectiveness

COURSES WITH HIGHEST DFW RATES – Yearly Average Percentage of Students Receiving DFW by Relative Term Enrolled

Course Heatmap



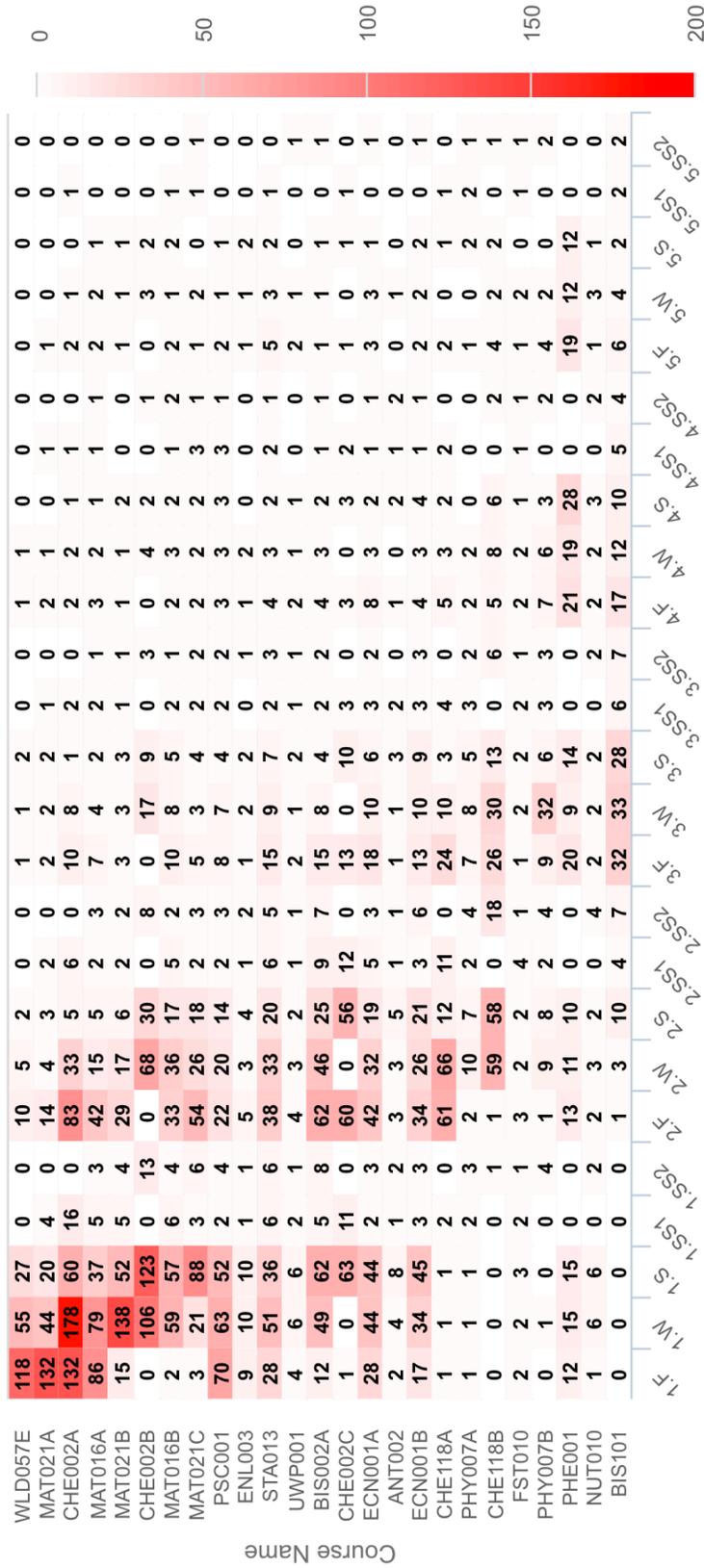
Yearly average % DFW



COURSES WITH HIGHEST DFW NUMBERS – Yearly Average

Number of Students Receiving DFW by Relative Term Enrolled

Course Heatmap

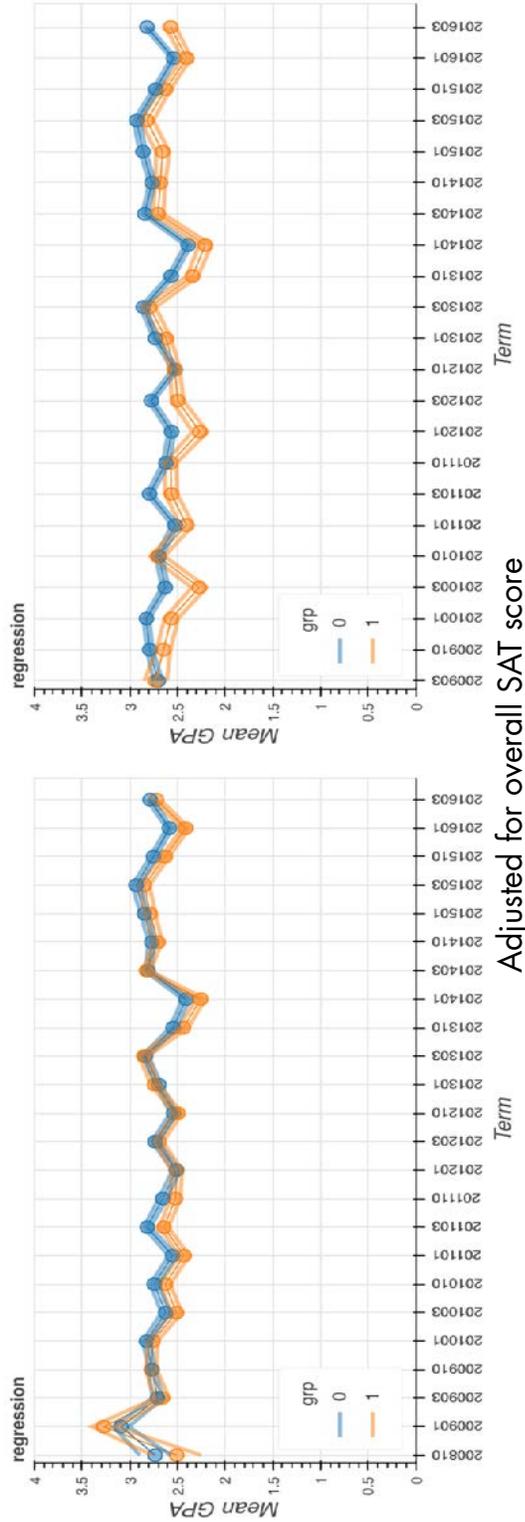
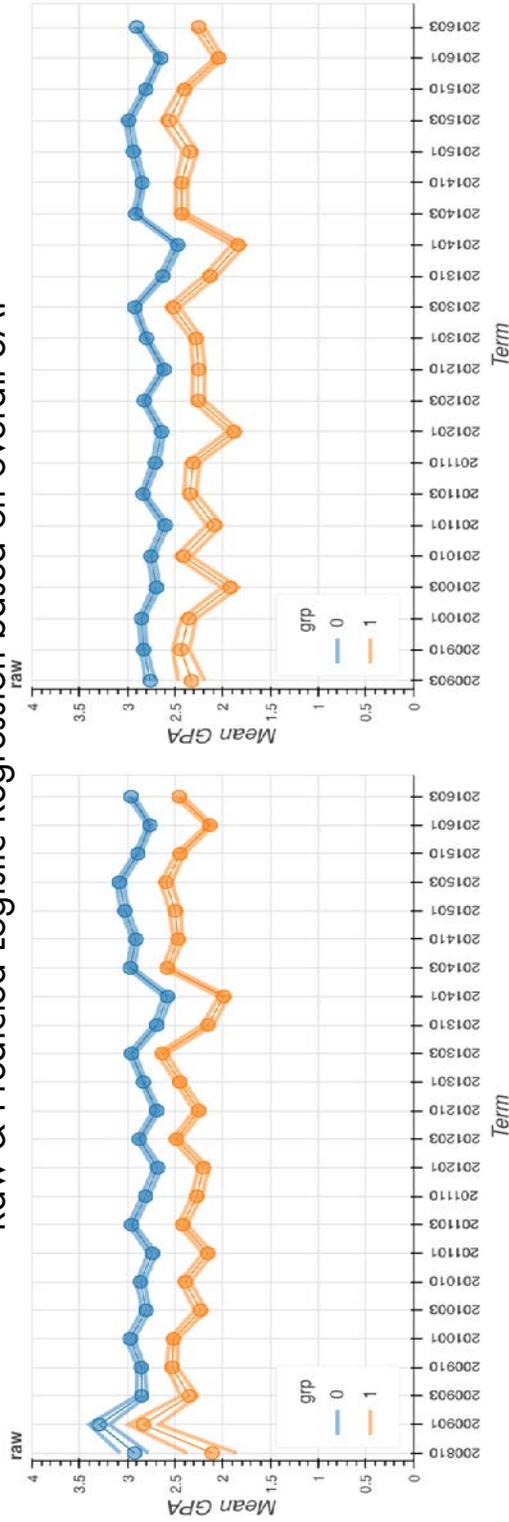


