Executive Summary

In the 2017-18 Academic Year (AY), the Highly Valued Degree Initiative (HVDI) Task Force 2 conducted a needs analysis regarding student success data among data users; a pilot study on integrating quantitative Freshman Survey and IR data; and an array of qualitative research pilot studies. Data collected from faculty, staff and students not only supports a view of student success that includes 4-year graduation as an important metric goal but also recognizes that not all students will have this as a goal. The definition also incorporates work-school-life balance and mental health, as well as a set of skills and dispositions that prepare students to be informed citizens and for varied, volatile and diverse work environments.

The needs analysis and data pilots provide meaningful content about student success as well as insights on the structures and processes needed to conduct effective research to inform graduation goals and initiatives. The needs analysis identifies significant interest across campus in accessing data to better understand student needs and support student success, along with a recognition of the need for a centralized system that facilitates this work. The qualitative and quantitative pilot studies reveal the promising potential for integrating survey data with institutional data, as well as using qualitative investigation to extend and complement quantitative methods. At the same time, both pilots identify significant labor costs of both survey/institutional research (IR) integration and qualitative data collection and highlighted the critical need for a centralized source of support and coordination for institutional effectiveness work.

Both quantitative and qualitative data pilot results confirm that lack of financial resources is one of California State University, Long Beach (CSULB) students' primary challenges to successful degree completion. The need to work and commute, along with other family demands, negatively impacts students' academic success in direct ways by causing students to drop or fail classes. Financial constraints and the need to work long hours also have indirect negative impacts by hampering students' abilities to engage in on-campus activities and achieve a sense of belonging; and by creating significant levels of anxiety that in turn, negatively impact progress to degree.

The qualitative data demonstrates needs for additional resources to assist students in successfully navigating their college careers by orienting them to generic forms of institutional knowledge, by increasing opportunities for campus involvement/engagement and by addressing specific challenges and stressors. Numerous respondents across the pilots call for increased access to mental health services (e.g. Counseling and Psychological Services [CAPS]). At the same time, the findings show that many students are not aware of the existing resources on campus, and point to the need for the University to expand access to student-success oriented classes/cohort programs/learning communities as well as to find additional ways to inform students who do not have access to these programs of the resources available. In general, the qualitative pilots illustrate the value of this kind of research for the identification of specific needs of specific student populations.

As a result of its work in 2017-18, the Task Force recommends the campus develop a centralized data system for collecting and integrating different qualitative and quantitative data, the establishment of a permanent Institutional Effectiveness Office and Advisory Board, and the institutionalization of sustainable structures, incentives and training that will allow faculty, staff and student to both participate in the collection of data related to student success and to make meaningful use of the data generated. Further, it recommends that the campus identify and adopt a *suite* of surveys that can capture the experiences of students and their learning/growth over a period of time, from entrance through graduation and into the working world.

Plans for AY 2018-19 include finalizing recommendations on a survey suite and timeline for its administration, elaboration of recommendations on the structure and functions of the IE office and Advisory board following wide consultation, and the extension of a small number of qualitative, quantitative and mixed-methods projects that will model recommended processes of consultation and prioritization of research foci, structures and support needed for successful and sustainable classroom projects, and demonstrate the process and value of qualitative/quantitative data integration.

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I. Introduction

Task Force 2 for Research and Evaluation (TF 2) began meeting in February 2017 to identify its mission and plan for 2017-18 activities. Membership on the task force includes:

- Mahmoud Albawaneh, Office of Institutional Research and Assessment
- Juan Carlos Aptiz, Office of Institutional Research and Assessment
- Charity Bowles, Student Affairs
- Burkhard Englert, Computer Engineering and Computer Science, College of Engineering
- Don Haviland, Educational Leadership, College of Education, Committee Co-Chair
- Jonathan Huer, Academic Technology Services
- Misty Jaffe, Anthropology and Linguistics, College of Liberal Arts, Committee Co-Chair
- Lisa Klig, Biological Sciences, College of Natural Sciences and Mathematics
- Kerry Klima, Student Affairs
- Selena Nguyen-Rodriguez, Health Science, College of Health and Human Services
- Dhushy Sathianathan, Academic Affairs
- Deb Satterfield, Design, College of the Arts
- Gwen Shaffer, Journalism, College of Liberal Arts
- Tianni Zhou, Mathematics and Statistics, College of Natural Sciences and Mathematics

TF 2 recognized that, key to realizing CSULB's commitment to student success, including improved 4-year graduate rates, is the creation of a robust system of data collection and use that will allow us to identify students' needs and goals, the challenges they face in earning a degree at CSULB, and the effectiveness of practices to support their success. A better understanding of our students, their needs, and their experiences will allow the campus to implement more effective programs and services, and identify groups of students, who would benefit from specific types of support. The challenge is to build a system to collect and use **quantitative and qualitative** data to get better at what we do, as a campus, as colleges, as programs – to support student learning and success. To do so, TF 2 established the following mission:

> *Identify key research areas and resources for the development and implementation of a comprehensive, institutionalized research infrastructure that integrates qualitative and quantitative data to inform practice and support student success (close the achievement gap and improve graduation rates).*

Based on this mission, the committee identified three areas to focus its work: 1) design (methods/populations); 2) infrastructure needs and 3) policies and oversight.

2017-2018 Goals

To address these areas, in 2017-18, TF 2 agreed to focus on:

- Assessing current data collection and use via consultation on campus and external benchmarking.
- Building internal consensus and support for integrated data system and use.
- Articulating a vision for practices and needs related to this system.

More specifically, the TF 2 identified two broad areas to focus its work in 2017-18:

- **Articulating a vision for an integrated, comprehensive, institutionalized research structure to inform practice and support student success**. The goal of this work was to analyze campus practices and needs around collecting data to support institutional effectiveness and thereby to inform recommendations. TF 2 conducted a needs analysis by doing a scan of current campus practices (including at the school/college level). Findings are reported in this document and inform recommendations related to policies, practices, and structures needed for HVDI-related research work.
- **Conducting pilot studies to inform practice and serve as models for the kind of inquiry the larger system might support.** TF 2 also undertook 2 "pilot" studies during 2017-18. These studies enabled us to experiment with merging survey and existing institutional data, to collect qualitative data, to learn about the feasibility of these methods for institutional effectiveness work and to learn more about our students and their needs as we seek to improve our 4-year graduation rate.

There were two activities originally identified for 2017-18 that did not take place as planned. First, the task force had planned to pair a recommendation on a suite of surveys with the needs analysis described above. While these two are logically connected, the needs analysis took considerably more time than expected. Therefore, TF 2 has pushed back its timeline for the survey suite recommendations and plans to complete this as a separate report in Fall 2018.

Second, the task force had planned to engage in a benchmarking activity. While this activity did not take place as planned, some initial investigation revealed that the campuses we *thought* might be useful as models are in fact not as far along as we initially believed. Thus, the task force is re-calibrating its benchmarking work and will likely look closer to home (i.e., other CSUs) for lessons and insights.

In the remainder of this report, we report on the findings from needs analysis, qualitative pilot project, and quantitative pilot project. Following these sections, we offer broad recommendations before concluding with our planned next steps for 2018-19.

II. Needs Analysis Report

Authored by: Selena Nguyen-Rodriguez (CHHS), Deb Satterfield (COTA), Kerry Klima (Student Affairs), and Lyka Trinidad (Graduate Assistant). **Collaborator:** Charity Bowles (Student Affairs)

Background and Objectives

The needs analysis team sought to answer three primary questions:

- What data needs to be collected to understand student success and to support student success efforts?
- What are the best methods to collect the data needed to support student success?
- What services or resources are needed by campus entities to support their use of data to inform student success initiatives?

The team was comprised of Selena Nguyen-Rodriguez (CHHS), Deb Satterfield (COTA), Kerry Klima (Student Affairs), Charity Bowles (Student Affairs), and Lyka Trinidad (CHHS). The team began its work in September 2017, and sought to collect input from a wide range of constituents.

Definitions

Below are definitions used by the team in their work:

Assessment tools are measurement instruments used to collect data including questionnaires. Interviews, content analysis, focus groups, and observation (Birmingham & Wilkinson, 2003).

Evaluation are used to provide feedback from a program through systematic acquisition and assessment (Trochim & Donnelly, 2001).

Longitudinal studies includes both qualitative and quantitative data collection measures which follows up participants over a period of time (Caruana, Roman, Hernández-Sánchez, & Solli, 2015). In this project, longitudinal data collection includes those which has several time points upon student entry into the university, during the degree program, and after graduation.

Scales are a type of data collection instrument that measures outcomes by associating qualitative constructs with quantitative metric units (Trochim & Donnelly, 2001).

Survey refers to the collection of data from participants through qualitative, quantitative or both strategies (Check & Schutt, 2011).

Variables are measurable characteristics (such as age, gender) that can take on different values from different individuals (Trochim & Donnelly, 2001).

Qualitative data refers to information collected through in-depth interviews, direct observation or written documents that is not numerical in nature (Trochim & Donnelly, 2001).

Quantitative data refers to values, counts or measures which are numerical in nature (Trochim & Donnelly, 2001).

Methods

Respondents

To support broad representation of campus stakeholders, the team reached out to administrators, chairs, faculty, and staff. Respondents included administrators leading specific units that provide student services as well as administrators, faculty (tenure-track, tenured, and non-tenure-track) and staff from across the entire campus. Data come from a total of 8 sources: 1 campus-wide survey, 4 targeted surveys (Student Affairs, Undergraduate Studies, Graduate Studies, College Centers), 1 Data Fellows report with College-specific feedback (CBA, CEE, CHHS, CLA, CNSM, COE, COTA and UCUA), and the final report of the Provost's Task Force on Graduate Student Success. The full task force also consulted with higher education researchers on campus to collect input and gather ideas for data needs.

Undergraduate Studies had 4 respondents, Graduate Studies had 9 respondents, the Division of Student Affairs had 17 respondents, and there were 3 respondents from Centers within the Colleges. The campus-wide survey had 566 respondents. The number of respondents for the Data Fellows reports and the Graduate Student success report unknown, since information was provided in aggregate.

Procedures

The team employed various methods of data collection, including meetings, group discussion, and surveys. Team members conducted meetings with 1) the Vice Provost for Academic Planning, 2) the Director of Student Affairs and Academic Relations, 3) the Dean and the Director of Graduate Studies, and 4) the Associate Vice President of Undergraduate Studies. These meetings sought approval to survey members of the particular unit, gather feedback on survey questions from unit leads, and identify the method through which surveys would be distributed.

The team also distributed a targeted survey to the 1) Undergraduate Studies units, 2) Graduate Studies units, 3) Division of Student Affairs units, and 4) Associate Deans and college units. A campus-wide survey was distributed to the entire campus (to increase participation, those who completed the campus-wide survey could enter their name into a drawing to receive a gift card). All surveys were administered online using Qualtrics online survey software. Surveys

asked respondents to identify their unit and position, then asked a series of open-ended questions. The team conducted a group discussion with the Division of Student Affairs' Managers.

In addition, the analyses included existing documents provided by administrators; college-specific information collected through the *Data Fellows* initiative in Spring 2018 from seven of the CSULB Colleges and the University Center for Undergraduate Advising; and relevant information from the final report of the Provost's Task Force on Graduate Student Success.

Measures

Specific questions from the various surveys aimed to glean data to answer the three questions noted above. Below, the survey items are listed under the related objective for which they were used to obtain data:

1) What data needs to be collected?

- What are the biggest questions you (your unit) have about students and their success (e.g., timely graduation, engaged learning, employment or grad school preparation, etc.)?
- What information (data) do you need to answer these questions (i.e., in your role, what do you need to know to help support students' success)?
- What additional data would help you (your unit) support student success?
- What data/surveys would benefit Student Affairs in their student success efforts?
- What information related to students would help you better support student success (e.g., through advising, writing grants for student success projects)?
- What else would you like to add about ideas, needs or questions you have related to information that can help faculty and staff better support student success?

2) How does the data need to be collected?

- What challenges do you (your unit) face accessing and using information or data to inform your activities to support student success?
- What else would like to add about ideas, needs or questions you have related to information that can help faculty and staff better support student success?

3) What services or resources are needed to use data?

- What data-related support (e.g., how to interpret data, summarized reports) would help you (your unit) in your student success activities?
- What support or resources for using data would be useful to you to support student success (e.g., professional development, data interpretation, actions based on data)?
- What else would like to add about ideas, needs or questions you have related to information that can help faculty and staff better support student success?

Analysis

The team coded a total of 8 data sources during analyses—using NVivo (v11), a cross platform software package for storing, classifying and categorizing qualitative and mixed-method surveys (https://www.qsrinternational.com/nvivo/home). Responses were coded based on a series of nodes and sub-nodes that were identified from common emerging themes from the collected data. NVivo allows the coded responses to be viewed as a summary and a reference report. It also compiles the number of responses coded in a specific node and sub-node, as well as the number of sources represented in the compiled responses. In qualitative data interpretation, these numbers can be used in tandem to assess both the quantity of similar responses to a question and the occurrence of similar responses from multiple sources.

In the interpretation phase, the team used these reports to manually read and report on the both the presence of a response and its pervasiveness across multiple areas of reporting. These summary and reference reports were used to create the tabular, bullet-pointed data for each of the main questions. Quotes from the raw data were used to give clarity and specificity to the final report with regard to data interpretation. Finally, the team identified items for future research and crafted recommendations based on the interpretations of the qualitative responses—with regard to both frequency and in-depth or nuanced answers.

Therefore, each segment of the report includes an introduction to the topic; a summary of the responses; a table with common responses pulled out in bullet points; the number of sources represented in the response data; conclusions to inform future research; and a series of actionable recommendations. All topics are presented in descending order of frequency, separated by the primary questions. Of note, when responses come from only a few sources, the campus wide survey is always one of those sources, which includes the largest number and broadest representation of respondents.

Results

What are the Data Needs?

Information pertaining to the data that the stakeholders felt they needed to inform their student success efforts were initially coded into six major categories: 1) Academic factors; 2) Campus services available/accessed; 3) Extracurricular activities; 4) Institutional policies; 5) Institutional processes; and 6) Personal factors. Findings within each of these areas are reported by category below.

Academic Factors

Data related to Academic Factors was the most frequently occurring request. These types of data refer to issues that are related to academic issues, such as tracking, challenges, and outcomes. See Table 3-1 for statistics and examples related to each topic.

The primary areas of interest included: 1) Retention, matriculation and graduation numbers; 2) Post-graduation job/career information; 3) Selection of courses or majors/degree programs; and 4) Academic challenges. Participants want to better understand why students leave or change majors and to explore demographic profiles associated with graduation. An important topic for many was to be able to evaluate student success based on employment opportunities after graduation. There was a very broad range of interest around factors that influenced selection of courses or majors, focusing on trying to identify what influences these decisions. Many wanted to know more about students prior to entering the institution to inform areas of need/challenges to be able to support specific needs.

Additional areas of high interest included: 1) Graduation expectations of students; 2) Course performance; 3) Academic support; 4) Graduate education; and 5) Instruction- or course-related factors. A consistent theme around graduation expectations was that there should be less emphasis on 4-year graduation and more focus on value of degree to ensure interest in major as well as proper and comprehensive training for successful career outcomes. Requests indicated wanting the ability to evaluate course performance by demographic characteristics to evaluate student outcomes and teaching effectiveness among subgroups. Post-graduation tracking remained an important request with questions about graduate school admissions. When it came to courses and instruction, there was again a wide range of requests, some focused on student information and some on faculty data.

Table 3-1. Academic Factors

Topic	Examples
Retention, matriculation and graduation numbers 8 sources	• retention rates (by semester, by demographics) • reasons for leaving, taking breaks, dropping classes, and changing majors/Colleges • barriers to timely graduation • graduation rate by major, and other demographics • impact of curricular change on graduation
Post-graduation job/career information 7 sources	• salary • time to placement • type/quality of position • job performance • data on employment trends and changes
Selection of courses, majors/degree programs	• when/why students switch to major/College; influence of forced 4 year graduation

Topic	Examples
5 sources	• influences on time to degree (cohort vs. non-cohort models, course sequences, course preparation and performance), decisions for 2nd majors, minors, study abroad • data to help better match student to a good major fit • percent of students that need remediation classes by department • trends for common majors to develop back-up plans
Academic challenges 5 sources	• understanding of student academic background • what are student challenges/struggles (particularly for non-traditional students), weaknesses • what helps students overcome barriers / what are their needs, data on student strengths • information from advisors on student scheduling concerns
Graduation expectations 4 sources	• student preferences for time to graduation • data on challenges that affect time to graduation • data on university definition of success • student plans for full-time vs. part-time enrollment • what students hope to achieve with education
Course performance 5 sources	• impact of employment • influence of programming on student success • identify high failure rate classes (so can intervene) • study patterns • identification of high risk of failing class
Academic support 3 sources	• unique learning needs • understanding of students' academic background • what are student challenges; stressors that impact academic focus • information on high school instruction • reading and writing proficiency
Graduate education 5 sources	• info on graduate programs that admit our students • track who goes to graduate school • readiness for graduate school
Instruction- or course-related factors 3 sources	• course format (e.g., hybrid or online) influence on time to graduation • compare SPOT data across instructors, historical trends • tenure density by college and department • faculty workload by college and department • student feedback on satisfaction with courses

Needs were most often related to understanding students' facilitators and barriers to successful learning and educational outcomes. The following quote further supports the need for post-graduation assessment to understand this:

> *An exit survey is also something else that is needed, as currently we have no way of knowing why students are leaving, and for those that graduate, how many of these are successfully beginning their careers. These surveys are necessary to help advisors and administrators understand student expectations, improve advising and other services in efforts to reduce attrition and improve time to degree, and determine if career preparedness initiatives are successful in preparing students for after graduation*.

Importantly, structural and organizational expectations may need to be informed and revised based on comprehensive assessment of student needs. One person said:

> *I think there is a total mismatch about expectations regarding "student success"; for administrators, it means to graduate students in 4 years. For most faculty, that is a red herring. We talk to students and we know the harsh realities of their daily lives. How can you take 12-18 units while working 25-50 hours? How can you concentrate when your parents or members of your family are ill, deported, in jail, or homeless. The emphasis on a 4-year graduation is offensive to many of us, and certainly to our students. We are relinquishing our obligation towards the youth of California by ignoring their material and emotional needs*.

Future Research and Recommendations. Results identified some key areas warranting further exploration to inform our understanding of student experiences and outcomes. Increased knowledge around student experience during degree program as well as after completion to identify areas for improvement and understand students' feelings about the university can inform success efforts. These activities should focus on perception of preparedness, valuable factors, needed/missing skills.

Recommendations include:

- Assess students' demographic, academic, and personal influences on selection of majors, retention/matriculation, and graduation numbers.
- Collect post-graduation follow-up data regarding successes, job/career and/or graduate education as well as retrospective perceptions of experience/training/preparation at CSULB.
- Assess student preferences on time to graduation across degree program to inform needs for alternative time to degree plans that enhance student success and value of degree.

Personal Factors

Data related to Personal Factors was the second most frequently occurring need identified to support student success. These types of data refer to issues that are related to the personal characteristics of the students and their social and cultural environment such as demographic and social (e.g., family-related) data, and personal characteristics or preferences. See Table 3-2 for examples related to each topic.

The primary areas of interest included: 1) Demographics; 2) Finances; 3) Employment; and 4) Characteristics. The participants identified the need to determine which demographic factors such as race, ethnicity, gender, and college enrollment generation, had an impact on student success. Finances were also identified as a possible major factor influencing success of students. This includes economic hardships, housing issues, and food insecurity. In terms of employment, limited data is available on whether or not students are working on or off campus and the number of hours they work in relation to the number of units taken. Data on student characteristics in terms of disposition or personality, skills or strengths, general struggles or barriers, satisfaction with education, and personal preferences were highly requested as well.

Additional areas of high interest included: 1) Sociocultural; 2) Health; 3) Graduation expectations; and 4) Travel, commute, and parking. Several sociocultural factors including cultural background, aspirations, and values of students need to be assessed on whether or not they influence student success. Success of underrepresented communities on campus might be different. Access to health care, physical health, and mental health were common aspects the respondents wanted to know more about their students. Another concern was that the graduation expectations of students (whether or not they expect to graduate within four years) need to be better understood. The impact of time restriction and struggles to fund and find parking on a commuter campus was also identified as data worth exploring and/or questions worth asking in the survey.

Table 3-2. Personal Factors

Topic	Examples
Demographics 6 sources	• Data on the background information of students including age, gender, race, and ethnicity • Educational background of students in terms of high school preparation, community college records, and level of academic literacy • Classification of students such as 1st generation and international or non-international
Finances 4 sources	• Use of financial aid and how they finance their studies • Student employment and financial responsibilities • Food insecurity • Shelter insecurity • Economic hardships

Topic	Examples
Employment 5 sources	• Number of hours employed as compared to workload and units taken • Impact of on-campus as compared to off-campus employment • Employment affecting GPA • Data on special circumstances such as single-parent who are employed
Characteristics 5 sources	• Disposition, academic preparation, aspirations, and values of students • Current professional and career options chosen • Characteristics of those students who are successful and those students who leave the university
Sociocultural 3 sources	• Cultural background • Aspirations and values of students • Underrepresented communities • Socio-economic status and use of financial aid • Caring for family members
Health 3 sources	• Physical health of student including disease diagnosis, injury information, disability • Mental health of students and life incidents and critical stressors • Access to health care services
Graduation Expectation 3 sources	• Student ambitions, goals, careers, motivations, and personal support system available • Goal for graduation years and target of students upon entering the campus • Progression of students over time and changing goals in education • Data on the challenges the students face and the support needed for timely graduation
Travel/commute, parking 2 sources	• Time restriction • Length of commute and distance of residence from campus • Unavailability of parking on campus

Data needs were often related to profiling the background information of students for the faculty and staff to better understand how support for student success can be given. This is supported by this statement:

> *Having more knowledge about our current students -- their academic preparation, their aspirations, their values. Also having more information about current professional and career options and their requirements.*

Participants said that knowing the student demographics and characteristics would help fit the support currently being provided:

> *Staff advisors need more background information on students to be able to advise them based on their needs. Background information highlighted included whether students are first generation (so they can dedicate more time to advise them and inform them about resources available), and whether there are factors that more severely limit the academic loads they should be taking or when they can take their classes (such as if they are full-time workers, have children and/or are single parents). Having more information can help with enrollment management and proper scheduling of courses, as well as help CSS determine whether services are widely accessible to all students*.

Future Research and Recommendations. Further research is suggested to identify the factors most salient to create a profile of students studying at CSULB and whether or not student expectations upon entering at CSULB changes throughout their stay in the university. Differences in student outcomes across different demographic groups warrant further investigation to identify which groups have better academic performance to learn how we may support those that have lower performance. Recommendations include:

- Assess students' demographic and sociocultural influences on academic performance
- Assess student preferences on time to graduation across degree program
- Identify barriers to student success such as physical health, mental health, finances, employment, and travel or commute

Institutional Policies

Data related to Institutional Policies was divided into the sub-categories of central system for all data, data access needs and academic policy. See Table 3-3 for frequency and examples related to each topic. Specifically, data regarding a central system for all data and data access needs were most frequently reported. A central system for all data was noted by the following response,

> *We need a data warehouse for all of us to access. We have big challenges to get data and use it and this is too hard right now. There is so much control over data and it's a hindrance for us to understand our data. We need a data keeper and facilitator to help us. We need to link the data but still consider the FERPA aspects*."

The need for data access was expressed by this survey response,

> *Disaggregated data on ALL our students (UG, credential, and grad) that is consistent, accurate, and timely. ALL our students matter and we need to have readily accessible data related to demographics, program of study, progress to degree, student responses*

on University-level success surveys etc. A warehouse of data to be accessed based on need, while of course maintaining student privacy and confidentiality is key. We need to do a better job-sharing data so we are not all replicating efforts at the University, College, and Department levels. It would also be helpful to have an inventory of all the data that is currently available to promote student success efforts.

Table 3-3. Institutional Policies

Topic	Examples
Central System for Data 8 sources	• Data warehouse needed • Ability to track student data in one location • Need for integration of data from university and department sources • Need for timely and consistent data collection • Need for centralized data dashboard
Data Access 5 sources	• Access to comparative and data • Access to disaggregate data • Unified and comprehensive data on students • Need for disaggregated data
Academic Policies 6 sources	• Data to better understand institutional barriers • Data to better understand student success

Survey respondents from all eight sources noted the need for a data system supporting a wide variety of information sources and the need for a single point of access to the data. Better communication and less duplication of data collection was also noted.

Future Research and Recommendations. Research into how to design a data dashboard to easily facilitate data needs is warranted. The need to determine what data collection tools should be used and with what frequency was apparent from responses. Recommendations include:

- A data warehouse that is centralized through a data dashboard
- Regular and timely collection of data
- Access to comparative data
- Access to disaggregated data

Campus Services

Data related to availability of campus services and academic support were also frequently requested. Specifically, data regarding the effectiveness of existing programs for student success, advising, tutoring, mentorship and career counseling were the most frequently mentioned. See Table 3-4 for examples related to each topic.

The primary areas of interest included: 1) Academic Support; 2) Availability of Campus Services; 3) Career Support Services; and 4) Health and Social Support Services. The main concerns in this area involve data to support the tracking and effectiveness of these programs. The greatest number of response, from 6 sources, involved academic support in terms of student success in the classroom or in a major. Career support service data needs were expressed by respondents from across 3 sources and were focused on career readiness such as research, internships, workshops and mentorship. One respondent identified a data need for information regarding, "*Student background in terms of subject matter knowledge and technological know-how; career readiness*."

Table 3-4. Campus Services

Topic	Examples
Academic Support 6 sources	• Inventory of student assistance programs and their success rates • Access to student information • Advising and student road maps • Tutoring
Availability of Campus Services 4 sources	• Student access to technology • Better information about students with disabilities • Track services to determine effectiveness
Career Support Services 3 sources	• Impact of career planning on graduation time • Data on interests and skills • Data on emotional or learning problems as barriers • Information on career readiness
Health and Social Support Services 2 sources	• Student data on homelessness • Data regarding mental health of students

While a large number of requests did not focus on actual student data to collect, it is quite notable that pervasive recurring theme (eight sources) noted the need for centralized, comprehensive information on student assistance programs that support academic and personal needs. This is closely related to the fact that many respondents identified what students needed to succeed, including tutoring, mentorship, and community engagement. The need to collect data on the outcomes of student support services was noted by a respondent who said:

> *Taking inventory of all the student assistance programs on campus and beginning to study their actual success rate so that those that aren't successful may be cut or changed and those that are successful may be used as examples*.

Future Research and Recommendations. Further research should be conducted to determine how faculty and staff are currently being made aware of student support programs and how they can access data with regard to the relative success of each program for supporting academic success to a specific type of student or situation. Recommendations include:

- Data on the success of academic support programs such as tutoring and mentorship
- Data on the success of career support programs such as research opportunities, internship, and community engagement projects

Extracurricular Activities

Requests for data related to extracurricular activities were almost evenly split among student groups or clubs, internships, and volunteer and community service activities. See Table 3-5 for examples related to each topic. Generally, requests involved current statistics on students involved in extracurricular opportunities. Specifically, data regarding the involvement and impact of these opportunities on student success and/or retention and graduation rates were the most frequently cited.

In some cases, responses indicated a lack of tracking data or a lack of how to interpret the quality of the experience with regard to learning. With regard to internships, one response stated, "*Internships are being increased and are a high impact experience. 2000 students are enrolled on internships every year but this data is not yet identified in Tableau. This data needs to be collected*."

Other responses were focused on experiential learning and co-curricular experiences. A typical survey response in this area was, "*What organizations are students a part of, what co-curricular or experiential learning experiences are students participating in- what do they learn from those experiences? How do those experiences help students after graduation?*" With regard to campus opportunities, a respondent asked, "*What impact (if any) does student involvement in ASI have on students' engagement with the campus, retention and persistence, and timely graduation?*"

Table 3-5. Extracurricular Activities

Topic	Examples
Student Groups, Clubs 5 sources	• Data on student involvement in projects or clubs • Statistics on student activities outside of class • Data on student learning from co-curricular activities • ASI impact on student engagement
Internships 4 sources	• Data on student experiences • Ability to track student internships • Data on internships and student retention • Student success projects

Volunteer, Community Service 2 sources	• Statistics on student involvement in volunteer and community service programs

Survey respondents from 6 sources noted the need for a data system supporting tracking student engagement or participation in the areas of internships, student groups and community service. Concerns regarding the impact and learning associated with these activities was noted, as was the lack of tracking data and the impact of these activities on student retention and graduation rates.

Future Research and Recommendations. Further research should be conducted to determine extracurricular and co-curricular activities impact student learning, retention and graduation. Recommendations include:

- Track student participation in internships, student groups, and community service activities
- Data on the success of academic support programs such as tutoring and mentorship
- Data on the role of extracurricular activities on student learning, retention and graduation rates

Institutional Processes

Data related to Institutional Processes was divided into the sub-categories of data access needs and paperwork issues. See Table 3-6 for examples related to each topic. Data access needs were mentioned more frequently and in four of the reporting sources. An example of a data access need came from one person,

> *We need a Student Dashboard on Tableau that shows our current student population (how many majors, pre-majors, minors, graduate students by program; average unit loads; GPAs). This dashboard is currently generated by the college for department chairs and administrators, but it would be great if they could get live data on Tableau rather than through an excel report. This information is needed because it gives us a more accurate picture of our current student population, rather than based on cohort which could include students still with us or even students that have left*.

Fewer respondents noted paperwork related issues. However, one example of these issues was,

> *Our office would benefit from faculty and staff utilizing our electronic reporting forms so that we can start capturing data*." Another example of a paperwork issues noted, "*Survey students who have experienced administrative barriers to completing their degree - i.e. advising misinformation, Enrollment Services policies, lack of financial aid, etc*.

Table 3-6. Institutional Processes

Topic	Examples
Data Access 4 sources	• Access to comparative data • Access to disaggregated data • Unified and comprehensive data on students
Paperwork Issues 3 sources	• Need for electronic data capture forms • Process of trying to switch majors

Survey respondents from 5 sources noted the need for online data access need for students and data that identifies barriers to success. Access to comparative data and more comprehensive data on students was also noted.

Future Research and Recommendations. Data on how processes related to students being able navigate the campus systems and policies that require paperwork can be barriers to student performance, changes, and degree completion can inform improvements of campus procedures. Recommendations include:

- Electronic forms for data capture
- Access to comprehensive data on students, including barriers to success in areas such as advising, enrollment and financial aid

How to Collect Data?

Results provided insights to inform methods to best obtain the data that the surveyed stakeholders requested (see Table 3-7).

Table 3-7. How to Collect Data

Topic	Examples
Longitudinal tracking 5 sources	• Midpoint assessments are missing • Exit surveys for those who leave and graduate • Reports of student success after graduation
Qualitative assessment 3 sources	• Hold focus groups; more qualitative data (from current students and alumni) • More meaningful in-depth student evaluations • Qualitative information to help us identify risk to intervene
Quantitative assessment 3 sources	• Comprehensive campus climate and student information surveys • Assessments at least three time points • Data collection to support grant efforts (e.g., illustrate successes to garner additional funding)

The need for consistent assessments across time, during programs, and after graduation, was most prevalent. This approach will enable identification of barriers and facilitators of success during program as well as evaluation of predictors of post-graduation successes. It can address a gap in needed information as illustrated in this quote: "*…although the CIRP survey is helpful in providing information on incoming students, the lack of surveys midpoint through their degrees results in a missed opportunity*." Ongoing assessment can help respondents see whether their student success efforts are effective: "*It might be nice to be able to track interventions attempted and outcomes for students who are struggling*."

Given the type of information that was requested and additional results presented in Table 3-7, it is clear that some data need to be collected using qualitative methods, including individual and group interviews. This will allow for in-depth understanding of student perceptions and contextual influences on student performance and outcomes. These methods will address data requests such as: "*Qualitative information on the reasons why certain things seem to work or don't work, about what they find useful or not. I also think it would be very helpful to know more about what students who are not successful or leave the university found to hinder their success. Essentially, I would like to know more from their perspectives*."

An efficient and effective way to assess students on a large scale is to use quantitative methods, such as surveys. This will provide campus-wide data that can be used by multiple stakeholders to address various needs including evaluation of their service outcomes, data reported to accreditation bodies, and data to support grant proposal development.

Recommendations. The recommendations include for student success-related data collection include:

- Multiple assessments across time from start of program through post-graduation (e.g., baseline, midpoint, upon completion of degree, 1 year post-graduation, 3 years post-graduation)
- Identify factors that required qualitative assessment as well as methods of consistent and representative data collection
- Identify a specific set of variables that research indicates are most relevant to student success and those variables that are known to be unique to CSULB students to develop comprehensive surveys that will inform stakeholders about the student characteristics that impact student performance and outcomes

Survey Suite Recommendations

There are a variety of data needs expressed above from faculty and staff to better understand the student experience and student needs. It is evident from the initial needs assessment categories such as personal factors (i.e. graduation expectations, sociocultural, characteristics of students) and academic factors (i.e. retention, course performance), that the needs are

convoluted and complex for understanding data related to student success and outcomes. Additionally, the respondents and participants expressed a need to understand what students identify as facilitators of and barriers to success. Due to the vastness, complexity, and compounded nature of the needs provided, the task force recommends the development or adoption of a suite of surveys to better understand student experiences.

It is also evident from the variety of needs expressed from academic affairs, student affairs, and other campus units that a centralized, accessible, and fully-integrated suite of surveys linking to institutional data would be useful for data-driven decision making. Currently, it is our understanding that the institution only systematically surveys incoming first-time freshmen during the SOAR experience, and that data dissemination and use is limited. Given finite resources, this practice is understandable. However, it misses valuable opportunities to examine the student experience (including student growth and learning over time), which could help the campus inform practices, meet accreditation needs, and demonstrate our impact to constituents (the public, funders, etc.).

Investment in a suite of surveys, together with a clear plan to implement consistent assessment and disseminate the findings, is critical as the institution seeks to understand how to better support student success. A survey suite would include surveys that assess students and their experiences at various points in time. At a minimum, this would include at but would be most informative and effective to also include a survey administered at some point during the college experience (e.g., Year 2 or 3) as well as an alumni survey.

The considerations and further exploration should include first destination (e.g., employment, graduate school) surveys, student engagement, attitudes and behaviors of students, graduation and timeline perceptions, student needs, and various developmental outcomes pertinent to the mission of CSULB. The survey suite needs and recommendations analysis should include critical perspectives to align with the sociocultural factors (e.g., identity, background and experience) expressed in this needs assessment, as the diverse characteristics and backgrounds our students are vital to surveying. Related, the suite of surveys should be designed and administered in a way that captures the experiences of our substantial *transfer* population.

Given the complex needs that a survey suite would fulfill, as well as the importance of this component of an institutional effectiveness system, we recommend that the task force continue the work of analyzing the survey suite needs by examining the commercial surveys with the knowledge and understanding from the HVDI Task Force 2 needs assessment completed in the 2017-2018 academic year.

In previous years, CSULB has used a variety of common commercial survey instruments: CIRP, NSSE, and FSSE. Below are the common commercial surveys from the Higher Education Research Institute (HERI) and the Center for Postsecondary Research.
Common commercial surveys available are described below. Of note, CSULB has employed some of these surveys in the past. These proprietary surveys (e.g. HERI) offer benefits in terms of benchmarking but also come with substantial costs and may be redundant as they ask

students to report data (e.g., gender, income) that the institution already has in its databases. Another option might be to develop home-grown surveys, which offer benefits but may be costly to administer and maintain.

The Higher Education Research Institute (HERI) offers four student surveys, including:[1]

- **CIRP Freshman Survey**: "For over 50 years, the CIRP Freshmen Survey (TFS) has provided data on incoming college students' background characteristics, high school experiences, attitudes, behaviors, and expectations for college." This is a pre-test type survey, and should be followed up with subsequent surveys from HERI, such as Your First College Year (YFCY), Diverse Learning Environments (DLE), College Senior Survey (CSS).
- **Your First College Year Survey**: "Your First College Year is a survey designed to provide higher education practitioners and researchers with comprehensive information on the academic and personal development of first-year college students. As such, YFCY collects information on a wide range of cognitive and affective measures, providing comprehensive institutional and comparative data for analyses of persistence, adjustment, and other first-year outcomes. Further, YFCY was designed as a follow-up survey to the annual CIRP Freshman Survey and allows for longitudinal research on the first year of college. However, YFCY also may be used as a stand-alone instrument."
- **Diverse Learning Environments Survey**: "The Diverse Learning Environments Survey (DLE) captures student perceptions regarding the institutional climate, campus practices as experienced with faculty, staff, and peers, and student learning outcomes. Diverse student populations are at the center of the survey, and the instrument is based on studies of diverse student bodies and the complexity of issues that range from student mobility to intergroup relations."
- **College Senior Survey**: "The College Senior Survey (CSS) connects academic, civic, and diversity outcomes with a comprehensive set of college experiences to measure the impact of college. Although the CSS can be used as a stand-alone instrument, when used in conjunction with the CIRP Freshman Survey (TFS), the Diverse Learning Environments Survey (DLE), or the Your First College Year Survey (YFCY), the CSS generates valuable longitudinal data on students' cognitive and affective growth during college."
- HERI offers a faculty and staff survey as well.

The Center for Postsecondary Research, Indiana School of Education offers three large scale surveys, including: Information retrieved from: http://nsse.indiana.edu/.[2]

- **NSSE**: "Survey items on *The College Student Report* represent empirically confirmed "good practices" in undergraduate education. That is, they reflect behaviors by students and institutions that are associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved."

[1] Information retrieved from: https://heri.ucla.edu/overview-of-surveys/
[2] Information retrieved from: http://nsse.indiana.edu/.

- **FSSE**: “FSSE is designed to measure instructional staff expectations for student engagement in educational practices that are empirically linked with high levels of learning and development.”
  BCSSE: “BCSSE collects data about entering college students' high school academic and co-curricular experiences, as well as their expectations for participating in educationally purposeful activities during the first college year.”

While the Task Force should develop a more comprehensive list of criteria to inform the investigation, some preliminary questions or criteria might include:

- The ability to look at the student experience over time.
- Questions and topics that are relevant to the diverse student populations that CSULB serves (including a wide range of racial and ethnic groups, parents, first-generation students, and transfer students) as well as reflective of changing social identities (e.g., gender, parents, caretakers).
- The ability to merge student-level survey responses with student-level institutional data for more sophisticated analyses and to reduce survey fatigue.

What are the Support Needed for Using Data?

Table 3-8 (page 24)provides statistics and examples related to each topic found in response to needs for support to use data. The most frequently occurring requests around support needed to use data to assist in understanding student success are described below.

Training

Data related to training needs was reported by three sources. Specifically, the most frequent responses were in reference to professional development, in-house trainings, IT training, data training, research and grant writing. In some cases, specific trainings were mentioned such as University 100,

> *I miss the pedagogical retreats from University 100. It provided useful, current information and stats on student trends. For example, I remember learning that the number one reason for college students dropping out of school was not being able to make their car payment. This proved to be true as one of my student assistants bought a car then ended up quitting school to work as a bartender to make the payments. I was able to connect the dots and advise further student employees of mine about this situation and they were able to avoid this pitfall and graduate*.

Other responses alluded to the benefits of training and professional development. Data 101, a data workshop for staff was mentioned with regard to fostering more engaged workers, “*Data 101- where administration/high data users learn research ethics, basics, general understandings of key terms (i.e. First-Time Freshmen versus Transfer, first-generation status, qualitative vs. quantitative, sex v. gender etc.)*”

The need for additional resources to *support* training and professional development was also noted, "*Resources and support for professional development would be helpful, because it would allow our staff to potentially come up with more creative and efficient ways to help as many students as possible*." Another response linked training to specific outcomes,

> *More training is needed for ASMs on enrollment management and how this ties to funding (including gap funding). There is a need to have a better understanding of the fiscal side of enrollment management; to be able to gage instructional costs when working on scheduling; and to determine how many sections to offer, if possible. Training would also be helpful to help ASMs determine how they can project costs early on, and what kind of data they can use to understand their financial position for the upcoming year*.

Interpretation

There were a significant number of requests for data interpretation support, which can facilitate understanding of findings and answering key questions for units. The following quote illustrates this point well: "*A lot of the ideas the data teams have been working on seem great, but they need to be translated to faculty and staff who aren't as quantitatively minded*." To make data collection efforts useful, translation of findings that guide next steps to address issues is key.

Data access

Data needed by staff and faculty directly working with students are usually not readily available. Weighing protection of sensitive data versus its availability to staff and faculty directly working with students has been a concern. Although data on student success are already being collected, few respondents knew where the data lived, making its utilization poor. Improving data accessibility is essential for the enhancement of existing programs being implemented to meet student success needs.

Additional data support requests that occurred at substantial but lower frequency than the above topics included the following:

Resources

A major barrier to using data is the lack of time available to collect data and run analyses to inform any success efforts. While requests for compensation were present, the issue of man power to do the work is closely related to the issue of time. Technical support is also needed, including the physical resources, such as software, and intellectual resources for using the physical resources.

Actions based on data

Although a huge amount of data is already available, most have limited ideas on how to take action and address student needs. Utilizing data to inform policies and decision making, and to recommend innovative interventions was identified as a major concern. While actions are already being taken, these might not target actual needs of the students as supported by this statement: *I strongly believe we should increase the support and resources for our students based on what they say they need, not what we might assume they need.*

Summarized reports

A common request was "summarized reports" (found across four sources), with key data points summarized in digested form. Many of the responses were with regard to longitudinal data on student success, alumni, and demographic data. One respondent mentioned the need for detailed reports for financial aid and enrollment,

> *Access to generate detailed Student Group Reports- financial aid, ed leave (date filed, expected re-enrollment, reason), percentage of financial aid available per student, list of courses left to complete, timeline, course availability per semester, and Periodic Student Progress Reports within the current semester.*

Many respondents mentioned the need for longitudinal alumni data with regard to careers. One example of this type of response said,

> *I would like easily accessible data about which students are succeeding, especially after they graduate from the university. What are they doing five, 10, 20 years from now? Which majors produce students that go on to have the most job satisfaction? Also, which majors are least successful - not in terms of money earned, but in terms of job satisfaction*.

Student success, support and satisfaction were mentioned in a variety of ways. One respondent expressed this need in the following way,

> *Knowing more about what CSULB students feel they need to be supported and excel. Knowing more about them as a diverse population. Knowing more about best practices that will help me provide the best advice and support as they navigate the complex path that will lead them to a bachelor's degree*.

Timeliness of data

The timeliness of data was noted by responses from five sources. The responses focused on data reflecting current trends in majors and career choices, timely reports on enrollment and admissions, and the need for a mechanism to allow access to the most current information such as a Student Dashboard on Tableau. One person stated this by indicating a need for a,

Course Dashboard on Tableau that shows course information (fill rates, course offerings and comparisons across semesters, FTES, completion rates). This dashboard is currently generated by the college, but again, it would be better if information could be live, and always up-to-date.

Another respondent identified the need for *"Timely information about our students (e.g., enrollment trends, student profile, trendy careers).*"

Data collection support

While many see the importance of collecting data to understand performance and assess outcomes, there may be a deficit in the ability to obtain reliable and valid data. This is indicated in this response: "*Also having access to someone who can help us with creating assessment tools….*" It also appears that support around access to technologies needed to maintain and manage data are warranted.

The following topics were found at lower frequencies (less than 20):

Collaborations

Respondents recognized the existing resources around us and expressed interest in building collaborations among those with the appropriate know-how to move data-based efforts forward. A need for including all relevant stakeholders to inform data-driven strategies to be developed and implemented was also noted.

Analyses

Respondents identified support for analyzing data as necessary for tracking student performance, and for correlating markers of successful students. Analysis of evaluation data on the impact of student success support services needs to be supported as well.

Organization of data

Existing data systems seem to have strengths and limitations that may reduce access and/or use of them; centralized information describing what is available within each system may also facilitate increased use. The ability to link campus data with unit-level data is also desirable.