Yearly average # DFW



INTRO COURSE GAPS – Biology (BIS2A) First Gen & URM

Raw & Predicted Logistic Regression based on overall SAT

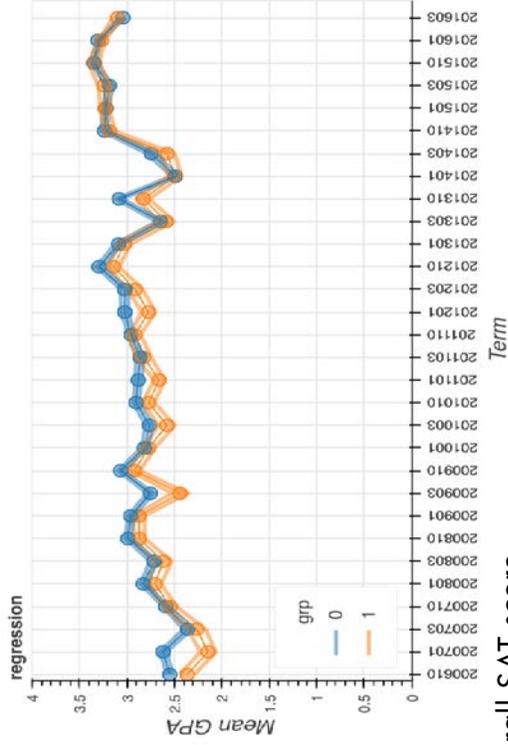
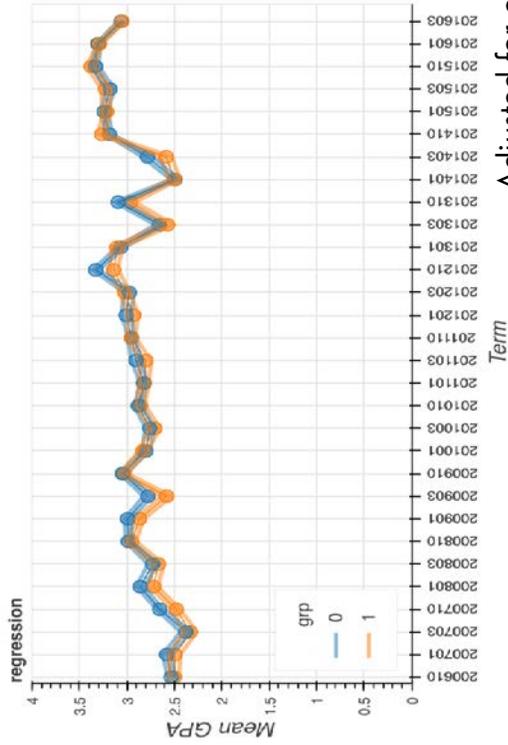
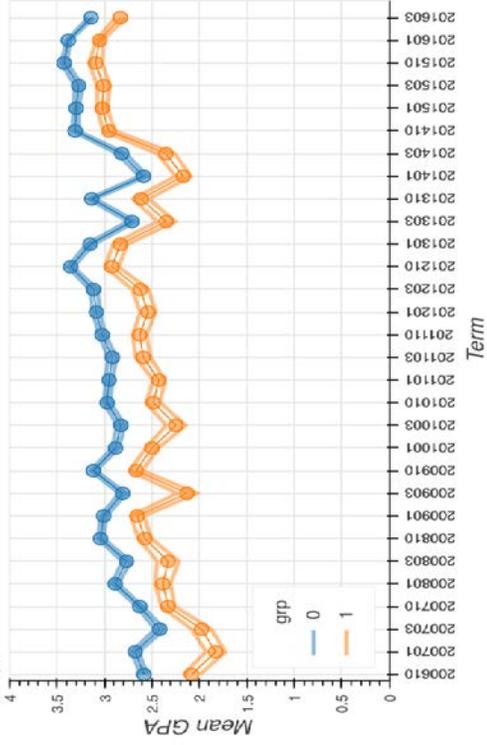
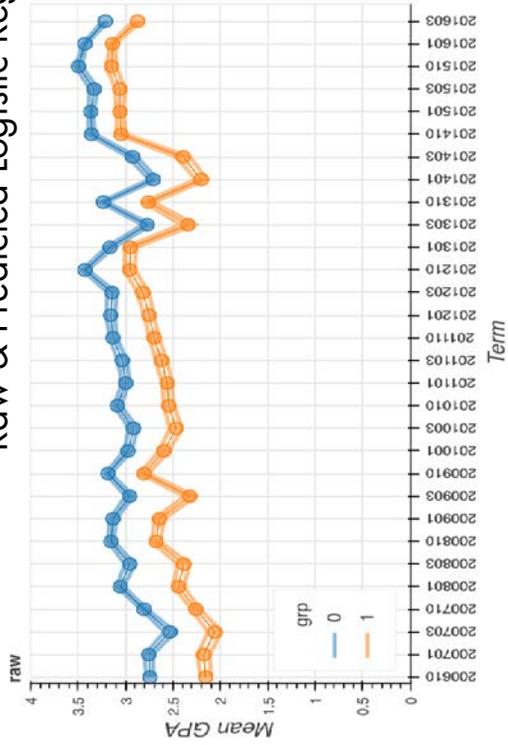


Adjusted for overall SAT score



INTRO COURSE GAPS – Psychology (PSC1) First Gen & URM

Raw & Predicted Logistic Regression based on overall SAT

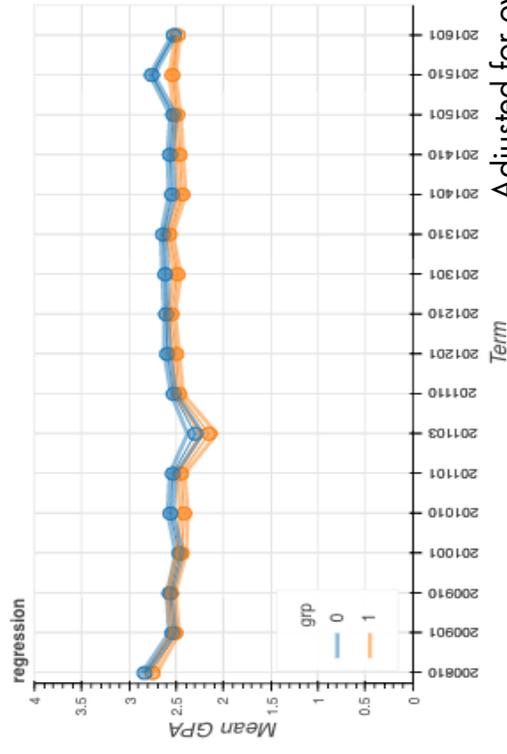
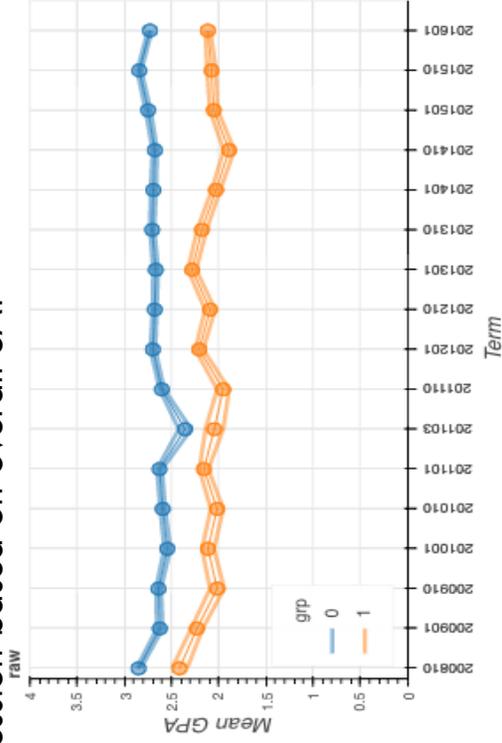
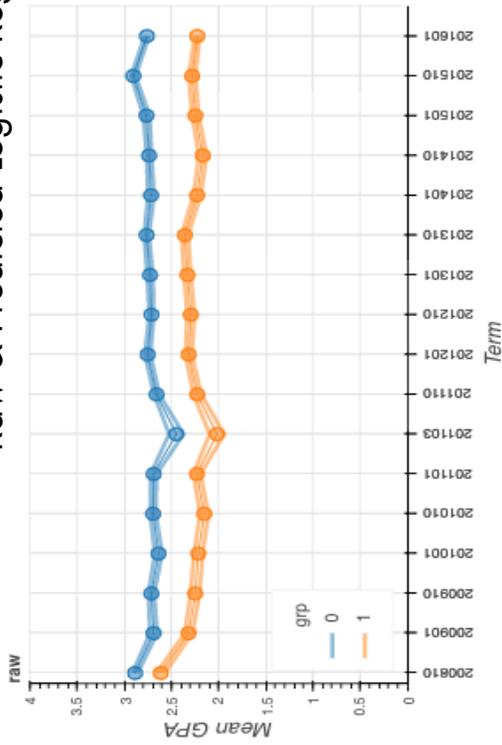


Adjusted for overall SAT score



INTRO COURSE GAPS – Chemistry (CHE2A) First Gen & URM

Raw & Predicted Logistic Regression based on overall SAT



Adjusted for overall SAT score



KNOW YOUR STUDENTS PROTOTYPE – CHE 2a



Cohort Distribution (latest term)

Of the 476 students in the class, there are 17 students without latest completed term information. Out of these students, 14 are admitted in 201610.

Reason for the rest of the missing data is uncertain.

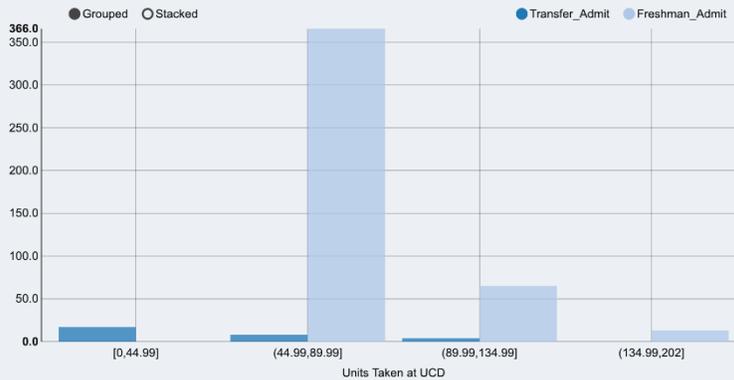
Groups are determined by UCD definition of class level:

Freshman 0.0–44.99

Sophomore 45.0–89.99

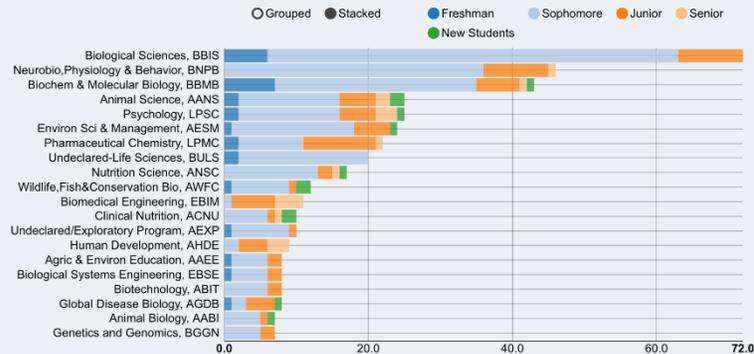
Junior 90.0–134.99

Senior 135 units and above

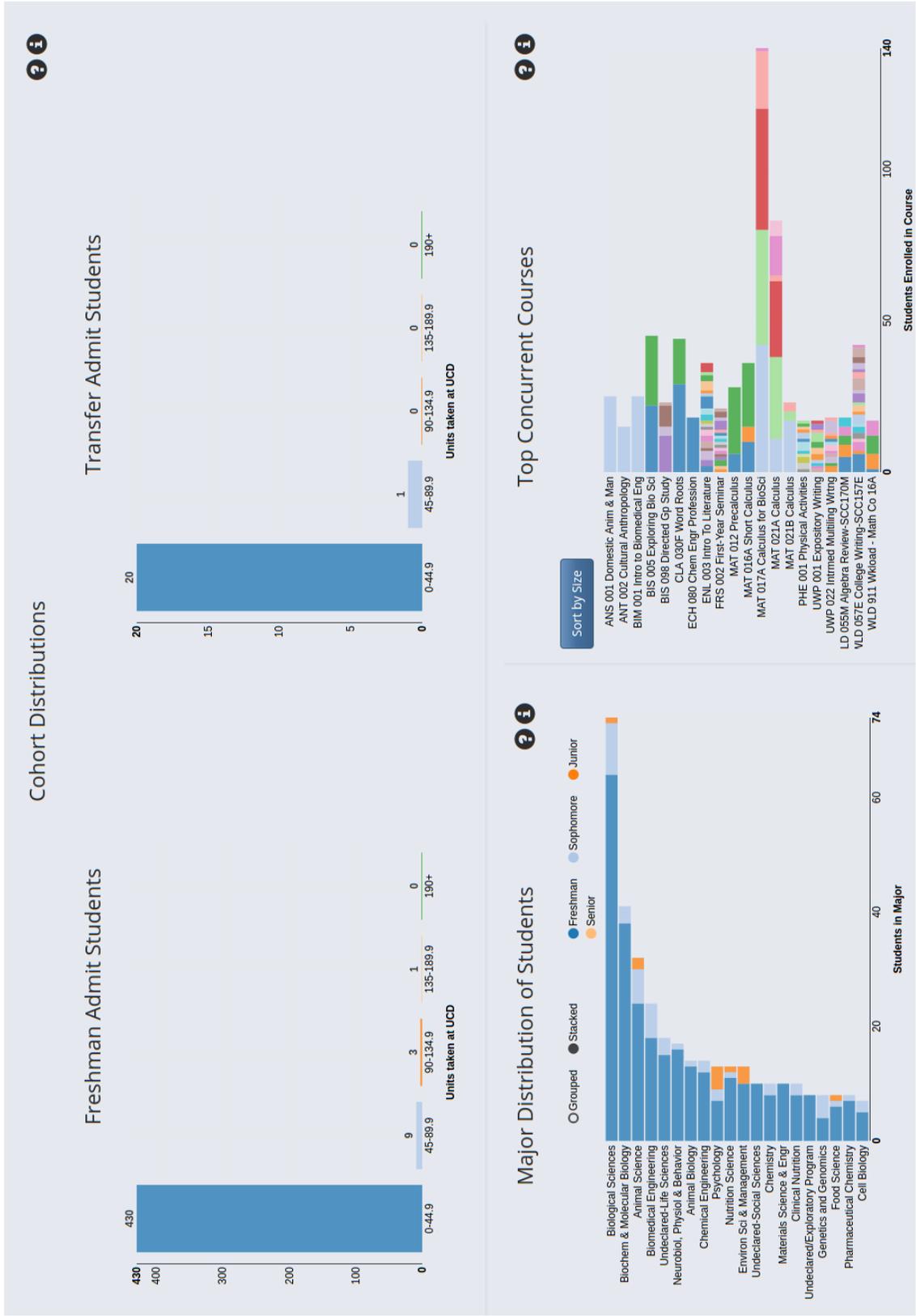


Major Distribution (latest term)