Table 3-8. Support for Using Data

Topic	Examples
Training 3 sources	• Need for IT training • Data research and training • Timely training for staff
Interpretation	• How to make the data actionable

Topic	Examples
4 sources	• Data interpretation for a lay audience • Telling our story (answers to specific data-based questions)
Data access 8 sources	• Understanding of what data is available and accessible • Awareness of where data already being collected lives • Weighing protection of sensitive data versus its availability to staff and faculty directly working with students
Resources 2 sources	• Monetary compensation and/or release time to engage in assessment, intervention and evaluation • Materials (e.g., software, data system) to engage in assessment and evaluation • Manpower (consultant; staff) • Technical support
Actions based on data 2 sources	• Use of data to identify actual student needs • Utilizing data to inform policies and decision making, and to recommend innovative interventions. • Increasing support and resources based on identified needs of the students from feedback
Summarized reports 4 sources	• Data on student success • Need for longitudinal reports on alumni • Need for demographic data
Timeliness of data 5 sources	• Data on current student trends in enrollment and careers • Timely reports on admissions and enrollment • Need for up-to-date information • Access to live data on Student Dashboard on Tableau
Data collection support 6 sources	• Survey design • Software or database to maintain records • Assessment tools (e.g., surveys)
Collaborations 1 source	• Relationships between faculty and staff with backgrounds in student success • Involvement of all faculty as well as staff to obtain feedback in development of student success efforts • More collaboration among those performing data-driven analyses
Analyses 3 sources	• Analysis of data for the purpose of tracking student needs • Use of statistical analysis to correlate markers of successful graduates

Topic	Examples
	• Program evaluation statistical data for student success support services
Organization of data 4 sources	• Data systems that are intuitive/user-friendly • Ability to link group-specific data with University data • Clarity on what data is available in what system

Future Research and Recommendations. Research into the specific types of training and professional development for each area to identify what is most needed is an important next step. The institution must also determine what summarized reports would be most useful with regard to student trends and alumni data to support evaluation and inform practice. Consideration of timing, data collection, and data access strategies to best support the timeliness of data available is also important. Recommendations include:

- Identify methods to provide needed material resources, time, and staff for data-related activities as well as technical support for assessment activities and interpretation.
- Get qualitative feedback from system users to identify pros and cons of all existing campus data systems to take the best of the best (and exclude what does not work) in developing a centralized data system
- Weigh protection of sensitive data versus its availability to staff and faculty directly working with students
- A data dashboard that allows summarized reports to be generated as needed
- Regular and timely collection of data on students and alumni that is available in a timely fashion for immediate use
- Access and funds to support professional development and in-house trainings

Conclusion

It is clear that a deep interest and need to collect data identifying the key facilitators and barriers to success for CSULB students exists. Respondents expressed a desire to use these data to inform practices and policies, and to provide stronger student support. However, the university must commit to providing the training, resources, and structure needed to ensure this is done efficiently and consistently, and that the data will be used to inform policy and practice.

III. Qualitative Pilot Report

Authored by: Misty Jaffe (CLA-LING/ANTH), Gwen Shaffer (CLA-JOUR), Stevie Merino (Graduate Assistant). **Faculty collaborators**: Ann Kim (HDEV), Cory Wright (PHIL), Claudia Lopez (SOC), Esa Syeed(SOC), John Attinasi (CED), Cora Goldstein (POSC), Wendy Klein (ANTH), Gabriela Hernandez (ANTH grad student) and Caitlin Fouratt (IST), Delores Robles (FACS), Saba Yohannes-Reda (ENGR), Helen Yohannes (ENGR), Belinda Daughrity (Speech Language Pathology).

Projects

The Qualitative Data Team conducted/coordinated the following categories of projects in AY 2017-18. Several goals and principles, as well as specific interests of collaborating faculty, shaped project selection.

1) The first was to use qualitative data collection to better understand **specific populations**. Our sampled populations included groups of students with known challenges to student success: commuters, student parents and undocumented students.
2) The second was to **integrate** qualitative data collection on student success into the **ongoing work** of faculty and staff. To this end, faculty teaching three sections of research methods classes guided their classes in the design and conduct of focus groups and interviews surrounding obstacles to and facilitators of student success. The Qualitative Team also collected and coded Thought Exchange comments sent in by students, faculty and staff in preparation for the Fall 2017 Academic Senate retreat, the ASI/AS White Paper on the retreat feedback, and an ASI retreat topic on Student Success. Two projects from category 1 (on student parents and undocumented student ally training) also fit into this category.
3) Third, two projects were planned that were intended to **follow up** with greater depth on two sources of prior data collection. The first was a series of sharply targeted focus groups on students who switched majors, following up on Dr. Shaffer's 2016-17 focus group work in the College of Liberal Arts. This project did not come to fruition (explained below). The second was the use of "Journey Maps" to follow up on survey data collection in 2014-15 on the graduate experience in anticipation of a new graduate survey in preparation.
4) Fourth, three projects were designed to examine the specific impact of **courses and practices assumed/designed to have a positive impact** on student success: Cohort/Student Success courses and mentoring/study groups.

While the selection of projects was conducted concurrently with the Needs Analysis survey, we note that the pilot types, and the kinds of data that were solicited and collected in these projects reflects many of the identified data needs with respect to Academics (Table 3-1), Personal Factors (Table 3-2) and Extracurricular Activities (Table 3-7).

Category 1: Specific Populations

A. Impact of commuting on student success

Rationale for the study

Existing research suggests college students who commute to campus from considerable distances are less academically and socially engaged. For example, a 1993 study examined the academic performance, progress, and retention of first-year college students who resided on-campus, as compared with off-campus residency. Findings from 5,414 students revealed that progress and retention were significantly higher for on-campus students regardless of race, gender, or admission type. On-campus students required to complete remedial course work also showed better performance, according to the study findings (Thompson, Samiratedu, and Rafter, 1993).

Qualitative Research team members scanned the university's course catalog for classes that might be appropriate for participating in a qualitative research pilot on this topic. Ultimately, the team identified CAFF 322/Family Housing and the Urban Community as an ideal course for the research. The class considers "sociological, psychological, legislative, economic and technical factors" to focus on "critical analysis of family housing in urban community including aspects of shelter, city and service providers." Dolores Robles, a full-time lecturer in the Department of Family and Consumer Science who teaches this class, agreed to participate.

Methodology

During Fall 2017, Dr. Gwen Shaffer worked with Dolores Robles, drafting an initial survey tool meant to illuminate the impact of commuting on student success. Prof. Robles revised it to fit in with course learning goals. The interview protocol (see below) asked students how much time and money they spend commuting to CSULB; whether their proximity or distance from campus impacts their ability to achieve academic goals; and how their commute—or lack of a commute—influences friendships with classmates and participation in co-curricular activities. Prof. Robles distributed the survey for extra credit on an exam. Prof. Robles and Dr. Shaffer met over winter break to code the responses, identifying prominent themes and patterns. Task force G.A. Stevie Merino separately coded the findings and Dr. Shaffer conducted the analysis.

Commuting and campus engagement study protocol

1. Gender
2. Age
3. Average number of minutes spent commuting to campus per week
4. Average amount of money spent commuting to campus per week
5. Mode of transportation used for getting to campus (ie. car, bus, bike)

Open-ended questions:

1. Does your commute make it difficult for you to participate in extra-curricular activities, such as club meetings, or attending sporting events? Conversely, if you live near campus, has this housing situation enabled you to become involved in student clubs and other activities at CSULB?
2. Does your commute interfere with your academic success in any way? If so, please describe how (i.e., do you regularly miss class due to lack of transportation or time? Are you unable to participate in study groups with peers?). Conversely, if you live near campus, describe ways in which this housing situation has helped you academically.
3. Have you ever enrolled in an online course to avoid commuting to campus? Please describe your experiences with online courses.
4. Does your commute impact your ability to develop and maintain friendships with classmates at CSULB?
5. Do you work on campus, or have you attempted to obtain a job on campus? Please describe.
6. Anything else you would like to add about your commute?

Findings

Ultimately, 23 female and 15 male students completed the survey. Of all the participants, only six reported that they did not feel long commutes hindered their level of campus participation; five of the six were men. An overwhelmingly majority of women responded that longer commutes hinder their participation in campus activities and events, as well as their academic success and financial security.

Length of commutes

20-60 minutes spent commuting weekly: 13 students
61-100 minutes spent commuting weekly: 4 students
101-200 minutes spent commuting weekly: 11 students
201-300 minutes spent commuting weekly: 4 students
More than 300 minutes spent commuting weekly: 3 students
480 minutes: 1 student

Restricted schedules

Some study participants reported that their reliance on public transit and carpooling comes with restrictions. For example, a 26-year-old female student who relies on public transportation reported spending 2 hours per day, 4 days each week commuting: “I ride the bus so it takes up so much of my time. I must work around the bus schedule.” She noted that “the bus stops running at a certain time or doesn’t run on certain days,” making it impossible to participate in some on-campus activities. A 25-year-old female stated: “My commute does make it difficult to do extra-curricular activities because I rely on my parents to take me to school. Even though I live 15 mins away, it is still hard to join clubs.” Similarly, a 20-year-old female reported that she

finds it “difficult” to participate in extra-curricular activities because she carpools to campus with my boyfriend. “We only come to campus when we have class,” she noted.

Maintaining friendships and participating in co-curricular activities

Study participants also reported that their commutes interfered with their ability to foster and maintain friendships. A 26-year-old female who lives in Pasadena said her commute “makes it hard to establish friends or participate in social gatherings because she feels compelled to leave Long Beach before getting stuck in rush hour traffic. She shared this anecdote: “An example of this happened last semester. I met a group of girls who would meet for dinner at a popular Long Beach restaurant each Thursday. They would always invite me to join them for dinner, but I was unable to go because the longer I stayed in Long Beach, the more traffic I would catch.”

A 20-year-old female reported that living near campus would improve her quality of life. “For example, I would not have to wake up as early and I would be able to hang out with campus friends on the weekend.”

Commuting and academic success

The vast majority of study participants reported that their commutes do not interfere with academics. One exception, however, was a 25-year-old male who spends about 200 minutes traveling to and from campus each week. This respondent stated that time spent in the car could be devoted to “studying for exams or working on something important.” He also said that “ridiculous” traffic causes him to arrive late for class some days. A 20-year-old female who commutes 360 minutes weekly similarly commented: “Commuting takes away time from studying and sleeping… I could have studied or slept for at least 45 mins more if I did not have to commute and drive so far.”

One student who lives just a 5-minute drive to CSULB noted a key benefit. “My house is close to campus and it gives me the time and pleasure to go to the library.” Similarly, a 22-year-old female who also reported a short commute stated: “Living near campus allows me not to worry about getting stuck in traffic for long periods of time, which will make me late to class and possibly lose points, or have less time on tests.”

Financial strain of commuting

Many study participants reported that longer commutes present a financial strain. For instance, a 20 year-old female student reported that the expense of commuting, rather than time spent in the car, deters her from participating in clubs and attending sporting events. “I need to prioritize things that I can do since I live 20 miles away, and I don’t want to waste gas on something that doesn’t contribute to my education...Gas is the reason why I only schedule my classes for twice a week.” A 27-year-old female similarly noted: “Putting gas in my car every other week to get to school and maintaining my car…is … costly as well.”

At the other end of the spectrum, several students reported that their commutes actually facilitate involvement in campus activities. This is because the lengthy commutes forced them stay on campus longer, creating opportunities to develop friendships and attend events. A 32-year-old male who spends 300 minutes commuting each week reported using breaks between classes to exercise at the rec center, He added that the commute motivates him to spend more time on campus for "fun" activities. As a result, he wrote, he experiences less stress.

Conclusion

Due to the small sample size, these findings are not generalizable to the entire CSULB student body. However, this pilot study does suggest that a majority of students spend several hours per week traveling to campus. These students reported that living distant from campus does prevent them from fully engaging in co-curricular activities, and limits their ability to socialize with friends. Conversely, students who live near campus reported that they benefit from their more flexible schedules.

B. Undocumented Students

This project has a dual focus: on the needs of undocumented students themselves and on the institutional need to build both knowledge and empathy among faculty and staff in their roles teaching, mentoring and advising students.

Rationale for the study

In addition to facing many of the same obstacles as other CSULB students, undocumented students face an array of specific financial, legal and social-emotional challenges, including significantly heightened insecurity in the current political context. These students also exhibit high levels of achievement, engagement and resilience (Perez 2010). Learning more about both challenges and levers of success in this group can help the DREAM Center refine its mission and work as well as inform frameworks for thinking about other student constituencies. Evaluating a professional development program aimed at faculty and staff can also aid the institution in general in meeting these students' needs.

Methodology:

Qualitative (ethnographic/interview) methods were used by Gabriela Hernandez (MA student in Anthropology) to prepare a video with CSULB student testimonials about their experiences as undocumented students (https://www.youtube.com/watch?v=VWtz6kdZwbo&t=6s).

Hernandez, ASI representative to the DREAM Success Center Advisory Board, collaborated with Dr. Caitlin Fouratt and other members of the board on the use of the video as a training/discussion tool for two UndocuALLY programs conducted in Spring 2018, as well as on a survey assessment tool (Appendix A) used to get feedback from workshop participants (n=56). During the training, participants viewed the video and then engaged in small group discussions

of its content and impact on their thinking. These table discussions were recorded and transcribed.

Findings

Survey Responses

The following graphics represent the responses of workshop participants to 10 questions on a 7-point Likert Scale regarding what they had gained from the workshop.

Figure 4-1. Q2 - Based on this training, do you believe you are now more informed about the federal, state, local and institutional policies affecting undocumented students?

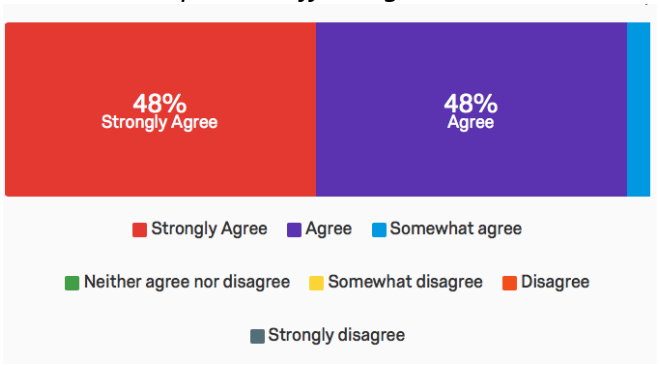


Figure 4-2. Q3 - Based on this training, do you believe you have a better understanding of the financial burdens affecting undocumented students?

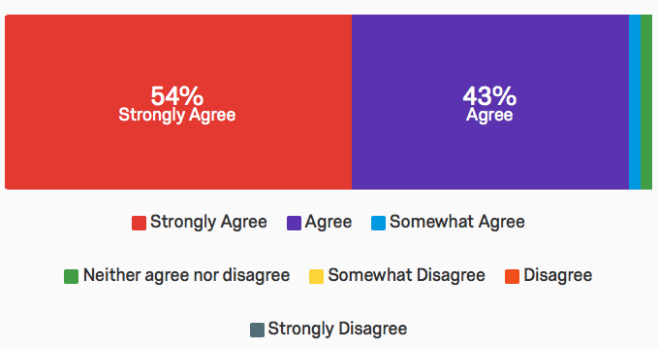


Figure 4-3. Q4 - Based on this training, do you believe you have a better understanding of the mental health issues affecting undocumented students?

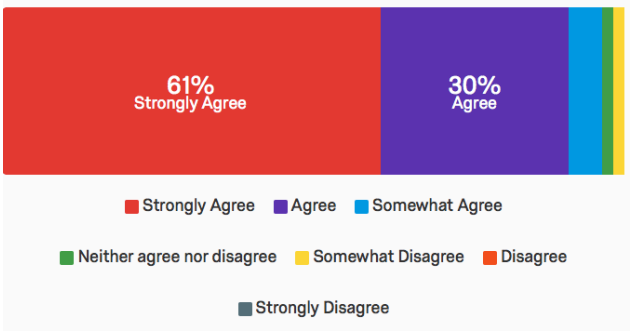


Figure 4-5. Q5 - Based on this training, would you be able to identify the cues and clues that might "out" an undocumented student without them disclosing their immigration status explicitly?

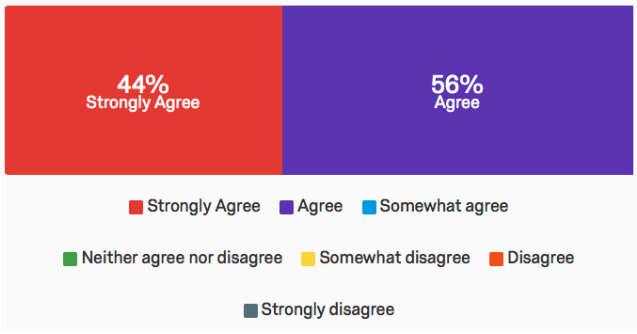


Figure 4-6. Q6 - Based on this training, do you have a clear understanding of how to act and what to do if ICE comes to campus?

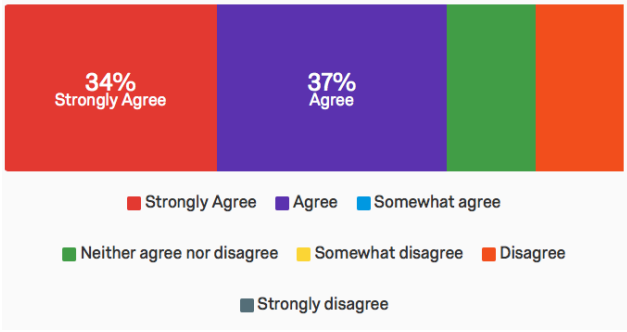


Figure 4-7. Q7 - Based on this training, do you have a better understanding of the limited rights and benefits undocumented students have?

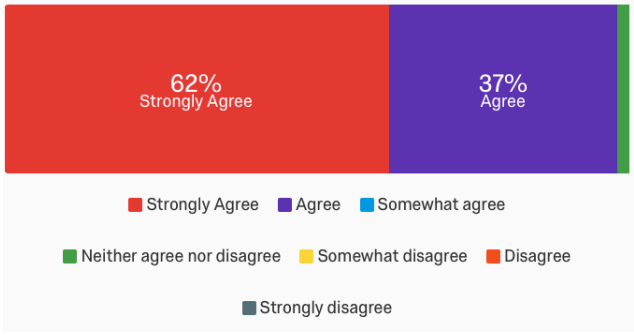


Figure 4-8. Q8 - Based on this training, did you learn the necessary tools to create an inclusive environment for your undocumented students within the scope of your position?

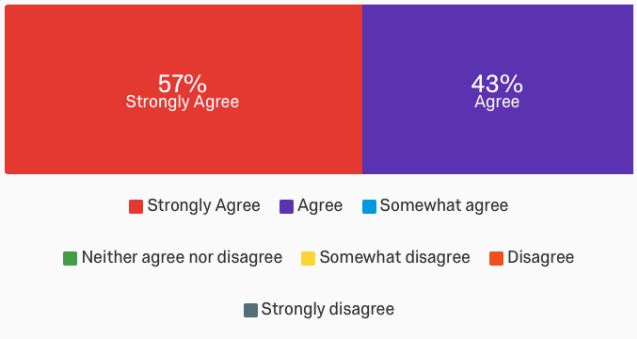


Figure 4-9. Q9 - Based on this training, did you obtain the tools to create a welcoming and supporting classroom/office environment for undocumented students?

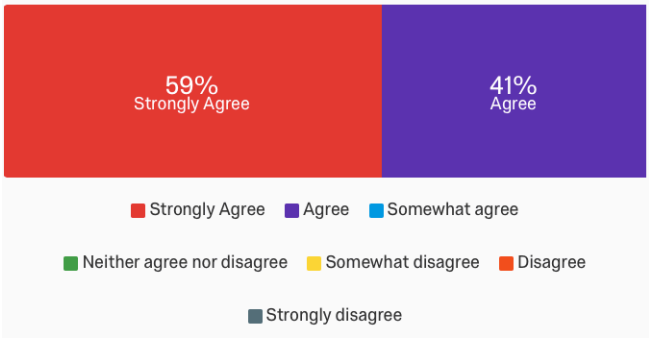


Figure 4-10. Q10 - Based on this training, do you believe you obtained the necessary tools to become an effective ally to undocumented students?

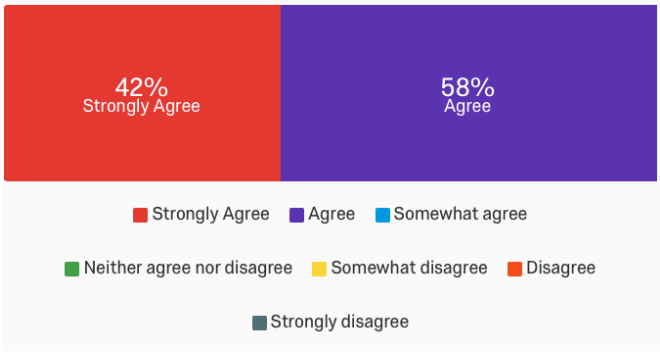
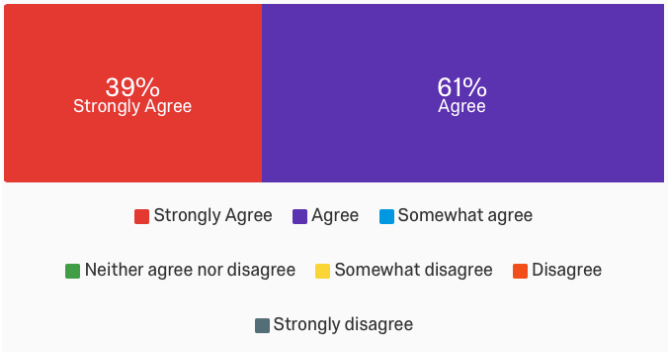


Figure 4-11. Q11 - Based on this training, do you believe you learned about the institutional resources and services available to undocumented students?



Responses to open-ended questions. Participants were asked six open-ended questions about the training touching on what they considered the most and least effective parts of the workshop and recommendations for any changes; what they learned from the video, the extent to which it resonated with their own experiences and if/how the training inspired them to take future action.

22 of the participants said that the film, “The Undocumented Perspective” was the most effective part of the training because it “helped provide a human face to all of the charts and statistics”. 11 said that the group discussions were the most effective because it provided them with “real life situation drills”. 13 said that the information about current policies and political

climate were the most effective because as they said this information helped them gain more knowledge about the current political situation. 5 participants said that the history provided about immigration was the most helpful. 2 participants said that being able to network with other allies was the most effective part of the training. 2 participants also listed provided "resources" as the most effective part of the training. Lastly, one of the participants said that he information pertaining to ICE was the most helpful.

Few participants had any comments about the least effective part of the training, indicating their overall satisfaction. 3 participants, however, said that the lack of information about ICE was the least effective part of the training since they wanted to learn more than the training provided about how to act if ICE came to campus. Single responses to this question cited: lack of resources of how to help undocumented staff on campus, the history provided on immigration, the lack of assigned seating to encourage more mingling outside of their departments, lack of time to cover all information and questions and lack of diversity among the presenters. In their recommendations for changes to the program, 7 participants indicated they would have liked to see more group interactions and for the training to be longer in order to get more in-depth information. 3 participants indicated that they would've liked to know more information about how to deal with ICE if they came to campus. The remaining single responses to this question expressed a desire for the training should be shorter, getting a copy of the agenda ahead of time, having more details in the presentation and having presenters monitor their use of "you guys".

In response to the question, "Did you learn anything new about undocumented students from the film?", 5 participants indicated that they learned that every undocumented student's story is different. They also noted that they learned that there is a diverse group of undocumented students and that this is not only a Latino issue. 3 participants indicated that they learned that the students' immigration status also affects their mental health. 7 participants noted that they learned about the hardships, concerns, fears, stress, worries that undocumented students are going through that were unknown to them. 3 participants indicated that they learned how to meet students' needs after listening to their stories. One participant shared that they learned what a good ally should be. Another participant also mentioned that the film helped them put a human face to the immigration problem.

Many respondents reported being inspired to take action based on their viewing of the film: 5 participants said they were inspired to be more involved/ intentional when interacting with undocumented students and to become a better resource for them, 4 participants said they were inspired to better allies and be more vocal about their allyship, 3 participants stated that they were inspired to educate themselves and others and 2 participants specifically mentioned being inspired to create a safe environment for undocumented students.

When asked if the film reminded them of their own family history, 29 participants said "yes" and 26 participants said "no". 13 of those participants who said yes cited coming from a family of immigrants or having someone in their family who is undocumented. 8 other participants identified themselves as either immigrants or having been undocumented at one point in their

lives. 3 participants mentioned that they were also first-generation college students who were reminded of their own stories after watching the film. 1 participant cited that the story regarding grieving a loved one from afar reminded them of their own family history.

Conclusions

The closed-ended survey responses indicate that an overwhelming majority of participants agreed or strongly agreed that as a result of this training, they had become more informed about:

- The nature and limits of legal rights and benefits enjoyed by undocumented students and the institutional resources available on campus to assist them;
- How undocumented students are affected by:
    - federal, state and institutional policies
    - unique financial burdens
    - mental health concerns
- How they as faculty, staff or student allies can:
    - become an effective ally to undocumented students
        - identify the cues and clues that might "out" an undocumented student without them disclosing their immigration status explicitly
        - Respond if ICE comes to campus
        - create an inclusive environment for undocumented students within the scope of their positions
        - create a welcoming and supporting classroom/office environment for undocumented students

Many participants noted that they were eager for more information and would have liked to go into even more depth.

These findings are supported by the responses to the open-ended questions and the comments made during the table discussions. Faculty and staff who did not have a personal background that allowed them to personally relate to undocumented students gained both institutional and empathetic knowledge of those students' lives and challenges. The trainings also did an important job of showing the diversity of the category "undocumented," important for countering stereotypes and oversimplifications. While it is not possible to say how representative this group was of faculty and staff at CSULB, we note the fact that over half the respondents related personally to undocumented students' situations from personal experience. This is a strong resource for the University, and one that probably deserves more attention, especially since it highlights the fact that issues of documentation affect not just students but also, faculty and staff.

Workshop responses confirm the power and utility of first-person, video testimonials by undocumented students for both knowledge and empathy production. They also illustrate the value of guided workshops that promote discussion and information sharing between faculty, staff and students.

In addition, respondents' accounts of their interactions with undocumented students illustrate and reinforce themes brought out in the video, including

- the stress/mental health vulnerabilities of undocumented students concerned not only for their own well-being and safety but also, for their families
- fears about deportation affecting their willingness to take advantage of important opportunities to present student research
- The positive impact of having their specific identities recognized and understood and of being able to interact with faculty and staff who share elements of their experiences

C. Student Parents

Rationale for the study

While the exact number of student parents on the CSULB campus is unknown, on a national basis, student parents comprise approximately one fourth of all college-age students and are disproportionately represented amongst students who are low-income, first-generation college, or belong to underrepresented ethnic groups (IWPR 2013). Over the last several years, faculty and staff from Student Services and in CHHS, recognizing the potential unmet support needs of these students, engaged in initial data collection through surveys and focus groups and organized informal support group meetings in the Spring of 2018. One of the big goals of this work, spearheaded by CHHS Faculty Wendy Reiboldt, Nancy Dayne and Roudi Roy, is to put in place a Family Resource Center. These ongoing efforts offered the Qualitative Research Team an opportunity to build on these efforts through ethnographic (participant-observation) data collection

Methodology

TF 2 Graduate Assistant Stevie Merino participated in student-parent meetings organized in 2017-18 as a parent and ASI representative. She also reviewed and thematically coded results from survey and focus groups conducted in Spring 2017 and filmed and selectively transcribed a focus group meeting organized in Spring of 2018.

Findings

A recurring theme in focus group responses from 2016-17 and one conducted in Spring 2018 was that parent scholars did not have a central location on campus where they could go to with to ask questions, seek out resources, or even sit and study with their children when school schedules, babysitting or caregiver problems or made it necessary for them to care for their children on days when they had classes. One of the recommendations to address this was the need for a family friendly resource center, like other resource centers on campus that have been created to meet the needs of certain sectors of the campus population.

Much of the discussion also focused on student parent success and what efforts are being taken as a campus to address this. Student parents felt their professors were not always understanding with respect to their responsibilities outside of the classroom, including when their young children were sick and they needed accommodations or if childcare issues occurred. Childcare was another theme that frequently came up as a significant barrier to success for student parents. Many students raised the concern that the Isabel Patterson Child Development Center (IPCDC) was not accessible and expressed frustration in the waitlist process. Some reported having been on the waitlist for years and that this was not realistic for student needs. One recommendation from these conversations was for IPCDC to have a transparent waitlist process and that students receive information about the waitlist prior to accepting admission. Many expressed that they would not have attended CSULB if they knew that childcare on campus was so very limited. A second recommendation was to expand IPCDC and/or create a drop in childcare facility on campus for short periods of time.

Pregnant students reported that that their professors did not know what their rights as pregnant students were; some students also reported not being clear on those rights themselves. Recommendations to address this issue including having a resource center or point person that pregnant or parent students could go to. Another rights issue voiced was parents being told by staff and faculty that they were not allowed to bring their children on campus, which is in fact not the case. These issues pointed to the need for ally training for faculty and staff, a student parent right's resource page, and information during SOAR or in registration packets.

Lastly, when discussing campus engagement and involvement many of the students highlighted that events on campus did not feel child friendly which made it difficult for them to feel a part of the campus community. Child friendly visibility and efforts made on the part of event and activity organizers was an important step that parents felt would allow them to engage and be involved.

Conclusions

This pilot has a number of methodological implications for research on under-documented student populations. First, it illustrates the role that small-scale, qualitative data collection can play in identifying themes/concerns that can be subsequently explored systematically and more comprehensively through survey research. It also highlights the value of triangulating different kinds and sources of qualitative data, both because of the labor-intensive nature of collecting and analyzing that data, and because each qualitative data collection tool and event may have an idiosyncratic focus that benefits from being balanced out by other data. Ms. Merino's participant-observer role also highlights the benefits of involving student researchers in doing student research, since those researchers' connections with their peers can yield insights and perspectives that might be unavailable to faculty undertaking the same project.

One of the remaining challenges for a needs analysis for student parents is the accurate and ongoing identification of this population in the CSULB student body, since parent status changes from year to year. This question—how to best identify members of student subgroups in order to either discover or meet their unique needs—is an institutional research question that deserves reflection. Being able to identify and communicate with all student parents would facilitate getting a full range of responses to a needs survey and would make it possible to track concrete indices of academic success/obstacles (time to graduation; educational leaves; WDF rates etc.).

Category 2: Integration with student success data collection and classroom practice

Research Methods Courses: Sociology

Methods and procedures: In Spring 2018, Dr. Claudia Lopez and Dr. Esa Sayeed, instructors of SOC 354 (Qualitative Methods) introduced their classes to focus group methodologies. They oriented their students' preparation of focus group questions to student success themes related to the Graduation 2025 Initiative, guiding them to develop a research protocol that would address issues related to students' progress towards and perceptions regarding timely graduation, as well as the potential role of online course offerings. Students organized their focus group prompts around the themes of academics, well-being (physical and emotional) and finances. (see Appendix B, SOC 354 Focus Group Protocol) . In April of 2018, students in these two classes conducted peer-led focus groups with a total of **55** sociology majors. While demographic data was not collected on all these participants, many if not a majority were reported as transfers. Student recorders in each focus group took thorough notes on the discussion (see Appendix C, Focus Groups Notes and Memos) ; those notes were collated and subjected to a thematic analysis.

Below is a brief summary of key findings and potential next steps derived from student reflections and input in the focus group process.

Academic Experiences

One of the immediate concerns students raised was how **class size** will be impacted by the new initiatives, an aspect of their educational experience they anticipated could change. In general, participants talked about the value they placed on smaller classes and the connections and support they are more likely to receive in those settings (for example, with professor and classmates).

Discussions also centered on **online education**. Many students reported that they had not yet taken online courses, but also did not indicate a strong interest in taking these classes either. Students expressed concerns over the lack of direct connection with instructors or other

classmates. Additionally, participants specifically cited their identities as Sociology majors as important in their preference for face-to-face communication and community-building. The few students who did voice interest in online courses focused on the efficiency and flexibility these classes might provide for those who work and manage other obligations outside school.

In terms of **planning their degree**, some students reported being discouraged from taking on a minor as they were told that this might prolong their time on campus. The feeling of being rushed through their education was mentioned in several focus groups and was negatively evaluated. Not all students felt that they had received adequate advisement until they got to specialized advising (such as TRIO or EOP); others wished they had more personalized advice from professors. Other students confessed they did not take adequate advantage of advising options available to them and some recommended making certain kinds of advising (including financial, time management and social/emotional) mandatory in order to increase the number of students reached.

Questions to consider: How will class sizes be impacted by the various initiatives being carried out? What models/data might be useful in helping to craft online courses for our students? How can students be advised to maximize their time here?

Struggles and Support

Nearly all participants reported having at least one job, with several **working** two or three jobs. In several groups, a need for more financial counseling was identified. Students also mentioned that their work obligations and commuting made it difficult for them to feel a sense of connection and community on campus. Students shared that they had often consider their challenges to be unique and were encouraged to see that others in the focus groups were enduring the same struggles.

Focus groups also revealed that students were unaware of **resources** available to them. However, even when they were aware, students voiced concern about accessibility. In particular, participants highlighted CAPS as a resource that is often touted on campus. However, those who reported that they attempted to make an appointment were disappointed to find a lengthy wait.

Questions to consider: How do students learn about resources on campus? How is the delivery of these resources planned and evaluated?

Conclusion

The focus groups revealed a number of interesting insights and potential gaps in understanding. Students were generally skeptical of initiatives seeking to accelerate time to degree. Overall, they demonstrated a keen understanding of the various implications that these initiatives may have, but also raised many important questions and anxieties about their impact. The focus

groups call our attention to how these various initiatives are communicated to students and what role students will play in their implementation.

Student process and analytical memos (Appendix C) also confirmed the pedagogical value of this activity: students demonstrated their ability to summarize the main themes from their focus groups, as well as to reflect on the potential sources for the perspectives expressed in both the institutional reality and in the demographic characteristics of their respondents.

Research Methods: Human Development

The collection of qualitative data for the initiative was integrated into the Research Methods in Human Development (HDEV 320) course in Spring 2018. The course is designed to introduce HDEV students to various research methods and students are expected to collect their own data as part of the course. Therefore, the collection of qualitative data lent itself well to the course overall.

Methods

The instructor, Dr. Ann Kim, introduced the opportunity for students to collect data that would be integrated into the HVDI Initiative at the beginning of the Spring semester and included readings on interviewing in the syllabus. When the unit on interviewing began, TF 2 member Alexandra Jaffe visited the class to speak to the students, further introduce the initiative and emphasize the value of the work the students were going to be doing.

Dr. Kim led the brainstorming of and development of the interview question during a lab session. All students were informed that they were expected to ask the same set of student success questions. In addition to the data collected for the initiative, students worked on independent research projects for the class. Thus, they were invited to develop additional questions that reflected their research projects.

Each student was tasked with interviewing one other student and collecting demographic information on that student (Appendix D). Interviews were recorded and transcribed; students then conducted a thematic analysis of their results. The final results, reported below, are the result of Dr. Kim's analysis of the interviews and the thematic codes developed by the students.

The next step, to be undertaken in early summer, is to enter coded text and demographic information into the online data analysis software ***Dedoose***, in order to be able to look for trends and correlations between student perspectives and characteristics and to test the viability of incorporating this step in Dr. Kim's class activities next year.

Findings

Obstacles to student success outside the University's control

As expected, the majority of the interviewees mentioned financial obstacles. These included comments such as not having enough money to take more classes or summer classes and missing classes to work to pay bills. One interviewee mentioned having to take semesters off to work full time. Also, as expected, students mentioned personal and/or family obligations that interfered with school.

One quote captured all the responsibilities, "Being a student already isn't easy when a professor wants 60 plus pages to read in one night, when a boss also wants at least 25 plus hours minimum to keep a job. Then also having family, friends, and/or boyfriend/girlfriends complain they don't get much attention."

Several interviewees mentioned variations of these obstacles in different words/phrases: having family issues, unexpected life traumas, child responsibilities. One participant mentioned immigration issues and the stresses that come with that.

Obstacles to student success within the University's control

Many interviewees mentioned not knowing what they wanted to do in the future, or what their passions for the future were. Therefore, they lacked certainty regarding which classes to take. This raises questions about our students' level of exposure to the wide array of career paths and when/how they engage with Career Services. It is also possible that these concerns expressed by students may be connected to conversations about changes in GE policies and the meaning of a liberal arts education.

The contrast between those who were unsure of their future directions and one who was clear of her future direction was stark in the interviews.

> Interviewer: If you graduated in 4 years, what helped you get there?
> Interviewee: Having an agenda for 4 years in college and started analyzing where I wanted to be in the next 5 years guided me. I gave myself an ultimate goal, which is grad school and from there I worked backwards. I started to ask myself what requirements or tools I need to apply to grad school. I researched schools and asked peers their process of getting into grad school. For grad school, you need good GPA, recommendation letters, GRE scores, and experience. My focus was not how fast I get to graduate, but how can I get these requirements, which were a two for one, graduating on time and being good candidate for grad school.

This strategy of working “backwards” with the goal of graduate school in mind would not be accessible for all students. However, setting graduation as the goal and working backwards is a strategy that could be taught to all students.

There was also a perception that graduating in 4 years was no longer possible.

- “Yes, I feel that the five years is the new four years”
- “takes longer today, money, all affect timeline”
- “more factors that contribute to students' time in college”

One transfer student mentioned knowing they had to make sure to take 12-15 units to graduate. Based on the interview data collected, it was unclear why interviewees considered 4 years not possible. This perception or attitude warrants further investigation (see below).

There were other comments identifying obstacles regarding university resources. One interviewee mentioned not knowing about scholarships (where to find them, how to apply to them). Another interviewee mentioned not having taken the classes that were needed for his major. A couple of interviewees mentioned not knowing about the resources available or stating, “resources are hard to use since I'm only on campus at certain times of the day.”

Conclusions and recommendations

Final reflections: what quantitative follow up could be envisioned from the data collected? Or, what kinds of student data that we already have would it be interesting to correlate with the kinds of issues you uncovered?

Given the theme about the lack of ideas regarding the future, a concerted push could be made to have students complete an online career inventory as early as possible in their trajectories. Subsequently, students could be directed to the Career Center to work out the results with an advisor and/or a counselor. The university could collect information on how many students took the online inventory. Also, when students meet with the Career Center to discuss the inventory, the university would have information on the utilization of the inventory and the center.

Further data collection that could aid in orienting students to careers, majors and electives could involve a longitudinal survey of current students and alumni to find out whether students who have a clear plan (i.e., graduate school, employment) are more likely to graduate on time than those who do not have a clear plan.

Further examination of the perception of “5 years is the new 4 years” seems necessary. Is this perception related to institutional issues such as too many courses that require pre-requisites, impaction of introductory classes or numbers of units per course (4-units versus 3-units) and the schedules they imply? Are students thinking they have to take on more so that they can

compete on the job market? Or, are students misinformed with what they need in order to graduate? The answers to these questions would inform the need for different strategies to tackle this perception.

With respect to students' lack of knowledge of the resources on campus, there may be twofold challenges. The first has to do with creating awareness among students about when to seek academic and other advising. The second has to do with dissemination/communication of the resources that are available. When/where does this take place (SOAR, other orientations?) and how successful is it? What can be communicated on Beachboard, and how much use might students make of Beachboard resources. It would seem important for assessment efforts on this kind of communication be conducted to evaluate how different means of dissemination influence students' actually accessing those resources.

Finally, recognizing that students change tremendously from year to year, it would be useful to gain an in-depth understanding what support students need that is specific to their university standing. A first-year student's needs will be different from that of a third-year student. Having this sort of information would be useful for faculty, academic advisors and other university staff to better guide their interactions and assistance.

Comments on the value of the activity. One of the greatest values for the students was to see that research is not something separate from them, nor from their interests. The juniors and seniors enrolled in HDEV 320 found this topic very relevant. The activity also gave students a valuable opportunity to see their research utilized beyond the classroom. Often, student work starts and ends within the class. Their hard work is shared only between themselves and the instructor. This time, their work is meaningful to others in the university.

One challenge worth mentioning with respect to student data collection is the students' novice status. Because these data were collected by first-time interviewers who sometimes failed to ask probing follow up questions, some responses were quite shallow. These limitations could be addressed in the future by doing more than one interview iteration, building in reflections/evaluations of interviews, and creating opportunities to improve practice.

Academic Senate Retreat

In the Fall of 2018, the Academic Senate retreat theme was "Obstacles to Student Success." In preparation for the retreat, the Academic Senate Executive Committee created a survey on Thought Exchange and emailed all faculty, students, administrators and staff invited to attend the retreat to post their perceptions of key obstacles and to rank how strongly they agreed with ideas posted by other participants in the exchange. GA Stevie Merino collected the 147 written comments and rationales left on the exchange. She then coded them for themes, the degree of consensus in their ratings (on a scale of 1-5) and their ranking in order of importance as established by the rating outcomes (full list of coded comments is found in Appendix E). The following table identifies the themes and the number of mentions they received:

Findings

Table 4-1. Results from Academic Senate Retreat Thought Exchange Forum

1	Money/Financial hardship	8	8	11	1	28
2	Basic Needs/Food Insecurity/Housing/health and well-being	4	3	2	4	13
3	Student Services/Support/Resources	4	7	6	4	21
4	Mental Health/CAPS	5	10	2	4	21
5	Lack of course/classes availability/overcrowded classrooms/other	4	1	1	2	8
6	Educational skills and preparation for University work	2	0	4	5	11
7	Challenges of working students	1	5	6	8	20
8	Parking	2	4	0	1	7
9	Commuting	1	5	0	3	8
10	Political Climate/Identity/ representation/inclusion/ discrimination/safety	9	6	1	2	18
11	Networking spaces/student connections/organizations	2	2	3	3	10

Many of these themes are self-explanatory, but a few require additional commentary:
Basic needs references things other than direct costs associated with attending university, as well as issues of health and well-being.

Student support/resources includes references to the need for resources to guide students, as well as references to students who are not aware of the resources available to them.
Challenges of working students also incorporated references to family and other outside obligations.

Political climate/identity/representation/inclusion/discrimination covers, as the title implies, a lot of ground and includes comments specific to perceived problems in campus climate as well as the impact of the national climate on student experiences and well-being.

The Thought Exchange comments were organized in rank order from 1 to 147 based on the user ratings they received. Table 4-1 illustrates the number of mentions in the data collected for each quartile of the ranked list. Many comments were coded for multiple themes, reflecting their interrelationships. For example, many comments identified financial issues and the need to work and sometimes mentioned how that contributed negatively to student stress/anxiety (mental health).

The results show that financial and climate issues had the highest number of mentions as sources of challenge for students in the first quartile of the ranked list. Money remains the highest-ranked challenge across all the quartiles. The total numbers show that the most significant sources of challenge are, in order of importance: Money/Finances (28; and if combined with basic needs, 41); Availability and access to student services (21) and in particular, mental health services (21); Challenges of working students (20) and Political climate/identity/ representation/inclusion/ discrimination/safety (18).

Conclusions and recommendations

There is considerable consensus about key challenges facing CSULB students and the need for a) additional forms of financial and advising support, b) better communication about existing forms of student support and c) greater access to CAPS services to respond to their many sources of stress. The number of mentions of climate issues also deserves attention, and it is clear that students and faculty look to the University to provide both a positive institutional climate and to serve a role in mitigating or buffering the kinds of national political issues that are negatively impacting our students. It is difficult to address student financial issues, but several comments regarding the cost of textbooks show that recent efforts (and Chancellor's directives) to keep textbook costs down are important. Whatever the University can do to increase student employment opportunities on campus would be also be extremely meaningful.

ASI Retreat

In the Spring of 2018, The ASI held a retreat. TF 2 GA and ASI member Stevie Merino arranged to distribute a brief questionnaire to retreat participants to gauge student leadership understandings and priorities with respect to the HVDI initiative that included their definitions of student success and their responses to the "No Barriers" slogan. Written responses to the following questions were gathered from approximately 22 participants. Numbers in parentheses reflect the number of mentions a particular topic received.

What are the top 1-3 kinds of programming/resources that ASI provides that help with student success? What do you feel is missing or that ASI can do more to aid in student success?

1. Beach Pantry (5)
2. entertainment/recreation and stress-reduction events: finals programs, chess, free movies, project chill (5)
3. support groups Mental Health resources (4)
4. scholarship (3)
5. the USU (3)
6. study space (3)
7. SWRC (2)
8. hydration stations (2)
9. educational seminars and speaker series (2)
10. alumni mentors
11. Dream Success Initiative
12. "go beach" statue
13. ICPCD
14. cabinet events
15. 24-hour student center
16. academic counseling
17. Office of Multicultural Affairs
18. all gender restrooms
19. more research on the LGBTQIA+ folks

Comment: Top needed resources relate to students' immediate concerns with financial and mental stressors (food, mental health counseling, access to study spaces, stress relief and entertainment). At the same time, students identify educational and climate issues as very important to their well-being.