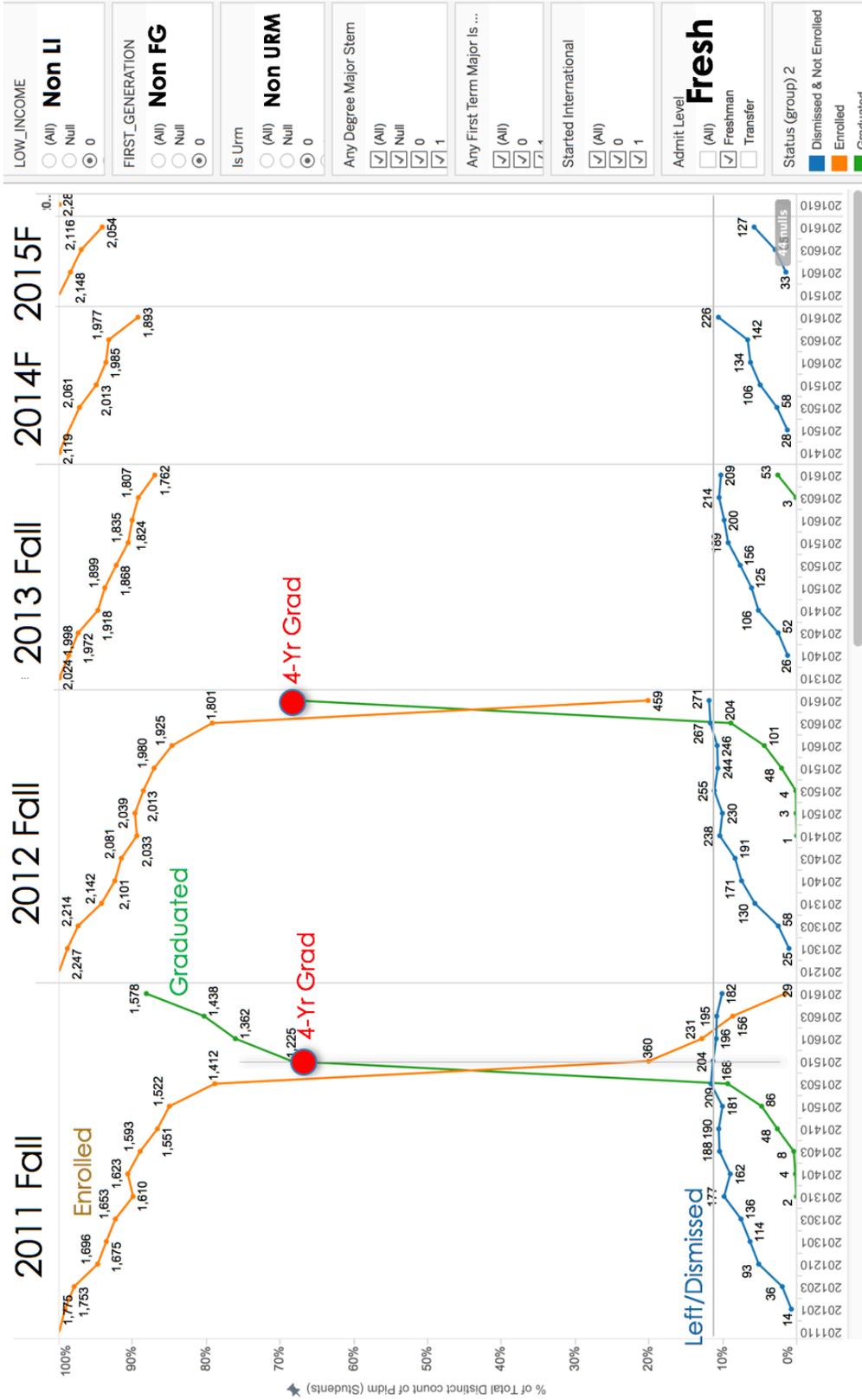
Only the top 20 majors are shown.