Please describe characteristics that you associate with a successful college student:

1. determined, motivated, driven, ambitious (7)
2. involved (6)
3. persistent/perseverant/grit/ resilient (5)
4. well balanced/rounded (4)
5. goal oriented (3)
6. studious; academic; passionate about classes; high GPA (4)
7. organized, punctual (3)
8. disciplined (2)
9. hard-working (2)
10. someone who works, interns or has community involvement (2)
11. participates in extracurricular/group activities and organizations (2)
12. good communication and social skills (2)
13. activist
14. thoughtful

15. selfless
16. ethical
17. growth mindset
18. resourceful
19. guilty
20. financially stable
21. self-aware, happy
22. well fed, well rested

Comment: CSULB student leaders value ambition, high involvement, hard work and determination as drivers of individual student success and emphasize these things more than raw academic abilities. At the same time, there is a focus on life experience and practice outside the university, as well as on values and soft skills and a sense of work-life balance. It is clear that "success" is holistic in nature for them.

Other than academic, what do you feel constitutes success in terms of overall college experience?

1. involvement in campus organizations, clubs, activities (7)
2. good mental health (3)
3. someone who has profession/work experience outside of college, incl. internships (3)
4. balance (2)
5. building relationships/connections peers & professionals (2)
6. development of identity and opinions
7. strong understanding of yourself and the community at large
8. partaking in multiple opinions and viewpoints
9. establishing relationships and communicating
10. gritty, resilient, self-aware
11. use of recreational facilities and programs
12. sense of fulfillment & purpose
13. being challenged
14. prospering physically
15. academic achievement
16. be part of different movements
17. happiness
18. wealth

Comment: Answers to this question complement the responses on character traits, with a particular focus on community (on and off-campus) involvement and commitments, well-rounded and balanced relationships and development of persona, social and political skills, values and self-knowledge.

If you were conducting research on student success at CSULB, what are the top two topics or questions you would want to address?

1. financial, food and housing (in) security (6)

2. student involvement on campus (3)
3. happiness (3)
4. mental health and mental health resource accessibility (2)
5. queer success
6. POC success
7. familiarity with ASI
8. academics: challenges of classes and levels of participation
9. student perceptions of career prospects
10. climate/comfort level in classes
11. impact of commuting and work
12. sexuality

Comment: It is telling that issues of financial security were the most highly ranked, confirming the extent to which money is a serious stressor for CSULB students. Students are also sensitive to the needs of particular student populations who may be at risk (POC/queer); campus climate in and out of the classroom; and the impact of work, mental health and commuting.

What does the CSULB "No Barriers" slogan mean to you?

Positive definitions provided:

1. ensuring no financial or social barriers to success
2. nobody will be banned or rejected from their education
3. regardless of your background, lifestyle (i.e being a commuter, transfer, nontraditional student) you will be supported throughout your academic career at LBSU
4. open to encourages diversity in everything they do
5. nothing & no one but yourself can stop you from becoming successful and happy
6. that the school is trying slowly but surely to be inclusive
7. it means that a CSULB education is accessible regardless of their background
8. it means that the campus welcomes everyone despite their background or color. Also, it means everyone gets treated with respect and feels valued.
9. eradicating institutional oppression, socioeconomic status, race, gender, etc. should not affect their education
10. nothing is in the way of a student's academic success
11. equal access

Slogan either unknown or negatively evaluated:

12. With so many, I wonder why say there are none instead of saying we can work through barriers.
13. No comment to this slogan. A better, inclusive slogan is needed!
14. No clear meaning.
15. Have never heard of it.
16. It's BS. We pride ourselves on diversity/but a lot of crap happens on campus where no one acknowledges or does anything about.

17. It means that nothing hinders this university or the students from achieving success, which isn't necessarily a good idea because it ignores equity and pushes forth an idea of equality.
18. I have no idea. CSULB doesn't market it enough for me to even make a concrete definition for it.
19. It means nothing. The president is complacent with increasing the financial barriers on students (tuition) to cover the salary increases of the highest paid executives of the CSU system.
20. I think it's a joke and just for show with no action. Students of color are still not represented or reflected in the professors, and students of color don't always feel safe on this campus. Things like the threats to cultural clubs like La Raza happened just last semester on this campus.
21. Change #allabilities to #alldisabilities to acknowledge to sociological, structural importance.

Comment: About half the definitions provided by respondents indicated support for the "No Barriers" slogan, while an equal number critiqued it as either meaningless or counter-intuitive—given the structural barriers CSULB students face. In the context of student comments about drive, resilience and ambition, the Administration might consider emphasizing student agency in surmounting barriers, as part of the "No Barriers" campaign. In addition, campaign messaging should potentially acknowledge the seriousness of the structural challenges students face.

Category 3: Follow up on prior data collection

Graduate Student Success/Journey Maps

Journey maps are data collection tools that are widely used in the field of design to assess user experiences, perceptions and levels of satisfaction with processes that have a temporal dimension. They are thus well-suited to tracking student movement through a degree program. The response categories in the journey maps piloted in this year's work were developed by TF members Jaffe, Shaffer and Merino, adapted from a variety of models that have been used in other institutions. The map was organized as a table (Appendix F). The far left-hand column of the table asked students to describe their **actions, questions, high points, low points/difficulties and opportunities** associated with the following steps and features of their graduate experiences listed on the top row of the table (explanations/guidelines provided to students are in parentheses). Thus, each of the numbered categories below represents a thematic response column in the table:

1. **Getting In** (What factors influenced your decision to pursue graduate school at CSULB? (cost, choices, information, application process, how did you think about graduate school as a possibility)?

2. **First Semester** (What was your transition into your 1st semester as a graduate student like?)
3. **Courses** (In addition to experiences of particular courses, this could include course availability, professors, workload, expectations, course requirements etc.)
4. **Balance** (How have you balanced work, family, school?)
5. **Advising** (This is for your experience with general graduate advising and resources, your department or thesis/project chair, use of GSRC etc.)
6. **Community** (Do you feel like you have built community on campus? This includes your cohort, your department, and the larger campus)
7. **Culminating Experience** (How has your overall experience been in preparing for your final project, thesis, portfolio, etc?)
8. **What's Next?** (What are your plans for after graduate school?)

Methods: Solicitation and Collection of Responses

Journey maps from Graduate Students in two main ways: through the placement of large format journey maps in public places and working through graduate advisors/instructors.

Public solicitation took place during the 2nd annual Graduate Research Conference in November 2017, where a giant journey map was installed on a wall next to the registration desks. TF members invited students to write responses on post-it notes and place them on the map. A similar public map was also installed in the Graduate Student Resource Center on a white board for approximately one month. This unattended board garnered few responses. Plans to incorporate the journey map activity into a GSRC workshop were discussed, but not implemented due to lack of time. The GSRC pilot indicated that one of the values of the public map was that it invited conversations amongst graduate students who participated.

Second, students were recruited from their graduate classes. Contact with graduate faculty was made through Associate Deans (this resulted in participation in CED). In CLA, contact was made by Cory Wright, Director of Graduate Studies (who did the analysis in this report). He e-mailed Graduate Advisors from the 16 CLA Departments with graduate programs, explained the task force journey map initiative, and invited involvement. Many graduate advisors in CLA elected not to participate for reasons that invite further investigation but are likely to relate to concerns over the potential use of the data collected to evaluate graduate programs (despite assurances that this was not the case). Those who did participate were interested in seeing the data for their own assessment purposes. TF co-chair Jaffe also visited several classes in the CLA and CED to explain the journey map project and invite responses from students.

Overall, the most successful data solicitation methods were those in which students in a graduate class were contacted in a face-to-face meeting, encouraged by their instructor, and given 10-15 minutes of class time to fill out the maps.

There were two formats for student responses and return of data: 1) filling out a Word document sent as an attachment and returning that document to either a TF member or to

their instructor; 2) being given a unique link to a Journey map saved in Google Docs and entering their responses online. The latter was the most efficient method and had the advantage of insuring the greatest respondent confidentiality, since there were no email identifiers associated with the responses.

While exact numbers of participants in the GSRC public wall are impossible to determine, we estimate that approximately 15 students from 5 colleges partipated. Classroom solicitations yielded 26 graduate respondents from CED and CLA.

Findings

Getting In

The first column of the map is an inquiry about the admissions phase of graduate students' journeys, with directions to focus on factors affecting students' decisions to pursue graduate school, such as cost and process. Overall, the main response in this column indicates that the primary factor influencing the decisions, not only to pursue graduate school, but to pursue graduate school at CSULB, was having one or more discussions with faculty members. This response affirms that faculty play a major role in recruitment and unofficial advising. Several other main factors were mentioned, including prestige (e.g., 'I also knew a lot of people who attended the school and have said wonderful things about it. The reputation of the school played a major role in my decision.' and 'I was also told not to go certain schools because of a lack of prestige.') and location ('CSULB was closest place to my hometown that offered a master's program in [redacted].', 'I looked at cal states within my area.', etc.)

Actions

Most respondents reported that the primary action that precipitated applying to, and being subsequently admitted to, graduate school was a conversation with one or more professors. No students reported conversations with University peer advisors or Career Center staff as a precipitating factor. Some students, acknowledged turning to other people with whom they have close personal relationships, such as friends or family, for discussion.

The first row of this column appears to have had the most robust response rate of the entire journey map, suggesting that students overwhelmingly begin by filling out the first cell, and then become more discriminating about what they are willing to respond to. (As an aside, this result conforms to eye-tracking data in I/O Psychology regarding how form are generally filled out.) Unfortunately, the first row also features some of the least interesting data (e.g., 'I completed the application, very manageable'). In any future iterations, reconsideration of instrument design may consider how better to exploit this pattern of higher response rate at the beginning of the journey map.

Questions

Responses for the second row generally suggested that students had questions of a more ponderous nature. One student reported being misinformed regarding whether financial aid for graduate school was available. While a few other responses focused on nuts-and-bolts issues regarding the application process (e.g., 'What are the minimum GRE score requirements to get into the program? Who would be a good person to ask to write my letters of rec?') or CSULB regulations governing PBAC programs (e.g., 'Can I be in a graduate program while doing student teaching?'), many more responses focused on bigger-picture questions of either a financial or professional nature (e.g., 'Is graduate school worth the investment? (Financially, emotionally, mentally')', or else of a more general existential nature (e.g., 'Am I prepared?', 'Is the masters degree a proper step to take in life? Should I be pursuing a masters or starting a family? Will I be able to balance all of my life responsibilities and the program? Is this the right program?', and 'What will I do after this degree?').

It is unclear whether there is an overall lesson to draw from these responses, although the direction of these responses is fairly predictable: in applying to graduate school, students are facing a complex of issues that involve major life decisions, educational plans, opportunity costs, and financial burden. Respondents seem to be using means/ends thinking when thinking about graduate studies (i.e., graduate studies as a means rather than as the end-in-itself). In so far as this is a useful way to think about some individual programs, there may be an opportunity to preempt such questions—not only with better information about application process on their program websites—but also an opportunity to think through the narrative(s) that programs think would help students with these bigger picture questions.

High and Low Points

Responses for the third row ('High Points') were also predictable: students often indicated that the high point of the admissions process just is being admitted (e.g., 'I was accepted!', 'One of the highest points was getting an acceptance letter from the graduate advisor', and 'Getting acceptance letter was the highest point') or being admitted with financial support (e.g., 'Getting accepted, being offered aid (I didn't think there was aid for grad school!)'). Interestingly, some students may have misconceived what was being inquired about, and instead wrote of their '[past undergraduate] research'.

The probative value of the question about low point(s) in the admissions process may be greater. Some respondents continued to focus on previously-mentioned issues (e.g., 'Doubt around financial investment', 'I did not receive any financial aid. I have to commute. I have to work.')—something that additional financial resources for recruitment may help alleviate. Others complained about time management, as well as social aspects of their orientation (e.g., 'I wish my orientation had done a better job of connecting students & not just giving us info without interaction'). Worth noting is that the University will be rolling out a comprehensive website for graduate studies, which

will prove to be an informative resource for all programs; however, that resource will not address the social aspects of orientation, which can be a crucial component to a strong beginning. Individual programs might do well to think through the human element of orientation for their graduate students.

Opportunities

Responses in this row were far fewer in number. Of the few positive responses available, the tendency was to focus on financial support (e.g., 'I received [HOGAR] scholarship which was awarded to me upon acceptance of the admission offer') or graduate assistantships and the like (e.g., 'I was very pleased at the many employment opportunities that CSULB offers to graduate students.'). One interesting trend seems to be that students with positive responses in this row generally had more positive things to say about the admissions column in general and the 'high points' row in particular, and little-to-no negative responses about the 'low points' row. Consequently, it may be that students who have opportunities during the admissions phase of their journeys may have a better outlook with respect to their journeys, or be happier about their choice, or better disposed to have a strong start. This trend indicates a need for more recruitment tools in graduate studies.

Additionally, there were two other types of responses: limited responses about opportunities, and responses about limited opportunities. Some respondents may have been unsure of what was being asked or what could be reported—or else had nothing to report—and so just did not respond. One student reported being unaware of any extant opportunities (e.g., 'I didn't know about it.'). More likely, however, is that most respondents simply had no opportunities to report, and so left this cell blank. This trend also indicates a need for more recruitment tools in graduate studies.

The First Semester

The second column of the map is an inquiry about the opening phase of graduate students' academic program of study, with directions to reflect on the transition from being admitted to beginning graduate school. Because the transition from baccalaureate to post baccalaureate study can be a big transition, and because the opening phase of that transition can have significant impact on graduate students' experience in a program and shape their perceptions, this column is particularly important.

Actions

Some students appreciated orientation-type conversations with faculty (e.g., 'Attended a meet and greet meeting with [redacted] to where she gave us information about the program and the classes.') and others reported that all went well (e.g., 'The first was a smooth transition. Taking the Proseminar class my first semester was really helpful. I learned a lot from my professors in how to study and write papers in graduate level [redacted]'.

There was a mix of responses about the difficulty of graduate school (e.g., 'Hard, did not know what to expect', but 'I did not see a discrepancy between undergraduate and graduate level courses for the most part. Transition was not difficult'). In some cases, the difficulty may be intrinsic to the subject matter: some subjects or graduate programs are just more difficult than others. In other cases, difficulties likely owe instead to factors such as background preparation (cf., 'First semester was incredibly hard as my BS was not in [redacted]. Took a while to adjust to the long commute and late class hours but loved all my classes and professors' but 'Because I was already in the school in my undergrad, I was comfortable with the environment. The workload was greater than I anticipated but I enjoyed the challenge').

While there were too few responses about actions taken to draw strong inferences, several respondents seemed to indicate that time-management was a concern (e.g., 'I mentally prepared to not have very much free time anymore', 'A lot of reading'), but most respondents seem to have a handle the concern just fine (e.g., 'Nerve wracking more than anything. Started slow so it was a great way to start' and 'I had no job so I was able to focus on my courses').

One respondent wrote 'Crazy schedule!', but did not indicate what the issue was. Since PT graduate students take at most 6 units, and most FT graduate students typically do not take more than 12 units, which is less than or equal to their course load at the undergraduate level, such responses may have more to do with issues external to graduate study, such as PT/FT job, childcare, eldercare, etc. Other responses confirm this (e.g., 'Really hard because I was working 40+ hrs'). Such responses suggest that students are able to handle their first semester best when they can fully focus on their graduate coursework in their first semester without interference from external issues such as a PT job (e.g., 'Went to class, prioritized my time, quit my job to be fully involved in courses.'). This suggestion, however, raises the issue of funding resources during the recruitment phase of graduate students' journeys.

Questions

There were, again, few responses to the second row regarding questions about graduate study during the first semester. While some responses focused on minutiæ (e.g., 'Parking'), most responses again posed either bigger picture questions about planning the graduate course of study (e.g., 'Will the following semester require more of my time?', 'Where can I find more relevant research experience? Which courses should I take to graduate on time? Thesis or comps exam?'), or else more ponderous questions contiguous with those posed in the 1st column (e.g., 'Who am I?', 'Should I have come to grad school? How do I manage it? Time, money, family').

High Points

Many responses in row three were again predictable: the high point of the first semester is the sense of accomplishment upon finishing the first semester of graduate school (e.g., 'Getting all As, presenting at research conference, managing to work 20

hours a week', 'Finishing the semester with good grades', etc.), and thus the recognition that it is possible to flourish in graduate school. A larger number of responses focused on the appreciation of professors and faculty expertise (e.g., 'I was very happy with the courses I took and the guidance of the professors', 'I enjoyed my first semester classes and professors. The information was interesting and relevant and my professors were very reassuring of our abilities to complete the master's degree', 'Helpful professors', etc.). For one respondent, this appreciation of faculty solidified their sense that graduate school is and would be a worthwhile endeavor: 'One of the high points came during my Aristotle class. [redacted] was giving a funny and informative lecture on Aristotle. It was awesome. Made me proud to be a [redacted] student.' A third type of response focused on relationships made over the course of the first semester, both to people (e.g., 'Networking with peers and building mentorships with professors') and to institutional resources (e.g., 'Utilizing GSRC for my 560 course project. It was a wonderful connection to make in my first semester.')

Low Points

One respondent in row four mentioned a financial obstacle ('There was confusion related to financial aid, which took time and energy to resolve. The [redacted] department was my greatest asset in resolving the issue'), which faculty in his department helped resolve. However, the overwhelming response from most students had to do with the one of three items: specific curricular work, such as the inherent difficulty or amount of reading (e.g., 'A lot of reading needed per week, more than I was used to.', 'The reading was the most difficult part to get used to completing in a timely manner') or assignments (e.g., 'The inability to keep up with my homework in a meaningful way, at first.', 'Many assignments'); time management (e.g., 'LOL I'm finding it difficult to work and manage school load', 'Have been working for a number of years, the transition was difficult for me. Time management', 'The last month of school was horrible, trying to turn in all final projects. A lot of lost sleep and calling off from work', 'The work load took some getting used to', etc.); or, third, just the inherent difficulty of graduate school or advanced study more generally (e.g., 'I took 21 credits +senior thesis and worked part time in undergrad…I thought I was exhausted then but that was a cake wake compared to grad school'), Together, these three types of responses indicate that graduate student success is inhibited by things like inadequate preparation for advanced study or interference from external sources, such as a PT/FT job. One major remedy to mitigate against low points in graduate students' first semester of study would be to recruit them with resources. For example, certain kinds of tuition/fee waivers and first-year recruitment fellowships may allow programs to recruit better, more adequately prepared graduate students, who can then fully focus on their studies without having to take on PT/FT jobs in their first semester.

Opportunities

Generally, respondents mentioned few opportunities. Only one student who explicitly mentioned a graduate assistantship ('I was contacted about numerous events, conferences, and other opportunities. I was also a paid GA for logic and critical

thinking'), and no other respondents mentioned any other type of employment opportunities. Another student in CNSM mentioned their hope to submit an NSF grant (e.g., 'Hoping to submit NSF grant! Fingers crossed'), indicating their awareness of this as a possibility, although there was no indication of this being anything more than a hope. Another respondent also suggested that students were on their own when it came to ferreting out opportunities for themselves, and even then, they had no time to do so ('I honestly had no time to do anything more than the coursework to find any opportunities'). That most students did not report many opportunities suggests that certain funding opportunities are either too scarce or unknown.

Some students mentioned other kinds of opportunities (e.g., 'Presenting your work! It's nerve-wracking but so enlightening'), and the GSRC Graduate Research Conference is a major one in that regard. The GSRC was highlighted by at least one other respondent ('The graduate studies resource center! Faculty office hours, the [redacted] lab, other grad students!'). Overall, the data suggest that first-semester matriculants may be going without funding or employment opportunities in ways that become barriers to graduate student success or timely graduation.

Courses

In the third column, graduate students reflected on their options/choices in their program of study, along with other academic features of their learning outcomes and curricular experiences more generally.

Actions

Most students responded to the first row and gave a wider variety of responses, but many responses did not squarely address the issue of actions taken vis-à-vis courses. Consequently, there were several responses that were addressing other rows and columns of the journey map. Of the relevant responses, most were positive. Typical in this regard were claims such as 'I liked and like all my courses so far' and 'Most of what I am interested I either took or was offered by the department. I am very pleased with the courses so far.' Some responses acknowledged the utility of a graduate proseminar (e.g., 'Proseminar is helpful because the assignments include thesis proposal, so I can spend time to develop my thesis'), which is typically offered in one's first semester as a way of stamping in skills and graduate-level expectations. Other responses continued to emphasize the helpfulness of faculty and the reading-intensive nature of their graduate courses (e.g., 'For the most part all of the professors were very encouraging, understanding, and helpful. There was a lot of reading but that was to be expected', 'A lot of reading and writing. Love the small discussion size.')

Beyond affect and valence, opposing responses occurred with respect to the utility of coursework for career mobility (e.g., 'All the courses were very helpful to my career', but '2 of 3 courses were not relevant to my overall career and future goals'). Opposing responses also occurred with respect to availability (e.g., 'I have had zero issues with course availability or times courses are offered' but 'Even if I can take classes that I'd like

to take in early registration time, suddenly class is closed right before beginning of semester and I had to reconsider my class schedule in less availability of class options').

Questions

There were very few responses to the second row of this third column, and several of the responses did not allow for inference and analysis. Some mentioned questions about courses and registration without giving any indication of what those questions were (e.g., 'I had a lot of questions about course availability that had to do with my research topic (in & out of my department)'). Of those responses that actually delivered a question, this one was the most contentful: 'Was I doing a good job? Sometimes feedback was unclear'.

High and Low Points, Opportunities

Generally, students who had good experiences in their courses tended to say as much. Several respondents again mentioned that faculty or faculty instruction was a high point ('Excellent instructors', 'Professors support and encouragement. Cohort connections', etc.). One student expressed A preference for graduate seminars ('I usually prefer the seminar style class to other classes'), and several other respondents again explicitly mentioned the utility of their graduate proseminar in particular (e.g., 'Proseminar is helpful for start to develop thesis', 'Proseminar was what I was waiting for. Getting into my thesis work was relieving and reignited my passion for education', 'Learning to write like a researcher in proseminar class'). Regarding low points, workload appears to be a common theme (e.g., 'A lot of reading needed per week, more than I was used to', 'This last semester taking three courses, full time job and induction program. [redacted] a bit overwhelming', 'I have to take more than 9 units in each semester').

While some students reported being pleased with seminar-style courses and smaller class sizes, others expressed concern about classes that were too small or had too few graduate students enrolled ('It is sometimes disappointing how few other graduate students there are in my classes, particularly the combined grad/undergrad classes'). This latter issue may just be a one-off artifact of a particular class, or more broadly representative of graduate perspectives in double-numbered classes; it may also be symptomatic of concerns with cancellation of lower-enrolled graduate seminars, and suggests—again—that (support for) recruitment may need more attention.Finally, as to the last row regarding opportunities, there were too few responses in this last row to comment upon.

Balance

In the fourth column, students were asked how they have balanced work, family, and school. Overall, the resulting responses were predictable: most students expressed the thought that balancing work, family, and school is not easy (e.g., 'Finding balance between work and school was difficult at first'). Many more responses were either too understated ('Support from family and coworkers', 'Balancing time around school and my family', etc.) or too vapid to be useful ('I just give myself some me time in order to keep a balanced life', 'Balance between work and

school was difficult, but I managed', etc.). Several students left this column altogether blank, and a few others left rhetorical questions about obvious tradeoffs and constraints on time (e.g., 'As a master's student, are you allowed to work and go to school?').

Actions

Several students noted scheduling issues in the first row (e.g., 'Worked on homework on school days and weekends'), and several mentioned using different calendar tools to help ('I had to make sure to keep my work and school calendar in sync', 'I set up a mental schedule that worked for me where I would dedicate several hours in different days to all of my school work at home. I also kept check list with due dates for things', 'Lots of Coffee! And a fancy planner'). Several more mentioned larger-scale changes to their lives that were necessitated by graduate study (e.g., 'No school/personal balance. Had to move to LB. Commuting was no longer an option', 'Moved closer to campus, quit job, minimized social life but still participated in important events')

High and Low Points

Very few students reported any high points when it comes to balancing work, family, and school. Possibly, achieving this kind of balance does not strike respondents as an achievement of the sort that would constitute a high point in their journey. In contradistinction, some students reported that imbalances in work, family, and school introduced difficulties that were more noticeable or more easily conceived as a low point. Some were social ('I essentially lost contact with all of the friends that I had made since moving to Long Beach', etc.), while other difficulties were more straightforwardly academic ('Being too tired from homework to do well at work/ being too tired from work to do homework', 'Being limited to time to study because of work, family', etc.)

Opportunities

There were very few responses to the last row of this column. Students may not have understood what would constitute an opportunity for striking balance. One student mentioned that the GSRC was a primary source for help with papers, projects, doctoral applications.

Advising

Actions and Questions

Graduate students were asked to comment upon the role of advising in their journeys. Several students either left the 'action' row blank. Several others offered inscrutable remarks (e.g., 'great'), and several more seemed to misunderstand what was being asked of them and wrote comments that are unable to be taken seriously (e.g., 'Just smile! You can do it!').

Overall, students who expressed remarks about actions taken for advising expressed positive remarks. For example, here are some examples of graduate students' experiences vis-à-vis advising:

‘Semesterly contact with advisor -Department always reaching out with resources’
‘I would always go to advising when needed.’
‘Advising is available for problems. I discussed issues with my thesis with my chair. Received suggestions for readings that steered me towards a proper goal.’
‘Advising has been great to the processes of my thesis. Regular office visits with professors have also been helpful to my class work.’
‘Thesis chair appointment was amazing. Meetings with my committee members were equally amazing. Professors really dedicated to my project and my success. My schedule makes it harder for me to meet with my committee as often as I would like.’
‘CSULB has enough opportunity of advising including writing support and professors’ support. Even if my chair is not in campus, he helped me via phone call and email.’

While there are significant differences in how colleges and departments handle graduate advising, several students expressed comfort getting advising from their thesis director or committee chairperson, while others mentioned the department or program’s faculty member serving as the graduate advisor: (e.g., ‘Every time I have questions about the graduate program and about my path to graduating, I would visit [redacted] in her office. She has been extremely helpful’, ‘Never took advantage of general graduate advising but my professors were very helpful in answering any questions that I had along the way’). Occasionally, a couple of respondents alluded to seeking out advising at the GSRC (‘Sought advice not only from my department, but the Graduate Studies Resource Center as well. All advising I received at CSULB has been useful’).

Very few students alluded to questions for the advising column, though one essentially asked about the available avenues for obtaining research opportunities (a common note sounded in the earlier columns in the journey map as well), and one student asked whether there are ‘flowcharts for who to go to if your chair is there’, which is a terrific idea (although some departments have already implemented this suggestion). Another student asked what classes would transfer from a prior masters program.

High and Low Points, Opportunities

As the third row (‘high points’), good faculty advising and faculty advisors seems to be the common refrain. One student simply named her or his department graduate advisor; another named her or his committee chair, who ‘has been helpful in terms of helping with presenting at conferences and applying for opportunities’. Yet another student mentioned to the entire department faculty: ‘The advising has been excellent. The whole faculty is willing to help me, and has given me terrific guidance’.

The advising low points mentioned were minimal in number, and tended to be focused on specific problems or context-sensitive issues. For example, one student wrote, ‘my chair being gone for the entire 2nd semester and having no clear alternative on whom I consult about advancing to candidacy’, and another wrote ‘[m]y advisor expected me to be proficient with a particular set of skills that was necessary in the field. Having taken a break from school for 2 years before my grad program, a refresher course, advise, or guidance

would've helped'. One student expressed frustration with a paucity of curricular options: 'there are not enough choices', although this has little to do with advising per se.

Finally, as to the last row regarding opportunities, there were too few responses in this last row to comment upon.

Community

Students were asked to express their sentiments about the community, to include their cohort, department or program, and the campus-wide community. Because of the lack of on campus housing for graduate students, and a lack of graduate-oriented ASI clubs, CSULB graduate students may be at a disadvantage relative to their undergraduate peers or other graduate students on other campuses. Consequently, where they make up for deficits in community is through academic enrichment, cohort activities, and department-wide events.

Actions

Fewer students reported actions in the 'action' row of this column. One exception was a student who wrote, 'As a cohort we made a group text chat in which we would remind each other of deadline or clarify any questions. In addition, we got together once in a while to work on our projects'. However, over a dozen students expressed positive feelings about the cohort model of graduate studies. As a representative example, one student wrote 'Our cohort had a very nice sense of community and we discussed and supported one another throughout the program' and another wrote 'It's been easier to build friendships with my cohort members than I first thought. Mainly grabbing brews at the nugget or coffee'.

It is difficult to know what inferences to draw with such data, however, other than that cohort models of graduate study seem to have positive benefit for those programs that utilize them. More generally, for students who have good relationships with their classmates or peers in their graduate program and then report 'good relationships with their classmates', there are very few useful inferences to draw—certainly not any cogent inductions. Likewise, for students who have not found much in the way of community in their graduate program yet, and then report 'I don't feel like I found my community at least not in my department', there are not many useful inferences to draw.

Questions and Opportunities

Several respondents offered up questions in the questions row of this community column. Some were, again, cohort-based (e.g., 'How to resolve issues within the cohort?', 'How can we get more people to participate in group activities that are in the cohort ahead and the cohort behind us?'); others were questions asking how better to connect with the community at large (e.g., '[h]ow to better connect with the community at large?', 'How can I get more involved with what is going on with the school? How can I identify with others as one of the few students of color?'). The higher rate of more

appropriate responses may suggest that certain graduate students in certain programs are looking for outlets for academic socializing.

With respect to opportunities, one student wrote that he is making the most of certain opportunities (e.g., 'I have attended conferences and the [redacted] club meetings'). Another student wrote that 'we started up the [redacted] I took part in that'. Some graduate programs have student associations or clubs that are specifically for graduate students; others have mixed under-/grad organizations. Graduate program directors and coördinators would probably do well to continue tending to these organizations.

High Points/Low Points

Perhaps the most interesting comment was from a student who wrote 'I found it challenging to really build a community due to feeling in-between both cohorts because of my part-time status', which suggests that students who are not fully 'plugged in' to a graduate program may experience a lack of community. Otherwise, the high and low points of community were as expected. Approximately ten students wrote that they have a great cohort, with caring and attentive peers. Many of those same students decried certain problems with 'drama' and caring and attentive peers. Similarly, in a different program, one respondent remarked, '[t]he professors are very friendly and I have formed friendships with many other students in the program but there are too few graduate students in the program'. However, a graduate student from the same program wrote 'There are a good number for graduate students and undergrads which makes it a good place to make friends. The faculty is also easy going'. While great to hear that faculty in this program are approachable, affable, etc., the opposing remarks about the program size are offsetting in ways that make it really difficult to offer a meaningful analysis, much less one that generalizes across the graduate student experience.

Culminating Experience

Graduate students were asked to articulate their experiences in preparing to finish their program of study. Most did not address the culminating experience at all, and those that did not address it in any detail (perhaps as a result of fatigue in filling out the form). So, there is no clear data about broad patterns that can be used as evidence for a given inference.

Actions and Questions

The general sentiment expressed was that the final project was a challenging but worthwhile endeavor. Representative were remarks such as 'Preparing the final project was stressful but enjoyable as well because of the connection I had with my cohort and the support I had from my professor'. There were very few questions posed or comments about questions. One of the more interesting ones pertained to the IRB process, in which the student lamented that it was too slow and asked whether there is a way to accelerate it.

High and Low Points, Opportunities.
Most of the comments in the column on the culminating experience focused on the highs and lows. One student remarked that 'Becoming a Graduate Assistant in my department has given me an insider perspective into academia'. Of course, being a graduate assistant is not any part of the culminating experience, and so what's interesting about this comment can only be the validation of the meaningful experience of being a graduate assistant, and the glimmer of insight it brings to students about what academia is like. Colleges are encouraged to find ways to distribute this experience more broadly. Other 'actions'-comments were in more predictable directions, focusing on field work and data collection, as well as preparations for doctoral applications: 'Doing research out in the field over the summer for a month in a remote location' and '[m]y professor/mentor is helping me advance my paper further so that I can submit it to an academic journal right before I apply to PhD programs'. Under 'opportunities' in the fifth row, one student mentioned 'conference opportunities'.

With respect to 'low points', one student lamented that 'Some excellent professors will be leaving the program, including a potential thesis advisor'. Separations from the University do negatively bear on more than just one student, and impact students in ways that are often underappreciated. A more general set of low points, however, were more troubling. One student mentioned 'not understanding readings when working on Literature Review', which suggests that the student may have advanced to far along without gaining the necessary skills to execute a proper literature review. More troubling still was the comment 'I wish I knew what the heck I was doing. I have a vague idea but nothing concrete', which may be a direr failure of faculty to perform certain gatekeeping roles.

What's Next

Students were asked about their plans for after graduate school? Of those whom responded, several mentioned studying for the GRE and applying to doctoral programs in the near future, and a few others mentioned student teaching, teaching credential programs. Ultimately, the data from this last column was scant, and without more systemic study is not data that has obvious uses as evidence for any particular, or particularly interesting, inference.

Conclusions/Implications

The data collected attests to the crucial role that good faculty advising and outreach at the undergraduate level plays in alerting students to the possibility of pursuing a graduate degree and encouraging them to do so. The results also indicate strong student satisfaction with the quality of their instruction and advising.
Student responses also show that some CSULB students who begin graduate school face a potentially daunting combination of challenges that include adapting to the greater demands of post-baccalaureate study while finding themselves less-than-fully-prepared for graduate-level work and struggling with balancing these new demands with work and family obligations. This

combination of factors is predictable for students who are likely to be first-generation in their families to get a BA or MA.

In the small sample of students surveyed, it is clear that some experience greater community and belonging than others, and that this has a positive impact on their perceptions of the graduate experience. Given the wide range of variation in departments' implementation of graduate cohorts, additional research is needed to document cohort formats and their outcomes on graduate student success and satisfaction.

Data collected in this pilot study also underscores the high need for the University to explore ways of offering more graduate students in more colleges and programs financial support, especially for their first year. Additional research is also needed to see if there are populations of graduate students who experience greater challenges in this regard than others, and to explore the links between students' evaluations of their preparation for graduate school and experiences of community and performance measures such as time to completion, withdrawals or educational leaves, and GPAs/pass rates on culminating experiences.

We believe that the pilot results demonstrate the value of using journey maps to track graduate student experiences and perceptions for formative assessments of graduate programs at the department, college and university levels. In order to encourage greater future use, it will be necessary to communicate to potential participants that the use of Google docs and folders can preserve student confidentiality, allow departments that wish to keep their department data confidential to control access to their students' responses, and provide valuable data to colleges and university level institutional researchers.

Impact of switching majors on student success

Nationally, about one-third of all college students switch their majors (at least once), often delaying their graduation. Thanks to data collected by the office of Institutional Research, we know the precise number of CSULB students who have switched majors, as well as at what point in their academic careers they made the change. What we don't know, however, is *why* students decide to switch majors and *how* the move impacted their academic careers. For these reasons, the HVDI qualitative research team identified this student population as one to study. The team narrowed its focus to students in CLA because that college graduates the most students who migrate from other colleges in the university than any of its counterparts. The team identified focus groups as the most effective methodology for collecting data. Team members developed an interview protocol meant to probe factors contributing to students' dissatisfaction with their original major, and how switching majors affected their graduation goals, among other topics (Appendix G).

Dr. Shaffer began by requesting contact information for current students who switched majors into or out of the College of Liberal Arts. IR provided email addresses for 233 students who entered CSULB during Fall 2014 and had switched their majors from colleges outside of CLA *to*

CLA by Spring 2016. IR also provided email addresses for 60 students who entered CSULB during Fall 2014 and switched their majors from ones within CLA *to another college* by Spring 2016.

Dr. Shaffer's initial attempt to recruit study participants involved emailing all 293 students on February 19, 2018. The message asked recipients to share their experiences switching majors during a 90-minute focus group discussion—she listed three sessions on varying days of the week, and with morning and afternoon slots—in exchange for a $25 Amazon gift card and light refreshments (Appendix G). Just three students responded with interest. Our next attempt at recruitment involved plastering posters and flyers throughout campus, and asking ATLAS advisors to help disseminate a stack of flyers to students visiting the office. On March 6, 2018, we set up a table outside of LA 3, in the path of heavy foot traffic, and attempted to recruit students passing by. Combined, these efforts garnered a total of about 7 more potential study participants. And, among the 10 students total who volunteered, only 2 or 3 were available to meet during any single time slot. Given the small sample size and labor involved, task force members concluded it would be impractical to facilitate focus groups during Spring 2018.

Although we did not achieve our original goal of collecting qualitative data on students who switch majors, the effort was a valuable learning experience that should inform the university's future qualitative research efforts. Specifically, it is clear that students perceive email invitations as spam or are so inundated with messages that they decline to even open them. Therefore, recruiting students for focus groups will need to involve a face-to-face interaction, such as attending classes and personally pitching the study. Recognizing this requires significant time and effort, the qualitative research team also concluded it is best to identify specific courses that overlap with research goals, and ask instructors if researchers can facilitate focus group discussions during class time. For example, if the goal is to better understand challenges facing transfer students, several colleges run "small learning communities" for these cohorts. Researchers could use one learning community meeting to divide the class into several smaller groups and facilitate a discussion, using the designated protocol.

Category 4: Cohort/Student Success oriented courses

Impact of designated "student success" courses

The College of Engineering (ENGR 102), the College of Natural Sciences and Math (NSCI 190A), and the College of Liberal Arts (CLA 195) each offer a course aimed at helping first-year students adopt organizational, time management, and study skills. These "student success" courses are also meant to help new majors make connections in their programs, identify useful resources, and explore career options. The HVDI Qualitative Research team identified students enrolled in "student success" courses as a target population to study.

College of Engineering advisors Dr. Saba Yohannes-Reda and Prof. Helen Yohannes, both of whom teach ENGR 102/Academic Success Skills, agreed to participate in qualitative data collection efforts. In fact, these instructors said they welcomed the opportunity to collect data with the potential to bolster their own efforts to assess student learning outcomes for ENGR 102, and to identify programmatic strengths and weaknesses. With these goals in mind, Dr. Shaffer drafted a survey tool consisting of seven open-ended questions. One question set asked students to identify resources that they perceived as helping them achieve their graduation goals and, conversely, to identify factors they perceived as obstacles to achieving graduation goals. Other questions asked about students' "sense of belonging" on campus and participation in extra-curricular activities. The full survey can be found in Appendix H and here: https://goo.gl/forms/nv2MlLOLHA2kTtz13

Dr. Yohannes-Reda and Prof. Yohannes administered the survey as a midterm exam in three sections of ENGR 102 Academic Success Skills courses. They gathered a total of 67 survey responses. The two sections of ENGR 102 courses are taught by one instructor who teaches the Beach Engineering Student Success Team (BESST) cohort, a learning community where students take classes together for the first year. The second section is taught by the other instructor who teaches one section of the EXCEL cohort group.

Following are some of the trends identified after analyzing the data:

Commutes

More than 50% of ENGR 102 cohort students commute an average of 3 to 5 hours per week, which indicates that these students mostly either live at home or near campus. Similarly, more than 60% of the students also indicated that they chose CSULB due to the distance and ability to live at home.

Using campus resources

1) What resources are you aware of on campus to help you achieve your graduation goals? If there were additional resources made available to assist in completing your STEM degree or program, what should they be?

It was encouraging to learn that first-year students do utilize camps resources, and are aware of the various services around the campus. Multiple tutoring services are mentioned more than 75 times on the survey. However, ENGR 102 students requested additional SI opportunities for difficult courses (specifically STEM or Engineering courses); for faculty office hours to coincide with the lecture times (before or after the section taught); for a continuous mentoring program, similar to BESST/EXCEL programs; as well as for better ways to access progress in course and current grades. Not surprisingly, students also mentioned the need for more parking spaces.

Obstacles toward graduation

2) Please tell me about anything at CSULB that you perceive to be an obstacle toward graduation. Give 3 in-depth reasons with examples to support your responses.

More than 50% of the participants indicated the biggest obstacle toward meeting graduation requirements is their inability to manage time for school family and work. The other issues that were commonly described were lack of class availability, other family obligations, and finances.

Helping achieve graduation goals

3) What is something at CSULB that you perceive as having the potential to help you achieve your graduation goals? (One example could be knowledgeable instructors, etc.). Give 3 in-depth examples to support your responses.

The dominant theme among respondents to help achieve their graduation goal was tutoring access and academic clubs. The survey responses indicate that first-year students are aware of various tutoring centers and utilize tutoring services offered by different departments. It will require further investigation to identify which tutoring center is utilized most frequently and by whom. The overwhelming number of responses about the use of tutoring centers makes it difficult to differentiate whether the same students tend to use the same tutoring centers or a range of the services provided on campus. It is also encouraging that participants see the benefit of academic clubs since engineering faculty and staff promote clubs as an ideal extracurricular activity for engineering students.

Students routinely mention academic advisors as key components to their success. About 20% of respondents mention meeting with advisors regularly, along with tutoring and joining scholarly/academic clubs as catalysts for achieving graduation goals.

Belonging on campus

4) What experiences make you feel as though you "belong" on the CSULB campus? Conversely, have you had any experiences that make you feel disconnected from campus?

Nearly 30 percent of students mentioned membership in a student organization or club as helping them get acclimated at CSULB. Just under 28% also mentioned making friends in the same college or major as a huge benefit because it allows them to spend time with peers experiencing similar obstacles. The BESST program is a particularly relevant example of how these students are able to thrive as a team and continue serving as a support system for one another over the years. About 25% of the students surveyed acknowledged NOT being a part of any student organization (or clubs) on campus. But more than half of those same students reported interest in joining a club of interest during their second year at CSULB. The rest of the cohort (about 70%) mentioned being interested in or involved with various clubs on campus, including: SWE, ASEE, LB maker society, MAES, and SHPE.

In retrospect…

5) Knowing what you know now, would you still choose to enroll at CSULB? Please provide 3 examples that explain the reasons for your responses.

A majority of our students (more than 65%) gave a definite yes to this question. They attribute their responses to an easy commute, and accessible resources—as well as perceiving CSULB as a very friendly and inclusive campus.

Limitation of study

All the participants for this study participate in a learning community structured to focus on tutoring, mentoring, and effective use of campus resources. Hence, it will be difficult to generalize the finding to first-year students not supported by programs like BESST and EXCEL. Another limitation could be the phrasing of the questions, which suggested examples on what to write. Such examples may guide students to use the suggestions, rather than formulating original ideas.

Recommendations

In the future, a similar survey should be administered by making the survey anonymous to provide a deeper understanding of the first-year experience. Instead of administering the survey as a midterm, it should simply be a class activity for ENGR 102.

Take-a-ways for Qualitative Research team members
An addition to providing insights into the challenges and opportunities experienced by first-year students in the College of Engineering, this project illustrated the value of partnering with faculty and staff who have a vested interest in the study findings. Because of this, Dr. Yohannes-Reda and Prof. Yohannes were willing to incorporate our data collection efforts into their curricula. Working with multi-section course instructors offers a more efficient means of collecting data, and increases the likelihood that instructors will routinely use the survey tool in the future.

Mentoring study

Rationale for the study

The College of Health and Human Services, Speech-Language (SLP) Pathology Department has conducted a study on its students participation on mentorship programs and how it contributes to skills development. The students' perception of the importance and benefits of study groups was also targeted through this pilot.

Methodology

A total of 45 surveys were collected, from which, 32 were from upperclassmen (sophomore) students, while 13 were from freshmen students. The survey was given as extra credit to

encourage completion by the students. Open ended questions were asked on the students participation in study groups and receipt of mentorship inside and outside of the department. Most of the students surveyed were interested in attending graduate school after graduation. A summary of the responses are attached in Appendix I.

Findings

Students overwhelmingly reported wanting mentoring for support and guidance specifically in navigating through the SLP field. Mentorship was also viewed as a form of networking that would open possible job opportunities. Students were able to apply lessons learned in the classroom to clinics, hospitals, and other settings.

In terms of the study groups, most students previously utilized study groups. This improved their grades as they had a better understanding of the course material, retention, and adaptation through different learning styles. Through study groups, students were able to socialize and network with their peers as well as to find support in accomplishing course requirements. The students who reported not utilizing peer groups most often cited fear of distraction in a group, lack of time, and preference of studying alone.