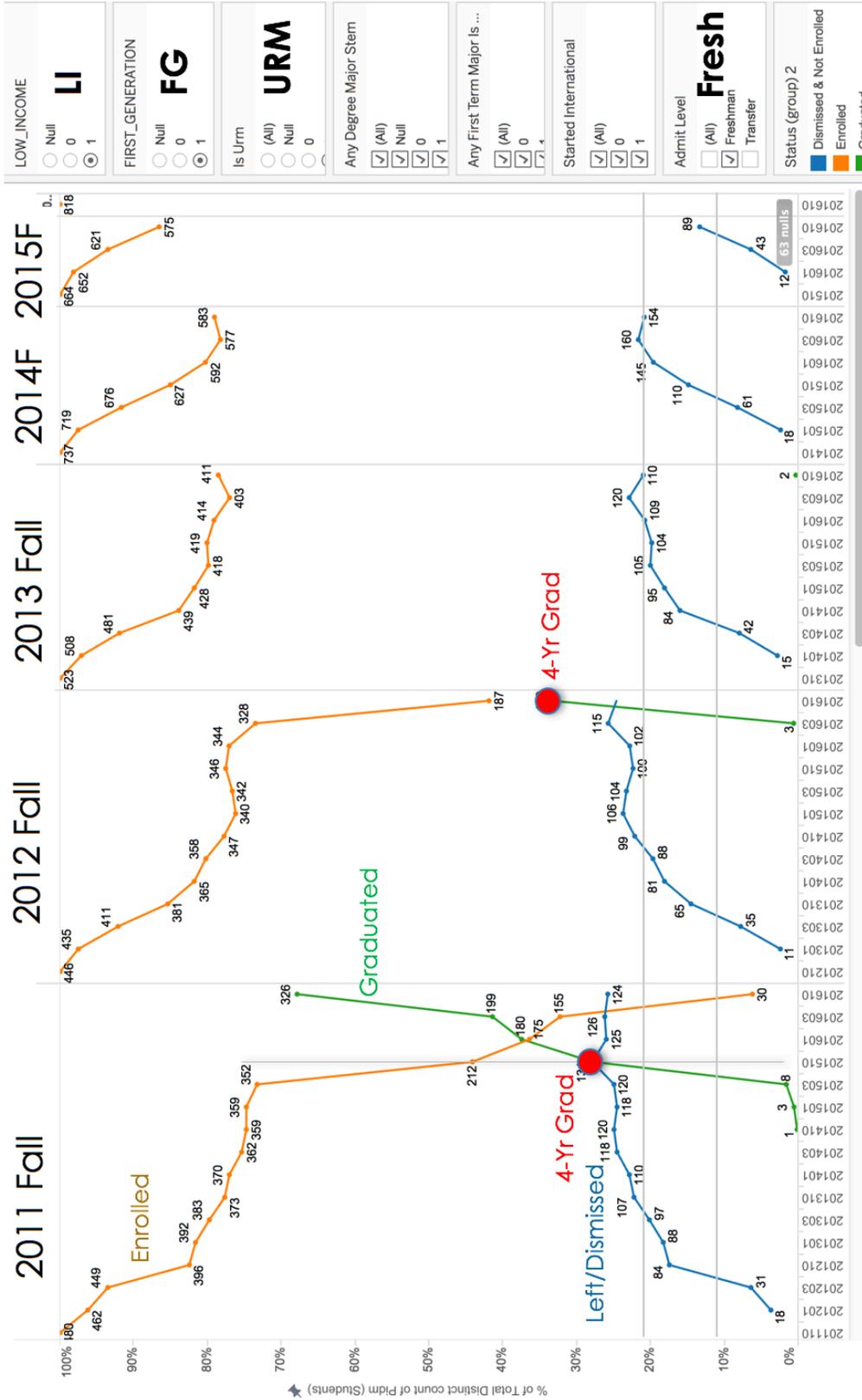
KNOW YOUR STUDENTS PROTOTYPE – CHE 2a



RETENTION & Timely Graduation – Non Low-Income, Non First Generation, Non URM



RETENTION & Timely Graduation Low-Income, First Generation, and URM



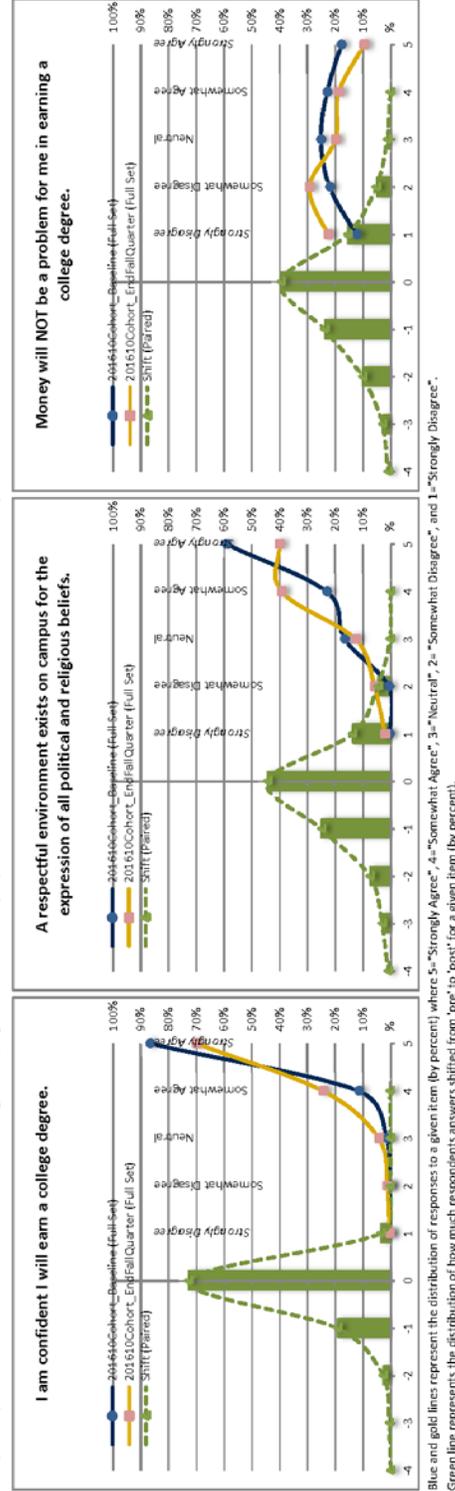
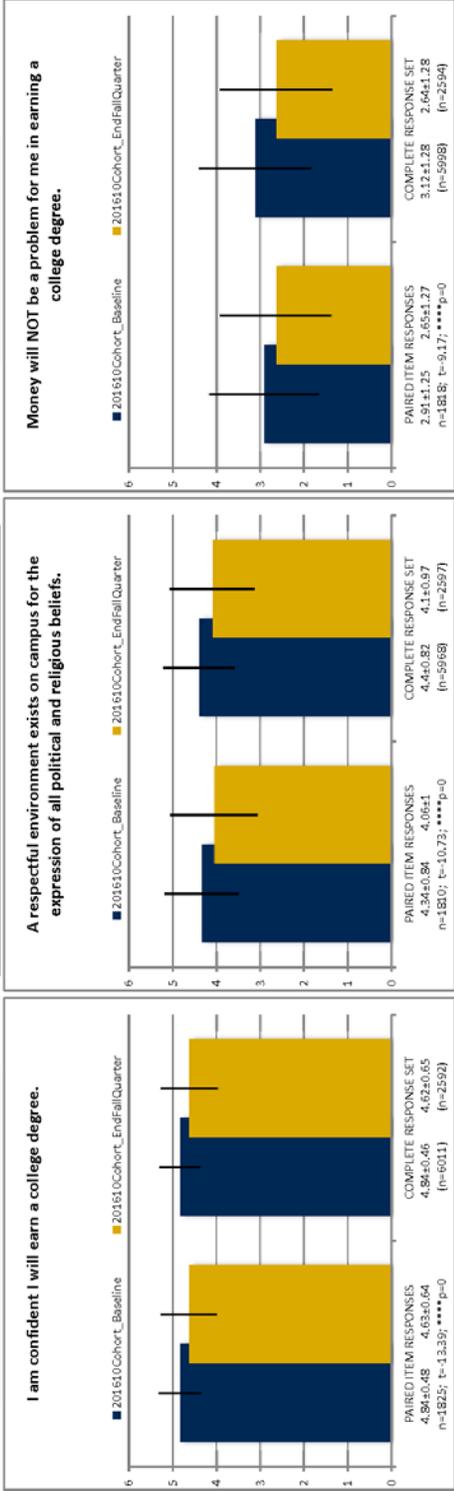
Appendix D: Examples of Data from the Center for Student Affairs Assessment

Changes in the Student Persistence Measure Dimension during the Fall 2016 Quarter

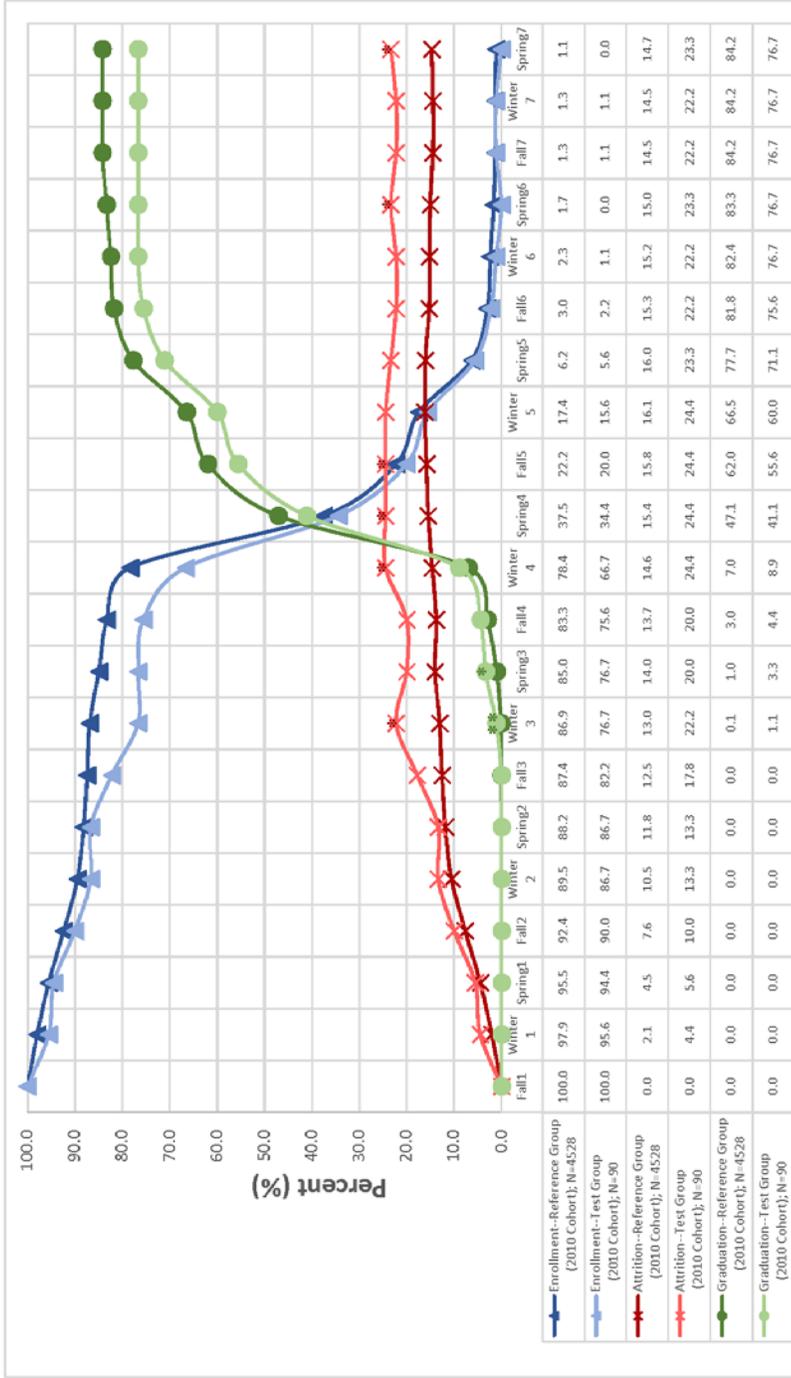
Degree & Career Commitment

Social Integration (Diversity & Inclusion)