Conclusions and Recommendations

Students perceived both study groups and mentorship as a key factor in their success. With this, the department is considering assessing the feasibility of starting a mentoring program to enhance student academic support. The preliminary results of this pilot study will be reviewed and presented to the California Speech-Language and Hearing Association in Spring 2019. Also, further data analysis will be done to describe possible link between GPA and peer or mentoring support.

Synthesis/Summary of Qualitative Data findings

Data collection from a diverse array of sources confirms our understandings of key challenges that face many CSULB students in their pursuit of a rewarding, meaningful academic career on a timetable that best meets their needs. High on the list are finances. The need to work, often many hours a week, affects students' abilities to carry a full course load. Financial crises can also cause withdrawals or poor grades, and financial strain is one source of mental health stress that negatively impacts academic progress and performance. Allied challenges include family obligations and the need to commute, which place demands on students' time and energies. In turn, this may impede the kinds of on-campus academic, social and civic engagement and involvement that foster a sense of community and belonging—and which sustain student success.

Another challenge for our many first-generation college students addressed directly and indirectly in several sources of data is the ability to navigate the University's bureaucratic and

academic structures, and to benefit from available resources. Even the limited data reported in these pilot studies point to a stark divide between students who benefit from student success courses, communities or other forms of intentional, targeted mentoring and those who are "on their own" and are unaware of available resources.

The impact of stress on mental health is another recurring theme. Here, students report a large and relatively unmet need for both formal counseling and informal opportunities to de-stress.

The pilot data collected on a sample of specific student populations shows that each one experiences the broader set of challenges in some unique ways. This year's data pilots focused on the specific qualities of these groups' perceptions and experiences of obstacles and sources of resilience.

Student definitions of success note being able to graduate in a timely way. But they also include holistic measures such as feeling happy, balanced and well-rounded, as well to possessing a sense of direction and purpose. Quite a few students also value engagement/involvement, both on and off campus. They are wary of plans that attempt to “push them out” quickly at what some perceive as the expense of quality, face-to-face education in smaller classes (see in particular the Sociology focus group responses).

Synthesis/Summary of Qualitative Data collection practices/methods

The student researcher model used in the 3 Research Methods classes and practiced by graduate students Stevie Merino and Gabriela Hernandez was very successful. This model offers a partial solution to the problem of focus group recruitment encountered by Dr. Shaffer, since students in the classes in question can both be used as “captive” focus group subjects and as active recruiters of students outside the classes. Student researchers have unique access to and rapport/trust with other students that cannot be replicated by faculty or staff pursuing the same research questions. In addition, applying the methods skills they are in the process of acquiring in these courses to a real-life issue that affects them personally and collectively was validating and motivating.

The successful experiences in the Engineering and CHHS courses and the less successful experiences in graduate cohort classes show that when qualitative data collection meets course learning objectives and/or program or other assessment goals, professors engage enthusiastically in data collection and analysis. This is crucial for this kind of data collection to be sustainable, because neither the current Task Force, nor any future research entity has the resources to actually do (rather than supervise and coordinate) qualitative research of this kind. Working with multi-section courses is another way to maximize data return and efficiency.

The need for professional development/training dimension associated with getting faculty (and in future, staff) to conduct qualitative research, or to supervise their students’ research, is also clear from these pilots. Some willing faculty in relevant courses will need to be trained/oriented

to qualitative data collection methods. Even experienced researchers like the SOC and HDEV instructors learned that, in order to provide the best possible data, instructors have to give extra planning and attention to how they scaffold student work.

Two data collection instruments used in AY '17-18 projects deserve further testing: Thought Exchange and Journey Maps. The Thought Exchange platform is a hybrid tool that combines elements of surveys and focus groups. Participants enter their thoughts/ideas in response to a prompt, and go on to rate how much they agree with others' ideas and, if inspired, add additional thoughts of their own. It was used successfully as a prelude to the Academic Senate retreat for identifying themes of shared interest and guiding the selection of discussion topics. It thus holds promise for both exploratory research and brainstorming. Thought Exchange could also be useful for identifying areas of consensus/agreement/priority among surveyed groups. The tool could also be used for obtaining data from student groups/categories that are difficult to assemble for focus groups. Journey Maps, tested on graduate students, are promising tools for tracking student trajectories: their ideas, understandings and perceived sources of success and impediments. Journey maps can be used both prospectively and retroactively. They are also ideal as a reflective tool that can be tailored to align with student success classes, peer mentoring and other forms of advising.

Implications/Conclusions

The pilot studies on commuters, undocumented students/Ally training, student parents and graduate students highlight the importance of inventorying and addressing in a holistic way the unique challenges and needs of specific student populations. This includes having that uniqueness recognized and articulated, which can have a significant psycho-social impact. Qualitative data collection documents student experiences, perceptions and stories that, as the UndocuAlly report makes particularly clear, can facilitate or strengthen understanding, empathy and engagement on the part of faculty and staff in their interactions with students from those groups. This kind of research, coupled with targeted, institutional data gathering on student progress and performance measures across their college career (including major and course-specific advising milestones), can enhance the University's ability to maximize these students' success. Tying into comments made in the needs analysis survey, qualitative data collection can also be profitably mobilized to investigate the "why" and devise responses after identifying challenges facing specific groups.

The pilot studies this year looked at just one example of a student success-oriented course (ENGR 102) and documented its benefits. Even this limited data, coupled with insights gathered by research methods students, document an unmet need for programs that orient first-generation college students both to the institution and its expectations, and to the resources the campus offers for students to succeed. Future qualitative and quantitative research could assess the relative effectiveness of the many different formulas and formats these courses/learning communities take on campus (including the First Year Experience courses coming out of the FYE Task Force). Looking ahead, it will be important to document and assess

how students use the Beachboard site developed by the Communications Task Force, and to explore/assess additional strategies (peer mentoring, media/communications outreach, noncredit workshops) for disseminating information and guidance.

Data also show that students understand navigating and succeeding in the university is not just about having information, but also relates to engagement, involvement and a sense of belonging. Finding creative solutions for these intangibles may be able to be addressed by a combination of student-centered and conducted research and problem-solving activities.

Given the many benefits of students conducting research on peers, it seems worthwhile to seek out ways to institutionalize, expand and reward/incentivize this kind of research, both at the graduate and undergraduate levels. Faculty experiences in these projects also suggest the value of creating research methods course consortiums in which both faculty and students can collaborate to investigate the same or similar student-success related topics. To gain maximum benefit, projects conducted by faculty (or staff) must be highly relevant to course/program objectives.

We believe that in addition to the types of courses piloted this year, instructors teaching a range of classes could engage their students in activities that would contribute valuable data to student success initiatives. Just to give a few examples, classes focusing on creative practices (digital storytelling, video production, graphic design) could produce content that provides insights on student experiences and perspectives; courses teaching skill sets related to organizational effectiveness/problem-solving/program assessment could incorporate student-success related projects; courses in culture/communication could tackle issues of belonging, climate, or devise communication campaigns targeting specific groups of students or specific themes. This year, many of these options were suggested in a general solicitation email. In the future, it is clear that a greater investment in information outreach/communication would be needed to secure participation.

Finally, graduate students in the College of Education are uniquely placed to engage in future qualitative institutional research.

IV. Quantitative Pilot Report

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Introduction

The data for this study comes from the 2013 CIRP Freshman Survey (TFS) and different databases compiled by Office of Institutional Research Assessment (OIRA). Through merging these two data sources, we created a unique dataset that allows us to examine the four-year graduation rate of 2,610 first-time, full-time students enrolled at CSULB in Fall 2013. The focus is to understand the characteristics of students who graduated in 4 years and also develop a predictive model to predict students who are at-risk of graduating in 4 years.

Methods

Data

The quantitative data, such as student demographics, high school performance, and college performance, used for the study are from different databases compiled by OIRA. An attempt was made to include as many types of data as possible, so TFS data were also included. These data have been collected, but not regularly used by CSULB. Moreover, the goal of this project was to test the potential to integrate existing institutional data with survey data such as TFS. Research on degree completion suggests that a number of other factors in addition to demographics, high school and college performance can influence actual degree attainment rates. For instance, one factor that can impact degree attainment rates is the number of students living in campus residence halls during the first year. Institutions with a large percentage of new students in campus residence halls tend to have higher degree completion rates. TFS asks students about their first-year housing plans. By including more detailed information on the entering characteristics of students from TFS, we sought to build a model to provide even more precise explanations for and predictions of expected degree attainment rates.

TFS was not administered at CSULB in 2011 and 2012. In 2009 and 2010, it was administered online and in 2013 it was administered to first-time freshmen at the Student Orientation, Advising and Registration (SOAR) summer activity. There were 330, 463, and 3940 students who completed the survey in 2009, 2010 and 2013 respectively. For this project, in order to have a complete dataset of student information and survey information, the OIR data and TFS data were merged for first-time full-time freshmen who entered in Fall 2013. We excluded 104 students whose IDs were missing in TFS data. Two-hundred and thirty-one (231) students who participated in the survey were not in the OIRA data. These are students who were admitted to the university and participated in SOAR and yet did not ultimately enroll at CSULB. The final

merged data set for this project had 3610 students who entered the institution in 2013 – and thus might conceivably have graduated by spring 2017 (in 4 years' time).

Analysis

All data manipulation was done through Python 3.5 via Jupyter Notebook. All analysis after preprocessing the data was done through R. Because TFS has multiple uses, and is not limited to predicting degree attainment, we first selected variables that might predict graduation rate to include in our analysis; for instance, survey items such as political views and religious references were not included in the analysis. Exploratory data analysis was performed to obtain a general understanding of the data. The frequency table of TFS and OIRA datasets were produced for all students, students who graduated in 4 years and those who did not graduate in that time. Students who did not graduate in 4 years or less included those who are still currently enrolled, who dropped out or were disqualified, and who transferred to other universities.

The specific aims of this project were tackled through predictive modeling tools. Our discussion was restricted to modelling the binary outcome on four-year graduation status, which is a classification problem in the machine learning terminology. While many tools are available for classification, we focused on those that not only perform well in terms of prediction accuracy but also yield meaningful interpretations since identifying modifiable barriers to timely graduation is pivotal in developing effective intervention mechanisms. For these reasons, we mainly restricted our attention to (parametric) logistic regression and (nonparametric) random forests, both of which are capable of high-dimensional modeling. To prevent the issue of overfitting, we first proceeded with regularized logistic regression, in which different penalty functions such as LASSO (Least Absolute Shrinkage and Selection Operator) [Tibshirani (1996)], SCAD (Smooth Clipped Absolute Deviation)[Fan and Li (2001)], and MCP (Minimum Concave Penalty) [Zhang (2010)] were investigated. Several competitive logistic models were obtained. Next, we built another predictive model with the nonparametric random forests (RF). The final logistic and RF models were assessed and compared in terms of specificity, sensitivity, and receiver operating characteristic (ROC) curves. Data was divided into training and test data, where training data was used to build the model and test data was used to evaluate and compare the models. Many predictor variables had missing values. In order to preserve the full dataset in its near entirety, the variables were imputed using the decision tree multiple imputation method by imputing each of the missing value using all other predictor variables.

On the basis of these models, important risk factors were identified and their effects were investigated. A risk scoring system for graduation was developed from the best model which classified students into several categories. The scoring system can be applied to the currently enrolled students to predict their graduation status as well as identify the subgroup of students who need to be assigned to interventions that may help to improve their outcomes.

Results

Exploratory Data Analysis

Note: All tables and figures referenced herein can be found in Appendix J.

The outcome variable for this project was a binary outcome defined by whether a first-time full-time freshmen student graduated within four years from their semester enrollment in Fall 2013. The final cleaned data had 3610 students with 240 predictor variables. Among the total of 3610 students, 802 (22%) graduated within 4 years. Predictor variables include student demographics, high school performance, college characteristics, and TFS items. Table 1 (in Appendix J) summarizes the descriptive statistics of continuous predictors from OIRA data and Table 2 (in Appendix J) summarizes the frequencies of categorical predictors from OIR data. Tables 1 and 2 were produced for all students, those students who graduated in 4 years and those who did not.

Information in the column 'graduated in 4 years' paint a portrait of our "average" 4-year graduate. Columns 'graduated in 4 years' and 'didn't graduate in 4 years' provide matching profiles of those who do and do not succeed. Some predictors such as Gender, First-Generation Status, High School GPA, Number of Semesters Not in Good Standing, Number of Remedial Classes Taken, Number of Failing Classes, Number of Summer Classes Taken, Transfer Units Earned, GPA in Year 1, GPA in Year 2, Total Units Earned in Year 1 and Total Units Earned in Year 2, seem to be quite different between the Yes and No group of 4-year GRAUATION.

Table 3 (in Appendix J) provides the frequency table of the TFS responses. In this section, we discuss the strongest TFS predictors of degree attainment in 4 years based on univariate descriptive statistics. Figures 1 to 19 (in Appendix J) show the graphical display of these predictors. In summary, a higher percentage of students who graduated in 4 years as compared with those who did not graduate in 4 years have the following characteristics:

- Permanent home is further away from CSULB (more than 51 miles away).
- Plan to live in college resident hall in the first-year fall term.
- Apply to more colleges for admission.
- Are not premed major.
- Higher amount of their first year's educational expenses (room, board, tuition, and fee) are expected to be covered from family resources (parents, relatives, spouse, etc.)
- Rate themselves on academic ability in the highest 10% rank as compared with the average person their age.
- Rate themselves on writing ability in the highest 10% rank as compared with the average person their age.
- Believe one of the abilities they are strong in is the ability to manage time effectively.
- Believe one of the abilities they are strong in is the interpersonal skills.
- Do not think being offered financial assistance is an important reason that might have influenced their decision to attend CSULB.

- Do not think live near home is an important reason that might have influenced their decision to attend CSULB.
- Lived in a neighborhood where there is a mostly White or completely White population.
- Attended a high school where there is a mostly White or completely White population.
- Expect to graduate in 4 years or less.
- Believe there is very little chance or no chance that they need extra time to complete their degree requirements.
- Making theoretical contributions to science is not an important goal for their future.
- Do not feel they need special tutoring or remedial work in Mathematics.
- Do not feel they need special tutoring or remedial work in English.
- Do not feel they need special tutoring or remedial work in writing.

Note that the summary statistics in Tables 1-3 (in Appendix J) do not include the imputed missing data values.

In short, those who graduated in 4 years perceived themselves as well-prepared to succeed in college, lived farther away from CSULB and planned to live on campus as freshmen, and appeared to come from more privileged backgrounds.

The importance of these OIRA and TFS predictors will be examined simultaneously and determined by each modeling technique in the next section.

Model Building

Four different models, LASSO, SCAD, MCP and Random Forest, were developed to predict 4-year graduation rates. The selected important predictors for each model are summarized in Table 4 (in Appendix J). The following six OIRA variables were considered very important by every model: transfer units earned, cumulative units earned at the end of year 1, total number of failing classes, last college of enrollment, when students switched department, and the number of colleges a student applied to. Other important variables that appeared in LASSO, SCAD, and MCP (but not in Random Forest) include race, number of summer classes taken, number of remedial Mathematics and English classes taken, Long Beach Unified School District, and early start English class. The random forest model ranks the predictors in the model in terms of their "importance" towards the final prediction (Table 5 in Appendix J). It uses the Gini importance values as the variable importance values. In addition to the six predictors that appeared in all four models (above), other important variables from Random Forest include GPA at the end of year 1 and year 2, ELM and English proficiency status, number of terms not in good standing, high school GPA, eligibility index, STEM index, SAT scores and highest parent educational level.

TFS items related to college plans, self-ratings about students' own abilities, and activities in the senior year of high school emerged as important items predicting 4-year graduation from the four models. Table 6 (in Appendix J) provides the details of these three survey items.

Each of the models was compared using the area under the curve (AUC) from ROC to find the best modeling technique. Higher AUC values represent better classification or discrimination between students who graduated and students who did not graduate in 4 years. AUC values for four models ranged from 0.85 to 0.86 (Table 7 in Appendix J). SCAD, MCP, and Random Forest perform equally well. Based on the thumb rules for interpreting AUC (Hosmer & Lemeshow, 2000), models have AUC above 0.8 have excellent discriminant performance.

For simplicity and practical use, we selected MCP as the overall best model. This model identifies 27 predictors of timely graduation. The model and the odds ratio estimates are summarized in Table 8 (in Appendix J). Some observations include (all interpretations are made after adjusting for other variables in the model):

- Students in College of Engineering have 38% lower chance to graduate in 4 years.
- Students in College of Liberal Arts were 3.8 times more likely to graduate in 4 years.
- Students with 20 transfer units higher are 1.12 times more likely to graduate in 4 years.
- Students who are 5 units higher in cumulative unit at the end of year 1 are 1.78 times more likely to graduate in 4 years.
- Students who have one additional failing class had about a 36% lower chance of graduating in 4 years.
- Students who take one additional summer class had about a 64% higher chance of graduating in 4 years.
- Students who take one additional remedial math and English class have a 33% lower chance of graduating in 4 years.
- Students whose permanent homes are far away from campus (>101 to 500 miles) had about a 24% higher chance of graduating in 4 years.
- Students rating themselves on writing ability in the highest 10% rank had about a 34% higher chance of graduating in 4 years.

Predictive Model at the End of First Year

The models we built include information prior to college enrollment as well as information throughout the college academic period. In order to have a model that can assist in identifying students early so they might be referred to interventions that may help to improve their outcomes, we modified the following predictors to include their information only pertaining to year 1: PELL ACCEPT BALANCE, NUMBER OF TERMS NOT GOOD STANDING, SWITCHED DEPARTMENT, SWITCHED COLLEGE, TOTAL UNIT EARNED, GPA, COLLEGE, TOTAL NUMBER OF FAILING CLASSES, SUMMER CLASSES TAKEN, NUMBER OF REMED MATH COURSES, NUMBER OF REMED ENGLISH COURSES, NUMBER OF REMED MATH AND ENGLISH COURSES. All other variables, such as demographics, high school information, and CIRP Survey remained the same.

Using the data containing information up to only the end of the first year to predict whether a student will graduate in 4 years, the prediction accuracy diminished a bit. AUC for the four

models were similar, ranging around 81%. The MCP model was selected as the final model because it provided good discriminant performance while being the most parsimonious (i.e., including as few predictors as possible).

We then examined more details of these models and developed a risk scoring system from this best model which classified students into several groups according to the appropriate quantiles (for example, 20/40/60/80 percentile) of the fitted probabilities. For a newly enrolled freshmen, we can predict his/her probability of graduation at the end of the first year using the best model and then find out which group the student falls into. For instance, we may have five groups ranked from the highest probability of graduation to the lowest probability of graduation. Group 1 students are the top 20% of the students whose probability of graduating in 4 years is high whereas groups 4 and 5 consist of the students whose chance to graduate in 4 years is very low. The graduation rates can be maximized by targeting students doing fine but not great, hence students in group 2 are the subgroup of students whom we can focus our attention on. In other words, if a student falls into group 2, then he/she can be assigned to interventions that may help to improve their outcome. Group 2 consists of about 20% of our incoming freshmen and improving outcome on this cohort leads to a 4-year graduation rate up to 40%.

Conclusion

In addition to identifying the characteristics of students (first-time freshmen in fall 2013) who graduated in 4 years, predictive modeling was used to determine which students were in danger of taking longer than four years to graduate. The data mining models predicted graduation rates of new students with good accuracy and can become a useful tool in an attempt to improve graduation rate. AUC reached 81% based on demographics, high school performance, and performance during the 1st year at college, and TFS items. AUC reached 86% based when including demographics, performance in high school as well as throughout the college academic period, and CIRP survey.

Given that the *primary* goal of this project was the pilot and learn from the process of integrating institutional and survey data, key methodological findings include:

1. Cleaning and merging data sets, understanding and creating variables, and addressing missing data are very time consuming given size of data.
2. There is a need for centralized system for distributing data for research and data dictionaries that can be readily accessed by researchers.
3. Enhanced communication is needed for what is available for increased efficiency.
4. One-hundred and four (104) students' IDs were missing in the 2013 TFS. All survey forms completed in the future should be checked to make sure IDs are not missing. Otherwise, the valuable information of these students is lost.
5. Two-hundred and thirty-one (231) students who participated in the survey were not in the OIRA data. These are the students who were admitted to the university and participated in

SOAR and yet were not enrolled at CSULB. It seems important to ask: Why did we lose almost 6% (231/3940) students after SOAR?

6. Predictive models built using only the institutional data have about the same accuracy (81%) as the models including both institutional and survey data. Models built using only the survey data have AUC equal to 69%. For the purpose of building the predictive model, institutional data is likely sufficient but the survey data can add context. For example, based on the survey data, we observed that:
    - Students whose permanent homes are far away from campus (>101 to 500 miles) had about 43% higher chance to graduate in 4 years.
    - Students who plan to live with their family and relatives have 29% lower chance to graduate in 4 years.
    - Students rate themselves on writing ability in the highest 10% rank had about 30% higher chance to graduate in 4 years.
7. We can integrate the IR and survey data to answer a host of other potentially important questions such as:
    - Are those who rate self highly on X skill the ones who live farther from LB?
    - Do those who rate self highly on X skill (e.g., writing) take more units? Take summer classes?
    - What is the relationship between students' perceptions of their skills, developmental course enrollment, units taken/passed, and time to degree?

Future Work

To extend the work of this quantitative pilot, there are two tasks that might take place in 2018-2019. Task 1 is the continuation of the work done in 2017-2018. Based on the predictive model developed here, we might to design a system that automatically divides students into five groups and at the same time matches students with the most appropriate support services. The tool can be rolled out to the advisers to inform their advising and intervention efforts. Academic advisers will be able to tell if a student sitting in front of them is on track to graduate within four years. The graduation rates can be maximized by targeting students doing fine but not great. The goal is to find the students who need assistance in fulfilling their potential, thereby increasing the number of students who graduate in 4 years.

To develop the system, we need to make it simple. Institutional data is readily available but survey data is more difficult to capture and maintain. Items on surveys such as TFS change slightly from one year to another, making alignment and integration challenging. As indicated previously, predictive models built using only the institutional data have about the same accuracy as the models including both institutional and survey data. The reasons for this are not clear, although it could be the nature of the information gained by the survey. Given this knowledge, the institution needs to think carefully about what role it wants survey data to play in its student success efforts, what data should be collected on surveys, and what questions are optimally answered by institutional data only, survey data only, and by integrating data.

In future work, we also need to ask the question, "What is the infrastructure needed to build the system out?" The predictive models should be examined closely again to include only the IR data and to make sure that only the statistically significant data be added to the system when it comes to determining if students will graduate within four years. IR and survey data need to be integrated to answer questions such as do students who rate self highly on X skill take more units? Are those who rate self highly on X skill the ones who live farther from LB?

Task 2 is to answer the question of why students leave CSULB before completing. While there are many reasons that students leave CSULB without earning a degree, either as a drop-out, stop-out, or to transfer, those reasons tend to be different at different points in students' careers. It is therefore useful to think about students who leave at different time points for different reasons as representing different populations. Cluster analysis will be performed to group students in such a way that students in the same cluster are more similar to each other than to those in other clusters. Discrete survival analysis will then be performed in each cluster to determine the factors that are associated with drop out.

Based on the communication with Enrollment Services, at this time, there is no way of knowing what happened to the students who are no longer here. After Census, Enrollment Services sends all students who were eligible to register but did not register for the term an email indicating that if they plan on returning they must submit an Educational Leave. Therefore, the only information we have on file is if the student requested the Educational Leave at one point. Any other leave of absence data is not available or readily accessible.

A survey of students who withdraw in order to ascertain their reasons for leaving should be conducted. A systematic collection of data about why students leave need to be developed to capture students who withdraw mid-year as well as those who simply fail to return after the summer. With a more robust survey system, we could answer questions such as who leaves and when do they leave (year 1, year 2, etc.) and what their characteristics, values and expectations are. What models of research are out there? Where do those who leave us go? Why do they leave?

V. Conclusions and Recommendations

Several key findings emerged from the work of TF 2 in 2017-18:

- A strong interest in having access to and using data that can inform policies and practices to support student success exists on campus.
- The need for centralized systems to collect survey data as well as to provide coordinated sharing of data exists.
- The feasibility of integrating existing institutional data with survey data. However, doing so takes considerable time and requires a level of expertise in institutional research for the sake of efficiency (e.g., knowledge of variables).
- The feasibility of collecting qualitative data related to students and their experiences, and the likelihood that this method will provide valuable insights to complement survey and institutional data.

Based on these findings, **we recommend a centralized data system** for collecting, integrating, disseminating and analyzing quantitative and qualitative data on student experiences and outcomes to inform support for student success. This system should include:

- A suite of surveys on the student experience across points in time, from entering students through alumni that include a standardized set of core questions that will allow maximum comparability across data sets and over time.
- A robust system and set of practices for the collection of qualitative data that will enable the campus to discover categories and issues that that researchers cannot anticipate, to explore the reasons behind patterns found in survey/IR data, to develop meaningful questions for use in surveys, and to explore and understand the many intangible factors that affect student success (see more below).
- A central system for integrating survey and existing institutional data that provides access to de-identified data on students. This system, which would include training for data users, would efficiently provide a common data set. It could leverage the research capacity among faculty and staff on campus to ask and answer key questions about students, their learning, and their success. Such a system might also facilitate publications related to the scholarship of teaching and learning.
- A system for timely integration and reporting of data to allow for interventions that support student success. Current systems are largely retrospective, helping explain where and why previous students might have struggled or succeeded. This new system should be able to integrate data from a range of sources (e.g., e.g., OIRA, Financial Aid, advising/EAB, surveys, student engagement data) to support timely interventions for current students. This would require cleaning and integrating data after census, for instance, to identify patterns of concern.
- A repository of qualitative data collection instruments/methods/models as well as software platforms that facilitate mixed method (qualitative-quantitative) analysis and integration.

To operationalize and support this system, the task force recommends:

- **Establish a permanent office of institutional effectiveness with the content knowledge and technical capability to lead, conduct and support institutional effectiveness (IE) research.**

  We envision this office reporting to the vice-provost for academic planning and serving as the main coordinating unit for IE work on campus. The office would be responsible for identifying data needs, managing a platform that integrates data from multiple sources (e.g., OIRA, Financial Aid, advising/EAB, surveys, student engagement data), establishing processes/protocols for access to these data, and calendaring surveys to reduce survey fatigue. The office would have collaborative relationships with relevant units on campus (including Student Affairs) needed to carry out its mission. An advisory board (see below) would help prioritize activities and ensure consultation with faculty and staff.

  We are mindful that we are recommending the creation of another administrative unit and are doing so for several reasons. First, we envision an office with a different mission than OIRA. This proposed entity would focus on conducting research, facilitating the research of others, and disseminating findings and lessons—activities OIRA is not currently staffed to provide. An office of institutional effectiveness would be staffed by researchers with content knowledge in higher education. Researchers would design or support studies that draw upon but *move beyond* what is already known in existing literature (driven by empirical findings as well as appropriate theoretical frameworks) to ask and answer novel questions capable of informing student success efforts at CSULB.

  Second, and related, the unit requires a certain level of organizational development capacity. If data and findings are to be acted upon, then faculty and staff will need guidance and support in learning how to interpret and critique student data, as well as how to move from data to interpretation to action. Some element of coaching and training is inherent in this process and doing so requires a specific skill set. There are also opportunities for an appropriately staffed office to expand campus capacity for student success research by coaching groups (e.g., data fellows, relevant college offices) on survey methods, qualitative data collection, etc., increasing familiarity with existing knowledge related to student success, and contextualizing data. Each of these practices can leverage the commitment on campus to using data to support student success, while maximizing the potential for work conducted to have impact.

  Finally, it is safe to say that without a separate office, this work will simply not get done. The work of TF 2 this year was very labor-intensive, and easily represents the responsibilities of several full-time positions with significant research expertise. The data collected during the needs analysis coupled with the experiences of completing the

projects provide clear evidence that time and resources are needed to complete this important but ambitious work.

The proposed IE office need not be a *large* office, provided staff have necessary qualifications and experience. It is critical, however, that staff members possess the organizational stature to credibly interact with other offices, as well as the necessary content knowledge, experiences, and skills needed to carry out and support IE research. Employing graduate assistants and interns could potentially benefit this office. Additionally, it might have a fruitful partnership with the campus's Center for Evaluation and Educational Effectiveness.

The recommendations here are, of course, provisional. It is clear that defining the mission and makeup of such an office is a major task, requiring wide consultation across multiple divisions; doing this work is thus one of the tasks proposed for AY 18-19.

- **Establish an advisory board (to IE office) (with faculty and staff membership) to prioritize and coordinate campus research.**

  The work of the administrative unit described above would be carried out under the guidance of an advisory board whose primary remit would be to ensure the link between data collection and the University's mission and strategic plan. In order to insure the advisory board has credibility and breadth of institutional expertise, its membership should be formulated in consultation with the Academic Senate Executive Committee. We anticipate that it would include: faculty members and associate deans from different colleges, staff from Student Affairs, representatives from Institutional Research, IT, ASI, ES, and Academic Affairs (Undergraduate and Graduate Affairs), members of assessment boards/committees (PARC; Accreditation) and possibly other committees such as CEPC, URC and Data Fellows.

  Drawing on the university mission and vision, this board would prioritize areas and topics for investigation broadly, as well as identify specific foci/priorities in a given year or other assessment cycle. It could commission projects, potentially piloting (or replicating) efforts across units for comparison. These priorities would drive calls for data-gathering proposals from the individual/faculty level to college/division programs of research and evaluation. The board would play a leading role in drafting calls for proposals, serve as an evaluative body in competitions for funding, and articulate assessment plans for both ongoing and newly funded student success initiatives.

  The board would also advise the IE office on technology needs, to include the acquisition or development of new data collection tools (for example, survey suites) as well as platforms used for data access and sharing. It would also serve as a hub for data gathering activities across the campus, providing guidelines and evaluating the administration of surveys (to avoid duplication of effort and also to avoid certain populations being "over-surveyed"). The board could also serve as a coordinating body

that facilitates the sharing of both research tools and results across different divisions and units. Similarly, it could encourage the sharing of best practices and ways to use data for program improvement.

In order to facilitate maximum data sharing, the Advisory Board would need to develop and maintain/update a common core of demographic data collection points to be used in any University project (qualitative or quantitative).

We envision that the IE Office and Advisory Board would support the goal of "democratizing data," as well as in integrating qualitative and quantitative data.

- **Democratizing data**

Both the TF 2 pilots and the Data Fellows Program illustrate the faculty's high level of interest in and willingness to conduct both qualitative and quantitative institutional research. Building on this momentum, the IE Office and Advisory Board would work to leverage faculty/staff interest in studying student success by expanding data gathering and assessment by individuals and teams of faculty and staff.

This would include oversight of the current Data Fellows program and the creation of new Data Fellows positions earmarked for either qualitative or mixed-methods research (CSUN's "Data Champions" program is already doing this).

Following the themes identified from qualitative pilots, we recommend the continuation and expansion of in-class data gathering by faculty and the development of similar projects by staff. Doing so would involve the following:

  - Targeting courses and offices whose learning objectives and/or assessment goals align with elements of student success (e.g., Human Development, Education) and/or are qualitative methods courses where students would benefit from qualitative research experience.
  - Providing incentives to faculty and student participants.
  - Encouraging faculty in diverse disciplines to incorporate student success focused themes into class assignments, where students may be either subjects or researchers.
  - Providing professional development for qualitative and quantitative data collection and analysis.
  - Organizing a consortium of research methods instructors/courses in order to facilitate concerted data collection on high priority themes, and to provide a collaborative network related to both teaching practice and institutional research.

Democratizing data should also include providing data access for other stakeholders who might wish to engage in student success-related research. Doing so suggests

several necessary components related to data security, confidentiality and research ethics:

- Integrated data related to student success should be *de-identified* and reside in a central data warehouse. Such a centralized storage approach would ensure consistency of data quality, and promote efficiency in terms of data cleaning (this year, multiple teams made similar data requests and cleaned the data separately) and analysis.
- The institution should establish clear policies and practices for requesting access to the data, along with a secure process for data transfer.

Such a system for access to survey and institutional data on students has the potential to amplify our understanding of students' needs and experiences. For instance, data might be used for faculty research, as well as for student theses and dissertations. Doing so would support scholarship around student success for faculty and students alike and inform institutional policies and practice.

Along these lines, we recommend exploration of setting up graduate assistantships and in-house paid internships in relevant departments (CED, CLA and possibly, CHHS) where the recipients would be recruited for work on an HVDI project.

As we recognize the need to democratize both the data collection and analysis process related to student success, we note that the institution will need to work with the university's Institutional Review Board (IRB) to ensure that policies and practices for accessing these data are integrated with IRB protocols and requirements, and to establish clear guidelines and criteria for designating Institutional Research projects as exempt/not exempt from IRB review. Preliminary conversations with IRB staff in spring 2018 suggest the need for additional conversations about the nature of institutional effectiveness research and whether/how it is subject to IRB review, who has access to such data and how, and the role of students in data collection and analysis. As part of building this IE structure, more formal conversations should bring together faculty and staff IR experts, as well as representatives from Academic Affairs and the HVDI Steering Committee (including members of TF 2) to identify key questions and to establish definitions and policies/practices that support IE work.

- **Integrating Qualitative and Quantitative Data**

The Needs Analysis report provides compelling evidence—from data users themselves—of the need to collect both kinds of data. The report also highlights the value of using data to systematically answer key questions about our students' experiences, perceptions, practices and needs in order to engage in effective problem-solving. This integration can take a number of forms in an iterative process where qualitative and quantitative data mutually inform one another:

- Qualitative data gathered in interviews or focus groups with small numbers of students can be used in the development of survey questions that reach larger numbers. For example, we can reasonably assume many standard demographic measures have a meaningful relationship with student identity or performance. But interview data might reveal unanticipated identity categories among CSULB students that have equal or stronger correlation with performance or perceptions and merit inclusion in a survey instrument. Or, qualitative data collection among small numbers of a particular student group (for example, student parents) can identify a preliminary set of issues and needs, including the need to accurately identify members of that group and gather quantitative/IR performance data on them in order to get a full picture of their challenges.
- Trends identified through quantitative student performance data (IR) or in survey responses can be followed up on through qualitative methods in order to gain insights into the "why" or "how" questions that are the first step in problem-solving. For example, if a particular student subgroup displays greater than average DFW rates in a particular course or major, interviews and focus groups could explore the reasons why.
- Qualitative data collection can identify trends related to student perceptions and experiences. Student performance data (IR) or surveys can follow up on these trends in order to identify if any of them are statistically significant predictors of successes or failures. The University can then prioritize significant predictors for action/intervention over those with minimal implications.
- Qualitative data can transform abstract issues and problems into concrete and "real" phenomena. This facilitates empathetic understanding and engagement which, in turn, may improve interpersonal interactions and relationships. Individual, representative student stories gleaned from qualitative data collection can also serve as powerful communication tools and create "buy-in" for projects and initiatives that emerge from research. This relates to the next theme, messaging.

- **Careful Messaging**

  As the University uses data in more sophisticated ways to inform its student success work, it must always be mindful of messaging around this work. Data can be used for many purposes—including to evaluate, point fingers, or lay blame. To the extent such things happen, or stakeholders *believe* they are likely to happen, CSULB will fail to realize its goal of a robust system of institutional effectiveness that supports student success. Thus, institutional leaders must be vigilant in communicating the message that the goal of using data in the ways outlined above is to support a culture of continuous improvement to support students—and not to evaluate the performance of individual faculty and staff (or even units). Institutional policies and practices around data must mirror this messaging. As some of the qualitative results shows, students also need to be reached by clear messaging about graduation initiatives.

The work of TF 2 suggests that CSULB is on an ambitious but promising course to develop an integrated research and evaluation system that will allow it to support student success. Campus stakeholders generally recognize the need for an integrated data system to unify data sources, make data available, and limit survey fatigue while providing essential data on the student experience. There is a desire to know more about our students, use data to inform practice, and develop skills to better understand and interpret data related to student success.

Our informal environmental scan suggests that other universities in the nation (e.g., UCSD, the CUNY System, Georgia State) are moving in a similar direction, and we have the potential to learn from these institutions' promising practices, necessary policies, and required infrastructure. At the same time, we also have the opportunity to join this group of institutions as a national leader, particularly around integrating qualitative and quantitative data, to support student success.

VI. 2018-2019 Task Force Plans

Based upon its work in 2017-18, the task force has outlined is proposed plans (with accompanying budget) for 2018-19. Our focus will be on extending our work from the past year by providing a more developed vision for the integrated data system we have proposed, recommending a suite of surveys for implementation, further exploring lessons from quantitative and qualitative pilots, and communicating and disseminating lessons from our work.

Vision for Integrated Data System for Student Success

As the task force enters year 2, it is well-positioned to leverage its growing expertise to provide more detail on the pressing questions of how best to develop and implement the structures recommended above. We see this work as helping the institution transition from an impermanent task force to a more stable institutional structure that will weave institutional effectiveness work into the fabric of the institution. Our goal is to recommend more specific policies and practices to achieve the goal of an integrated data system to support student success. Doing so will help the task force work toward its main goals, particularly articulating a vision for practices and needs related to the system.

To do this, we anticipate taking several steps:

1. **Modified Benchmarking Study**: The benchmarking work in 2017-18 did not take place as planned, however some preliminary investigations with CUNY resulted in valuable insights that will guide a more streamlined version of this work in 2018-19. The 2017-18 project led us to realize we could not identify any campus doing the kind of data integration to which CSULB aspires, but that we can learn from others in important ways. It also led us to recognize that the benchmarking process can be more focused than originally anticipated and even that extended campus visits may not be necessary.

   In 2018-19, we anticipate targeting 3-4 campuses to learn from their data collection, integration, and use efforts. Specifically, we wish to speak with administrators and faculty at CSUN, UCSD, and Georgia State about their work using “big data,” how data are shared with faculty and staff, and necessary capacity for a robust institutional effectiveness system. Guiding questions include:

   - What types of data do they integrate and how?
   - What is the role of survey data vs. institutional data vs. qualitative data in informing their student success work?
   - How do they share data/findings with others to encourage use in policy and practice?

- What kind of professional development do they provide to faculty and staff to facilitate their understanding of data and findings, and to encourage use in policy and practice? What other resources are necessary for this purpose?
- What structures (platforms, offices, etc.) are needed and used to democratize data use and access?
- What policies and practices are essential to facilitate an institutional effectiveness system that leverages interest for data use among faculty and staff while respecting student privacy?
- How does the institution manage messaging regarding the institutional effectiveness system to communicate that its use is for program improvement rather than evaluation of units?
- How does their system engage different units (student affairs, academic affairs) on campus, as well as more specific stakeholders?

This component will be led by Don Haviland and Mahmoud Albawaneh, and involve others on the task force. We plan to make a 1-day trip to CSUN, a 1-day trip to UCSD, and engage with colleagues at Georgia State and CUNY remotely. After identifying a point of contact at institution, we will work with that individual to identify a site visit schedule. We anticipate that during each visit, we would want to speak with some combination of: senior academic and student affairs leaders, faculty leaders engaged in data use efforts, representatives of offices comparable to our OIRA, Enrollment Services, Financial Aid, and Advising. Lessons from these targeted visits will inform a final report from the task force.

We have budgeted for the cost of mileage for travel to CSUN and UCSD.

2. **Develop Recommendations for Institutional Effectiveness Structure**: The full task force will engage in structured conversations to better understand the needs and obstacles to creating the institutional effectiveness we envision. To do this, task force members will strategically reach out to key leaders (administrators, staff and faculty) on campus to develop more specific recommendations for the institutional system. Possible questions to be addressed by the task force include:

    - What should the membership and structure of both the advisory board and institutional effectiveness office recommended above be?
    - What are technological *needs* and *obstacles* related to implementing the system envisioned?
    - What policies and systems are in place, needed to facilitate, or serve as obstacles qualitative inquiry?
    - What specifically is meant by data integration? What are the *types* of data integration that are possible and what role can each play in informing our student success efforts?

- What are the key research questions we can and should be asking about our students, their experiences and the outcomes? What are the priorities?

This exploration will take place in several ways. For some stakeholders, 1-2 committee members may reach out to them, meet with them individually, and bring their insights back to the task force. For others, the task force may invite them in to the full meeting so the group can benefit from their expertise and feedback.

This work will be led and facilitated by the committee chair, who will lead the task force in finalizing the questions for investigation, identifying individuals with whom to speak, and coordinating the conversations. It is possible that the task force will form working subgroups to focus on specific areas (e.g., infrastructure, professional development needs), although that decision is yet to be made. The current TF 2 GA (Lyka Trinidad) has agreed to continue in her role and will also assist in this process.

We plan for the modified benchmarking to take place in Fall 2018 and the discussions with key campus stakeholders to begin in Fall and continue into early spring semester 2019. Together, these two efforts will result in a final report making more specific recommendations related to policies, practices, and necessary resources in April 2019.

Survey Suite Recommendations

As noted above, TF 2 has identified the need for suite of surveys to allow the campus to have a better understanding of students' experiences, growth, and outcomes over time. However, also as specified above, a further examination with greater detail must occur to make a comprehensive set of recommendation on survey suite needs. This task force will complete a comprehensive survey suite review and recommendation by October 31, 2018. It was evident from the 2017-2018 TF 2 needs assessment that stakeholders are interested in understanding more about the student experience in the curricular and co-curriculum. Particularly, stakeholders expressed the need to examine personal and academic factors and their complex connection to student success data and outcomes. This needs analysis baseline will guide the inquiry to identify the questions that should be asked of our students to assist in guiding support for student success and inform recommendations for survey design. Specifically, work in this area will address the following questions:

- What are the criteria for the survey suite (e.g., support data integration, assess changes over time, specific topics, variable level of measurement to ensure data can answer questions)?
- What would the basic "design" of a survey system (e.g., administration method, evaluation design) be that would allow the campus to collect data on its students at various points in time (e.g., at entry, end of first year, graduation or exit)?
- Are there any current commercial surveys (e.g., CIRP at UCLA; NSSE at U of Indiana) that would meet our needs or should CSULB pursue development of its own survey(s)?

- What are the recommended timelines and administration steps necessary for administration of a survey system?
- How would this centralized survey suite and data set connect with needs and existing practices in colleges and departments (access to data, questions asked, input into survey design)?

The proposed work plan for this project includes the following:

- Review of needs analysis data for drafting of preliminary criteria for survey suite (June 2018).
- Continued consultation with key campus stakeholders (e.g., OIRA, senior administration, schools/colleges, student affairs assessment, accreditation liaison) regarding key questions and criteria for surveys, target populations, and possible timelines/needs (July/August 2018).
- Review of available commercial college student surveys for content, cost, administration steps etc. (July/August 2018).
- Draft of preliminary plan and recommendations for survey suite component. (September 2018).
- Preparation of final report and recommendations (October 2018).

Don Haviland and Kerry Klima will work on this goal. Lyka Trinidad, the current GA for the needs analysis project, will assist them. In fact, Lyka's experience with the needs analysis project in 2017-18 will provide important continuity in this next phase of the work. The final product will be a report that will reflect TF 2 recommendations for a suite of surveys.

Extending Qualitative Data Collection and its Integration with Quantitative Data

In 2018-19, we intend to use the results of this year's pilot projects as a baseline from which to more fully test and model the potential demonstrated. Specifically, we plan to implement and provide initial assessments of some of the practices we recommend for the IR Office and Advisory Board described above. These include:

- An effort to get maximum impact from labor-intensive qualitative data collection practices by drawing on results from this year's pilot studies, consulting with the HVDI Steering Committee (modeling a future Advisory Board), and establishing a small number of priority themes for data collection by multiple participants.
- Comprehensively modeling one or two forms of qualitative/quantitative data integration in order to assess the procedural, technological, time/labor and other factors involved in making this happen.
- Setting up what we have identified as a promising, sustainable practice: The Research Methods Consortium mentioned above. This would be initiated in Fall 2018 for implementation in 3-6 research methods courses in Spring 2019.

Some projects will incorporate more than one of these general objectives. We envision using Summer 2018 to do a more exhaustive analysis of the data collected in order to establish a final list of proposed projects and what they have the potential to demonstrate, with the goal of presenting this to the Steering Committee for review at the first meeting of the Fall. The final choice will also depend on personnel resources. At present, we anticipate that Gwen Shaffer and Deb Satterfield will devote 50% of their time to Communications and Dissemination and 50% of their time to this endeavor, which should allow them to coordinate one project each. In addition, we would like to employ a graduate assistant, responsible for coordination/ administrative work as well as for the conduct of a single project, for 20 hours a week during AY 18-19.

Extending Quantitative Data Integration and Analysis

The integration of survey and institutional data led by Tianni Zhou in 2017-18 will allow TF 2 to conduct additional analyses and delve more deeply into possibilities for integrating qualitative and quantitative data. We therefore propose the following activities:

Integrating IR and Survey Data: The integration of the IR and survey data in 2017-18 will allow us to use the existing data set to explore additional related questions such as:

1. Do students who rate self highly on X (e.g., writing skills) take more units?
2. Are those who rate self highly on X (e.g., writing skills) the ones who live farther from LB?
3. What is the relationship between students' *expectations* of graduating in 4 years and their course taking patterns (e.g., unit load, summer enrollment)?
4. How do key predictors of student graduation on the TFS vary by college?

Integrating Quantitative and Qualitative Data: Based on the results obtained from the quantitative research, Tianni Zhou will work with Misty Jaffe and Gwen Shaffer to integrate quantitative data with one or two forms of qualitative data in order to be able to assess the procedural, technological, time/labor and other factors involved in making this quantitative/qualitative integration happen.

Tracking Dropouts: In 2017-2018, due to the amount of time spent in cleaning and merging data sets, understanding and creating variables, addressing missing data and building the best predictive model, given the size of data (more than 3000 observations and 200 variables), the quantitative pilot was not able to address a proposed research question regarding the characteristics of students who did not complete study at CSULB. Therefore, we propose to use the existing data set (TFS and institutional data) to address questions such as the following:

1. What are the characteristics of those students who do not complete at CSULB?
2. At what point in their college career (year 1, year 2, etc.) do they leave the campus?

Based on the communication with Enrollment Services (ES), at this time there is no way of knowing what happened to the students who are no longer here. The only information ES has on file is if the student requested the Educational Leave at one point. Any other leave of absence data is not available or readily accessible. Tianni Zhou will work with ES to identify what is needed in order to track students who dropped out, and the feasibility of retrieving useful information via National Student Clearinghouse. A survey of students who withdraw in order to ascertain their reasons for leaving should be conducted. A systematic collection of data about students who dropped out could help us to answer questions such as who leaves and when do they leave (year 1, year 2, etc.) and what their characteristics, values and expectations are. In order to make this process smooth, we request the identification of an individual from ES to work with us on this important task.

Learning Early Warning System: In 2017-18, the task force did work that demonstrated the value and feasibility of integrating survey and existing data, demonstrating that using big data to build predictive models can help us to draw conclusions that advance student success. Based on the models developed, we might be able to design a system that automatically divides students into several groups and at the same time matches students with the most appropriate support services. In Fall 2016, UC San Diego launched its Time to Degree Early Warning System aimed to condense millions of data points into a simple metric showing whether students will graduate on time. At launch, the system was fairly rudimentary, but the plan was to include different kinds of data as it grows. In 2018-2019, as part of the benchmarking work above, we will seek to learn more about the system, whether it has been successful in its 2 years of usage, and how it can be utilized to support predictive modeling at Long Beach. This activity will be part of the task force's more general work to inform additional recommendations on the IE system and structures.

All work described above will be conducted by Tianni Zhou with the assistance of a graduate assistant. She will receive 6 units of assign time (3 units per semester) to conduct the analyses and related tasks. The GA will work 10 hours per week.

A final report with findings will be completed in April 2019.

Communication/Dissemination Work

The task force is committed to supporting dissemination of both the lessons from its first year of work and data more generally, which is aligned with its goal of building internal consensus for an integrated system and for data use. Task force members will develop and implement a strategy for disseminating its findings and recommendations. The task force will engage in two efforts around this work:

1. **Communication:** The task force developed a plan for communicating its findings in spring 2017. Progress on this task was stalled by other pressing work and the departure

of Jonathan Huer from ATS, who had served as the main contact and driver for this component. However, we have a preliminary plan for communication that identifies key audiences, our main messages, content (photos, videos, etc.) and the different media (videos, infographics, web pages) we wish to use for dissemination. For instance, we have identified videos for the task force goal overall, but also for each team, which articulate key findings and main points. We have also identified infographics as useful for communicating key findings from the pilot studies and the needs analysis.

We wish to resume this work in 2018-19. Specifically, we would like to:

a. Develop a calendar for creating videos and other media tailor to the specific messages and stakeholders we have identified.
b. Collaborate with ATS to create the media and roll them out in a staged/strategic way that carries forth our messages in an orderly way *and* keeps the topic of data use for student success visible to those on campus.

2. **Data Consultation and Dissemination**: In addition, OIRA has asked task force member Deb Satterfield, a faculty member in Design, to consult them on optimal ways to design and disseminate data. She has agreed to do so provided this component of the proposal is approved.

This work will be led by Deb Satterfield (COTA) and Gwen Shafer (CLA), each of who will receive 3 units per semester (6 units total per faculty member) to carry out the communication and dissemination work. The task force's GA (Lyka Trinidad) will also assist the faculty members in organizing meetings and structuring the project. Products will be delivered over time, including specific videos and infographics, as well as OIRA products that reflect Satterfield's input.

The task force would also like to request that ATS identify a staff member who will serve as the main point of contact for the task force in coordinating its communication work with ATS. We would benefit from someone who can help us consider the pros/cons of different media, optimize the clarity of our message, and provide guidance on the process. Ideally, he/she will also be able to participate regularly in our task force meetings so they can understand the nature of the work, goals, and key findings.

VII. Appendices

Appendix A. UndocuAlly Survey

Link to qualtrics survey: https://csulb.qualtrics.com/jfe/form/SV_6tyXvBAVRV1mw8R

I affirm that I have signed a consent form in which I agreed to take part in the UndocuAlly training and to fill out this survey.

- Yes
- No

This is a mandatory question. NO skips to end of survey

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, do you believe you have a better understanding of the financial burdens affecting undocumented students?

	Strongly Agree	Agree	Somewhat Agree	Neither agree nor disagree	Somewhat Disagree	Disagree	Strongly Disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, do you believe you have a better understanding of the mental health issues affecting undocumented students?

	Strongly Agree	Agree	Somewhat Agree	Neither agree nor disagree	Somewhat Disagree	Disagree	Strongly Disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, would you be able to identify the cues and clues that might "out" an undocumented student without them disclosing their immigration status explicitly?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, do you have a clear understanding of how to act and what to do if ICE comes to campus?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, do you have a better understanding of the limited rights and benefits undocumented students have?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, did you learn the necessary tools to create an inclusive environment for your undocumented students within the scope of your position?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, did you obtain the tools to create a welcoming and supporting classroom/office environment for undocumented students?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, do you believe you obtained the necessary tools to become an effective ally to undocumented students?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

Based on this training, do you believe you learned about the institutional resources and services available to undocumented students?

	Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Please indicate your level of agreement	○	○	○	○	○	○	○

What was the most effective part of this training for you ? Please explain

What was the least effective part of this training for you? Please explain

Describe an interaction you have had with an undocumented student on campus, if any.

Would you recommend this training to other colleagues?

- Yes
- No, please explain

What department do you belong to?

Did anything in this film inspire you to act? Please explain

Did this film remind you of your own family history?

- Yes, please explain
- No

Did you find anything in this film unclear?

- Yes, pleas explain
- No

The student stories presented in this film have influenced the way I will address the needs and concerns of undocumented students in my classroom or office.

Strongly Agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree

What other topics would you have liked the film to cover?

We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix B. SOC 354 Focus Group Protocol

INTRODUCTION
Thank you for joining us today and taking time to discuss your experiences with us.

We are conducting these focus groups in the context of the Graduation Initiative 2025, a CSU-wide program that aims to double four-year graduation rates by the year 2025. While there are some benefits to graduating in four years, we know that students face various challenges in pursuing their degrees. Our discussion today is designed to capture both challenges and opportunities we face as students.

Please feel free to skip any questions you don't feel comfortable answering. Your name will not appear in any reporting from these focus groups. However, we will share this information both with the sociology department and committees associated with the Graduation Initiative.

I also want to share a few guidelines to ensure that we have a productive conversation:

- Only one person should speak at a time so we can make sure to accurately record what you say. Also, because we have someone transcribing our discussion, please be sure to allow them time to keep up with the conversation.
- Abide by the "make space/take space" rule: let's make sure that everyone has the opportunity to speak and be mindful of how long you have spoken.
- Please be honest about your experiences, good or bad. There are no "right" or "wrong" answers.

Do you have any questions before we start?

Let's start by introducing ourselves, please share your name, whether you are a transfer student, and what year you are in (sophomore, junior, senior).

Thank you. On the post-it note provided, please write down what you expect to get out of today's discussion. You do not have to include your name. We will come back to this at the end.

ACADEMICS
We want to start by discussing our academic experiences. We know that many of you may have transferred, but please try to focus on discussing your experiences here at CSULB.

Class size is a factor that can influence our educational experience as students. Can you think about a time when class size impacted your learning, whether positively or negatively?

Online or hybrid courses (classes that are partially online) have been proposed as one way to create alternative learning opportunities for students as they progress to completing their

degrees. Has anyone taken online classes? In what ways did this support or inhibit your learning?

For those of you that haven't taken online classes yet, what would interest you in taking them? If you are not interested in taking them, why not?

What additional supports do you think are necessary for you to be academically successful?

WELL-BEING

Next, we want to consider our general well-being and overall health. We know that many students must juggle a lot of different responsibilities.

What factors impact your ability to be successful at school? (Probe: such as work, family, etc.).

How do you typically deal with stress that you experience? (Probe: What services are you aware of on campus? Such as: Counseling and Psychological Services (CAPS), Student Support Groups, CARES team)

What additional supports do you think are necessary for your overall health and well-being as a student?

FINANCES

How have financial considerations impacted your decision-making around classes or graduation? (Probe: What financial supports have you taken advantage of? Pell grants, etc.)

What additional supports do you think are necessary for your overall financial well-being as a student?

Those are all the questions I have for you today. Is there anything else we didn't cover you think we should know and share with the department?

Thank you again for coming out today. On the back of your post it, please write what you feel like you will be leaving with today. Please pass these to me when you are done. We also have pamphlets to share on counseling and mental health services that may be of interest to you all.

Have a great day!

Appendix C. SOC 354 Notes and Memos

GROUP 1
NOTETAKER: PLEASE WRITE YOUR NOTES BELOW. **ACADEMICS** Class size is a factor that can influence our educational experience as students. Can you think about a time when class size impacted your learning, whether positively or negatively? 2: As a transfer, I feel like the classes are small compared to at a cc and I can have a deeper connection with a professor 6: all my sociology classes have been small but out of major classes are in lecture halls and its harder to connect with professors… its something I don't like as much F; how do you feel 6: I have to try harder in general classes to make sure my grade is good 3: I feel like it's easier to slack off in larger classes because the professor might not know you. Noticed that in seminar classes you interact adn get more participation points. There are more opportunities to pass a class in a seminar because you need to fulfil class requirements to earn your grade. It seems like a waste of money in a larger class because you pay less attention F: does anyone think about money when you miss a class 5: if I dont go to class I have a fear of not graduating, so everything counts. Every little thing counts. I feel like money is part of your long term goal but I don't think of it as the only factor F: do you feel like you experiences in large and small classes are the same? 5: upper division classes are usually full, but my sociology classes are pretty average size. I feel like it's more connection because I sit in the front in order to hear and see better. I don't have any barriers 2: classes here have gotten smaller based on the major F; so the size of the class influences you to participate more. So larger classes allow you to hide and may lead you to put out less effort Online or hybrid courses (classes that are partially online) have been proposed as one way to create alternative learning opportunities for students as they progress to completing their degrees. Has anyone taken online classes? In what ways did this support or inhibit your learning? *facilitator describes hybrid classes 5: I haven't taken on online course 7: this is the second semester i've taken an online course but my first years here I tended to not take them. I have mixed opinions on both types of classes. I've seen very thorough instructors so its an easier transition for the online course but i've seen the opposite where professors are thrust into online courses they don't feel comfortable teaching, so they try to do the same thing as they would in person and that doesn't work. Most people, most students, don't go to office hours and only do that towards the end of the semester which

leads to a loss of interest and the professors put a lot out there to get people to sign up for classes. I feel like it could be more beneficial for students because you may or may not be a full time worker. There is less sections and you have to pick what suits you best. I like online courses at this moment.
F: online courses depend on how the prof is trained and how feedback is recorded?
7: yeah
F: is there a reason why you guys haven't taken online courses? What has swayed this decision?
1: I don't think I could take one because coming to class forces you to do the work but in an online class I wouldn't feel as motivated and it would be difficult to attempt to do the assignments
6: I feel like i'd be confused and I can't see the teacher face to face to ask questions
1; you probably be emailing them all the time
F: you mentioned office hours. Do you think you'd use office hours?
3: illbehonest I don't use office hours. Im very busy so I try to ask directly in class or email and ask a friend. They are never available when you are and the professors teach on other campuses but it suck that the time scheduling is off
1: some professors are more approachable, but there are certain professors i'm not comfortable going to office hours to see so it's uncomfortable
F: you mentioned confidence in teach an online course… so being able to see the professor face to face is another factor and availability also plays a role because of school and work conflicts

For those of you that haven't taken online classes yet, what would interest you in taking them? If you are not interested in taking them, why not?
1: if they had a chat option if you can't physically go to office hours… maybe an hour or so when they're online adn you can chat them. Maybe before an assignment is due in order to clear up questions we might have
2: I agree because when you email a professor, they can take days to reply. So an online chat would be useful
1: I had that in my stats class at my cc and that really helped because he could help solve the problems in real time and ask questions. He would leave it available for people who might not be able to make that chat at the time so it would be available and they could access it too
7: professors have options to make chat rooms on BB now. Since BB is new, a lot of students don't know how to use it adequately. If the faculty was instructed to use the technology that the school has now, it would help online course. Now the school is focusing on the online option and the CSU student is doing the program that they want to get students out faster. Expand the use of BB
3: in a sense I disagree because if their goal is to just get us out faster, then they don't care about us learning. If I take an online class, the value of learning decreases. I n high school I didn't learn. In college, you are paying for your education and I get what you're saying that it can be beneficial to some students but if it was all online I would hate education. I don't take online classes because I like the one on one interactions

7: i'm not 100% with all classes being online, but hybrid courses can be very beneficial. Unfortunately with a lot of course like GEts a lot of people aren't interested in what they are taking unless they are undecided. If you have the option of going to the school you are just going through the motions. I think that's why we have timey units because education is going in the direction where they just want us to get out
3: they don't really care about our education
1: I think so. I was talking to an advisor about getting a minor but she kept saying “you don't want to be past spring” it was discouraging because I wanted to add a minor but she wasn't encouraging me and kept saying you're good just finish
6: I was going to minor in AA studies but the advisor just said don't worry about it
1: yeah, I talked to my advisor this week
7: it makes sense with the cal state system and I had the same conversation with my advisor. I'm assuming now she forgot that she talked to me about a minor but she tried to persuade me away from the minor. I mean for me, it wasn't a huge shock because i've been here for so long, but I kind of see the message that they want to push us out
3: now with remedial, they want to get rid of them and just give you two semesters to pass. After Summer if you don't pass you have to leave, now they are trying to remove that and find students at college level math and English. Now they are really going this way to really get us in and out
F; So, generally it seems like the changes of advisors used to encourage adding minors but recently they have shifted to try to get you out faster and reach the school's faster standards
5: I feel like the system is just get you in and out
6: it's all about the money for the whole csu system to make as much money as they can. It's just another business
3: they get money from donors, alumni. Their biggest donors are greek and athletes
7: they keep increasing tuition
3: they are increasing this semester and next semester and with parking permits, the prices are rising when there isn't even a space reserved for you
5: I think it’s based on quantity and the more people you have the more monkey you have. That's why this school is always impacted
What additional supports do you think are necessary for you to be academically successful?
5: more shuttle buses
3: “GET RICH” you need to be more rich because i've never met a student who is just a student. I have friends with multiple jobs that do gigs on the side because college is expensive. You put your health on the line because can't afford to miss school. You need money and gas for your car. I recently bought a new car. If it's not money…. Money is the root of the problem.
F: you brought... you're so busy during school with jobs and extracurriculars that it's hard to go to service to benefit your emotional and physical health
7: I know there's CAPS to help with that and the health office but those are the only one I know of. I use the health office for shots my first semester her

1: I feel like the teachers should specify about resources because I wouldn't know about some of them if it weren't for flier. I wouldn't know if it weren't for other fliers because only some teachers specify about your health and don't explain the services
5: I haven't used them because of time because being in the school and staying on top of classes make time management hard. I wish I could go and utilize the services but the next minute I have another assignment to turn in
3: i've gone to them. I actually work there. I work at CAPS and a lot of people not know . I mean I knew about CAPS because of SOAR

WELL-BEING

What factors impact your ability to be successful at school? (Probe: such as work, family, etc.).
5: I keep thinking about my family. Just to put html first makes me realize that i'm doing this for them. Especially being in sociology I understand that i'm not in it to be in a higher class. I already learn about that in my other classes. I'm thinking, just graduate, have a stable job that you're comfortable in and have time with your family
7: the ultimate goal is to tough it out now and everything else will be worth it in the future
F: Dealing with stress do you feel you have to tough it out?
1: now i'm just trying to figure it out. I'm just a student, but even commuting here and everything else makes it hard to remember why you are doing it. It's a lot to deal with

How do you typically deal with stress that you experience? (Probe: What services are you aware of on campus? Such as: Counseling and Psychological Services (CAPS), Student Support Groups, CARES team)

What additional supports do you think are necessary for your overall health and well-being as a student?

FINANCES

How have financial considerations impacted your decision-making around classes or graduation? (Probe: What financial supports have you taken advantage of? Pell grants, etc.)
7: I really like what they do at the end. The hammocks they put out during finals. Sometime you just need a little break
3ASI does that with hammock and puppy therapy but they only cater to finals so they need to do it more often throughout the whole semester
5: the library should open for midterms too not just finals
F: so you appreciate the school's efforts but they need to change the times and be more available. Having the moments to destress would be more important through the semester

What additional supports do you think are necessary for your overall financial well-being as a student?

Is there anything else we didn't cover you think we should know and share with the department?
6: I know it's a commuter school, but I don't feel like it has a huge campus life.
3: I would say that my campus life i've always been involved but the spirit sucks n people don't really support each other. This is even though i've been involved a lot
7: I think throughout my years here, the sociology department has expanded within the school to get profs that are really dedicated to what they teach. There was a survey passed out for students about campus living and this brought up different options for us which involved dorm life and how it could be improved. I think this might benefit our school spirit.
3: at the end of the day it all comes back to money

IN LAB

In your process memo, consider:

*How would you describe the conversation? (think about the flow of conversation, the tone of the conversation? etc.)
*How would you describe the group dynamic?
*What worked well, what would you change of the process in the future (how you word the questions, etc.)

In the analytical memo, consider:

*Did the focus group help answer the overall research question?
*What potential themes emerged from your conversation (think about trends or patterns in what was said)?
*What came up in your focus groups that surprised you?
*What do you think you would be interesting to explore further?

Process Memo (Facilitator and Notetaker)

Write your at least 150 word memo here

The conversation flowed nicely like an actual conversation. At the beginning, the facilitator had to ask a couple follow up questions to the entire group to keep the conversation going, but as we got deeper into the discussion, everyone starting interjecting and contributing organically. Moreover, the tone was understanding and everyone was responsive to alternative viewpoints. The group dynamic was varied; almost everyone was a transfer student and in their final year, but they all brought up different points for the discussion. Everyone was able to relate to one another, and there were lots of head nods and laughs at the shared experiences ((confirmed by the post-it notes)). The conversation was going so well, that it became pretty impossible for the notetaker to capture everything that was said. As such, the notetaker had to paraphrase to get the points. In the future, having the focus group in a quiet setting and having an audio recorder would allow for us to capture everything that was said in detail. Another point we didn't consider was that having all the participants be sociology majors likely impacted the tone of their responses. Towards the end of the discussion, the tone shifted into distrust about the college's intention, and this is likely influenced by their major. This helped us answer the research question more, but it also

skews the information a bit. In the future, having students from a variety of majors would be beneficial to see how different departments interpret their experiences at CSULB. Overall, we felt that the focus group was a success.

Analytical Memo 1 Write your at least 150 word memo here

The dynamic of the focus group made it easier for participants to speak up, over all the flow of the group was great. Having people talk about their experiences, made it easier for others who don't normally speak up chime in. Finances, time management, and stress were some of the main themes that emerged from the overall class discussion. We talked a lot about how activities catered to our mental health should be provided all semester long, rather than just during finals or midterms. What was surprising was that we interpreted the first question, regarding class size was the same. Our group along with others agreed that smaller classes makes it easier to learn, and to participate. We mentioned it's less discouraging, and more efficient over all. Another thing that was surprising was that within our group majority had never taken an online class, but also weren't that interested in taking one. Some participants felt that being physically in a classroom was better to remain engaged. Within our group we also had majority transfers, only two participants came straight in from high school. Lastly, we were surprised to hear some experiences where students were told by their advisors not to take minors because that meant they would stay longer. We came to the conclusion that we feel that these institutions overall don't care about us learning, and that it's all about the money.

The only thing that we didn't get to address, were the questions towards the end of the discussion, we ran out of time because within our discussion other questions were brought to our attention. Like mentioned, money was a really big issue we all agreed on.

Analytical Memo 2

Write your at least 150 word memo here

The discussion in our focus group brought a lot of awareness for the services that we as students could utilized for better academic success at CSULB. Each individual in our group shared their own experience of the challenges they met while striving to progress their academic performance in this school. For example, one of the students discuss their experience of attending ASI's Dog Therapy session to relieve the stresses that they are facing in their classes. There was positive feedback from the co-participant and stated that "it was a helpful experience". using the service. The conversations throughout our group were great, we were able to find common ground in many of the topics that were discussed. The group dynamic was great, we were all respectful of each other's different opinions. Because of the connections we were able to bring the conversations went a lot smoother. It felt as if it was just a group of friends talking about important topics regarding our education. It would be interesting to explore more about students and their experiences with their professors. Conversation with focus group helped to understand and share the experiences at school. We were able to share the sense of belonging through the conversations and talking about personal thoughts on school such as financial issues. Also, it was interesting to talk about the online/hybrid class and its pros and cons. Some members of our group said that online/hybrid

class is a time-efficient so that students can take classes even if they are busy because of working. However, on the other hand, some members said that it is a money-wasting because students do not go to school, see professor, and are not able to interact with other classmates. They do not feel that they can learn something from it. Some of us recalled how maybe we haven't taken hybrid or online classes because we know that it doesn't fit our personality. For example, if the content seems a little confusing some of us recalled how we would be a little concerned about not being able to address these issues in person with the professor. Some of the themes that were brought up were concerning finances and how it affects students' success. For example, some students talked about having to work while also being a student. And how that played a role in them going to office hours or getting help from other resources.

GROUP 2

NOTETAKER: PLEASE WRITE YOUR NOTES BELOW.

ACADEMICS

Class size is a factor that can influence our educational experience as students. Can you think about a time when class size impacted your learning, whether positively or negatively?
C: this semester I helped my research class, 6 of us, she learned our names, so it's obvious if I DONT GO TO CLASS, I don't want to miss. Whereas my other class that is crowded I don't want to miss
F: soc edu w prof syeed. Small circle. Def affects. Especially sociological concepts, that we all deal with these concepts. Contributes to understanding of soc concept
D: bigger classroom don't know people. Small classrooms know people
A: I like how you worked out we are a community. Not like strangers in a huge classroom. I had a huge lecture hall in PH1 one semester, it was easy to turn on your computer in stats and space off, so I got an f. A lecture hall w over 200 kids
D: people participate more in smaller groups.
G: everyone pretty much already said in a smaller class is more hands on, more easier to talk. Bigger classes teachers don't know your name, and they don't want to learn your name. I get recognized easily because i'm the only black face in the class, but other than that they don't get to know you
B: a lot easier, whereas in a lecture hall, which I'm in right now, you don't really take a lot of notes, so i've missed a lot of class
G: you're not really accountable in a bigger class, so it's more like "oh what happened in class on Tuesday?"
A: that's why I kind of like that at the same time
F: the last two years, there's not a lot of classes you can do, I haven't been in one of those big classes since community college

D: it also depends on the major, i'm a business minor when it comes to tests, the bigger the class the worst I do on tests, because its mostly multiple choice, whereas soc doesn't have multiple choice
F: so much easier to fall thru the cracks, parking are so full, so many freshmen drop out.
E: going off that how there's so many students, adding so many students that NEED to graduate on time, it makes it harder bcs other students are trying to add that class so it makes it more harder.
F:pov and pub policy class started out big but now it's so small cause everyone stops showing up

Online or hybrid courses (classes that are partially online) have been proposed as one way to create alternative learning opportunities for students as they progress to completing their degrees. Has anyone taken online classes? In what ways did this support or inhibit your learning?
G:i haven't taken online here
F:it would be a waste of my money to take it here, but comm college it would make sense
D: I think especially for upper div it doesn't make sense. I don't see looking at other...making sense online, how is that supposed to happen
B:it was really easy to forget about it, I took one my soph year
F: it has to do w rationalization in schools, like funding, I tell people not to take them I think it's disfavored to sociological classes. It's very central to my learning
D: like a prof brings in his own personal experiences and I don't think tech can do that
B: even when videos are posted, I'm not going to listen to them, and you can't interact, if you have q's I won't ask them
G: you can take classical online, but I can't even understand it in person, so that's not an option. Maybe classes that aren't for my major then I would take it. Sometimes online would be better cause I have to work, so there's that advantage. I took online for one semester all my classes, and it worked (at comm college)

For those of you that haven't taken online classes yet, what would interest you in taking them? If you are not interested in taking them, why not?

What additional supports do you think are necessary for you to be academically successful?
D: advisement. Personally i'm a part of trio and their classes prepared me to where I am rn. I attribute that to my academic success. They helped me switch to soc, it's another voice besides just my soc advisors, its 2 diff spectrums
A: yeah I remember that soar thing and they didn't help me at all. My dumbass had my hand up and they completely skipped me. I'm the 1st one in my family to go to college so I need all the help do I need. I was undeclared for a long time. Until like last semester they were like "you need to declare" well I didn't get the help I needed, until an advisor suggested soc
F: I feel like SOAR is a band aid. To me I don't feel like it's critical enough especially for people like me, 1st gen college students that need more help don't get that. I think transfer and 1st gen students don't get enough help.

G: yeah like “you're here, this is where you should be going, good luck” I didn't see a point of soar besides looking at the school, which is what I could have done on my own. I haven't gotten any help because I figured out how to do it on my own. They don't really reach out to you either, they don’t guide you
A: sometimes you don't even have to go to advising
C: I went to advising, and I didn’t even know that my degree planner is not even accurate.
D: whose yall advisors anyway? So like the program I was talking about trio and eop, they already explained that you don't have to look at degree planner do this do that, so they navigated me where to go. If I go to academic degree planner, I would be clueless
A: I got what you meant but like I didn't even know about that program until rn that you're telling me about it, I think you should join it
F: just the fact that you're a 3rd year says a lot. Why don't you know about it? They should let us know
All: start saying what high schools they went to

WELL-BEING

What factors impact your ability to be successful at school? (Probe: such as work, family, etc.).
C: work,. Going from school to work, trying to get a workout, shower, eat in there somewhere
A: yeah no social life
C: go forbid you get sick
F: I work and am a student full time, and have something else on the side i'm just super tired all the time. It affects me but I don't see any other option except taking out a shit ton of loans.
E: I had this one prof. I remember him saying that our gen is lazy but they don't see how much we work, I remember him mentioning that, and it really stuck to me, bcs inhuis gen he didn't have to work so much, and for us, we have to work 2 to 3 jobs and that really affects our generation
F: tuition rises every sem, its prob bcs prof and faculty wages. Literally every sem i've been here i've seen the tuition rise. Sometimes that affects me, it's like “dude what the hell”
E: and you pay so much for parking for you not to even be able to park. Like what the fuck? Why am I paying so much for here so I won't even be able to park here

How do you typically deal with stress that you experience? (Probe: What services are you aware of on campus? Such as: Counseling and Psychological Services (CAPS), Student Support Groups, CARES team)
A: crying no jk
C: drinking (hahah)
A: that's what my friends say, I’m so stressed out, and i'm like “girl I need a whole bottle”
C: actually this is the 1st semester I know that there’s free acupuncture and I had no idea, at the SHS, there’s so many things and we have no idea

F: it's stressful just thinking about how to get there it's just not equitable it's like a bandaid, I don't wanna stress myself out just thinking about that, on days that I work I just come here for class, I don't stay afterwards
D: I get you you dont wanna browse around,
D: sleep that's a factor too
B: i've heard about caps but I haven't heard any good things, like my friends went to caps for study abroad program, to get anxiety off before she went on a trip, but immediately whoever saw her immediately wanted to check her into a hospital, and they said "you sound like you have a problem" but other than that I still haven't heard great things, the waitlist is really bad, I have too much neurosis to have to wait
A: like the whole waitlist thing made me not go, i'll just figure it out by myself
B: yeah I have to schedule my anxiety
F: there's response w all the crazy shit that's happened on college campuses, if it was truly equitable they would formulate it to work, their first option is to hospitalize you?? Like come on dude thats not cool
A: my friend got medication
F: yeah thats super dope like std medication, cause some people don't have access to that
A: my friend went and I need to go! Like I feel like I need to get waitlisted

What additional supports do you think are necessary for your overall health and well-being as a student?
G: more money , free money would be nice, but that's not possible so..
A: I think we kind of talked about it, like get more people to work for them to get more students to talk to them about their problems and not wait 2 months to be seen
B: ok this is kind of tying to the academics thing, but it could be because like I said i'm kind of neurotic, soc is very like you either go into soc or you don't, I'm in the honors program rn, and everything I have to do I like freak out, there's a whole academic discourse and it's like I'm not bad at it, but just the fact that it's there and we don't really talk about it till where in there, it stresses me out
F: I feel support in there, there's opportunities to be a research assistant but its super dependent on going into all the other classes to even get to that
B:it didn't fully hit me until then if that makes sense
F: what's your proposal?
B: black and asian media representation, I could go more in depth but that's okay

FINANCES

How have financial considerations impacted your decision-making around classes or graduation? (Probe: What financial supports have you taken advantage of? Pell grants, etc.)
E: I took advantage of that eop grant that you get every semester it's not a lot but its like $630 so I took advantage of that and also like pell grant
A: yeah I get fin aid like pell grant and stuff

F: I apply for everything I can but until you're 24 they're going to go off your parents taxes, even though I live on my own. Im turning 24 this year and it's the 2st year i'm getting any aid at all, unless your parents make a certain amount of money
A:see I live w my parents so they can help me out
F: I like going to stuff like this for free food, like I just came for the donut, so that's one thing I go to a lot for the free food
E: like for the blood drive I go for the free snacks (laugh)
G: I get a pell grant but I stay on campus so I'm still having to take out loans to stay in school pell grant is only good for me for another year and a half. Like I'm grateful for it but its not like its covers it all
d: well you gotta take at least 12 units so there's that
E: in a way that's good
D: some people gotta do that, they can't be here for 12 cause they gotta work
F: well let's be honest like some people are like "well dude look at what I got w my fin aid money" dude! I gotta pay my loans! I hate hearing that "what did you buy w your fin aid money? Dude I bought my loans! I live in a walk in closet. Even if you've been independent they'll classify you as dependent if you're under 24
G: well there are ways to get around that, I live away from my mom. She lives in another state. That led me to other decisions I had to make
C: well like i'm not trying to take summer or winter, I don't get tuition for those so I don't get classes in those off semester
G: well from what I heard was "free money for summer" but ts from your pell grant so why would I waste the little money I get from the pell to take summer classes? I need all the money I can get

What additional supports do you think are necessary for your overall financial well-being as a student?
F: just like fire a lot of administrative staff. Part of the reason there's so much inflation w tuition is bcs admin staff keep pushing for higher wages. So yeah reduction of tuition would be achieved thru firing of admin. This is an education institution. When old ppl say "oh it was so easy when I was your age" well tuition and rent has increased over decades. Unless you really think critically in what we're doing in this institution, it's so messed up
Amy: here they tell you what you wanna learn but they're not working on it. I understand too my family struggles as well and it's hard paying rent. Paying over there and then it's like it's made impossible so I get what you're saying
E: my bf said he had a prof that canceled class every single week, so he only went once a week and it's like what's the point of class, what's the point of even paying tuition for class
C: they are making so many buildings all over campus, stop taking in so many kids, they overpopulate the school.

Is there anything else we didn't cover you think we should know and share with the department?

IN LAB

In your process memo, consider:

*How would you describe the conversation? (think about the flow of conversation, the tone of the conversation? etc.)

*How would you describe the group dynamic?

*What worked well, what would you change of the process in the future (how you word the questions, etc.)

In the analytical memo, consider:

*Did the focus group help answer the overall research question?

*What potential themes emerged from your conversation (think about trends or patterns in what was said)?

*What came up in your focus groups that surprised you?

*What do you think you would be interesting to explore further?

Process Memo (Facilitator and Notetaker)

Write your at least 150 word memo here

The conversation flowed very well and there were no awkward silences. Everyone was very open-minded. Everybody was invested in their education and how the system work and didn't work. Everybody got along and even though some people would disagree they were all respectful towards one another. One of the things that we could change would be to get a bigger room and be less crowd because we can hear what other facilitators would talk about in their group. Change the wording in the questions because it was repetitive. We can ask the participate if they had any questions at the end of the focus group. We should have a longer time frame in our discussion because we had little time to discuss other topics and we felt it was it much information to cram in such little time. What surprise me the most was that we have resource on our campus and not everyone is aware of those resource that is available to them (for example CAPS, EOP, etc.). These resource can help people who are struggling with financial needs and why doesn't the school advertise them?

Analytical Memo 1 Write your at least 150 word memo here

Many of the participants shared a common theme of not knowing what the available resources were. Online classes seemed to be not preferred because they would rather have face to face engagement with the professor's for to better understand context and onlines classes can sometimes be unreliable. Taking classes online as a student would not ideal if you're taking your major specific classes. During the discussion participants shared their frustrations with their expectations of professors and actively engaging in learning. Many of the participants stated that they take out loans because they have no other option even though each situation was different all had reasons for needing financial assistance. Those who transferred said they took advantage of programs such as EOP and Trio but the school

does a poor job of outreaching to the students. Advising was another common theme that as the conversation went on many of the students declared that they don't take advantage of advising and that they navigate their academic progress on their own.

Analytical Memo 2 Write your at least 150 word memo here

Focus group participants helped answer the overall research question by sharing their common experiences and struggles. Most participants expressed concerns about work-life balance (almost all respondents held at least one job, presumably out of necessity). Additionally, students expressed a desire for more individual attention and guidance from both advisors and professors. On-campus resources were either things students had not heard about (i.e., you had to go actively looking for them; nobody told you about them) or did not think would be helpful for them to use (e.g., would take too much time, would not address their particular issues, etc). Respondents felt that many of the resources, scholarships, etc offered were more performative than genuinely helpful. I believe that the group dynamic went really well, every student had something to share and we all learned from one another. Something I would change for the process in the future would be having one question at a time, because when there was a follow up question the flow would be awkward. The focus group helped have a greater insight upon students experiences they face academically, for example, many students were clueless about the health services the school provided. One thing that surprised me from the program CAPS, was that the waitlist was extremely long and students had to wait even an entire month to talk to a professional. This shows that even though we have these services in the institution, it is not very helpful when many students can not seek help immediately. Future studies could focus on evaluation of on-campus resources and how to improve and better publicize them.

GROUP 3

NOTETAKER: PLEASE WRITE YOUR NOTES BELOW.

ACADEMICS

Class size is a factor that can influence our educational experience as students. Can you think about a time when class size impacted your learning, whether positively or negatively?
#3- smaller size classes benefit me more bc of the interaction. More personal time with professors.. More additional assistance.. Not everyone can go to office hours. Me specifically can go to office hour.
31-- LECTURES HALLS DIDN'T KEEP ME INTERESTED BECAUSE THERE WeRE NO SEATS. "WHY Am I EVEN HERE?" I feel like I learn more.
#8- Very distracting with bigger classes.. Hard to control bigger classes.. They don't emphasis on paying attention. Don't pay attention to the students as much.

Online or hybrid courses (classes that are partially online) have been proposed as one way to create alternative learning opportunities for students as they progress to completing their degrees. Has anyone taken online classes? In what ways did this support or inhibit your learning?
Nobody took online classes.

#2- not interested bc no communication between professors to understand the material. You have different perspectives from peers and teachers.
#1- learn better from having things in hand.. Learn better at school and won't be able to concentrate at home.
#3- I know myself because I know I wouldn't be accountable to learn. Professors will know if you miss.
#8- If you have the professor there you can get the questions right there and if you are at home then you have to wait for the responses. If you work it is harder to create time.
#4- missing the college experience, why sit at home? If I can come here and get the chance to interact with other and learn diff stories.
#3- going off her and learning the stories are important because its a soc class that is the study of people.
#5- cater more to diff types of people. It is beneficial to ppl who have a hard time to finish school. People who have personal issues that they can't make it to her but have the ambition to go to school.

For those of you that haven't taken online classes yet, what would interest you in taking them? If you are not interested in taking them, why not?

What additional supports do you think are necessary for you to be academically successful?
#3- I have been more than a full time student so it is important to find care for me mentally and last year I didn't find time and it affected me personally bad. Watch netflix or friends.. Something can help me get out of my head.
#8- A little more advertising of the services that the school provides.
#6- not a lot of people know about the services.. So maybe more hours or more open services.
#3- idk of anything and I don't know where the student health center is.. I don't even know where the counseling is. I take 18 units, I don't have time to find it. And work.

WELL-BEING

What factors impact your ability to be successful at school? (Probe: such as work, family, etc.).
#5- work is kind of a givin .. "most of us have to do" .. it's like a yes or no relationship when it comes to work. It's a huge stress to work 20-30 hours and take 15 units .. I have mixed feelings about work and school.
#3- work has a big impact bc being at school I know I have to be here and sometimes I want to give shifts away so I can focus but I have to keep 36 hours to keep health insurance. So it

kind be kind of diff. Sat and fri. I bartend and working 12 hour shifts so it hard to get home at 2 or 3am and come home to write a 6 page paper. So maintain education and a job can be overwhelming.
#4- get a job on campus.. Its enough to cover my expenses right now.. And off campus jobs don't understand your school schedule like on-campus.
#3- a lot of professors are really understanding.. The 1st sem my mom got cancer so I had to take care of her.. Professors noticed that I wasn't engaged like before and they help you and gave me extensions.. Communicate with teachers bc at the end of the day they are people and they want us to succeed.
#5- family factors play a big role… had to figure it out on my own bc my dad didn't go to school. Death of families can play a big role and my mom died of cancer and it played a big role in my academics and I didn't balance it the right way. Most of teachers that are understanding but there are some that are not.

How do you typically deal with stress that you experience? (Probe: What services are you aware of on campus? Such as: Counseling and Psychological Services (CAPS), Student Support Groups, CARES team)
#8- I know counseling and I know midterms and finals are the most stressful and around that time it is busy so it is hard to get service,
#3- grad students get priority so it is hard to get service
#4- corrected #4 her about grad and undergrad.
#5- to schedule an appt was hard.. You can only schedule an appt to weeks ahead so my job wasn't consistent so it was hard to schedule an appt… it is hard if you are not a go getter to get into these services. Most ppl wont go get it bc of family and work.
#8- friends that I made, hand out with friends.. Last sem it was hard bc I transferred and moved out so I felt alone and it was hard.. I made friends with group projects and I got to meet with really cool people. And I am friends with them now and I still talk and hang out with them. My parents know its hard but their pressure is hard. And school the work never ends and it is always ongoing.
#3- activity that helps me .. ex. Yoga one a week… I don't have anything going on so I just me time and to empty my head space.
#5- I do yoga too and meditation helps too.. Put your phone and just have silence for yourself. I started to have more peace when I did this.

What additional supports do you think are necessary for your overall health and well-being as a student?
#3- self care.. More student activities .. engaging students and connecting students with the campus life and provide more activities for students.. Commuters feel disconnected .
#4- Meet other ppl in other majors.. It is hard to make friends bc of time so go into a cohort.
#5- advocating better eating habits.. Bad diet really affects your overall mood. Quick healthy eating tips around school would be beneficial.

FINANCES

How have financial considerations impacted your decision-making around classes or graduation? (Probe: What financial supports have you taken advantage of? Pell grants, etc.)
#2- I have to take a loan for the summer so i'm running out bc im a transfer student. Lack of info about fafsa and classes really is a disadvantage..
#8- my parents are trying to put 4 ppl in college.. I won't receive fafsa so my sister had to take out all loans.. So this pressure for me to get out in 2 years is to much bc I have lil siblings that need to move in my house.
#6- do you feel pressure to find a job to help you out?
#8- I need to work bc otherwise I can't be here but if I work to much then it affects me more.
#4-- taking a loan out helps now but stresses me out when I graduate.
#1- It's the only choice you had to take a loan out.
#8- I am grateful for it.. Thinking about the grants being affected stresses me out.

What additional supports do you think are necessary for your overall financial well-being as a student?
#2- education on loan and workshops on loan on how everything works.. I think it should be mandatory, it will be really beneficial.. Because now I am sitting here thinking how am I going to pull this loan off. It's a desperation to ask higher ups to help us with our financial opp.
#8- taking a loan out makes you read a bunch of stuff but I don't understand any of it.
#5- a dumb down video.. Options about taking loans.
#2- I signed up for a loan and idk where to go
#6- I dont even know where to go
#4- trio, a 10 step course to be apart of the program. If you're interested in trio.. Talk to me..

Is there anything else we didn't cover you think we should know and share with the department?
#3- I think we should know why our tuition is being increased 75 percent.. Why should I have to take a giant loan if I don't know here it is going.
#8- cutting back on grad and increasing tuition so where is my money going.
#3- denying jobs and cutting back and increase in tuition so where is really my money going.
#4- summer tuition is too expensive so how hard is it take summer classes.
#2- I am taking 2 and am paying around 4,000 dollars.
#5- What can we do to actually make change as students?

IN LAB

In your process memo, consider:
*How would you describe the conversation? (think about the flow of conversation, the tone of the conversation? etc.)
*How would you describe the group dynamic?
*What worked well, what would you change of the process in the future (how you word the questions, etc.)

In the analytical memo, consider:

*Did the focus group help answer the overall research question?
*What potential themes emerged from your conversation (think about trends or patterns in what was said)?
*What came up in your focus groups that surprised you?
*What do you think you would be interesting to explore further?

Process Memo (Facilitator and Notetaker)
Write your at least 150 word memo here
Our conversation went really well. People related to one another and made it flow. Many of the participants related to one another and would add on to each others responses. The group dynamic was good. They all seemed to have different personalities, yet they each related to one another. They were all transfer students. A majority were commuters and others lived nearby. It worked well that they were all sociology majors so we were all able to relate on another level. All the speakers who did speak out frequently had at least one traumatic experience in there life that helped others feel comfortable to speak. The questions really covered all aspects of an ideal CSULB student. In the future we should get students from other majors to come out and say how they feel rather than only sociology majors. This would really get us to get a broader explanation and will learn what more students need to help them graduate within the 4 years. Each major requires different things so we will get a feel on which majors need more help or assistance and what they feel would help then graduate in 4 years. Also, next time we should get a bigger room so that note taker can better hear what each participant is saying. It would also help the facilitator hear when the participants are fully done talking so that they can ask probing questions or move onto the next question.

Analytical Memo 1 Write your at least 150 word memo here
The focus group did help bring light to the overall research questions as it reflected many CSULB students struggles and experiences. A common theme discussed among multiple groups was the opinions about class size and how it affects connection and consistency of learning. The students shared the same opinion of how big classes can be distracting and smaller classes are preferred. In smaller classes, there is a sense of a student teacher relationship that is very helpful in learning. In smaller classes it was also agreed upon that there is an intimacy among classmates that isn't really attained in big classes. These relationships were considered valuable to the students in their "college and learning experience". This concept supported another shared theme of how online classes can inhibit the experience of learning due to a lack of connection. The most discussed theme was about the impact of family life on their academic life. Experiences about how taking care of family while in school as a hindrance in excelling academically was shared. The hardship of trying to balance family, with school, and work made the students feel overwhelmed and stressed. This theme of common hardships was surprising to us. Usually it is common to think that our struggles are our own, but to see data show that the struggle of life balance among work, school, and family, is commonly shared creates a reality check. This reality check can lead one to question if there needs to be more changes on campus to address the issues of "the time"

so it can prevent the potential mental health risks students are going through. From this study it would be interesting to explore transparency of funds. Many of the students expressed concern about where their money is going to and how to afford staying in school when family and work factors are negatively impacting their academic success.