Financial Sufficiency



Enrollment, Attrition, and Graduation rates for the 201010 Cohort. (Of those students that remained actively enrolled in Fall 1)

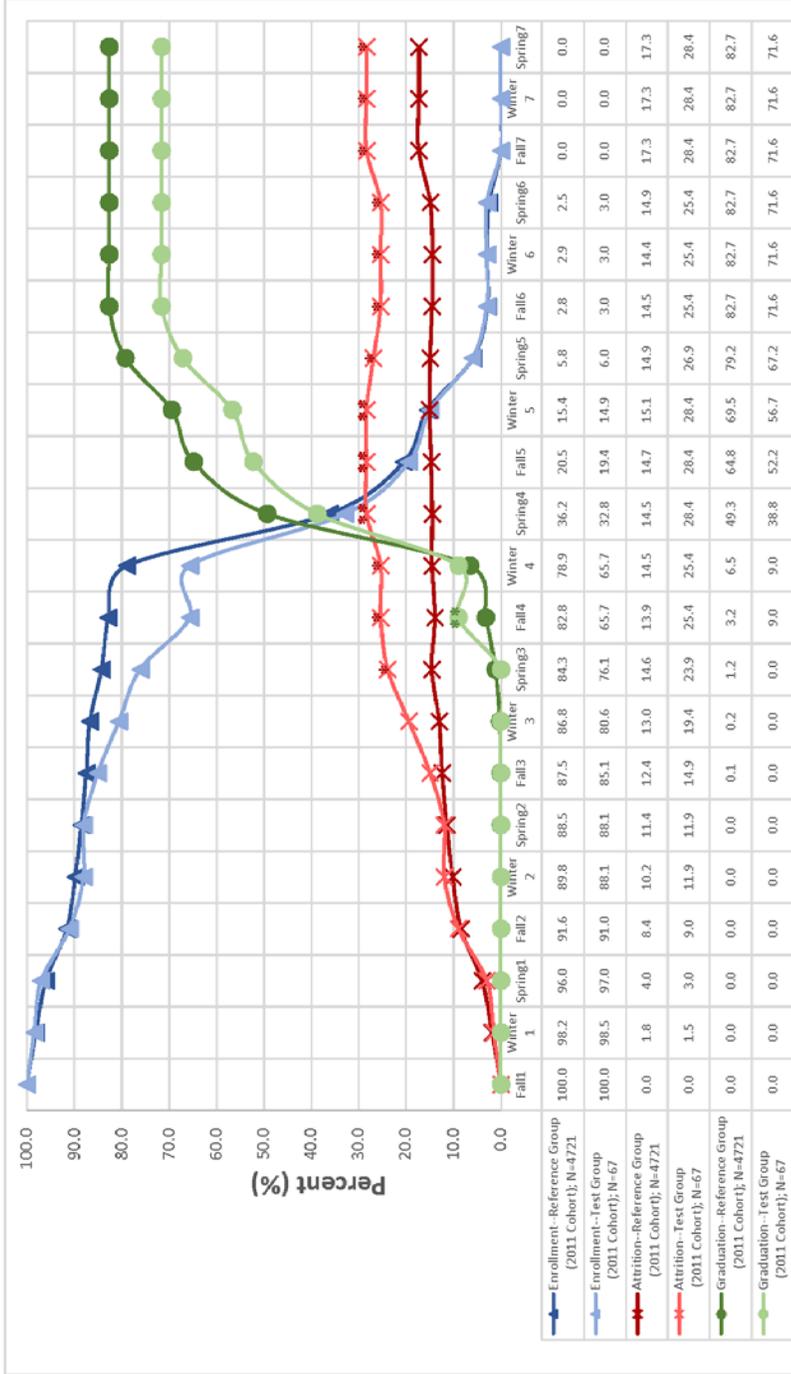


Significance markers on data points (X², Test Group as compared to Reference Group): ****p <= 0.0001; ***p <= 0.001; **p <= 0.01; *p <= 0.05

Reference Group: Undergraduates, Freshmen Entry (LEVL='UG'; ALEVL='H'+Freshmen)

Test Group: Undergraduates, Freshmen Entry, Eth. INCLUDES American Indian/Alaskan Native (LEVL='UG'; ALEVL='H'+Freshmen; ETH INCLUDES 'INA'- American Indian or Alaskan Native (IPEDS) &/OR 'UNA'-American Indian/Alaskan Native)

Enrollment, Attrition, and Graduation rates for the 201110 Cohort. (Of those students that remained actively enrolled in Fall 1)