Analytical Memo 2 (Christiana, Ricardo)

Most students agreed the small classes are ideal. They enjoy the interaction they get from smaller groups. They feel able to open up more. In smaller classes they find themselves more engaged with their professors. They feel their names are known more. They get less distracted when the instructor is engaging them.

Most Sociology students have not taken an online class because they don't think it makes sense for their major. They feel more effective when engaged with a professor. They probably wouldn't do the work themselves.

Most students have heard of CAPS but not a lot of students know how it works. The main thing they knew was that appointments are hard to schedule. Students have to make an appointment two weeks in advance, which is hard to do, especially when someone needs help right away. Many students have heard of a few mental health services provided on campus, but they do not believe they are being offered often enough, such as puppy therapy and project chill with the hammocks.

The main three factors that concern students about finances are loans, work-school balance, and tuition. The tuition increase is frustrating students because they do not know where the money is going. Several students have had to take out loans because they could not afford college any other way. Lastly, students have a hard time mastering the school-work balance. Many students are working too many hours and seeing a decrease in their grades and school productivity.

GROUP 4

NOTETAKER: PLEASE WRITE YOUR NOTES BELOW.

ACADEMICS

Class size is a factor that can influence our educational experience as students. Can you think about a time when class size impacted your learning, whether positively or negatively?
1- CLASS BIGGER, harder to get 1 on 1 experience,
2- Smaller class size builder stronger connection with professor, larger class size, just a number, get in and get out, slacking off, on computer, larger class types feel stereotyped
3- Can't focus in large lecture hall, professor just goes through the motion in much larger class

2- Not professors fault though, they don't get to choose class sizes, more freedom to interact with students and build friendships “I sat in new places every class lecture due to class size being so large”
Online or hybrid courses (classes that are partially online) have been proposed as one way to create alternative learning opportunities for students as they progress to completing their degrees. Has anyone taken online classes? In what ways did this support or inhibit your learning?
4- Online classes screwed me over
3- Went into online classes thinking could do them good, was not the case
2- Took online class (hybrid) but everything was turned in in class so it wasnt really considered
6- Loves online classes, easier, quizzes are easier
3- Math is not the type of class you want to take online
4- Math is harder online, have to do everything step by step and if you don't have the book you don't know how to do it, rather not take math online
7- believes GE’s should be more readily available online because there are not many choices
3- Office hours are sometimes very rare, have to show up in person along with everyone else who has question, sometimes very difficult

For those of you that haven’t taken online classes yet, what would interest you in taking them? If you are not interested in taking them, why not?
1- Rahter come to class rather than online because feel like it would make you a lazier person, needs physical guidance
5- online classes help you, helps become more organized, don't have the leisure to take notes later, once lecture is over cant go back and take notes, makes you do work now rather than later

What additional supports do you think are necessary for you to be academically successful?
6- Only used office hours, not really use resources, direct contact with the professor is the best way
4- mandatory workshops, went because they were mandatory
7- EOP, low income diverse students, advising on multiple fields to help students, guidance/advising/tutoring
3- More on campus jobs, to stay local, higher paying jobs also, stay local
5- On campus jobs are helpful, had on campus job and benefited for the most part, able to do work/study while working
4- more parking

WELL-BEING
What factors impact your ability to be successful at school? (Probe: such as work, family, etc.).
4- take care of my mom/family member, baby sit others and study is difficult at times

7- Some people need to understand that work is important and necessary, professors need to be understanding of real life situations, protocol for professors to respond to certain situations, have had professors before that simply
3- Turned in final and professor said “if you would of really tried on this class you would of gotten a good grade”, professor didn't understand that that's not what it was, had multiple things going on in life that made it difficult to
7- Protocol should be established for professors as guidelines to respond to student difficulties
4- Boss is sometimes saying its either you come to work or you come to class
1- Hands tied, work related subjects/situations get complicated and sometime forced to pick between the two without being understanding
3- just attempt to work students, be more mindful, professors should try a little harder to talk and understand students
6- my internship is really understanding
4- sometimes car troubles that wouldn't work
1- Had to take the bus sometimes, forced to get a license because hated the bus

How do you typically deal with stress that you experience? (Probe: What services are you aware of on campus? Such as: Counseling and Psychological Services (CAPS), Student Support Groups, CARES team)
3- cry about it, good stress reliever to let you emotions out
4- go to the gym, relieve stress with working out and exercising
3- Quiet room in the USU and sit there and reale, take a second to gather thoughts and be at peace with yourself
5- Take a nap feel better, then wake up and cry again

What additional supports do you think are necessary for your overall health and well-being as a student?
3- LGBT center, workshops activities, help you think less about school and have fun with other students
7- horn center, learning center help with time management
7 more availability in more centers, went to CAPS one time (another student) but were booked for the rest of the month, really impacted, All of caps is only run by 4 counsellors
3- yes only 4 councellors the rest are grad students, extremely difficult to get an appointment, only get transferred to counselor after recommended by grad student, bill to you insurance not completely free
5- Advising helps, never been to tutoring, college of business really has a lot of help, varies in resources from major to major, sociology students are not as engaged in available resources

FINANCES

How have financial considerations impacted your decision-making around classes or graduation? (Probe: What financial supports have you taken advantage of? Pell grants, etc.)
4- had to get a loan because part of he aid was not covered

1- Dad pays for everything so he really helps out
3- Hardest thing was affordable housing costs, formed at one point, outside of class was cheaper but once you move the responsibility makes it difficult
5- FAFSA really help
7- EOP- accepts students and gives out own grants, gave me $600, and have additional scholarships you can apply to
3- Most of the money received goes to housing, sister went to sac state and only had to pay $300 for housing in an actual house, here it is over $1000 and only for small studio
5- Housing gets expensive, living on your own, along with car payments and other costs makes it that much more difficult

What additional supports do you think are necessary for your overall financial well-being as a student?
7- started summer FAFSA for this year, should also do that for the winter would be good
3- Affordable housing
4- Electronic books are far less expensive, sometimes good to invest in laptop
5- Sometimes don't even buy books even though you need them, wont pen the book anyway
3- NOt worth it to buy books
4- not worth it to buy books for classes like dance class, even though professor would rather you but the book

Is there anything else we didn't cover you think we should know and share with the department?

IN LAB

In your process memo, consider:
*How would you describe the conversation? (think about the flow of conversation, the tone of the conversation? etc.)
*How would you describe the group dynamic?
*What worked well, what would you change of the process in the future (how you word the questions, etc.)

In the analytical memo, consider:
*Did the focus group help answer the overall research question?
*What potential themes emerged from your conversation (think about trends or patterns in what was said)?
*What came up in your focus groups that surprised you?
*What do you think you would be interesting to explore further?

Process Memo (Facilitator and Notetaker)

Write your at least 150 word memo here

During the focus group conversation there were a few participants who did not contribute, it was mostly led by one person. The facilitator had to ask the dominant participant to allow

others to share information to make the contributions more equal. Overall, it was a productive conversation and we answered all questions allowing the participants to share their insights and experiences. They also found relatable common ground in some of their expressed thoughts and experiences. At first the conversation was based around one person, but once opinions were voiced, the rest of the group contributed as well and became more of a group conversation. One major theme that arose was how students feel that professors may not be as understanding as they want them to be, affecting their school-work relationship. One thing that surprised us was learning how CAP's is severely understaffed and despite their good intentions, it is hard for the students to obtain appointments. We also learned that the program is only run by 4 counselors and the rest are undergraduates who determine who gets to see the counselors. The protocol was well formed and the questions asked were simple yet effective. We think some adjustments that could help the process though would be to add a recording device for the transcribers, as well as developing better ice breakers so the participants can feel more comfortable opening up.

Analytical Memo 1

Write your at least 150 word memo here

Many of the participants of the focus group we had a collective dislike to online class except for one student. The rest of them thought they were not useful because it was difficult for them to get in contact with their professors. They also thought that smaller class were more efficient to their learning rather than big lecture halls. A huge theme that kept coming up was definitely parking and the struggle to find parking at school. Some of the participants believed that the CAPS program is not that helpful due to having a small number of counselors to professionally help student's out .Another issue we came across was that many of the participants struggle with having common grounds with their professors, school, and work. Even though school is very important we also have to balance work because it is needed to pay for school or other expenses.Overall something that surprised us was that we weren't aware of the different resources that school provides for the students. We would also like to explore further in findings ways to afford college, and afford a life outside of college, to fulfill the full college experience with less stress.

Analytical Memo 2

Write your at least 150 word memo here

The focus group discussed the different factors that contribute to graduating on time and detrimental factors. It provided different perspectives depending on personal experiences and the variety of backgrounds. For example, those individuals that transferred had a different approach to the questions asked. Furthermore, a common pattern that was brought up dealt with financial means and balancing school work. This then lead to how professors would handle certain situations that involved working hours. With this said something that was surprising was how the CAPS programs' availability was not structured in a way that was helpful to students. Many students mentioned how when trying to schedule an appointment

at the center they would often be asked to wait weeks or even months before seeing a counselor. This means that the students were not getting the help they needed when they needed it. This was surprising because it is constantly referred to in many classes as a resource that students can resort to. Exploring the perspectives of students with a different major would be interesting, since we would be able to see how this impacts the questions asked.

Appendix D. Demographic Survey for HDEV Interviewees

Please provide information about yourself in as many of the following categories as you wish:

CAMPUS INFORMATION for students

1. How many years have you been in college? ____
2. What is your class standing?

___Freshman ___Sophomore ___Junior ___Senior ___Grad student ___other

3. Which of the following describes you? Check **all** that apply:

____international student _____part-time student
____transfer student _____fraternity or sorority member
____student athlete _____student government
____live on campus _____veteran
____full-time student (12 units or more undergrad; 9 units or more graduate students)

4. Major(s) and minor(s):

_____

5. What is the highest educational level you hope to attain?

____ Vocational certificate
____ some college
____ Associate (AA or equivalent)
____ Bachelor's Degree (BA, BS)
____ Masters Degree (MA, MS)
____Ph.D or Ed. D
____ MD, DO, DDS or DVM
____ JD (Law)
____BD or M.Div (Divinity)
____ Other

6. Student organizations, groups or activities you are involved with?

_____

7. Other important groups you belong to on campus, or resource centers/services you use often?

_____

IF YOU ARE NOT A STUDENT:

8. Highest degree attained: _____
   From what college or university?_____
Year_____

OTHER (For all)

9. Age:____
10. Gender identity: _____
11. Do you have any condition that affects your physical or mental well-being? ___Yes ___No
12. If you answered "yes" to question 11 above and would like to describe it, please do so here:

_____

13. Religious affiliation: _____

14.Ethnic or racial identity(s)_____

15. Socioeconomic class: _____

16. Political affiliation: _____

17. Sexual orientation: _____

18. Nationality: _____

19. Citizen of what country: _____

20. City of current residence: _____

21. Do you now, or have you ever suffered from homelessness? ____ Yes ____No

22. Do you now, or have you ever suffered from food insecurity?____Yes ____ No

23. Family status: ___ Married ___Divorced/Separated ____Single ____Long term partnership

24. How many children do you have? ___none ___1 ___2 ___3 ___ 4 or more

Household:

25. Who do you live with? _____
26. Do you support any children or family members? ___ yes ___no
27. If yes, what category do they fall into (for example, 2 brothers and one aunt)_____
28. How many hours a week do you work?
____none ___1-5 ___6-10 __11-15 __16-20 ___21-30 __31-40 __over 40
29. What kind of work do you do?_____
30 How long is your average one-way commute to CSULB?
__5 miles or under __6-10 miles __11-20 miles __21-30 miles __over 30 miles

Annual Income

31. ***You***

____ under $10,000
____ $10-14,999
____ $15-19,999
____ $20-24,999
____ $25-29,999
____ $30-39,999
____ $40-49,999
____$50-59,999
____$60-74,999
____$75-99,999
____$100-149,999
____$150-199,999
____$200-249,999
____$250,000 or more
____ N/A

32. ***Your parents***

____ under $10,000
____ $10-14,999
____ $15-19,999
____ $20-24,999
____ $25-29,999
____ $30-39,999
____ $40-49,999
____$50-59,999
____$60-74,999
____$75-99,999
____$100-149,999
____$150-199,999
____$200-249,999
____$250,000 or more
____ N/A

33. Parents' highest educational level:

Mother

____ some High School
____ HS diploma
____ Vocational certificate
____ some college
____ Associate (AA or equivalent)
____ Bachelor's Degree (BA, BS)
____ Masters Degree (MA, MS)
____Ph.D or Ed. D
____ MD, DO, DDS or DVM
____ JD (Law)
____BD or M.Div (Divinity)
____ Other

Father

____ some High School
____ HS diploma
____ Vocational certificate
____ some college
____ Associate (AA or equivalent)
____ Bachelor's Degree (BA, BS)
____ Masters Degree (MA, MS)
____Ph.D or Ed. D
____ MD, DO, DDS or DVM
____ JD (Law)
____BD or M.Div (Divinity)
____ Other

34. Have you traveled outside the U.S.? ___Yes ____No.

35. If you answered "yes," where have you traveled to?

_____

36. Which, if any of your trips outside the U.S. were related to study/education or work?

_____

37. What languages do you speak?

_____

38. Which language (or languages, if you were brought up bilingual or multilingual) did you learn first?_____

39. Please use this space for any other additional comments or information you would like to share.

Appendix E. Academic Senate Retreat, Thought Exchange Results

Color Coding/Major Themes:
Basic Needs/Food Insecurity/Housing
Parking
Commuting
Money/Financial hardship
Student Services/Support/Resources
Mental Health/CAPS
Lack of course/classes availability/overcrowded classrooms
Challenges of working students
Educational skills
Political Climate/Identity/ representation/inclusion/ discrimination/safety
Networking spaces/student connections/organizations
(Stars, Rating)

FIRST QUARTILE

1. **Lack of Accessibility for commuting students**
   It's unsustainable to let in more students without having space for them to park. LA is not going to overhaul its public transit overnight (3.7, R 77)

2. **Money to pay for classes**
   If you don't have enough money to pay for classes, it limits your graduation vision (3.7, R 78)

3. **Some programs on campus run year round, but support services (Student Health, CAPS, Advising, Assistance Center, etc.) are not always available**
   Students need support services 24/7 - not just 9-5 Monday through Friday during the normal semester (3.7, R 79)

4. **Anxiety**
   Reticent and taciturn students might find themselves being anxious within a crowd of students and staff from the school (3.7, R 80)

5. I worry that the way financial aid is calculated doesn't always take into account real costs of attending school in a high cost area like Long Beach (3.7, R. 81)

6. **Student's metal health seems to be an issue affecting many students**
   Mental health potentially affects the ability to complete coursework and I've seen students miss too many classes – they can't afford medication (3.7, R. 82)

7. **Limited course offering for working students**

Students are care takers/have dependents, and work 20 plus hour/week. Limited offerings of evening/weekend make it difficult for them to finish (3.7, R. 83)

8. **Underdeveloped writing and reasoning skills. The writing does without saying – but I increasingly see students who lack basic logic skills.**

This impacts their ability to think critically and express themselves systematically – but also organize and prioritize (3.7, R. 84)

9. Finances and the uncertainty of a full time career job after graduation (3.6, R. 85)

10. **Learning how to better communicate outside of social media and outside of their own generation and socio-economic identity.**

In school as well as in the real work world, the most important skill for success will be to be able to connect and build relationships. (3.6, R. 86)

11. **Students having basic needs (food, shelter) not met through financial aid.**

This is a major cause of students dropping out (3.8, R. 87).

12. **The climate on campus is starting to mimic the national climate (which is surprising in a liberal city within a liberal state)**
13. This climate is reducing the sense of safety and belonging in the community, especially for marginalized communities (3.6, R. 88)

14. **The national & global context of instability is elevating levels of anxiety for all members of our community**

As everyone has higher levels of anxiety, there are more opportunities for increased mental health concerns and the frequency of conflict increases (3.6, R. 89)

15. **Rising tuition and fees**

More hours at work to pay for college leaves less time for a formative and enriching college experience (3.6, R. 90)

16. **How to pay for school and live in Long Beach**

The cost of living and tuition is going up but wages are stagnant (3.6, R. 91)

17. **Tiredness from long commutes**

I meet fellow student who commutes 8 hours every day. This can lead to exhaustion (3.6, R. 92)

18. **Academic transition from high school to college**

Some students might see college as a fast-paced learning environment which they could not catch up at first (3.6, R. 93)

19. Not being able to relate to my professors
Research shows that students are far more successful with their studies when they have professor they can relate to and those who understand them (3.6, R. 94)

20. **As a transfer, trying to take advantage of all the available campus resources and opportunities during my stay here before I graduate.**
The community college I transferred from does not have many resources that this university has so I want to make the best out of these resources here (3.6, R. 95)

21. Many students don't live on campus. Parking is a problem **and likely very remote. I see them lugging heavy backpacks around and sometimes all day.**
This is important because it's draining to lug so much stuff around all of the time. It feeds into time inefficiencies (3.6, R. 96)

22. **Also, it Is hard to live a healthy lifestyle with a lack of time and financial resources. Cooking takes a lot of time and we may not always have time.**
I notice that many students eat a lot of junk food and don't eat 3 meals a day. It is hard sometimes to find time in our busy schedules to eat right (3.6, R. 97)

23. Cost (3.6, R. 98)

24. Thriving in a politically-turbulent world
If students are fearful or anxious. They won't be successful (3.5, R. 99)
25. Feeling connected to campus
Without the support of connections, students may not be fully engaged and successful academically (3.5, R. 100)

26. Addressing the challenges related to first amendment rights and the 3rd party groups on our campus that say inappropriate things to our students.
CSULB prides itself in being a diverse and inclusive community. Training our students and employees about their rights under free speech is critical (3.5, R. 101)

27. Finding community
On a big campus, many students don't belong to clubs or organizations or other groups that make them feel connected (3.5, R. 102)

28. **Going through all requirements for a degree**
Sometimes just figuring out what's required is quite tricky (3.5, R. 103)

29. Identity/Inclusion
We are enviably committed to inclusion, but we still have much work to do-I-how we frame, create language and respond administratively (3.5, R. 104)

30. **Some students feel unsafe based on their own personal demographic.**

This is important because it factors into mental and physical health status and impacts student success (3.5, R. 105)

31. **Aspiration and role model**
When they believe they can achieve higher, they will work harder. So whom should they look up to? Do they have role models in life/at school? (3.5, R. 106)

32. **Students can't get into the classes they need to graduate.**
Classes might be full by the time a student can register, or they might be at inconvenient times (3.4, R. 107)

33. **Large classes**
Education can't be tailored to my individual needs (3.4, R. 108)

34. To feel safe in an educational environment to express opinions and learn from experts (3.4, R. 109)

35. Bureaucracy
Nothing says maze like the university & its myriad of rules & regulations (3.4, R. 110)

36. **Access to courses.**
Some students can't find a class schedule that fits their degree objective as well as outside commitments (3.4, R. 111)

SECOND QUARTILE

37. **New textbook requirements**
The difference in cost between older/newer versions of textbooks can be staggering for basically the same information (3.4, R. 112)

38. As young adults, learning to become citizens in a changing world
Growing intolerance for diversity creates additional stresses for students on campus (3.7, R. 113)

39. CSULB is a big campus with a lot of people, and I suspect it can be hard for students to find their way to resources that can help.
I think feeling like they are having to run all over the place, only to be told to go somewhere else can make them feel like CSULB doesn't care (3.4, R. 114)

40. The student to advisor-ratio in certain colleges makes it impossible for students to receive the guidance they need to fully engage in campus life.
It is important to develop the whole student, and fully understand the process by which faculty and staff can help students feel like they belong (3.4, R. 115)

41. **Campus Climate**
As a student not feeling like you belong on campus because the current issues especially pertaining to racism are largely not addressed in classrooms (3.4, R. 116)

42. Overly complex rules and regulations (3.4, R. 117)

43. Many students travel long distances to get to campus each day. Additional on-campus housing could alleviate that stress point.
Numerous studies suggest that students living on campus are more likely to succeed in their educational pursuits (3.3, R. 118)

44. **CSULB pantry is too small to feed all hungry students**
1 in 4 students don't have enough food. The pantry is a start, but a broader solution is needed (3.3, R. 119)

45. **The cost of additional online web-portals**
It's an undue burden for students to pay - $50 per semester just to do the HW for some courses. This can really add up depending on your classes! (3.3, R. 120)

46. **The ASI pantry is a good start but what more can we do to feed out hungry students**?
Food insecurity affects so many of our students, we need to expand the current resources available both on and off campus (3.3, R. 121)

47. **An atmosphere of intolerance, racism and sexism.**
It's hard to concentrate on your studies when you fear you're in imminent danger (3.2, R. 122)

48. **Anxiety**
Constant worry about prospects for life-future career, relationships, health (3.2, R. 123)

49. Give students the platform to share their experiences. **Then package the results for faculty/staff to understand and incorporate in their daily actions**
This gives agency to the students and closes the loop for those providing services to the students (3.2, R. 124)

50. **Is attendance mandatory?**
With over 75% of our students working 20+ hours a week, more course material should be accessible online without penalizing students (3.1, R. 125)

51. **Many students come to campus with mental health issues that could impact their ability to succeed academically.**
There is a need for the campus to commit more resources in this area to support our students (3.1, R. 126)

52. **My professors don't look like me**

It's hard to model myself after a professional if no one in my degree path looks like me (same gender, ethnicity, and background) (3.1, R. 127)

53. **Commuting and parking**
Sitting on freeway & looking for parking both sources of frustration (3.0, R. 128)

54. **Sustainability with all in mind**
Planting drought resistant trees doesn't help students learn, planting a fruit trees from which fruits can be harvest does (3.0, R. 129)

55. **Parking**
Takes a lot of time to find a place to park (2.9, R. 130)

56. **There are always challenges at every step and they change over time. Ultimately what deems a challenge as a worthy pursuit to solve?**
Since challenges are ubiquitous, it's important to identify the grounding mission. What's our target point and why is it important? (2.9, R. 131)

57. **How to get to school**
Parking is hard. Some don't have cars, or live far away (2.9, R. 132)

58. **Professors can be hard to understand**
I can't learn if the instructor's English is hard to understand (2.8, R. 133)

59. Limited space on campus to study particularly after 10pm and on weekends.
Students have shared that it is very difficult for them to study from home since many don't have a quiet space (2.8, R. 134)

60. **Many low achieving students experience an inequity since the university promotes equality of its programs, resources, services and interventions.**
Often students who are high achieving take advantage of these programs, resources, services, and interventions and thus amplify the equity gap (2.8, R. 135)

61. **Students expressing their religion**
Everyone has the right to have a place where an on-campus worship is necessary in case the student cannot leave campus (2.6, R. 136)

62. **Parking staff allows students to park in employee spaces.**
When faculty and staff are inconvenienced, the quality of the student experience is affected (2.2, R. 137)

63. **Kudos for focusing on customer experience; however, I'm not a fan of the "challenges" frame. What about challenges "and" opportunities?**
As we all know, the answer to a question depends on the question asked (2.1, R. 138)

64. **Lack of refrigeration for meals from home**
This can lead to foodborne illness (2.1, R. 139)

65. **Students who are Catholic**
It is important for students who are Catholic to find a resource center or a place to pray such as the rosary on their own without leaving the campus (1.9, R. 140)

66. **Developing a sense of belonging/community**
We are a commuter campus, which makes it challenging for students to feel that they are a part of a CSULB culture or community (NR)

67. **Financial freedom or stability is a golden nugget that not just students, but everyone search for.**
Being financially stable can help students alleviate their stress and enhance their personal happiness (NR)

68. **Financial pressures**
Financial Pressures generate anxiety for students that can prevent them from fully engaging with academics and campus life (NR)

69. **Slow elevators**
Probably not the most important issue, but the elevator in the USU are incredibly slow, and the one in the CBA building is even slower (5.0)

70. **Text books tend to be expensive**
We rarely get a full use out of them, especially if we decide not to keep it. The resale value on some of the books we buy are so low. It is not worth (4.3, R. 16)

71. **Balancing work and school**
Students work to pay for school, work so much that school work suffers, and continue to work too much to continue to stay at school. Vicious circle (4.2, R. 17)

72. Many of our students have to work, sometimes 40(or more) hours, while they go to school.
Having to work full time keeps students from going to class every week and/or taking enough classes for timely graduation (4.2, R. 18)

73. **Financial-needing to work and go to school at the same time**
Many students must support themselves while trying to attend school, which affects their ability to study and limits the number of units per semester (4.2, R. 19)

74. **I think many of our students face financial difficulties trying to pay for college while trying to study**
Stress makes it difficult to learn (4.2, R. 20)

75. Financial (4.2, R. 21)

76. **Knowledge of University Process**
Particular to first generation college students (4.2, R. 22)

77. **Balancing the challenges of life and learning**
Finances and family obligations are hard to put on a back burner while you pursue your dreams (4.2, R. 23)

78. **Balancing priorities**
Many students have financial obligations that require prioritizing work over school, but we know this is not a long-term strategy for success (4.1, R. 24)

79. **Cost of school and cost of living**
We have many students who had basic needs not being met. Healthy & well-being are the foundation to success across any academic/professional endeavor (4.1, R. 25)

80. **Ensuring our students receive support services during stressful times (i.e. CAPS, DSS, Financial Services, Advising) so they can retain at the Beach.**
Support services ensure students are able to receive support and retain and complete their degree at CSULB (4.1, R. 26)

81. **Students get the run-around on campus when it comes to finding answers to their questions. Faculty, staff, departments and colleges need to be aligned**
Not only does this harm our credibility and reputation, it causes students to burn-out, confusion, undue stress, and delayed graduation (4.1, R. 27)

THIRD QUARTILE

82. **Combination of school, work, life and money**
Today's students have to work more to fund school daily life. I had to work during school but not two or more jobs. Cost of living makes life hard (4.1, R. 28)
83. **Financial assistance/aid. This is closely associated with students having to work a lot of hours.**
Keeps students from enrolling in appropriate number of courses and/or not do well in them (4.1, R. 29)

84. **Financial challenge**
It takes away time from studying when students work to support themselves (4.1, R. 30)

85. **Student finances**
Some students have food and homelessness risks, but for nearly all this is a stressor (4.1, R. 31)

86. Students are often faced with challenges in their own personal lives. They face family commitments, difficult work schedules, and financial challenges
It is important for students to know there is a place they can share their concerns and seek guidance from professional staff and faculty (4.1, R. 32).

87. **Access to mental health support nonexistent, we need more support for all students (freshmen-grad students)**
Our students must wait weeks and hump hoops to get support ironing out day-to-day issues (4.1, 33)

88. **High school to college transition**
There are difference expectations and responsibilities (4.1, R. 34)

89. **Money**
Because they need to make a living & pay for tuition, many students don't have time for availability to focus on their courses and graduate in 4 years (4.1, R. 35)

90. **Evening and weekend services**
Students working traditional hours often lose pay if they have to come on campus during those hours. Most services aren't available after 7pm or Saturday (4.1, R. 36)

91. **Many students are in need of additional financial resources and/or real-world job experience**
Research shows that students employed on-campus are more successful. Should we allocate additional resources to student employment/internships? (4.0, R. 37)
92. **Financial stresses**
Some are so serious as to threaten food and housing security and certainly student success (4.0, R. 38)

93. **Inadequate H.S. education**
Reading and writing ensure success in class. Most do not read often and have poor grammar skills (4.0, R. 39)

94. **One of the biggest challenges CSULB students experience is the lack involvement within campus and org. events**
This is important because as students learn, some lack the experience of networking with other people, making connections within their field (4.0, R. 40)

95. **One of the biggest challenges that CSULB students face is financial. Not having enough money to pay for all our expenses takes a toll on us.**

It adds extra stress in or busy lives & working many hours drains us. Many of us can't afford to not work & it takes away from our study time (4.0, R. 41)

96. **Staying mentally healthy**
A mentally unhealthy student will not succeed (3.9, R. 42)

97. **Limited knowledge of campus resources available to students.**
Understanding one's options creates a sense being in control of one's educational goals (3.9, R. 43)

98. New students particularly may lack understanding of faculty expectations for classroom behavior. Some are also unprepared for the academic work.
This causes classroom behavior problems and disruptions. Underprepared students fall behind and either do not ask for help or don't know how (3.9, R. 44)

99. **Students are often not engaged in campus life. They often feel isolated and alone.**
It is important for students to and to have someone who can understand their struggles, and to a mentor who can guide them and listen (3.9, R. 45)

100. **Financial advising**
Is it financially & academically advantageous to take out more loans, not work, graduate more quickly (with better grade), enter workforce earlier? (3.9, R. 46)

101. **Dumbing down courses.**
Student success initiatives & other CSULB projects pressure faculty to reduce workload & rigor of coursework. Our students deserve a good education (3.9, R. 47)

102. **Lack of counselors.**
So many of my students are dealing with mental illness, but the CAPS office is notoriously booked. This is a huge problem (3.9, R. 48)

103. **Students have multiple issues that keep them from graduating in 4 years.**
104. Housing expense and access to low cost healthcare are only 2, but probably the most important (3.9, R. 49)

105. **Students often don't understand how the university is organized and so they don't know where to turn when they have a problem.**
This is important because problems may go unaddressed simply because they are not known (3.9, R. 50)
106. **Work – study balance**
Students may not have the resources for them to focus on study (3.9, R. 51)

107. **"Professional" student skills**

Many CSULB students lack skills that make them active agents in their education; managing coursework, seeking help, standing-up for their needs (3.8, R. 52)

108. **Balancing school with work and other life commitments**
We can't devote as much time and attention to our education as professors (and we ourselves) wish we could (3.8, R. 53)

109. Dealing with hate speech and prejudice.
Our students can best concentrate on their education in an environment that fosters unity (3.8, R. 54)

110. **Financial difficulties**
Imagine if students didn't have to worry about tuition, cost of books, gas, food, and could focus on their studies. I would be a straight As student (3.8, R. 55)

111. **Lack of mentorship**
Most teachers don't feel approachable and I don't think are invested in the students future. Maybe research opportunities or something similar to that (3.8, R. 56)

112. Mentorship
Added and specific guidance through the process of graduating and what comes beyond (3.8, R. 57)

FOURTH QUARTILE

113. **Real life experience in the work world which includes interchange with alumni, employers, and community leaders.**
It gives the students a more realistic perspective of what to expect after graduation (3.8, R. 58)

114. **Many students cannot enroll in classes they need to progress towards degree in a timely manner.**
Not having enough course sections for students to enroll could potentially keep him/her from progressing towards a degree (3.8, R. 59)

115. **Transportation is a big issue that CSULB student experience because a majority of our students identify as commuter**
Long commutes to and from their homes and campus dictates whether they are able to participate in on campus activities, workshops, and resources (3.8, R. 60)

116. **Knowing the system**
Many students are first generation to go to college. This is a challenge for navigating the system (3.8, R. 61)

117. **Money**
CSULB students often have to work and borrow to stay in school (3.8, R. 62)

118. **Time**
Working and communicating are big challenges for study and engagement with campus activities (3.8, R. 63).

119. **Balancing work and life obligations with school**
Work and life obligations squeeze out time for study (3.8, R. 64)

120. **Mental health (diagnosed and undiagnosed). Students increasingly need mental health support resources – and they are not adequately available.**
Can impact academic performance, but also their interactions with peers, family member and other relationships, identity, sense of self, etc (3.8, R. 65)

121. Balancing multiple roles and responsibilities (3.8, R. 66)

122. **Trying to be competitive within my discipline without becoming overwhelmed in the process**
Especially with impacted majors. I want to make sure I am a qualified candidate and do everything possible to stand out among other candidates (3.8, R. 67)

123. **Money**
Budgeting, personal and professional stress (3.8, R. 68)

124. **Another challenge CSULB student experience is the lack of classes available to students.**
Within the COE, a few classes are notable for having only 1 class section per semester. The university's goal is for students to graduate in 4 years (3.8, R. 69)

125. **Readiness for college-level work**
Readiness to hit the ground running affects individual and class achievement levels, retention, and overall quality of education (3.7, R. 70)

126. **An onslaught of hate speech, threats of family deportation, not feeling safe or welcome in their identities**
This fear strikes at the core of one's heart-affects everything, often ignored when addressing "student stress" (3.7, R. 71)

127. **Balancing work and classes**
Only so many hours in a day (3.7, R. 72)

128. **Students need their books in the first week of school, but sometimes do not have the resources available if their financial aid has not been distributed.**
Other universities allow students to charge their student accounts for books and supplies to ensure they have all needed materials (3.7, R. 73)

129. Work, family, school balance
Immediate need to survive overwhelms long-term benefit of finishing school (3.7, R. 74)

130. **Hostile external environment related to ethnicity, income status, religion, and other differences**
Threatens student success and their sense of belonging on campus (3.7, R. 75)

131. **I think that planning ahead and time management are the biggest challenges among students**
Such as preparing food for the school and work-day so their brains are fueled to learn and do well instead of buying a bar and calling it a meal (3.7, R. 76).

132. **Also, it is hard to live a healthy lifestyle with a clock of time and financial resources. Cooking takes a lot of time and we may not always have time**
I notice that many students eat a lot of junk food and don't eat 3 meals a day. It is hard sometime to find time in our busy schedules to eat right (5)

133. **One of the biggest challenges that CSULB students have is financial. Not having enough money to pay for all our expenses really takes a toll on us.**
It adds extra stress in our busy lives & working many hours really drains us. Many of us can't afford to not work & it takes away from our study time (5).

134. **Next, since CULB is a commuter campus, I think that commuting also takes a big toll on many students. Traffic and parking are very frustrating.**
Housing is very expensive and it is not an options for many students so they have to commute and miss out on many on-campus opportunities available (5).

135. **Both the direct and indirect costs of pursuing a degree are barriers to our students.** This is important because students often have to make a choice between rent, food and school (5).

136. **Students are juggling pursuit of a degree with working full-time, having extensive personal obligations, and commuting. Time is a huge barrier.**
This is important because we don't necessarily design academic degree programs with this barrier in mind (5).

137. **Financial Backing**
Students have to juggle many competing priorities, but financial commitments make college more challenging. Working too many hours hurts performance (5).

138. **Balancing school, work, and family responsibilities**
Multiple dimensions here that often impact students performance. Engagement and success including economic strain and competition for time (5).

139. Preparation
The gap between high school and university in the U.S. is high, particularly in writing, critical thinking, and quantitative skills (2.0).

140. **Academic preparedness for college**
Students need not only the academic preparation from their K-12 education, but also appropriate expectation of what is required of them in college (2.0).

141. **A major challenge is financial. Many students need to work off campus and have limited time to study, and get involved on campus events.**
Students spend less time on campus as traditional commuters and may feel not part of the campus community (4.5, R. 1)

142. **Financial challenges and having enough time to dedicate to their studies is one.**
Without sufficient funds, students have to work more which leads to less time to devote to class and participating in campus culture (4.4, R. 2)

One of the biggest challenges that I face as a student is the inability to complete my degree on time. Financial aid should be offered in the summer (4.4, R. 5)

143. **CAPS having limited sessions/follow up**
Students only get 3 free CAPS sessions. They also need to usually put in lot of effort just to get 3. This can lead to frustration & giving up (4.3, R. 6)

144. **Finances/Money**
Our students must juggle work and school, and often, work takes priority (4.3, R. 7)

145. **Juggling work, family responsibilities, and social pressures while working towards a degree.**
Students face many distractions of their time and energy, affecting their focus towards the future and their degree (4.3, R. 8)

146. **Securing funds for higher education.**
It created stress, pressure, and uncertainty which in turn may impact academic progress (4.3, R. 9)

147. **Balancing school, personal life and work life**
All aspects of their life are important; finding a balance is tricky (4.3, R. 11)

Appendix F. Journey Map – Graduate Experience

Please share your graduate student experience with us. Fill in the boxes with your experiences, you can fill out as many or as few as you would like. Here are some examples for each category:

	Getting In	First Semester	Courses	Balance	Advising	Community	Culminating Experience	What's next?
Actions *(What did you do for each category?)*								
Questions *(What questions arose during the process?)*								
High points								
Low points/ difficulties								
Opportunities *(What opportunities were available for you? Did you make use of them?)*								

GUIDELINES	
Please share your graduate student experience with us. Fill in the boxes with your experiences, you can fill out as many or as few as you would like. Here are some questions to help understand each category:	
Getting In What factors influenced your decision to pursue graduate school at CSULB (cost, choices, information, application process, how did you think about graduate school as a possibility)? **First Semester** What was your transition into your 1st semester as a graduate student like? **Courses** In addition to experiences of particular courses, this could include course availability, professors, workload, expectations, course requirements. **Balance** How have you balanced work, family, school?	**Advising** This is for your experience with general graduate advising and resources, your department or thesis/project chair, use of GSRC etc. **Community** Do you feel like you have built community on campus? This includes your cohort, your department, and the larger campus. **Culminating Experience** How has your overall experience been in preparing for your final project, thesis, portfolio, etc? **What's Next** What are your plans for after graduate school?

Appendix G. Interview Protocol and Recruiting Materials for Switching Majors Focus Groups

Interview protocol for focus groups with students who switched majors to/from CLA:

1. Tell us how you chose your original major.
2. Talk about your experience in that original major. *Follow up prompt*: What was it about the major that you found dissatisfying or challenging?
3. Can you identify any factors that may have encouraged you to remain in that major? In other words, can you think of anything that would have increased your level of satisfaction?
4. Ultimately, what made you decide to switch majors?
5. Did you know what you wanted to do in the future, professionally, with your original or current major?
6. Are you satisfied with your current major? Why or why not?
7. How has your decision to switch majors impacted your ability to graduate in four years—or in the period of time you had anticipated it would take to earn a bachelors degree?

Appendix H. ENG 102 Exam/Survey

ENG 102 midterm exam
* Required

Student name *

I D *

MM/DD/YYYY*

1. On average, how many minutes do you spend commuting to campus each week?

2. What resources are you aware of on campus to help you achieve your graduation goals? If there were additional resources made available to assist in completing your STEM degree or program, what should they be

3. Please tell me about anything at CSULB that you perceive to be an obstacle toward graduation. (Examples may include class availability, time management constraints, unresponsive instructors, etc.). Give 3 in-depth reasons with examples to support your responses.

4. Please tell us about anything at CSULB that you perceive as having the potential to help you achieve your graduation goals. (Examples may include knowledgeable instructors; an on-campus job; meetings with an academic advisor, etc.)

5. What experiences make you feel as though you "belong" on the CSULB campus? Conversely, have you had any experiences that make you feel disconnected from campus?

6. Are you involved in “out of classroom” experiences here at CSULB (clubs, organizations, etc.)? If so, which ones? If you are not involved in activities beyond the classroom, why not?

7. Knowing what you know now, would you still choose to enroll at CSULB? Please provide 3 examples that explain the reasons for your response

Appendix I. Results of Qualitative Study on the Mentorship Experience of Students

ID #	Overall GPA	SLP GPA	College Standing	Plans to Attend Graduate School	How was the study group experience with other students?	Are you currently receiving mentorship support within the department?	Are you currently receiving mentorship support outside the department?	Describe the mentorship and how it contributes to your skills development	Are you interested in participating in a mentorship program?	Why are you intersted in joining the mentorship program
1	3.5	3	Upperclassman	No	help to understand concepts; apply to real life	No	No		Yes	challenging major and need help
2	3.7	3.7	Upperclassman	Yes	increased peer communication	Yes	Yes	helps apply class skills to a clinic	Yes	1st generation student, needs guidance on post grad options
3	3.2		Upperclassman	Yes	sharing ideas, better understand concepts	No	No		Yes	want experience working with kids and to learn new skills
4	3.8	3.8	Upperclassman	Yes	can ask peers questions, helps to study for exams	No	No		Yes	want experience to see what it's like to cont in the field
5	3.9	4	Upperclassman	Yes	build peer relationships, relieve stress	No	No		Yes	learn more
6	3.6	4	Upperclassman	Yes	helps retain info, learn by teaching others	No	No		Yes	learn more and practice for the major
7	3.6	4	Upperclassman	Yes	helps to learn skills	No	No		Yes	small program, would help future graduates
8	4	4	Upperclassman	Yes	talking with peers helps to understand topics better beyond memorization	No	Yes	plans to begin	Yes	the more the better
9	3.8	4	Upperclassman	Yes	helped with academics, made close friends, achieved higher grades	No	No		Yes	want to learn and get advice and tips to be successful in the field

ID #	Overall GPA	SLP GPA	College Standing	Plans to Attend Graduate School	How was the study group experience with other students?	Are you currently receiving mentorship support within the department?	Are you currently receiving mentorship support outside the department?	Describe the mentorship and how it contributes to your skills development	Are you interested in participating in a mentorship program?	Why are you intersted in joining the mentorship program
10	3.7		Upperclassman	Yes	no time for study grp	No	No		Yes	beneficial for future career
11	3.5	3.4	Upperclassman	Yes	studied to prepare for study grp meeting, earned better grades b/c spent more time studying	No	Yes	works at a school and learns from teachers and staff about working with diverse kids	Yes	help to develop skills and prepare for the future
12	3.7	3.5	Upperclassman	Yes	able to ask the group questions, helps to retain information	Yes	Yes	shadows SLP in hospital and sees what she does day to day, helps to apply skills	Yes	wants valuable hands on experience
13	3.4	4	Upperclassman	Yes	able to talk about concepts and understand better, improved academic goals	No	No		Yes	support and advice
14	3.5		Upperclassman	Yes	helped understand beyond lectures	No	No		Yes	want something specifically directed at SLPs
15	3.75	4	Upperclassman	Yes	no time for study grp b/c lives far away and prefer to study solo	No	No		Yes	unlikely to participate b/c lives far away
16	3.9	4	Upperclassman	Yes	ask peers for clarification, answer study guides together, can be distracting at times	No	Yes	volunteer at a clinic with toddlers to experience a clinical setting in groups	Yes	want to more involved beyond classes, can't attend NSSLHA events

ID #	Overall GPA	SLP GPA	College Standing	Plans to Attend Graduate School	How was the study group experience with other students?	Are you currently receiving mentorship support within the department?	Are you currently receiving mentorship support outside the department?	Describe the mentorship and how it contributes to your skills development	Are you interested in participating in a mentorship program?	Why are you intersted in joining the mentorship program
17	3.7	3.5	Upperclassman	Yes	able to talk about confusing topics without fear of being embarrassed in front of a larger grp	No	Yes	mentored by church leader, helps to increase confidence in leadership and self	Yes	wants to be more active in SLP activities, wants more knowledge about what grad students learn and clinic skills
18	3.6		Upperclassman	Yes	different interpretations help to understand material	Yes	No		Yes	campus doesn't have much information on the major, would help to have guidance about major and career
19	3.7	3.7	Upperclassman	Yes	help to learn different study habits	No	No		Yes	wants a mentor in audiology
20	3.8	4	Upperclassman	Yes	no study grp for fear of being distracted by peers with too much convo	No	No		Yes	learn from others about clinical styles and gain experience
21	3.5	3.5	Upperclassman	Yes	helps to learn different styles and see information interpreted differently, makes studying fun vs being alone	No	Yes	interns with SLP and gets to see day to day while observing kids	Yes	extra help with classes and good opportunity to network
22	3.5		Upperclassman	Yes	beneficial	Yes	Yes	works with a rehab dept and gets exposure to patients and conditions	Yes	gain experience and knowledge

ID #	Overall GPA	SLP GPA	College Standing	Plans to Attend Graduate School	How was the study group experience with other students?	Are you currently receiving mentorship support within the department?	Are you currently receiving mentorship support outside the department?	Describe the mentorship and how it contributes to your skills development	Are you interested in participating in a mentorship program?	Why are you intersted in joining the mentorship program
23	3.5		Upperclassman	Yes	no study grp b/c prefers to study alone	No	No		Yes	would help to navigate the program
24	3.7		Upperclassman	Yes	peers help to explain terms in laymans terms	Yes	No		No	
25	3.4		Upperclassman	Yes	helps to complete study guides and discuss unfamiliar topics	No	No		Yes	increase experience and knowledge of SLP program
26	4	4	Upperclassman	Yes	helps to create study guides and ask questions	Yes	No		Yes	helps with connections, beneficial to understanding and learning more
27	3.5	3	Upperclassman	Yes	improved grades over time	No	No		Yes	gain experience
28	3.4	4	Upperclassman	Yes	no study grp bc easier alone without distractions in a grp	No	No		No	
29	3.7	3.5	Upperclassman	Yes	helps knowing which topics to study	No	No		Yes	wants experience in a work environment
30	3.9	4	Upperclassman	Yes	helps to study for tests to learn a broader perspective, still helps to study alone to focus	No	No		Yes	help to start career
31	3.6		Upperclassman	Yes	no study grp because hasn't made friends/study partners	No	No		Yes	help to understand course material and make connections

ID #	Overall GPA	SLP GPA	College Standing	Plans to Attend Graduate School	How was the study group experience with other students?	Are you currently receiving mentorship support within the department?	Are you currently receiving mentorship support outside the department?	Describe the mentorship and how it contributes to your skills development	Are you interested in participating in a mentorship program?	Why are you intersted in joining the mentorship program
32			Upperclassman	Yes	helps to learn from others	No	No		Yes	would help to get guidance and talk to someone who has done what you're doing
33	3		Freshman	Yes	helped to learn the material	No	No		Yes	opportunity to see how the field works
34	3.4	3.4	Freshman	No	helped to understand material better, peers help to keep you on top of things, study grp is helping me pass this class and without it I wouldn't have stayed in the class	No	No		No	changing major
35	1.7		Freshman	No	helped to get a better grade	No	No		Yes	would help to understand the field to determine whether to stay in the major
36	4		Freshman	Yes	helped to repeat material and share differences	Yes	No	contributes to simplifying things	Yes	to learn more and polish skills
37	2.6	3	Freshman	Yes	reinforced the need to practice and learn from others, motivatation	No	No		Yes	need advice and knowledge on how to succeed in the major
38	1.5		Freshman		peer critique is helpful	No	No		Yes	would to have insight from ppl that was in my place already

ID #	Overall GPA	SLP GPA	College Standing	Plans to Attend Graduate School	How was the study group experience with other students?	Are you currently receiving mentorship support within the department?	Are you currently receiving mentorship support outside the department?	Describe the mentorship and how it contributes to your skills development	Are you interested in participating in a mentorship program?	Why are you intersted in joining the mentorship program
39	3.6	3.5	Freshman	Yes	helps to clarify things, helps to excel and meet goals more than being alone	No	Yes	exposure to clinical environment helps as behavioral technician for a private company, experience helps to become more well rounded	Yes	would open the door to networks and opportunities and help better understand SLP field
40	3.5		Freshman	Yes	no study grp b/c prefers to study alone	No	No		No	
41	3	3.5	Freshman	Yes	practice helps for exams	No	No		Yes	helpful to be able to ask questions or concerns
42	2.2	2.2	Freshman	Yes	last semester I struggled b/c I did not reach out to other students	No	No		Yes	want to be more involved in the field
43	2.8	2	Freshman	Yes	no study grp b/c of busy schedule	No	No		Yes	would help to get a deeper understanding of course topics
44	4	4	Freshman	Yes	helps understand concepts, improves grades	No	No		Yes	broaden understanding of what it takes to be a SLP
45	2.6		Freshman		helped to understand more difficult concepts of a class	No	No		Yes	great learning opportunity and a way to expand a network

Appendix J. Results of Exploratory Data Analysis

Table 1. Descriptive Summary of OIR Variables

Note: Refer to Enrollment Reporting System Operations Manual for data definitions.

*Indicates p-values <0.01 from t-tests	All Students Mean (SD)		Graduated in 4 Years Mean (SD)	Did Not Graduate in 4 Years Mean (SD)
Transfer Units Earned*	6.9 (10.1)		11.6 (1.22)	5.5 (8.9)
Total Units Earned Year 1*	25.31 (5.66)		28.39 (2.97)	24.42 (5.93)
Total Units Earned Year 2*	22.52 (9.11)		28.12 (4.16)	20.92 (9.50)
Transfer GPA	3.44 (0.65)		3.56 (0.61)	3.38 (0.65)
GPA Year 1*	2.94 (0.71)		3.33 (0.43)	2.82 (0.73)
GPA Year 2*	2.65 (1.08)		3.32 (0.52)	2.46 (1.12)
PELL Accept Balance*	8238.35 (9162.26)		7321.58 (9201.73)	8501.50 (9135.56)
Application Eligibility Index*	3903.42 (344.07)		4047.67 (318.13)	3862.14 (340.11)
Application STEM Index*	3748.68 (338.32)		3892.91 (307.69)	3707.40 (335.41)
EPT Total Score*	141.98 (7.00)		143.80 (6.80)	141.73 (6.99)
ELM Total Score*	45.77 (11.91)		48.40 (10.94)	45.27 (12.02)
SAT Critical Reading Score *	514.07 (78.73)		541.00 (77.21)	506.35 (77.59)
SAT Math Score*	538.03 (86.75)		559.94 (81.98)	532.09 (87.10)
SAT Writing Score*	485.09 (134.15)		513.67 (140.22)	476.89 (131.23)
SAT Composite Score*	1052.25 (146.58)		1100.13 (137.81)	1038.51 (146.15)

ACT scores were converted to SAT scores.

Table 2. Frequency Table of OIR Variables

Note: Refer to Enrollment Reporting System Operations Manual for data definitions.

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
Age				
16 or younger	0.0003		0.0000	1.0000
17	0.0178		0.2656	0.7344
18	0.8166		0.2279	0.7721
19	0.1589		0.1955	0.8045
20	0.0031		0.2727	0.7273
21-24	0.0017		0.1667	0.8333
U.S. Citizen*				
N	0.0330		0.1261	0.8739
Y	0.9670		0.2263	0.7737
Gender*				
F	0.5920		0.2568	0.7432
M	0.4080		0.1740	0.8260
Race*				
AFRICAN AMERICAN	0.0333		0.1833	0.8167
ASIAN AMERICAN	0.2485		0.2210	0.7790
CAUCASIAN	0.1881		0.3083	0.6917
LATNINO/LATINA	0.4139		0.1903	0.8097
NATIVE AMERICAN	0.0011		0.5000	0.5000
PACIFIC ISLANDER	0.0022		0.1250	0.8750
TWO OR MORE RACES, INCLUDING MINORITY	0.0391		0.2270	0.7730
TWO OR MORE RACES, NON-MINORITIES	0.0194		0.3000	0.7000
VISA NON U.S.	0.0330		0.1261	0.8739
First Generation Status*				
Continuing Generation Student	0.4785		0.2643	0.7357
First Generation Student	0.5093		0.1841	0.8159
English Proficiency Status*				
1	0.1226		0.1041	0.8959
2	0.0674		0.0864	0.9136

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
A	0.0943		0.3853	0.6147
C	0.0305		0.2000	0.8000
P	0.0702		0.1897	0.8103
S	0.2111		0.1840	0.8160
T	0.0014		0.4000	0.6000
U	0.0008		0.3333	0.6667
X	0.0039		0.0714	0.9286
Y	0.0341		0.2195	0.7805
Z	0.3637		0.2784	0.7216
ELM Proficiency Status*				
1	0.0907		0.1254	0.8746
2	0.0521		0.0851	0.9149
A	0.1406		0.3393	0.6607
C	0.0860		0.2387	0.7613
E	0.0449		0.1728	0.8272
M	0.0255		0.2174	0.7826
P	0.1426		0.2062	0.7938
R	0.0003		0.0000	1.0000
S	0.2519		0.2346	0.7654
T	0.0019		0.2857	0.7143
U	0.0003		0.0000	1.0000
X	0.0003		0.0000	1.0000
Y	0.0896		0.2136	0.7864
Z	0.0732		0.2386	0.7614
HS GPA*				
<2.0	0.0003		0.0000	1.0000
2.0-2.49	0.0019		0.0000	1.0000
2.5-2.99	0.0693		0.1040	0.8960
3.0-3.49	0.3734		0.1545	0.8455
3.5-3.99	0.4760		0.2721	0.7279
>3.99	0.0791		0.3614	0.6386
Number of semesters not in good standing*				
0	0.8280		0.2660	0.7340
1	0.0702		0.0237	0.9763
2	0.0760		0.0109	0.9891
3	0.0225		0.0123	0.9877
4	0.0028		0.0000	1.0000
5	0.0006		0.0000	1.0000

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
Switched Departments				
no	0.6386		0.2302	0.7698
yes 1	0.3085		0.2203	0.7797
yes 2+	0.0530		0.1518	0.8482
Switched College*				
no	0.7650		0.2339	0.7661
yes 1	0.2230		0.1928	0.8072
yes 2+	0.0119		0.0930	0.9070
Last College*				
Blank	0.0080		0.4483	0.5517
Business Administration	0.1198		0.1667	0.8333
Education	0.0169		0.1475	0.8525
Engineering	0.1295		0.1906	0.8094
Health and Human Services	0.2341		0.2263	0.7737
Liberal Arts	0.2752		0.2984	0.7016
Natural Sciences & Mathematics	0.0624		0.1689	0.8311
The Arts	0.0949		0.2807	0.7193
University Programs	0.0591		0.0000	1.0000
Number of Remedial Math Taken*				
0	0.8147		0.2455	0.7545
1	0.0782		0.1596	0.8404
2	0.0779		0.1174	0.8826
3	0.0283		0.0490	0.9510
4	0.0008		0.0000	1.0000
Number of Remedial English Taken*				
0	0.9456		0.2323	0.7677
1	0.0544		0.0612	0.9388
Total Remedial Classes Taken*				
0	0.7936		0.2499	0.7501
1	0.0907		0.1498	0.8502
2	0.0743		0.1269	0.8731
3	0.0283		0.0294	0.9706
4	0.0128		0.0652	0.9348
5	0.0003		0.0000	1.0000
When First Switched Departments*				
2142	0.0655		0.3432	0.6568
2144	0.0574		0.2319	0.7681
2152	0.0735		0.3057	0.6943

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
2154	0.0735		0.1811	0.8189
2162	0.0422		0.0658	0.9342
2164	0.0294		0.0566	0.9434
2172	0.0125		0.0000	1.0000
2174	0.0075		0.0000	1.0000
no switch	0.6386		0.2302	0.7698
When First Switched College*				
2142	0.0211		0.3816	0.6184
2144	0.0413		0.2349	0.7651
2152	0.0516		0.2796	0.7204
2154	0.0533		0.1667	0.8333
2162	0.0288		0.0673	0.9327
2164	0.0241		0.0460	0.9540
2172	0.0092		0.0000	1.0000
2174	0.0055		0.0000	1.0000
no switch	0.7650		0.2339	0.7661
College Preparatory English				
4	0.0006		0.0000	1.0000
6	0.0011		0.2500	0.7500
7	0.0008		0.0000	1.0000
8	0.9623		0.2251	0.7749
9	0.0119		0.0698	0.9302
10	0.0191		0.2174	0.7826
11	0.0008		0.3333	0.6667
12	0.0019		0.2857	0.7143
13	0.0006		0.0000	1.0000
College Preparatory Math*				
4	0.0003		0.0000	1.0000
5	0.0006		0.5000	0.5000
6	0.1232		0.1486	0.8514
7	0.0394		0.1197	0.8803
8	0.3692		0.2209	0.7791
9	0.0327		0.1864	0.8136
10	0.3667		0.2474	0.7526
11	0.0072		0.3077	0.6923
12	0.0533		0.3073	0.6927
13	0.0014		0.6000	0.4000
14	0.0047		0.2941	0.7059
15	0.0003		0.0000	1.0000
16	0.0003		1.0000	0.0000

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
EAP English Language Status*				
1	0.3720		0.2826	0.7174
2	0.2022		0.2016	0.7984
3	0.1734		0.1360	0.8640
5	0.2524		0.2121	0.7879
EAP Mathematics Status*				
1	0.1165		0.2738	0.7262
2	0.4183		0.2447	0.7553
3	0.1065		0.1667	0.8333
5	0.3587		0.1980	0.8020
Early Start English*				
1	0.0652		0.0809	0.9191
2	0.8039		0.2533	0.7467
4	0.0025		0.2222	0.7778
5	0.0017		0.1667	0.8333
6	0.0036		0.0769	0.9231
7	0.1232		0.1059	0.8941
Early Start Math*				
1	0.1692		0.1328	0.8672
2	0.8080		0.2455	0.7545
3	0.0130		0.0638	0.9362
4	0.0039		0.2143	0.7857
5	0.0014		0.2000	0.8000
6	0.0042		0.0667	0.9333
7	0.0003		0.0000	1.0000
Dependent Income Code*				
1	0.2058		0.1698	0.8302
2	0.1487		0.1978	0.8022
3	0.1040		0.1680	0.8320
4	0.0699		0.1865	0.8135
5	0.0752		0.2546	0.7454
6	0.3548		0.2776	0.7224
8	0.0416		0.2533	0.7467
Parent Guardian #1 Education*				
1	0.1442		0.1538	0.8462
2	0.0902		0.1692	0.8308
3	0.1845		0.2316	0.7684
4	0.1850		0.2189	0.7811
5	0.0804		0.2379	0.7621
6	0.2200		0.2573	0.7427

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
7	0.0782		0.2908	0.7092
8	0.0175		0.2222	0.7778
Parent Guardian #2 Education*				
1	0.1479		0.1595	0.8405
2	0.1026		0.1973	0.8027
3	0.1781		0.1885	0.8115
4	0.1698		0.2222	0.7778
5	0.0641		0.3203	0.6797
6	0.2089		0.2470	0.7530
7	0.0849		0.3039	0.6961
8	0.0438		0.2278	0.7722
Hispanic/Latino Status*				
D	0.0130		0.2128	0.7872
N	0.5526		0.2505	0.7495
Y	0.4344		0.1884	0.8116
Independent Income Code				
1	0.0047		0.1765	0.8235
2	0.0008		0.0000	1.0000
3	0.0008		0.0000	1.0000
4	0.0008		0.0000	1.0000
6	0.0003		0.0000	1.0000
7	0.0008		0.3333	0.6667
9	0.9917		0.2238	0.7762
Dependent Family Size*				
2	0.06		0.17	0.83
3	0.16		0.23	0.77
4	0.35		0.24	0.76
5	0.24		0.23	0.77
>5	0.14		0.18	0.82
NA	0.04		0.25	0.75
Independent Family Size				
1	0.0036		0.1745	0.77
2	0.00083		0	1
3	0.0011		0	1
4	0.00166		0.17	0.83
5	0.00028		0	1
>5	0.00083		0	1
NA	0.99		0.22	0.78
US Military Status				
1	0		0	1

*indicate p-value <0.01 from chi- square test (or Fisher's Exact test)	All Students		Graduated in 4 Years	Did Not Graduate in 4 Years
3	0.01		0.19	0.81
4	0.99		0.22	0.78
Total Failing Classes*				
0	0.3090		0.4246	0.5754
1	0.1598		0.2865	0.7135
2	0.1065		0.1927	0.8073
3	0.0926		0.1407	0.8593
4	0.0752		0.0886	0.9114
5	0.0524		0.0370	0.9630
6	0.0497		0.0279	0.9721
7	0.0402		0.0414	0.9586
8 or more	0.0800		0.0000	1.0000
Summer Classes Taken*				
0	0.6413		0.2137	0.7863
1	0.2197		0.2096	0.7904
2	0.0888		0.2594	0.7406
3	0.0313		0.2920	0.7080
4	0.0122		0.3182	0.6818
5 or more	0.0100		0.5800	0.4200

Table 3. Frequency Table of CIRP Freshmen Survey Response

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Miles to School*			
BLANK	0.0322	0.1724	0.8276
5 or less	0.1187	0.1542	0.8458
6 to 10	0.2133	0.1834	0.8166
11 to 50	0.4003	0.2141	0.7859
51 to 100	0.0846	0.3213	0.6787
101 to 500	0.1179	0.3176	0.6824
Over 500	0.0330	0.2941	0.7059
Where do you plan to live during fall term*			
BLANK	0.0042	0.2000	0.8000
College residence hall	0.3700	0.2984	0.7016
With my family or other relatives	0.5942	0.1811	0.8189
Other campus student housing	0.0158	0.1754	0.8246
Other private home, apartment, or room	0.0147	0.0755	0.9245
Other	0.0011	0.2500	0.7500
Number of colleges applied to*			
BLANK	0.0033	0.0833	0.9167
None	0.0341	0.1870	0.8130
One	0.0491	0.1808	0.8192
Two	0.0882	0.1792	0.8208
Three	0.1501	0.2144	0.7856
Four	0.1548	0.1918	0.8082
Five	0.1137	0.2244	0.7756
Six	0.0971	0.3000	0.7000
Seven to ten	0.2652	0.2280	0.7720
Eleven or more	0.0444	0.3313	0.6688
Accepted by first choice			
BLANK	0.0117	0.2619	0.7381
No	0.3983	0.2403	0.7597
Yes	0.5900	0.2106	0.7894
What choice is this school*			
BLANK	0.0064	0.3043	0.6957
First choice	0.4291	0.1900	0.8100
Second choice	0.3484	0.2341	0.7659
Third choice	0.1409	0.2618	0.7382
Less than third choice	0.0752	0.2804	0.7196
Effect of current economic situation*			
BLANK	0.0078	0.2143	0.7857
Agree strongly	0.2888	0.2498	0.7502
Agree somewhat	0.4635	0.2178	0.7822
Disagree somewhat	0.1534	0.1826	0.8174
Disagree strongly	0.0865	0.2340	0.7660
Parent Status*			
BLANK	0.0039	0.1429	0.8571

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Both alive and living with each other	0.6890	0.2387	0.7613
Both alive, divorced or living apart	0.2746	0.1869	0.8131
One or both deceased	0.0325	0.2051	0.7949
Completed Algebra II (MATH1)			
BLANK	0.0050	0.1667	0.8333
No	0.0036	0.2308	0.7692
Yes	0.9914	0.2233	0.7767
Completed Pre-calc/Trigonometry (MATH2)*			
BLANK	0.0849	0.1471	0.8529
No	0.1135	0.1834	0.8166
Yes	0.8017	0.2367	0.7633
Completed Probability and Statistics (MATH3)			
BLANK	0.3137	0.2051	0.7949
No	0.4924	0.2287	0.7713
Yes	0.1939	0.2375	0.7625
Completed Calculus (MATH4)			
BLANK	0.3132	0.2143	0.7857
No	0.5004	0.2178	0.7822
Yes	0.1864	0.2515	0.7485
Completed AP Probability and Statistics* (MATH5)			
BLANK	0.3287	0.2076	0.7924
No	0.5137	0.2144	0.7856
Yes	0.1576	0.2835	0.7165
Completed AP Calculus (MATH6)*			
BLANK	0.2852	0.2053	0.7947
No	0.4427	0.2149	0.7851
Yes	0.2721	0.2548	0.7452
Have you had, or do you feel you will need, any special tutoring or remedial work in any of the following subjects?			
English: had special tutoring or remedial work (HADREM1)*			
Marked	0.0885	0.1630	0.8370
Not marked	0.9115	0.2288	0.7712
Reading: had special tutoring or remedial work (HADREM2)			
Marked	0.0624	0.1867	0.8133
Not marked	0.9376	0.2254	0.7746
Mathematics: had special tutoring or remedial work (HADREM3)			
Marked	0.1969	0.2028	0.7972
Not marked	0.8031	0.2280	0.7720
Social Studies: had special tutoring or remedial work (HADREM4)			
Marked	0.0441	0.1824	0.8176

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Not marked	0.9559	0.2249	0.7751
Science: had special tutoring or remedial work (HADREM5)			
Marked	0.0757	0.2088	0.7912
Not marked	0.9243	0.2242	0.7758
Foreign Language: had special tutoring or remedial work (HADREM6)			
Marked	0.0594	0.2243	0.7757
Not marked	0.9406	0.2229	0.7771
Writing: had special tutoring or remedial work (HADREM7)			
Marked	0.0635	0.2183	0.7817
Not marked	0.9365	0.2233	0.7767
English: need special tutoring or remedial work (NEEDREM1)*			
Marked	0.1564	0.1578	0.8422
Not marked	0.8436	0.2351	0.7649
Reading: need special tutoring or remedial work (NEEDREM2)*			
Marked	0.0791	0.1649	0.8351
Not marked	0.9209	0.2280	0.7720
Mathematics: need special tutoring or remedial work (NEEDREM3)*			
Marked	0.3723	0.1826	0.8174
Not marked	0.6277	0.2470	0.7530
Social Studies: need special tutoring or remedial work (NEEDREM4)			
Marked	0.0616	0.1847	0.8153
Not marked	0.9384	0.2255	0.7745
Science: need special tutoring or remedial work (NEEDREM5)*			
Marked	0.2042	0.1821	0.8179
Not marked	0.7958	0.2335	0.7665
Foreign Language: need special tutoring or remedial work (NEEDREM6)			
Marked	0.0896	0.2167	0.7833
Not marked	0.9104	0.2236	0.7764
Writing: need special tutoring or remedial work (NEEDREM7)*			
Marked	0.2288	0.1721	0.8279
Not marked	0.7712	0.2381	0.7619
Pre-med*			
BLANK	0.0710	0.2148	0.7852
No	0.7212	0.2438	0.7562
Yes	0.2078	0.1535	0.8465

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Pre-law*			
BLANK	0.1051	0.1530	0.8470
No	0.8336	0.2266	0.7734
Yes	0.0613	0.2941	0.7059
Please indicate your intended major using the codes provided on the attached fold out. (MAJOR)			
BLANK	0.0244	0.1818	0.8182
Accounting	0.0202	0.1644	0.8356
Aerospace/Aeronautical/Astronautical Engineering	0.0219	0.0633	0.9367
Agriculture/Natural Resources	0.0008	0.0000	1.0000
Animal Biology (zoology)	0.0072	0.0385	0.9615
Anthropology	0.0017	0.3333	0.6667
Architecture/Urban Planning	0.0025	0.4444	0.5556
Art, fine and applied	0.0294	0.1415	0.8585
Astronomy & Astrophysics	0.0003	0.0000	1.0000
Biochemistry/Biophysics	0.0150	0.1667	0.8333
Biological/Agricultural Engineering	0.0003	1.0000	0.0000
Biology (general)	0.0560	0.1782	0.8218
Biomedical Engineering	0.0083	0.0667	0.9333
Business Admin. (general)	0.0105	0.1316	0.8684
Chemical Engineering	0.0103	0.2973	0.7027
Chemistry	0.0086	0.0645	0.9355
Civil Engineering	0.0241	0.1609	0.8391
Classical and Modern Language and Literature	0.0022	0.5000	0.5000
Computer Engineering	0.0219	0.2025	0.7975
Computer Science	0.0266	0.1979	0.8021
Computer/Management Information Systems	0.0014	0.0000	1.0000
Criminal Justice	0.0397	0.2448	0.7552
Ecology & Evolutionary Biology	0.0014	0.0000	1.0000
Economics	0.0022	0.1250	0.8750
Electrical/Electronic Communications Engineering	0.0125	0.0889	0.9111
Elementary Education	0.0108	0.2051	0.7949
Engineering Science/Engineering Physics	0.0003	0.0000	1.0000
English (language & literature)	0.0103	0.5946	0.4054
Entrepreneurship	0.0022	0.2500	0.7500
Environmental Science	0.0036	0.2308	0.7692
Environmental/Environmental Health Engineering	0.0008	0.0000	1.0000
Ethnic/Cultural Studies	0.0008	0.0000	1.0000
Finance	0.0103	0.2162	0.7838
Geography	0.0006	1.0000	0.0000

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Health Care Administration/Studies	0.0055	0.4500	0.5500
Health Technology	0.0008	0.0000	1.0000
History	0.0064	0.2609	0.7391
Hospitality/Tourism	0.0022	0.3750	0.6250
Human Resources Management	0.0036	0.3846	0.6154
Industrial/Manufacturing Engineering	0.0025	0.1111	0.8889
International Business	0.0089	0.1250	0.8750
Journalism/Communication	0.0189	0.4265	0.5735
Kinesiology	0.0422	0.2368	0.7632
Library Science	0.0003	1.0000	0.0000
Management	0.0169	0.2459	0.7541
Marine Biology	0.0103	0.1892	0.8108
Marine Sciences	0.0017	0.1667	0.8333
Marketing	0.0241	0.2529	0.7471
Materials Engineering	0.0011	0.0000	1.0000
Mathematics/Statistics	0.0086	0.1290	0.8710
Mechanical Engineering	0.0372	0.1493	0.8507
Media/Film Studies	0.0275	0.4343	0.5657
Microbiology	0.0028	0.3000	0.7000
Military Sciences/Technology/Operations	0.0003	0.0000	1.0000
Molecular, Cellular & Developmental Biology	0.0058	0.2381	0.7619
Music	0.0078	0.3214	0.6786
Music/Art Education	0.0006	0.0000	1.0000
Neurobiology/Neuroscience	0.0017	0.6667	0.3333
Nursing	0.1040	0.1787	0.8213
Other	0.0169	0.2951	0.7049
Other Arts and Humanities	0.0169	0.1639	0.8361
Other Biological Science	0.0042	0.2667	0.7333
Other Business	0.0022	0.2500	0.7500
Other Education	0.0014	0.4000	0.6000
Other Engineering	0.0039	0.2143	0.7857
Other Health Profession	0.0150	0.2963	0.7037
Other Math and Computer Science	0.0011	0.0000	1.0000
Other Physical Science	0.0008	0.0000	1.0000
Other Social Sciences	0.0022	0.5000	0.5000
Pharmacy	0.0028	0.1000	0.9000
Philosophy	0.0008	0.0000	1.0000
Physical Education/Recreation	0.0022	0.3750	0.6250
Physics	0.0036	0.0769	0.9231
Plant Biology (botany)	0.0003	0.0000	1.0000
Political Science (gov't., international relations)	0.0139	0.5400	0.4600
Psychology	0.0535	0.3368	0.6632
Public Policy	0.0006	0.0000	1.0000
Real Estate	0.0003	0.0000	1.0000
Secondary Education	0.0031	0.1818	0.8182

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Social Work	0.0092	0.2424	0.7576
Sociology	0.0069	0.4000	0.6000
Special Education	0.0028	0.1000	0.9000
Theater/Drama	0.0083	0.5667	0.4333
Theology/Religion	0.0003	0.0000	1.0000
Therapy (occupational, physical, speech)	0.0097	0.2857	0.7143
Undecided	0.0863	0.1511	0.8489
Women's/Gender Studies	0.0003	0.0000	1.0000
Please indicate your intended career as well as the careers of your parents, using the codes provided on the attached fold out. (SCAREER)			
BLANK	0.1329	0.1921	0.8079
Accountant	0.0122	0.1364	0.8636
Actor or Entertainer	0.0133	0.3958	0.6042
Administrative Assistant	0.0031	0.4545	0.5455
Advertising	0.0033	0.1667	0.8333
Artist	0.0136	0.1429	0.8571
Business Manager/Executive	0.0108	0.2051	0.7949
Business Owner/Entrepreneur	0.0166	0.2333	0.7667
Clergy	0.0033	0.0833	0.9167
Clinical Psychologist	0.0161	0.2241	0.7759
College Administrator/Staff	0.0022	0.3750	0.6250
College Faculty	0.0014	0.2000	0.8000
Computer Programmer/Developer	0.0155	0.1429	0.8571
Computer/Systems Analyst	0.0028	0.2000	0.8000
Custodian/Janitor/Housekeeper	0.0025	0.3333	0.6667
Dentist/Orthodontist	0.0175	0.1429	0.8571
Dietician/Nutritionist	0.0089	0.2813	0.7188
Early Childcare Provider	0.0103	0.1622	0.8378
Elementary School Teacher	0.0161	0.2069	0.7931
Engineer	0.0721	0.1385	0.8615
Farmer or Forester	0.0089	0.3125	0.6875
Federal/State/Local Government Official	0.0117	0.3810	0.6190
Finance (e.g., Actuary, Banking, Loan Officer, Planner)	0.0103	0.2432	0.7568
Graphic Designer	0.0133	0.1667	0.8333
Hair Stylist/Aesthetician/Manicurist	0.0025	0.4444	0.5556
Home Health Worker	0.0044	0.2500	0.7500
Homemaker/Stay at Home Parent	0.0094	0.1471	0.8529
Human Resources	0.0031	0.3636	0.6364
Interior Designer	0.0028	0.1000	0.9000
Journalist	0.0044	0.5000	0.5000
K-12 Administrator	0.0025	0.3333	0.6667
Lawyer/Judge	0.0155	0.3571	0.6429
Librarian	0.0022	0.1250	0.8750

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Management Consultant	0.0019	0.4286	0.5714
Medical Doctor/Surgeon	0.0524	0.2116	0.7884
Medical/Dental Assistant (e.g. Hygienist, Lab Tech, Nursing Asst.)	0.0058	0.3810	0.6190
Military	0.0097	0.2286	0.7714
Musician	0.0111	0.3250	0.6750
Natural Resource Specialist/Environmentalist	0.0031	0.1818	0.8182
Optometrist	0.0094	0.1765	0.8235
Other	0.0377	0.3015	0.6985
Other K-12 Professional	0.0061	0.1364	0.8636
Paralegal	0.0042	0.2000	0.8000
Pharmacist	0.0133	0.1458	0.8542
Postal Worker	0.0006	0.0000	1.0000
Protective Services (e.g., Homeland Security, Law Enforcement, Firefighter)	0.0216	0.2564	0.7436
Public/Media Relations	0.0064	0.4348	0.5652
Real Estate Agent/Realtor/Appraiser/Developer	0.0019	0.1429	0.8571
Registered Nurse	0.0463	0.2275	0.7725
Research Scientist (e.g., Biologist, Chemist, Physicist)	0.0208	0.1733	0.8267
Retail Sales	0.0061	0.1818	0.8182
Sales/Marketing	0.0155	0.2143	0.7857
Secondary School Teacher	0.0139	0.3000	0.7000
Skilled Trades (e.g., Plumber, Electrician, Construction)	0.0089	0.2813	0.7188
Social/Non-Profit Services	0.0607	0.1461	0.8539
Sports Management	0.0019	0.0000	1.0000
Teacher?s Assistant/Paraprofessional	0.0014	0.8000	0.2000
Therapist (e.g., Physical, Occupational, Speech)	0.0480	0.3006	0.6994
Undecided	0.0721	0.2462	0.7538
Urban Planner/Architect	0.0153	0.0909	0.9091
Veterinarian	0.0053	0.0000	1.0000
Web Designer	0.0094	0.0882	0.9118
Writer/Producer/Director	0.0236	0.4588	0.5412
Please indicate your intended career as well as the careers of your parents, using the codes provided on the attached fold out. (MCAREER)			
BLANK	0.2782	0.1745	0.8255
Accountant	0.0275	0.2525	0.7475
Actor or Entertainer	0.0028	0.1000	0.9000
Administrative Assistant	0.0114	0.2195	0.7805
Advertising	0.0017	0.1667	0.8333
Artist	0.0028	0.3000	0.7000

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Business Manager/Executive	0.0097	0.2000	0.8000
Business Owner/Entrepreneur	0.0130	0.2340	0.7660
Clergy	0.0039	0.1429	0.8571
Clinical Psychologist	0.0011	0.0000	1.0000
College Administrator/Staff	0.0014	0.2000	0.8000
College Faculty	0.0025	0.4444	0.5556
Computer Programmer/Developer	0.0047	0.4706	0.5294
Computer/Systems Analyst	0.0083	0.2667	0.7333
Custodian/Janitor/Housekeeper	0.0117	0.1905	0.8095
Dentist/Orthodontist	0.0028	0.1000	0.9000
Dietician/Nutritionist	0.0083	0.3667	0.6333
Early Childcare Provider	0.0269	0.1753	0.8247
Elementary School Teacher	0.0264	0.2842	0.7158
Engineer	0.0058	0.2857	0.7143
Farmer or Forester	0.0017	0.1667	0.8333
Federal/State/Local Government Official	0.0089	0.3438	0.6563
Finance (e.g., Actuary, Banking, Loan Officer, Planner)	0.0089	0.1875	0.8125
Food Service (e.g., Chef/Cook, Server)	0.0153	0.2909	0.7091
Graphic Designer	0.0028	0.3000	0.7000
Hair Stylist/Aesthetician/Manicurist	0.0155	0.1964	0.8036
Home Health Worker	0.0147	0.3019	0.6981
Homemaker/Stay at Home Parent	0.1362	0.2424	0.7576
Human Resources	0.0078	0.2500	0.7500
Interior Designer	0.0006	0.0000	1.0000
Journalist	0.0008	0.3333	0.6667
K-12 Administrator	0.0086	0.1613	0.8387
Lawyer/Judge	0.0025	0.3333	0.6667
Librarian	0.0033	0.4167	0.5833
Management Consultant	0.0017	0.0000	1.0000
Medical Doctor/Surgeon	0.0031	0.2727	0.7273
Medical/Dental Assistant (e.g. Hygienist, Lab Tech, Nursing Asst.)	0.0166	0.2667	0.7333
Military	0.0075	0.1852	0.8148
Musician	0.0017	0.6667	0.3333
Natural Resource Specialist/Environmentalist	0.0008	0.0000	1.0000
Optometrist	0.0011	0.0000	1.0000
Other	0.1259	0.2313	0.7687
Other K-12 Professional	0.0083	0.4333	0.5667
Paralegal	0.0042	0.0667	0.9333
Pharmacist	0.0022	0.3750	0.6250
Postal Worker	0.0042	0.0667	0.9333
Protective Services (e.g., Homeland Security, Law Enforcement, Firefighter)	0.0061	0.2727	0.7273
Public/Media Relations	0.0011	0.5000	0.5000

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Real Estate Agent/Realtor/Appraiser/Developer	0.0092	0.2121	0.7879
Registered Nurse	0.0269	0.2577	0.7423
Research Scientist (e.g., Biologist, Chemist, Physicist)	0.0022	0.0000	1.0000
Retail Sales	0.0103	0.1351	0.8649
Sales/Marketing	0.0136	0.3469	0.6531
Secondary School Teacher	0.0089	0.3125	0.6875
Skilled Trades (e.g., Plumber, Electrician, Construction)	0.0036	0.0769	0.9231
Social/Non-Profit Services	0.0330	0.2017	0.7983
Sports Management	0.0003	0.0000	1.0000
Teacher?s Assistant/Paraprofessional	0.0103	0.4054	0.5946
Therapist (e.g., Physical, Occupational, Speech)	0.0080	0.2069	0.7931
Undecided	0.0072	0.1538	0.8462
Urban Planner/Architect	0.0019	0.2857	0.7143
Veterinarian	0.0003	0.0000	1.0000
Web Designer	0.0017	0.0000	1.0000
Please indicate your intended career as well as the careers of your parents, using the codes provided on the attached fold out. (FCAREER)			
BLANK	0.3026	0.1778	0.8222
Accountant	0.0092	0.3939	0.6061
Actor or Entertainer	0.0025	0.2222	0.7778
Administrative Assistant	0.0017	0.0000	1.0000
Advertising	0.0003	1.0000	0.0000
Artist	0.0028	0.2000	0.8000
Business Manager/Executive	0.0208	0.2933	0.7067
Business Owner/Entrepreneur	0.0333	0.2000	0.8000
Clergy	0.0042	0.2000	0.8000
Clinical Psychologist	0.0022	0.2500	0.7500
College Administrator/Staff	0.0019	0.2857	0.7143
College Faculty	0.0039	0.2857	0.7143
Computer Programmer/Developer	0.0119	0.3721	0.6279
Computer/Systems Analyst	0.0103	0.3784	0.6216
Custodian/Janitor/Housekeeper	0.0125	0.1778	0.8222
Dentist/Orthodontist	0.0078	0.2143	0.7857
Dietician/Nutritionist	0.0083	0.3333	0.6667
Early Childcare Provider	0.0067	0.2083	0.7917
Elementary School Teacher	0.0094	0.4706	0.5294
Engineer	0.0469	0.2604	0.7396
Farmer or Forester	0.0047	0.2941	0.7059
Federal/State/Local Government Official	0.0141	0.1961	0.8039

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Finance (e.g., Actuary, Banking, Loan Officer, Planner)	0.0078	0.2500	0.7500
Food Service (e.g., Chef/Cook, Server)	0.0153	0.2000	0.8000
Graphic Designer	0.0039	0.1429	0.8571
Hair Stylist/Aesthetician/Manicurist	0.0033	0.0833	0.9167
Home Health Worker	0.0014	0.4000	0.6000
Homemaker/Stay at Home Parent	0.0189	0.1471	0.8529
Human Resources	0.0022	0.1250	0.8750
Interior Designer	0.0014	0.0000	1.0000
Journalist	0.0006	1.0000	0.0000
K-12 Administrator	0.0031	0.1818	0.8182
Lawyer/Judge	0.0039	0.2143	0.7857
Librarian	0.0019	0.0000	1.0000
Management Consultant	0.0031	0.0909	0.9091
Medical Doctor/Surgeon	0.0103	0.2973	0.7027
Medical/Dental Assistant (e.g. Hygienist, Lab Tech, Nursing Asst.)	0.0028	0.4000	0.6000
Military	0.0128	0.1957	0.8043
Musician	0.0014	0.2000	0.8000
Natural Resource Specialist/Environmentalist	0.0014	0.4000	0.6000
Optometrist	0.0117	0.2857	0.7143
Other	0.1736	0.2428	0.7572
Other K-12 Professional	0.0033	0.3333	0.6667
Paralegal	0.0019	0.2857	0.7143
Pharmacist	0.0022	0.3750	0.6250
Postal Worker	0.0086	0.1935	0.8065
Protective Services (e.g., Homeland Security, Law Enforcement, Firefighter)	0.0180	0.3077	0.6923
Public/Media Relations	0.0008	0.0000	1.0000
Real Estate Agent/Realtor/Appraiser/Developer	0.0067	0.0833	0.9167
Registered Nurse	0.0067	0.1667	0.8333
Research Scientist (e.g., Biologist, Chemist, Physicist)	0.0050	0.1667	0.8333
Retail Sales	0.0064	0.3043	0.6957
Sales/Marketing	0.0219	0.2911	0.7089
Secondary School Teacher	0.0089	0.1875	0.8125
Skilled Trades (e.g., Plumber, Electrician, Construction)	0.0641	0.2381	0.7619
Social/Non-Profit Services	0.0097	0.2286	0.7714
Teacher?s Assistant/Paraprofessional	0.0003	0.0000	1.0000
Therapist (e.g., Physical, Occupational, Speech)	0.0044	0.1250	0.8750
Undecided	0.0108	0.1795	0.8205
Urban Planner/Architect	0.0130	0.1489	0.8511
Veterinarian	0.0011	1.0000	0.0000

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Web Designer	0.0067	0.2083	0.7917
Writer/Producer/Director	0.0011	0.0000	1.0000
Mother's Employment Status*			
BLANK	0.0261	0.2234	0.7766
Employed	0.6788	0.2252	0.7748
Retired	0.0211	0.3684	0.6316
Unemployed	0.2741	0.2065	0.7935
Father's Employment Status			
BLANK	0.0594	0.1963	0.8037
Employed	0.7939	0.2306	0.7694
Retired	0.0372	0.2015	0.7985
Unemployed	0.1096	0.1899	0.8101
How much of your first year's educational expenses (room, board, tuition, and fees) do you expect to cover from:			
Family Resource (AID1)*			
BLANK	0.0816	0.1667	0.8333
None	0.1581	0.1930	0.8070
Less than $1,000	0.1839	0.1916	0.8084
$1,000 - 2,999	0.1620	0.1798	0.8202
$3,000 - 5,999	0.1301	0.2473	0.7527
$6,000 - 9,999	0.0921	0.2651	0.7349
$10,000 +	0.1922	0.3016	0.6984
My Own Resources (AID2)			
BLANK	0.1146	0.1816	0.8184
None	0.2225	0.2332	0.7668
Less than $1,000	0.3476	0.2306	0.7694
$1,000 - 2,999	0.2350	0.2066	0.7934
$3,000 - 5,999	0.0524	0.2381	0.7619
$6,000 - 9,999	0.0161	0.3276	0.6724
$10,000 +	0.0119	0.3256	0.6744
Aid which need not be repaid (AID3)*			
BLANK	0.1054	0.1947	0.8053
None	0.2161	0.2606	0.7394
Less than $1,000	0.0799	0.2813	0.7188
$1,000 - 2,999	0.0879	0.1987	0.8013
$3,000 - 5,999	0.1587	0.1941	0.8059
$6,000 - 9,999	0.1526	0.2091	0.7909
$10,000 +	0.1994	0.2184	0.7816
Aid which need to be repaid (AID4)			
BLANK	0.1365	0.1911	0.8089
None	0.4180	0.2429	0.7571
Less than $1,000	0.0516	0.1720	0.8280
$1,000 - 2,999	0.1082	0.1872	0.8128
$3,000 - 5,999	0.1753	0.2421	0.7579
$6,000 - 9,999	0.0669	0.2199	0.7801

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
$10,000 +	0.0436	0.2102	0.7898
Other than above (AID5)			
BLANK	0.4053	0.2060	0.7940
None	0.5287	0.2377	0.7623
Less than $1,000	0.0372	0.1716	0.8284
$1,000 - 2,999	0.0161	0.2586	0.7414
$3,000 - 5,999	0.0061	0.2727	0.7273
$6,000 - 9,999	0.0033	0.3333	0.6667
$10,000 +	0.0033	0.1667	0.8333
"Do you have any concern about your ability to finance your college education? (FINCON)			
BLANK	0.0125	0.1556	0.8444
Major (not sure I will have enough funds to complete college)	0.1537	0.2058	0.7942
Some (but I probably will have enough funds)	0.6386	0.2181	0.7819
None (I am confident that I will have sufficient funds)	0.1953	0.2571	0.7429
Highest academic degree planned (DEGASP)*			
BLANK	0.0508	0.1749	0.8251
None	0.0031	0.2727	0.7273
Vocational certificate	0.0003	1.0000	0.0000
Associate (A.A. or equivalent)	0.0006	0.0000	1.0000
B.D. or M.DIV. (Divinity)	0.0017	0.3333	0.6667
Bachelor's degree (B.A., B.S., etc.)	0.2269	0.2359	0.7641
J.D. (Law)	0.0180	0.4000	0.6000
M.D., D.O., D.D.S., D.V.M.	0.0583	0.1476	0.8524
Master's degree (M.A., M.S., etc.)	0.4660	0.2286	0.7714
Ph.D. or Ed.D.	0.1681	0.2063	0.7937
Other	0.0064	0.3043	0.6957
Highest academic degree to obtain (HIDEGREE)			
BLANK	0.1476	0.1861	0.8139
None	0.0067	0.2500	0.7500
Vocational certificate	0.0006	0.5000	0.5000
Associate (A.A. or equivalent)	0.0105	0.1053	0.8947
B.D. or M.DIV. (Divinity)	0.0014	0.4000	0.6000
Bachelor's degree (B.A., B.S., etc.)	0.5678	0.2467	0.7533
J.D. (Law)	0.0003	0.0000	1.0000
M.D., D.O., D.D.S., D.V.M.	0.0058	0.1429	0.8571
Master's degree (M.A., M.S., etc.)	0.2297	0.1920	0.8080
Ph.D. or Ed.D.	0.0250	0.2222	0.7778
Other	0.0047	0.2941	0.7059

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself.			
Ability to see the world from someone else's perspective (DIVRATE1)			
BLANK	0.0072	0.3077	0.6923
A Major Strength	0.3012	0.2339	0.7661
Somewhat Strong	0.4419	0.2335	0.7665
Average	0.2191	0.1886	0.8114
Somewhat Weak	0.0286	0.1845	0.8155
A Major Weakness	0.0019	0.2857	0.7143
Tolerance of others with different beliefs (DIVRATE2)			
BLANK	0.0097	0.2571	0.7429
A Major Strength	0.4374	0.2175	0.7825
Somewhat Strong	0.3487	0.2474	0.7526
Average	0.1750	0.1918	0.8082
Somewhat Weak	0.0244	0.1932	0.8068
A Major Weakness	0.0047	0.1765	0.8235
Openness to having my own views challenged (DIVRATE3)			
BLANK	0.0089	0.2500	0.7500
A Major Strength	0.2563	0.1851	0.8149
Somewhat Strong	0.3567	0.2309	0.7691
Average	0.2982	0.2447	0.7553
Somewhat Weak	0.0710	0.2188	0.7813
A Major Weakness	0.0089	0.2813	0.7188
Ability to discuss and negotiate controversial issues (DIVRATE4)			
BLANK	0.0092	0.2424	0.7576
A Major Strength	0.3129	0.2074	0.7926
Somewhat Strong	0.3318	0.2391	0.7609
Average	0.2624	0.2220	0.7780
Somewhat Weak	0.0688	0.2097	0.7903
A Major Weakness	0.0150	0.2593	0.7407
Ability to work cooperatively with diverse people (DIVRATE5)			
BLANK	0.0080	0.3448	0.6552
A Major Strength	0.5359	0.2267	0.7733
Somewhat Strong	0.3007	0.2214	0.7786
Average	0.1354	0.2131	0.7869
Somewhat Weak	0.0183	0.1818	0.8182
A Major Weakness	0.0017	0.0000	1.0000
How often in the past year did you?			