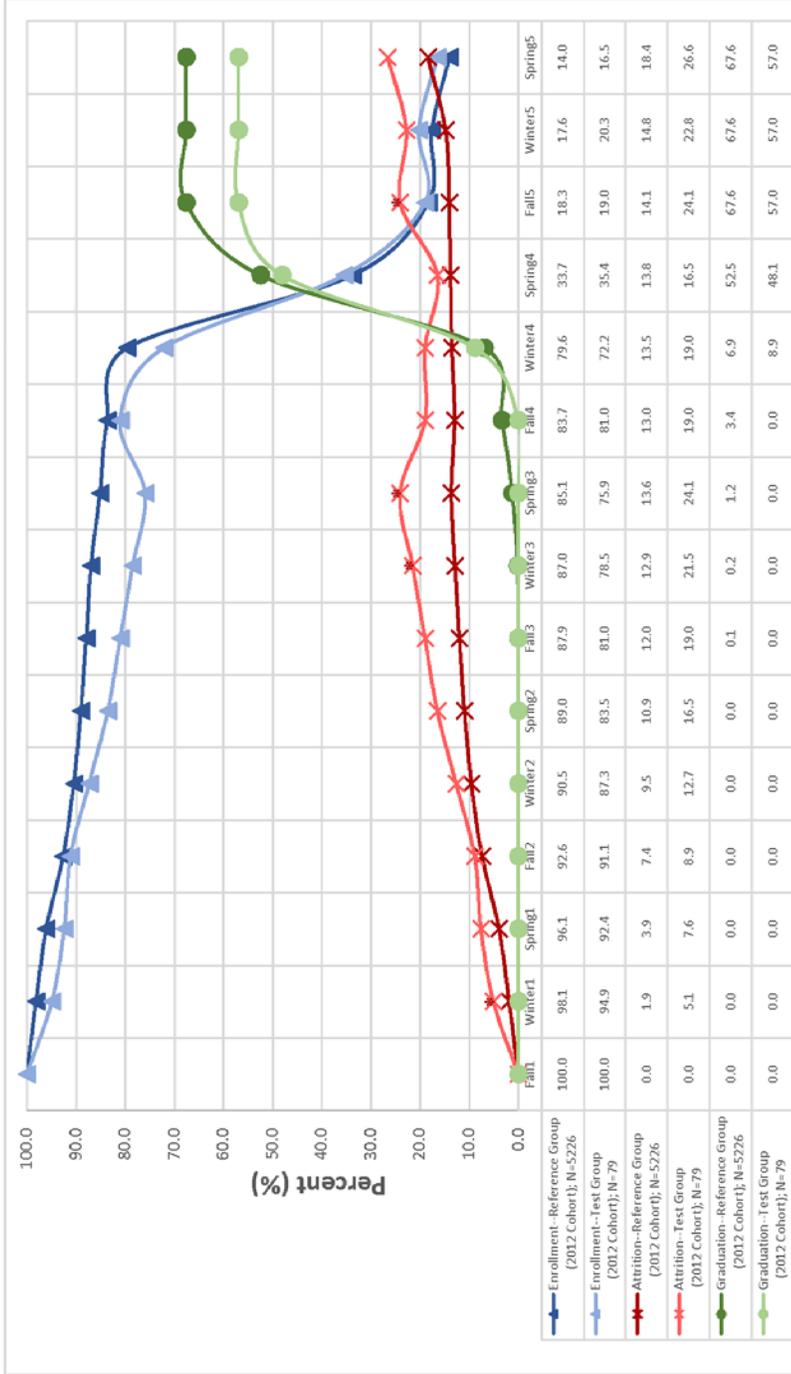


Significance markers on data points (X², Test Group as compared to Reference Group): ****p <= 0.0001; ***p <= 0.001; **p <= 0.01; *p <= 0.05

Reference Group: Undergraduates, Freshmen Entry (LEVL='UG'; ALEVL='H'-Freshmen)

Test Group: Undergraduates, Freshmen Entry, Eth. INCLUDES American Indian/Alaskan Native (LEVL='UG'; ALEVL='H'-Freshmen; ETH INCLUDES 'INA'- American Indian or Alaskan Native (IPEDS) &/OR 'UNA'-American Indian/Alaskan Native)

Enrollment, Attrition, and Graduation rates for the 201210 Cohort. (Of those students that remained actively enrolled in Fall 1)

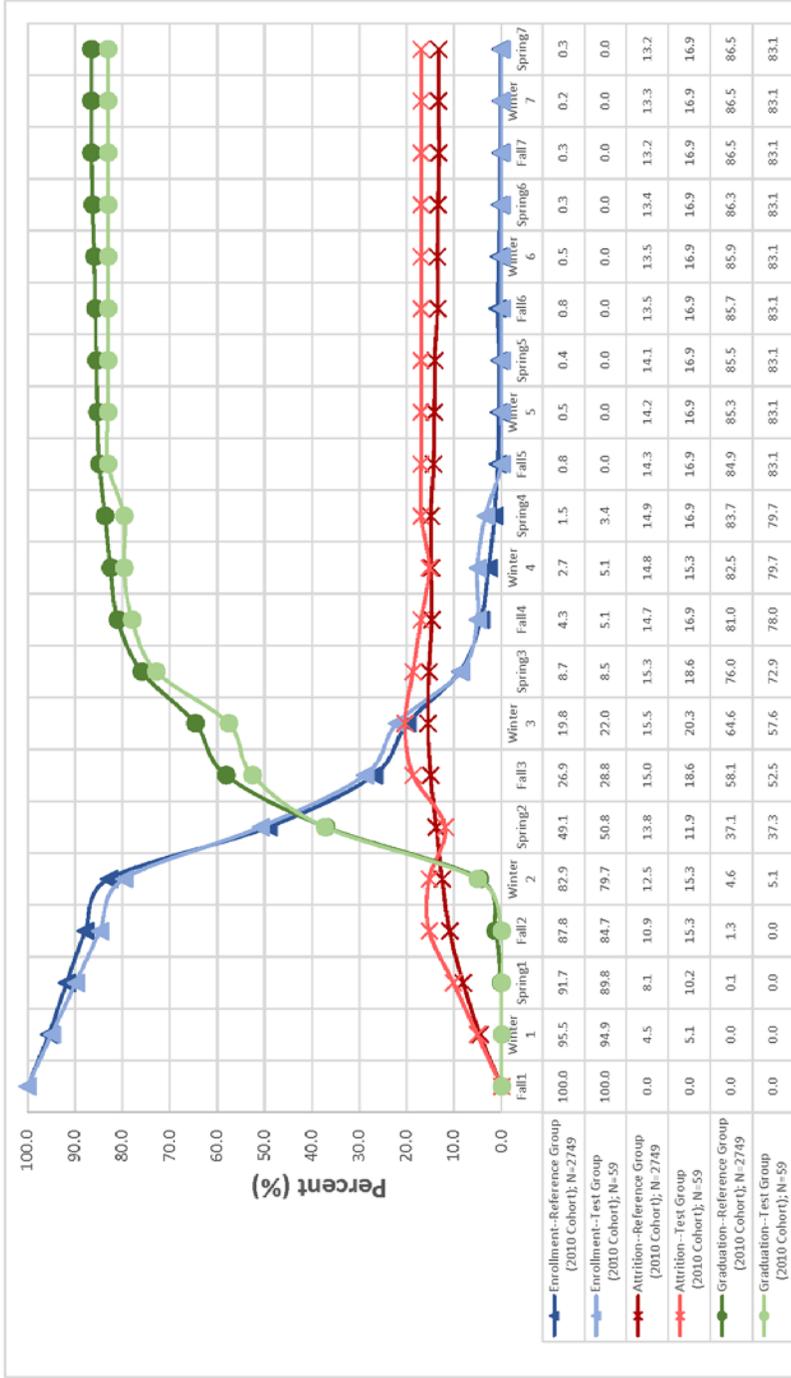


Significance markers on data points (X², Test Group as compared to Reference Group): ****p <= 0.0001; ***p <= 0.001; **p <= 0.01; *p <= 0.05

Reference Group: Undergraduates, Freshmen Entry (LEVL='UG'; ALEVL='H'-Freshmen)

Test Group: Undergraduates, Freshmen Entry, Eth. INCLUDES American Indian/Alaskan Native (LEVL='UG'; ALEVL='H'-Freshmen; ETH INCLUDES 'INA'- American Indian or Alaskan Native (IPEDS) &/OR 'UNA'-American Indian/Alaskan Native)

Enrollment, Attrition, and Graduation rates for the 201010 Cohort. (Of those students that remained actively enrolled in Fall 1)

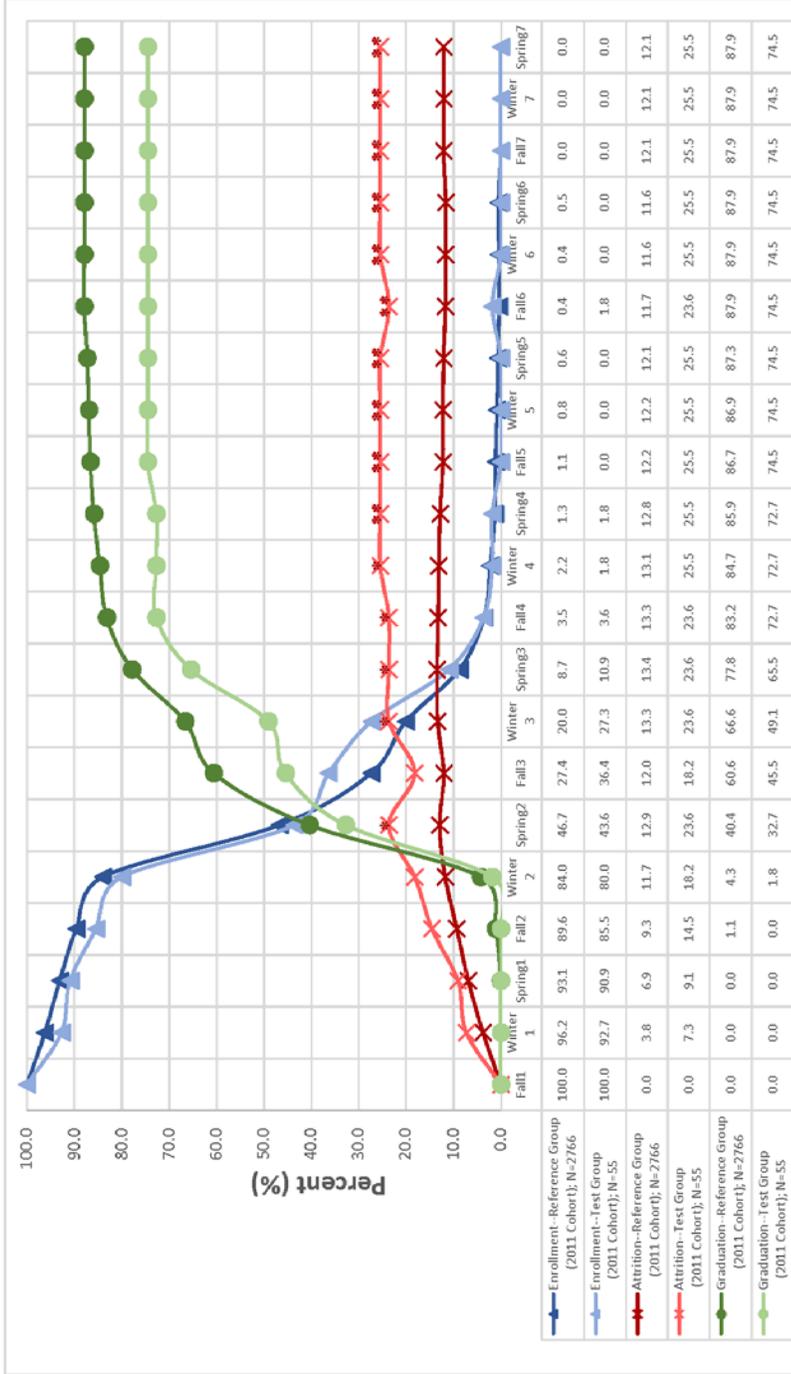


Significance markers on data points (X², Test Group as compared to Reference Group): ****p <= 0.0001; ***p <= 0.001; **p <= 0.01; *p <= 0.05

Reference Group: Undergraduates, Transfer Entry (LEVL='UG'; ALEVL='A'-Transfer)

Test Group: Undergraduates, Transfer Entry, Eth. INCLUDES American Indian/Alaskan Native (LEVL='UG'; ALEVL='A'-Transfer; ETH INCLUDES 'INA'-American Indian or Alaskan Native (IPEDS) &/OR 'UNA'-American Indian/Alaskan Native)

Enrollment, Attrition, and Graduation rates for the 201110 Cohort. (Of those students that remained actively enrolled in Fall 1)

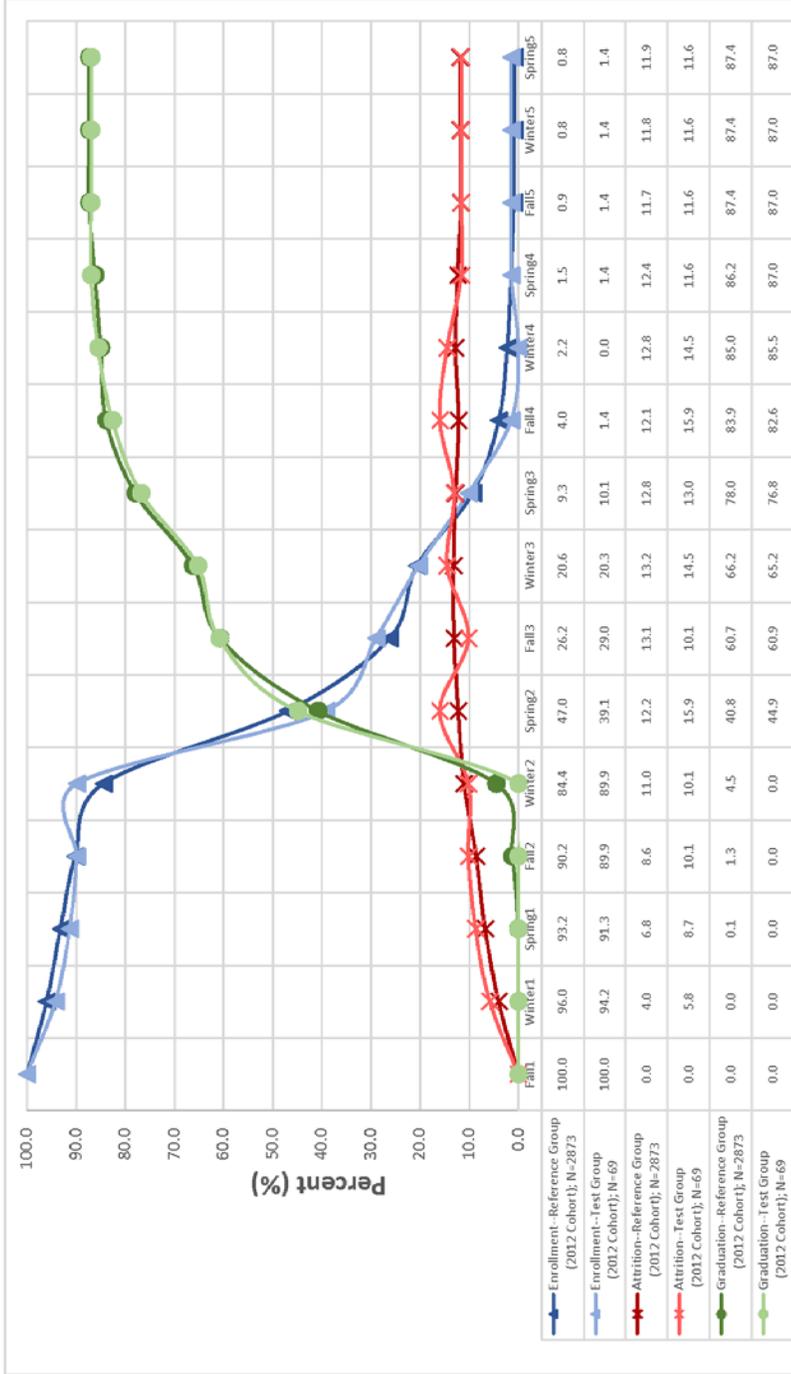


Significance markers on data points (X², Test Group as compared to Reference Group): ****p <= 0.0001; ***p <= 0.001; **p <= 0.01; *p <= 0.05

Reference Group: Undergraduates, Transfer Entry (LEVL='UG'; ALEVL='A'-Transfer)

Test Group: Undergraduates, Transfer Entry, Eth. INCLUDES American Indian/Alaskan Native (LEVL='UG'; ALEVL='A'-Transfer; ETH INCLUDES 'INA'-American Indian or Alaskan Native (IPEDS) &/OR 'UNA'-American Indian/Alaskan Native)

Enrollment, Attrition, and Graduation rates for the 201210 Cohort. (Of those students that remained actively enrolled in Fall 1)



Significance markers on data points (X², Test Group as compared to Reference Group): ****p <= 0.0001; ***p <= 0.001; **p <= 0.01; *p <= 0.05

Reference Group: Undergraduates, Transfer Entry (LEVL='UG'; ALEVL='A'-Transfer)

Test Group: Undergraduates, Transfer Entry, Eth. INCLUDES American Indian/Alaskan Native (LEVL='UG'; ALEVL='A'-Transfer; ETH INCLUDES 'INA'-American Indian or Alaskan Native (IPEDS) &/OR 'UNA'-American Indian/Alaskan Native)

Acknowledgements

Thanks to Stacy A. Miller and Angelina Herron for your assistance with scheduling committee meetings and preparation of meeting materials.

Thanks to Sharon Campbell Knox, Kevin Sitz, and the writing team in the Student Academic Success Center for editing assistance.

Thanks to Steven Morse for assistance with the cover design and internal artwork.

UC DAVIS
STUDENT AFFAIRS

UC DAVIS
UNDERGRADUATE EDUCATION