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Ask questions in class (MNDHAB01)			
BLANK	0.0086	0.2903	0.7097
Frequently	0.4413	0.2351	0.7649
Occasionally	0.4963	0.2135	0.7865
Not at all	0.0538	0.2010	0.7990
Support your opinions with a logical argument (MNDHAB02)*			
BLANK	0.0103	0.2703	0.7297
Frequently	0.5004	0.2494	0.7506
Occasionally	0.4247	0.1973	0.8027
Not at all	0.0646	0.1803	0.8197
Seek solutions to problems and explain them to others (MNDHAB03)*			
BLANK	0.0111	0.2250	0.7750
Frequently	0.4938	0.2444	0.7556
Occasionally	0.4566	0.2047	0.7953
Not at all	0.0386	0.1655	0.8345
Revise your papers to improve your writing (MNDHAB04)*			
BLANK	0.0108	0.2564	0.7436
Frequently	0.4233	0.2510	0.7490
Occasionally	0.4721	0.2092	0.7908
Not at all	0.0938	0.1627	0.8373
Evaluate the quality or reliability of information you received (MNDHAB05)			
BLANK	0.0122	0.2500	0.7500
Frequently	0.3872	0.2357	0.7643
Occasionally	0.5343	0.2150	0.7850
Not at all	0.0663	0.2092	0.7908
Take a risk because you feel you have more to gain (MNDHAB06)			
BLANK	0.0108	0.2821	0.7179
Frequently	0.3723	0.2139	0.7861
Occasionally	0.5146	0.2302	0.7698
Not at all	0.1024	0.2141	0.7859
Seek alternative solutions to a problem (MNDHAB07)			
BLANK	0.0125	0.2444	0.7556
Frequently	0.4832	0.2210	0.7790
Occasionally	0.4810	0.2266	0.7734
Not at all	0.0233	0.1786	0.8214
Look up scientific research articles and resources (MNDHAB08)			
BLANK	0.0130	0.2128	0.7872
Frequently	0.2602	0.2122	0.7878
Occasionally	0.4732	0.2233	0.7767

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Not at all	0.2535	0.2341	0.7659
Explore topics on your own, even though it was not required for a class (MNDHAB09)			
BLANK	0.0103	0.2432	0.7568
Frequently	0.3523	0.2299	0.7701
Occasionally	0.4555	0.2308	0.7692
Not at all	0.1820	0.1890	0.8110
Accept mistakes as part of the learning process (MNDHAB10)			
BLANK	0.0122	0.2273	0.7727
Frequently	0.6186	0.2220	0.7780
Occasionally	0.3531	0.2294	0.7706
Not at all	0.0161	0.1207	0.8793
Seek feedback on your academic work (MNDHAB11)			
BLANK	0.0125	0.2444	0.7556
Frequently	0.4377	0.2402	0.7598
Occasionally	0.4552	0.2078	0.7922
Not at all	0.0946	0.2141	0.7859
Work with other students on group projects (MNDHAB12)			
BLANK	0.0117	0.2143	0.7857
Frequently	0.5437	0.2383	0.7617
Occasionally	0.4222	0.2070	0.7930
Not at all	0.0225	0.1605	0.8395
Integrate skills and knowledge from different sources and experiences (MNDHAB13)			
BLANK	0.0117	0.2143	0.7857
Frequently	0.5520	0.2397	0.7603
Occasionally	0.4169	0.2043	0.7957
Not at all	0.0194	0.1571	0.8429
In deciding to go to college, how important you was each of the following reasons?			
To be able to get a better job (REASON01)			
BLANK	0.0078	0.1429	0.8571
Not important	0.0347	0.2720	0.7280
Somewhat important	0.1293	0.2554	0.7446
Very important	0.8283	0.2167	0.7833
To gain a general education and appreciation of ideas (REASON02)*			
BLANK	0.0078	0.0714	0.9286
Not important	0.0316	0.3158	0.6842
Somewhat important	0.3268	0.2394	0.7606
Very important	0.6338	0.2118	0.7882

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
To make me a more cultured person (REASON03)			
BLANK	0.0094	0.0882	0.9118
Not important	0.1734	0.2240	0.7760
Somewhat important	0.4577	0.2303	0.7697
Very important	0.3595	0.2168	0.7832
To be able to make more money (REASON04)*			
BLANK	0.0125	0.1778	0.8222
Not important	0.0438	0.2658	0.7342
Somewhat important	0.1969	0.2662	0.7338
Very important	0.7467	0.2099	0.7901
To learn more about things that interest me (REASON05)			
BLANK	0.0086	0.1290	0.8710
Not important	0.0164	0.2373	0.7627
Somewhat important	0.1734	0.2304	0.7696
Very important	0.8017	0.2221	0.7779
To get training for a specific career (REASON06)			
BLANK	0.0083	0.1000	0.9000
Not important	0.0269	0.2474	0.7526
Somewhat important	0.1864	0.2336	0.7664
Very important	0.7784	0.2210	0.7790
To prepare myself for graduate or professional school (REASON07)			
BLANK	0.0089	0.1250	0.8750
Not important	0.1273	0.2745	0.7255
Somewhat important	0.2802	0.2188	0.7812
Very important	0.5836	0.2153	0.7847
Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself.			
Academic Ability (RATE01)*			
BLANK	0.0119	0.1163	0.8837
Highest 10%	0.1245	0.3096	0.6904
Above average	0.5786	0.2306	0.7694
Average	0.2766	0.1775	0.8225
Below average	0.0078	0.0714	0.9286
Lowest 10%	0.0006	0.0000	1.0000
Artistic Ability (RATE02)			
BLANK	0.0105	0.0789	0.9211
Highest 10%	0.0718	0.2394	0.7606
Above average	0.2452	0.2308	0.7692
Average	0.3412	0.2057	0.7943
Below average	0.2463	0.2466	0.7534

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Lowest 10%	0.0849	0.2059	0.7941
Competitiveness (RATE03)			
BLANK	0.0128	0.1739	0.8261
Highest 10%	0.1989	0.2050	0.7950
Above average	0.3484	0.2293	0.7707
Average	0.3381	0.2363	0.7637
Below average	0.0899	0.2006	0.7994
Lowest 10%	0.0119	0.1860	0.8140
Computer Skills (RATE04)			
BLANK	0.0108	0.1026	0.8974
Highest 10%	0.0644	0.2198	0.7802
Above average	0.3132	0.2188	0.7812
Average	0.5026	0.2202	0.7798
Below average	0.0982	0.2655	0.7345
Lowest 10%	0.0108	0.2308	0.7692
Cooperativeness (RATE05)			
BLANK	0.0130	0.1277	0.8723
Highest 10%	0.2619	0.2225	0.7775
Above average	0.4682	0.2370	0.7630
Average	0.2394	0.2074	0.7926
Below average	0.0161	0.1552	0.8448
Lowest 10%	0.0014	0.0000	1.0000
Creativity (RATE06)			
BLANK	0.0117	0.1190	0.8810
Highest 10%	0.1631	0.2194	0.7806
Above average	0.3587	0.2258	0.7742
Average	0.3370	0.2222	0.7778
Below average	0.1096	0.2203	0.7797
Lowest 10%	0.0200	0.2917	0.7083
Drive to Achieve (RATE07)*			
BLANK	0.0117	0.0952	0.9048
Highest 10%	0.3589	0.2543	0.7457
Above average	0.4000	0.2240	0.7760
Average	0.2050	0.1840	0.8160
Below average	0.0227	0.1341	0.8659
Lowest 10%	0.0017	0.1667	0.8333
Emotional Health (RATE08)			
BLANK	0.0122	0.0909	0.9091
Highest 10%	0.1828	0.2261	0.7739
Above average	0.3082	0.2268	0.7732
Average	0.3914	0.2218	0.7782
Below average	0.0913	0.2188	0.7812
Lowest 10%	0.0141	0.2745	0.7255
Leadership Ability (RATE09)*			
BLANK	0.0133	0.1458	0.8542
Highest 10%	0.1986	0.2737	0.7263

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Above average	0.3465	0.2298	0.7702
Average	0.3237	0.2022	0.7978
Below average	0.1040	0.1893	0.8107
Lowest 10%	0.0139	0.1400	0.8600
Mathematical Ability (RATE10)			
BLANK	0.0105	0.1316	0.8684
Highest 10%	0.1118	0.1787	0.8213
Above average	0.3384	0.2164	0.7836
Average	0.3581	0.2417	0.7583
Below average	0.1512	0.2367	0.7633
Lowest 10%	0.0300	0.2037	0.7963
Physical Health (RATE11)			
BLANK	0.0117	0.0952	0.9048
Highest 10%	0.1712	0.2091	0.7909
Above average	0.3198	0.2446	0.7554
Average	0.4022	0.2166	0.7834
Below average	0.0852	0.2345	0.7655
Lowest 10%	0.0100	0.0833	0.9167
Popularity (RATE12)			
BLANK	0.0114	0.1220	0.8780
Highest 10%	0.0508	0.2240	0.7760
Above average	0.2202	0.2229	0.7771
Average	0.5381	0.2284	0.7716
Below average	0.1456	0.2324	0.7676
Lowest 10%	0.0338	0.1311	0.8689
Public Speaking Ability (RATE13)*			
BLANK	0.0114	0.1220	0.8780
Highest 10%	0.0904	0.2975	0.7025
Above average	0.2252	0.2229	0.7771
Average	0.3725	0.2271	0.7729
Below average	0.2297	0.2150	0.7850
Lowest 10%	0.0707	0.1490	0.8510
Risk-taking (RATE14)			
BLANK	0.0133	0.1458	0.8542
Highest 10%	0.1151	0.1952	0.8048
Above average	0.3043	0.2197	0.7803
Average	0.4047	0.2241	0.7759
Below average	0.1431	0.2636	0.7364
Lowest 10%	0.0194	0.1714	0.8286
Self-confidence (intellectual) (RATE15)			
BLANK	0.0125	0.1111	0.8889
Highest 10%	0.1559	0.2349	0.7651
Above average	0.3803	0.2305	0.7695
Average	0.3723	0.2161	0.7839
Below average	0.0652	0.2213	0.7787
Lowest 10%	0.0139	0.1800	0.8200

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Self-confidence (social) (RATE16)			
BLANK	0.0130	0.1277	0.8723
Highest 10%	0.1356	0.1984	0.8016
Above average	0.3004	0.2419	0.7581
Average	0.3709	0.2206	0.7794
Below average	0.1545	0.2226	0.7774
Lowest 10%	0.0255	0.2174	0.7826
Self-understanding (RATE17)*			
BLANK	0.0139	0.1000	0.9000
Highest 10%	0.1978	0.2104	0.7896
Above average	0.3534	0.2535	0.7465
Average	0.3781	0.2018	0.7982
Below average	0.0494	0.2584	0.7416
Lowest 10%	0.0075	0.1852	0.8148
Spirituality (RATE18)			
BLANK	0.0186	0.2090	0.7910
Highest 10%	0.1218	0.2620	0.7380
Above average	0.2194	0.2326	0.7674
Average	0.4067	0.2040	0.7960
Below average	0.1559	0.2028	0.7972
Lowest 10%	0.0777	0.2786	0.7214
Understanding of Others (RATE19)			
BLANK	0.0114	0.1220	0.8780
Highest 10%	0.2680	0.2350	0.7650
Above average	0.4524	0.2305	0.7695
Average	0.2513	0.2075	0.7925
Below average	0.0164	0.1356	0.8644
Lowest 10%	0.0006	0.0000	1.0000
Writing Ability (RATE20)*			
BLANK	0.0122	0.1136	0.8864
Highest 10%	0.0827	0.3557	0.6443
Above average	0.3035	0.2523	0.7477
Average	0.4527	0.2071	0.7929
Below average	0.1295	0.1435	0.8565
Lowest 10%	0.0194	0.1714	0.8286
Think about your current abilities and tell us how strong or weak you believe you are in each of the following areas			
General knowledge (SLFABL01)			
BLANK	0.0141	0.1176	0.8824
A Major Strength	0.2083	0.2357	0.7643
Somewhat Strong	0.5168	0.2303	0.7697
Average	0.2485	0.2031	0.7969
Somewhat Weak	0.0114	0.2439	0.7561
A Major Weakness	0.0008	0.0000	1.0000

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Knowledge of a paricular field or discipline (SLFABL02)*			
BLANK	0.0161	0.1207	0.8793
A Major Strength	0.1831	0.2333	0.7667
Somewhat Strong	0.4391	0.2457	0.7543
Average	0.3356	0.1950	0.8050
Somewhat Weak	0.0244	0.1932	0.8068
A Major Weakness	0.0017	0.1667	0.8333
Knowledge of people from different races/cultures (SLFABL03)			
BLANK	0.0164	0.1356	0.8644
A Major Strength	0.0951	0.2566	0.7434
Somewhat Strong	0.3196	0.2170	0.7830
Average	0.4569	0.2247	0.7753
Somewhat Weak	0.1060	0.2199	0.7801
A Major Weakness	0.0061	0.1818	0.8182
Understanding of the problems facing your community (SLFABL04)			
BLANK	0.0172	0.1452	0.8548
A Major Strength	0.0882	0.2484	0.7516
Somewhat Strong	0.2660	0.2263	0.7737
Average	0.4796	0.2285	0.7715
Somewhat Weak	0.1337	0.2075	0.7925
A Major Weakness	0.0153	0.0727	0.9273
Understanding of national issues (SLFABL05)			
BLANK	0.0164	0.1186	0.8814
A Major Strength	0.0771	0.2518	0.7482
Somewhat Strong	0.2305	0.2286	0.7714
Average	0.4630	0.2325	0.7675
Somewhat Weak	0.1861	0.1997	0.8003
A Major Weakness	0.0269	0.1546	0.8454
Understanding global issues (SLFABL06)			
BLANK	0.0169	0.1475	0.8525
A Major Strength	0.0749	0.2444	0.7556
Somewhat Strong	0.1975	0.2065	0.7935
Average	0.4472	0.2382	0.7618
Somewhat Weak	0.2186	0.2183	0.7817
A Major Weakness	0.0449	0.1605	0.8395
Critical thinking skills (SLFABL07)			
BLANK	0.0164	0.1695	0.8305
A Major Strength	0.1459	0.2624	0.7376
Somewhat Strong	0.4147	0.2328	0.7672
Average	0.3703	0.2052	0.7948
Somewhat Weak	0.0474	0.1871	0.8129
A Major Weakness	0.0053	0.1053	0.8947

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Problem solving skills (SLFABL08)			
BLANK	0.0153	0.1273	0.8727
A Major Strength	0.1839	0.2564	0.7436
Somewhat Strong	0.4497	0.2252	0.7748
Average	0.3137	0.2140	0.7860
Somewhat Weak	0.0341	0.1545	0.8455
A Major Weakness	0.0033	0.0833	0.9167
Leadership abilities (SLFABL09)*			
BLANK	0.0164	0.1356	0.8644
A Major Strength	0.2155	0.2741	0.7259
Somewhat Strong	0.3259	0.2306	0.7694
Average	0.3276	0.1990	0.8010
Somewhat Weak	0.0965	0.2011	0.7989
A Major Weakness	0.0180	0.1077	0.8923
Ability to get along with people of different races/cultures (SLFABL10)*			
BLANK	0.0158	0.1579	0.8421
A Major Strength	0.5107	0.2352	0.7648
Somewhat Strong	0.3379	0.2332	0.7668
Average	0.1276	0.1674	0.8326
Somewhat Weak	0.0075	0.0370	0.9630
A Major Weakness	0.0006	0.0000	1.0000
Ability to manage your time effectively (SLFABL11)*			
BLANK	0.0164	0.1525	0.8475
A Major Strength	0.1567	0.2991	0.7009
Somewhat Strong	0.3215	0.2537	0.7463
Average	0.3581	0.1913	0.8087
Somewhat Weak	0.1262	0.1495	0.8505
A Major Weakness	0.0211	0.2237	0.7763
Foreign language ability (SLFABL12)			
BLANK	0.0164	0.1356	0.8644
A Major Strength	0.1540	0.2288	0.7712
Somewhat Strong	0.2510	0.1956	0.8044
Average	0.2960	0.2343	0.7657
Somewhat Weak	0.1845	0.2526	0.7474
A Major Weakness	0.0982	0.2090	0.7910
Interpersonal skills (SLFABL13)*			
BLANK	0.0266	0.1979	0.8021
A Major Strength	0.1207	0.3011	0.6989
Somewhat Strong	0.3049	0.2384	0.7616
Average	0.5035	0.2022	0.7978
Somewhat Weak	0.0386	0.1727	0.8273
A Major Weakness	0.0058	0.0476	0.9524

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here?			
My parents wanted me to come here (CHOOSE01)			
BLANK	0.0239	0.1744	0.8256
Not important	0.4574	0.2304	0.7696
Somewhat important	0.3545	0.2238	0.7762
Very important	0.1642	0.2078	0.7922
My relatives wanted me to come here (CHOOSE02)			
BLANK	0.0264	0.1789	0.8211
Not important	0.7035	0.2330	0.7670
Somewhat important	0.2050	0.2070	0.7930
Very important	0.0652	0.1830	0.8170
My teacher advised me (CHOOSE03)			
BLANK	0.0269	0.1649	0.8351
Not important	0.6508	0.2302	0.7698
Somewhat important	0.2599	0.2209	0.7791
Very important	0.0624	0.1822	0.8178
This college has a very good academic reputation (CHOOSE04)			
BLANK	0.0264	0.1684	0.8316
Not important	0.0386	0.2878	0.7122
Somewhat important	0.3442	0.2345	0.7655
Very important	0.5908	0.2146	0.7854
This college has a good reputation for its social activities (CHOOSE05)*			
BLANK	0.0283	0.1667	0.8333
Not important	0.1601	0.2548	0.7452
Somewhat important	0.4175	0.2412	0.7588
Very important	0.3942	0.1949	0.8051
I was offered financial assistance (CHOOSE06)*			
BLANK	0.0297	0.1776	0.8224
Not important	0.3284	0.2703	0.7297
Somewhat important	0.2416	0.2078	0.7922
Very important	0.4003	0.1968	0.8032
The cost of attending this college (CHOOSE07)			
BLANK	0.0305	0.2000	0.8000
Not important	0.1293	0.2339	0.7661
Somewhat important	0.3440	0.1968	0.8032
Very important	0.4963	0.2398	0.7602

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
High school counselor advised me (CHOOSE08)			
BLANK	0.0330	0.1681	0.8319
Not important	0.6386	0.2372	0.7628
Somewhat important	0.2391	0.2111	0.7889
Very important	0.0893	0.1739	0.8261
Private college counselor advised me (CHOOSE09)			
BLANK	0.0394	0.1690	0.8310
Not important	0.8494	0.2286	0.7714
Somewhat important	0.0893	0.1925	0.8075
Very important	0.0219	0.2278	0.7722
I wanted to live near home (CHOOSE10)*			
BLANK	0.0327	0.1610	0.8390
Not important	0.3578	0.2628	0.7372
Somewhat important	0.3010	0.2267	0.7733
Very important	0.3085	0.1799	0.8201
Not offered aid by first choice (CHOOSE11)			
BLANK	0.0469	0.1657	0.8343
Not important	0.6854	0.2250	0.7750
Somewhat important	0.1662	0.2087	0.7913
Very important	0.1015	0.2596	0.7404
Could not afford first choice (CHOOSE12)			
BLANK	0.0452	0.1656	0.8344
Not important	0.6313	0.2166	0.7834
Somewhat important	0.1506	0.2192	0.7808
Very important	0.1728	0.2648	0.7352
This college's graduates gain admission to top graduate/professional schools (CHOOSE13)			
BLANK	0.0444	0.1750	0.8250
Not important	0.2990	0.2449	0.7551
Somewhat important	0.4211	0.2181	0.7819
Very important	0.2355	0.2132	0.7868
This college's graduates get good jobs (CHOOSE14)			
BLANK	0.0411	0.1757	0.8243
Not important	0.1742	0.2357	0.7643
Somewhat important	0.4028	0.2211	0.7789
Very important	0.3820	0.2244	0.7756
I was attracted by the religious affiliation/orientation of this college (CHOOSE15)			
BLANK	0.0444	0.1625	0.8375
Not important	0.8350	0.2286	0.7714
Somewhat important	0.1040	0.2027	0.7973
Very important	0.0166	0.2333	0.7667

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
I wanted to go to a school about the size of this college (CHOOSE16)			
BLANK	0.0436	0.1592	0.8408
Not important	0.4264	0.2251	0.7749
Somewhat important	0.3606	0.2315	0.7685
Very important	0.1695	0.2160	0.7840
Rankings in national magazines (CHOOSE17)*			
BLANK	0.0441	0.1635	0.8365
Not important	0.5290	0.2071	0.7929
Somewhat important	0.3018	0.2564	0.7436
Very important	0.1251	0.2306	0.7694
Information from a website (CHOOSE18)			
BLANK	0.0447	0.1553	0.8447
Not important	0.4655	0.2229	0.7771
Somewhat important	0.3528	0.2374	0.7626
Very important	0.1370	0.2085	0.7915
I was admitted through an Early Action or Early Decision program (CHOOSE19)			
BLANK	0.0477	0.1686	0.8314
Not important	0.8560	0.2317	0.7683
Somewhat important	0.0724	0.1839	0.8161
Very important	0.0239	0.1395	0.8605
The athletic department recruited me (CHOOSE20)			
BLANK	0.0474	0.1696	0.8304
Not important	0.8879	0.2265	0.7735
Somewhat important	0.0380	0.1825	0.8175
Very important	0.0266	0.2604	0.7396
A visit to this campus (CHOOSE21)			
BLANK	0.0408	0.1701	0.8299
Not important	0.3925	0.2141	0.7859
Somewhat important	0.3440	0.2282	0.7718
Very important	0.2227	0.2403	0.7597
Ability to take online courses (CHOOSE22)			
BLANK	0.0460	0.1687	0.8313
Not important	0.8080	0.2297	0.7703
Somewhat important	0.1243	0.2076	0.7924
Very important	0.0216	0.1795	0.8205
The percentage of students that graduate from this college (CHOOSE23)			
BLANK	0.0433	0.1538	0.8462
Not important	0.3800	0.2423	0.7577
Somewhat important	0.3592	0.2232	0.7768
Very important	0.2175	0.2028	0.7972

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
During your last year in high school, how much time did you spend during a typical week doing the following activities?			
Studying/homework*			
BLANK	0.0394	0.1972	0.8028
None	0.0072	0.1538	0.8462
Less than one hour	0.0635	0.2009	0.7991
1-2 hours	0.1950	0.1906	0.8094
3-5 hours	0.3015	0.2171	0.7829
6-10 hours	0.2067	0.2322	0.7678
11-15 hours	0.1012	0.2438	0.7562
16-20 hours	0.0477	0.2907	0.7093
Over 20 hours	0.0377	0.3235	0.6765
Socializing with friends			
BLANK	0.0427	0.2078	0.7922
None	0.0055	0.1500	0.8500
Less than one hour	0.0222	0.2000	0.8000
1-2 hours	0.1257	0.2208	0.7792
3-5 hours	0.2771	0.2412	0.7588
6-10 hours	0.2458	0.2223	0.7777
11-15 hours	0.1343	0.2273	0.7727
16-20 hours	0.0685	0.2105	0.7895
Over 20 hours	0.0782	0.1879	0.8121
Talking with teachers outside of class			
BLANK	0.0447	0.2050	0.7950
None	0.1423	0.2222	0.7778
Less than one hour	0.4150	0.2346	0.7654
1-2 hours	0.2621	0.2254	0.7746
3-5 hours	0.0974	0.1966	0.8034
6-10 hours	0.0255	0.1848	0.8152
11-15 hours	0.0086	0.0968	0.9032
16-20 hours	0.0025	0.3333	0.6667
Over 20 hours	0.0019	0.1429	0.8571
Exercise or sports			
BLANK	0.0433	0.2115	0.7885
None	0.0832	0.2267	0.7733
Less than one hour	0.1204	0.2742	0.7258
1-2 hours	0.1773	0.1941	0.8059
3-5 hours	0.1806	0.2243	0.7757
6-10 hours	0.1603	0.2145	0.7855
11-15 hours	0.1001	0.2188	0.7812
16-20 hours	0.0560	0.2772	0.7228
Over 20 hours	0.0788	0.1937	0.8063
Partying*			
BLANK	0.0463	0.1976	0.8024
None	0.4239	0.2507	0.7493

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Less than one hour	0.1642	0.2280	0.7720
1-2 hours	0.1720	0.2177	0.7823
3-5 hours	0.1215	0.1553	0.8447
6-10 hours	0.0460	0.1867	0.8133
11-15 hours	0.0141	0.2353	0.7647
16-20 hours	0.0064	0.0870	0.9130
Over 20 hours	0.0055	0.2500	0.7500
Working (for pay)			
BLANK	0.0460	0.2169	0.7831
None	0.6386	0.2181	0.7819
Less than one hour	0.0261	0.2128	0.7872
1-2 hours	0.0344	0.2500	0.7500
3-5 hours	0.0499	0.2444	0.7556
6-10 hours	0.0705	0.2126	0.7874
11-15 hours	0.0527	0.2368	0.7632
16-20 hours	0.0413	0.2416	0.7584
Over 20 hours	0.0405	0.2466	0.7534
Volunteer work *			
BLANK	0.0483	0.2126	0.7874
None	0.2960	0.1884	0.8116
Less than one hour	0.1540	0.2505	0.7495
1-2 hours	0.2086	0.2566	0.7434
3-5 hours	0.1653	0.2081	0.7919
6-10 hours	0.0655	0.2627	0.7373
11-15 hours	0.0255	0.1739	0.8261
16-20 hours	0.0114	0.2927	0.7073
Over 20 hours	0.0255	0.2174	0.7826
Student clubs/groups			
BLANK	0.0488	0.2330	0.7670
None	0.3520	0.2009	0.7991
Less than one hour	0.1348	0.2675	0.7325
1-2 hours	0.2061	0.2342	0.7658
3-5 hours	0.1259	0.2070	0.7930
6-10 hours	0.0644	0.2112	0.7888
11-15 hours	0.0288	0.2500	0.7500
16-20 hours	0.0166	0.2833	0.7167
Over 20 hours	0.0225	0.2222	0.7778
Watching TV			
BLANK	0.0483	0.2241	0.7759
None	0.1123	0.2123	0.7877
Less than one hour	0.1789	0.2186	0.7814
1-2 hours	0.2530	0.2193	0.7807
3-5 hours	0.2233	0.2124	0.7876
6-10 hours	0.1132	0.2377	0.7623
11-15 hours	0.0394	0.2535	0.7465
16-20 hours	0.0150	0.2963	0.7037

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Over 20 hours	0.0166	0.3000	0.7000
Household/childcare duties			
BLANK	0.0527	0.2053	0.7947
None	0.1836	0.2311	0.7689
Less than one hour	0.1847	0.2477	0.7523
1-2 hours	0.2874	0.2326	0.7674
3-5 hours	0.1861	0.1937	0.8063
6-10 hours	0.0602	0.2120	0.7880
11-15 hours	0.0205	0.1486	0.8514
16-20 hours	0.0097	0.2571	0.7429
Over 20 hours	0.0150	0.1852	0.8148
Reading for pleasure			
BLANK	0.0521	0.2128	0.7872
None	0.3340	0.2143	0.7857
Less than one hour	0.2452	0.2081	0.7919
1-2 hours	0.1972	0.2264	0.7736
3-5 hours	0.1032	0.2688	0.7312
6-10 hours	0.0419	0.2583	0.7417
11-15 hours	0.0133	0.2083	0.7917
16-20 hours	0.0064	0.3043	0.6957
Over 20 hours	0.0067	0.2083	0.7917
Playing video/computer games*			
BLANK	0.0508	0.2131	0.7869
None	0.4297	0.2621	0.7379
Less than one hour	0.1470	0.2000	0.8000
1-2 hours	0.1270	0.2009	0.7991
3-5 hours	0.1115	0.1841	0.8159
6-10 hours	0.0655	0.1653	0.8347
11-15 hours	0.0316	0.2105	0.7895
16-20 hours	0.0153	0.2000	0.8000
Over 20 hours	0.0216	0.1667	0.8333
Online social networks			
BLANK	0.0485	0.2171	0.7829
None	0.0560	0.1634	0.8366
Less than one hour	0.1612	0.2134	0.7866
1-2 hours	0.2427	0.2411	0.7589
3-5 hours	0.2239	0.2280	0.7720
6-10 hours	0.1348	0.2222	0.7778
11-15 hours	0.0549	0.2273	0.7727
16-20 hours	0.0327	0.1864	0.8136
Over 20 hours	0.0452	0.2393	0.7607
Military status			
BLANK	0.0441	0.2327	0.7673
A discharged veteran NOT serving in Active Duty, Reserves, or National Guard	0.0006	0.0000	1.0000

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
In Active Duty, Reserves, or National Guard	0.0008	0.0000	1.0000
None	0.9512	0.2225	0.7775
ROTC, cadet, or midshipman at a service academy	0.0033	0.3333	0.6667
High school where I grew up *	0.0494	0.2416	0.7584
Completely White	0.0133	0.2500	0.7500
Mostly White	0.1667	0.2962	0.7038
Roughly half non-White	0.2788	0.2139	0.7861
Mostly non-White	0.3953	0.2070	0.7930
Completely non-White	0.0965	0.1753	0.8247
Neighborhood where I grew up*			
BLANK	0.0702	0.2767	0.7233
Completely White	0.0264	0.2842	0.7158
Mostly White	0.2291	0.2700	0.7300
Roughly half non-White	0.1875	0.2396	0.7604
Mostly non-White	0.3415	0.1942	0.8058
Completely non-White	0.1454	0.1584	0.8416
How many years do you expect it will take you to graduate from this college?*			
BLANK	0.0616	0.2072	0.7928
One	0.0003	0.0000	1.0000
Two	0.0014	0.2000	0.8000
Three	0.0094	0.5000	0.5000
Four	0.6677	0.2493	0.7507
Five	0.2247	0.1543	0.8457
Six or more	0.0180	0.0923	0.9077
Do not plan to graduate from this college	0.0169	0.1475	0.8525
Please indicate the importance to you personally of:			
Becoming accomplished in one of the performing arts (acting, dancing, etc.)			
BLANK	0.0660	0.2269	0.7731
Not important	0.5803	0.2242	0.7758
Somewhat important	0.2178	0.2000	0.8000
Very important	0.0610	0.2545	0.7455
Essential	0.0749	0.2519	0.7481
Becoming an authority in my field			
BLANK	0.0721	0.2192	0.7808
Not important	0.1135	0.2078	0.7922
Somewhat important	0.3173	0.2194	0.7806
Very important	0.3160	0.2160	0.7840
Essential	0.1811	0.2527	0.7473
Obtaining recognition from my colleagues for contributions to my special field)			
BLANK	0.0707	0.2196	0.7804
Not important	0.0879	0.2145	0.7855

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Somewhat important	0.3135	0.2301	0.7699
Very important	0.3528	0.2162	0.7838
Essential	0.1750	0.2298	0.7702
Influencing the political structure*			
BLANK	0.0738	0.2180	0.7820
Essential	0.0460	0.2831	0.7169
Not important	0.4419	0.2210	0.7790
Somewhat important	0.3354	0.2018	0.7982
Very important	0.1029	0.2776	0.7224
Influencing social values			
BLANK	0.0746	0.2156	0.7844
Not important	0.2050	0.2097	0.7903
Somewhat important	0.3842	0.2065	0.7935
Very important	0.2416	0.2411	0.7589
Essential	0.0946	0.2786	0.7214
Raising a family			
BLANK	0.0710	0.2227	0.7773
Not important	0.1062	0.2141	0.7859
Somewhat important	0.1803	0.2338	0.7662
Very important	0.2702	0.2064	0.7936
Essential	0.3723	0.2325	0.7675
Being very well off financially			
BLANK	0.0738	0.2105	0.7895
Not important	0.0136	0.2653	0.7347
Somewhat important	0.1015	0.2568	0.7432
Very important	0.2879	0.2187	0.7813
Essential	0.5232	0.2195	0.7805
Helping others who are in difficulty			
BLANK	0.0746	0.2156	0.7844
Not important	0.0252	0.3077	0.6923
Somewhat important	0.2383	0.2119	0.7881
Very important	0.3675	0.2174	0.7826
Essential	0.2943	0.2337	0.7663
Making a theoretical contribution to science*			
BLANK	0.0771	0.2194	0.7806
Not important	0.4266	0.2633	0.7367
Somewhat important	0.3118	0.1931	0.8069
Very important	0.1290	0.1892	0.8108
Essential	0.0555	0.1650	0.8350
Writing original works (poems, novels, etc.)*			
BLANK	0.0768	0.2166	0.7834
Not important	0.6386	0.2129	0.7871
Somewhat important	0.1850	0.2294	0.7706
Very important	0.0583	0.2286	0.7714
Essential	0.0413	0.3557	0.6443

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Creating artistic works (painting, sculpture, etc.)			
BLANK	0.0774	0.2186	0.7814
Not important	0.6128	0.2354	0.7646
Somewhat important	0.1789	0.1829	0.8171
Very important	0.0796	0.2091	0.7909
Essential	0.0513	0.2432	0.7568
Becoming successful in a business of my own*			
BLANK	0.0782	0.2128	0.7872
Not important	0.2807	0.2460	0.7540
Somewhat important	0.2757	0.2525	0.7475
Very important	0.1986	0.1718	0.8282
Essential	0.1667	0.2013	0.7987
Becoming involved in programs to clean up the environment			
BLANK	0.0799	0.2188	0.7813
Not important	0.3040	0.2400	0.7600
Somewhat important	0.4072	0.2330	0.7670
Very important	0.1495	0.1892	0.8108
Essential	0.0594	0.1589	0.8411
Developing a meaningful philosophy of life			
BLANK	0.0788	0.2218	0.7782
Not important	0.2666	0.2279	0.7721
Somewhat important	0.3046	0.2277	0.7723
Very important	0.2147	0.2196	0.7804
Essential	0.1354	0.2090	0.7910
Participating in a community action program			
BLANK	0.0824	0.2189	0.7811
Not important	0.3018	0.2270	0.7730
Somewhat important	0.4072	0.2200	0.7800
Very important	0.1495	0.2245	0.7755
Essential	0.0591	0.2254	0.7746
Helping to promote racial understanding			
BLANK	0.0821	0.2230	0.7770
Not important	0.2413	0.2276	0.7724
Somewhat important	0.3736	0.2249	0.7751
Very important	0.1997	0.2194	0.7806
Essential	0.1032	0.2124	0.7876
Keeping up to date with political affairs*			
BLANK	0.0821	0.2128	0.7872
Not important	0.2979	0.2123	0.7877
Somewhat important	0.3820	0.2077	0.7923
Very important	0.1678	0.2463	0.7537
Essential	0.0702	0.3083	0.6917

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Becoming a community leader			
BLANK	0.0821	0.2230	0.7770
Not important	0.3490	0.2250	0.7750
Somewhat important	0.3304	0.2158	0.7842
Very important	0.1648	0.2222	0.7778
Essential	0.0738	0.2481	0.7519
Improving my understanding of other countries and cultures			
BLANK	0.0838	0.2219	0.7781
Not important	0.1523	0.2058	0.7942
Somewhat important	0.3700	0.2294	0.7706
Very important	0.2635	0.2116	0.7884
Essential	0.1304	0.2489	0.7511
Adopting "green" practices to protect the environment			
BLANK	0.0810	0.2295	0.7705
Not important	0.1712	0.2382	0.7618
Somewhat important	0.4017	0.2217	0.7783
Very important	0.2308	0.2284	0.7716
Essential	0.1154	0.1899	0.8101
What is your best guess as to the chances that you will:			
Change major field			
BLANK	0.0832	0.2133	0.7867
No chance	0.1162	0.2673	0.7327
Very little chance	0.3537	0.2376	0.7624
Some chance	0.3340	0.2043	0.7957
Very good chance	0.1129	0.1941	0.8059
Change career choice			
BLANK	0.0857	0.2136	0.7864
No chance	0.1148	0.2367	0.7633
Very little chance	0.3276	0.2269	0.7731
Some chance	0.3653	0.2240	0.7760
Very good chance	0.1065	0.2005	0.7995
Participate in student govn.			
BLANK	0.0893	0.2050	0.7950
No chance	0.2355	0.2203	0.7797
Very little chance	0.3645	0.2222	0.7778
Some chance	0.2458	0.2156	0.7844
Very good chance	0.0649	0.2906	0.7094
Get a job to help pay expenses			
BLANK	0.0890	0.2025	0.7975
No chance	0.0252	0.2418	0.7582
Very little chance	0.0832	0.2433	0.7567
Some chance	0.2965	0.2142	0.7858
Very good chance	0.5060	0.2275	0.7725

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Work full-time while attending college*			
BLANK	0.0902	0.2062	0.7938
No chance	0.2202	0.2809	0.7191
Very little chance	0.4094	0.2093	0.7907
Some chance	0.2252	0.1958	0.8042
Very good chance	0.0549	0.2323	0.7677
Join a social frat or sorority			
BLANK	0.0918	0.2054	0.7946
No chance	0.3104	0.2493	0.7507
Very little chance	0.3101	0.2102	0.7898
Some chance	0.2108	0.2079	0.7921
Very good chance	0.0768	0.2310	0.7690
Play club, intramural, or recreational sports			
BLANK	0.0929	0.2090	0.7910
No chance	0.1773	0.2441	0.7559
Very little chance	0.2452	0.2421	0.7579
Some chance	0.2990	0.2245	0.7755
Very good chance	0.1856	0.1824	0.8176
Play intercollegiate athletics *			
BLANK	0.1037	0.2032	0.7968
No chance	0.5196	0.2467	0.7533
Very little chance	0.2460	0.1939	0.8061
Some chance	0.0838	0.1821	0.8179
Very good chance	0.0469	0.2308	0.7692
Make at least a "B" average*			
BLANK	0.0971	0.2086	0.7914
No chance	0.0047	0.2353	0.7647
Very little chance	0.0222	0.1500	0.8500
Some chance	0.2985	0.1914	0.8086
Very good chance	0.5775	0.2445	0.7555
Need extra time to complete your degree requirements*			
BLANK	0.0990	0.2129	0.7871
No chance	0.0768	0.2852	0.7148
Very little chance	0.3881	0.2480	0.7520
Some chance	0.3650	0.1998	0.8002
Very good chance	0.0710	0.1523	0.8477
Participate in student protests or demonstrations			
BLANK	0.1015	0.2240	0.7760
No chance	0.3037	0.2219	0.7781
Very little chance	0.3972	0.2284	0.7716
Some chance	0.1620	0.2072	0.7928
Very good chance	0.0355	0.2422	0.7578

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Transfer to another college before graduating			
BLANK	0.1015	0.2213	0.7787
No chance	0.3218	0.2224	0.7776
Very little chance	0.3587	0.2305	0.7695
Some chance	0.1670	0.2209	0.7791
Very good chance	0.0510	0.1848	0.8152
Be satisfied with your college			
BLANK	0.1007	0.2121	0.7879
No chance	0.0080	0.1379	0.8621
Very little chance	0.0341	0.2033	0.7967
Some chance	0.3875	0.2298	0.7702
Very good chance	0.4696	0.2227	0.7773
Participate in volunteer or community service work			
BLANK	0.1015	0.2213	0.7787
No chance	0.0555	0.1850	0.8150
Very little chance	0.2211	0.2208	0.7792
Some chance	0.3911	0.2128	0.7872
Very good chance	0.2308	0.2524	0.7476
Seek personal counseling			
BLANK	0.1032	0.2204	0.7796
No chance	0.1509	0.2482	0.7518
Very little chance	0.3828	0.2268	0.7732
Some chance	0.2685	0.2138	0.7862
Very good chance	0.0946	0.1965	0.8035
Communicate regularly with your professors			
BLANK	0.1043	0.2154	0.7846
No chance	0.0144	0.2115	0.7885
Very little chance	0.1401	0.2119	0.7881
Some chance	0.4755	0.2147	0.7853
Very good chance	0.2657	0.2474	0.7526
Socialize with someone of another racial/ethnic group			
BLANK	0.1037	0.2139	0.7861
No chance	0.0092	0.3030	0.6970
Very little chance	0.0399	0.1736	0.8264
Some chance	0.2408	0.1970	0.8030
Very good chance	0.6064	0.2370	0.7630
Participate in student clubs/groups			
BLANK	0.1051	0.2216	0.7784
No chance	0.0266	0.1875	0.8125
Very little chance	0.1004	0.2099	0.7901
Some chance	0.3284	0.2044	0.7956
Very good chance	0.4394	0.2424	0.7576

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Participate in a study abroad program			
BLANK	0.1051	0.2216	0.7784
No chance	0.1437	0.1950	0.8050
Very little chance	0.2505	0.2193	0.7807
Some chance	0.2896	0.2165	0.7835
Very good chance	0.2111	0.2562	0.7438
Have a roommate of a different race/ethnicity*			
BLANK	0.1107	0.2155	0.7845
No chance	0.2394	0.2039	0.7961
Very little chance	0.1534	0.1971	0.8029
Some chance	0.2580	0.2194	0.7806
Very good chance	0.2386	0.2663	0.7337
Discuss course content with students outside of class			
BLANK	0.1098	0.2121	0.7879
No chance	0.0227	0.2195	0.7805
Very little chance	0.0907	0.1651	0.8349
Some chance	0.3764	0.2189	0.7811
Very good chance	0.4003	0.2432	0.7568
Work on a professor's research project			
BLANK	0.1123	0.2198	0.7802
No chance	0.0519	0.2674	0.7326
Very little chance	0.2042	0.2283	0.7717
Some chance	0.3781	0.2340	0.7660
Very good chance	0.2535	0.1947	0.8053
Take courses from more than one college simultaneously			
BLANK	0.1129	0.2162	0.7838
No chance	0.3259	0.2247	0.7753
Very little chance	0.3781	0.2304	0.7696
Some chance	0.1354	0.2090	0.7910
Very good chance	0.0477	0.2093	0.7907
Take a leave of absence from this college temporarily			
BLANK	0.1137	0.2195	0.7805
No chance	0.5129	0.2369	0.7631
Very little chance	0.3110	0.2177	0.7823
Some chance	0.0488	0.1477	0.8523
Very good chance	0.0136	0.1224	0.8776
Take a course exclusively online at this institution			
BLANK	0.1121	0.2153	0.7847
No chance	0.3994	0.2160	0.7840
Very little chance	0.2624	0.2347	0.7653
Some chance	0.1756	0.2164	0.7836

*indicates p-value is <0.01 from Chi-square test (or Fisher's Exact test)	All Students	Graduated in 4 Years	Did not Graduate in 4 Years
Very good chance	0.0505	0.2582	0.7418
Take a course exclusively online at a different institution			
BLANK	0.1160	0.2153	0.7847
No chance	0.5201	0.2197	0.7803
Very little chance	0.2538	0.2393	0.7607
Some chance	0.0926	0.2096	0.7904
Very good chance	0.0175	0.2063	0.7937

Figure 1. DISTHOME: How many miles is this college from your permanent home?

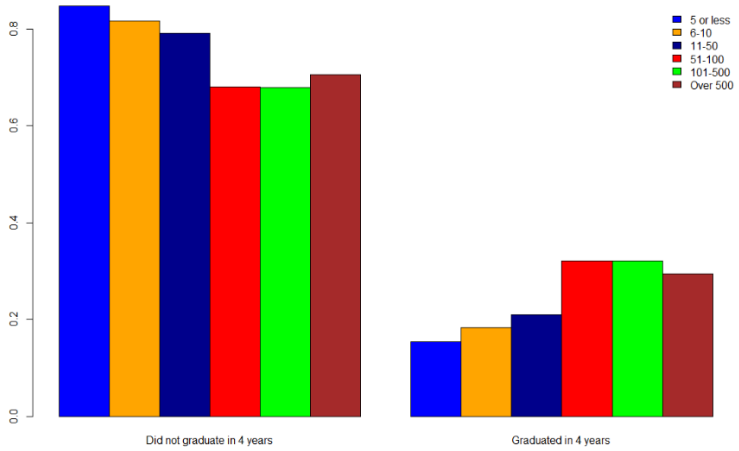

Figure 2. PLANLIVE: Where do you plan to live during the fall term?

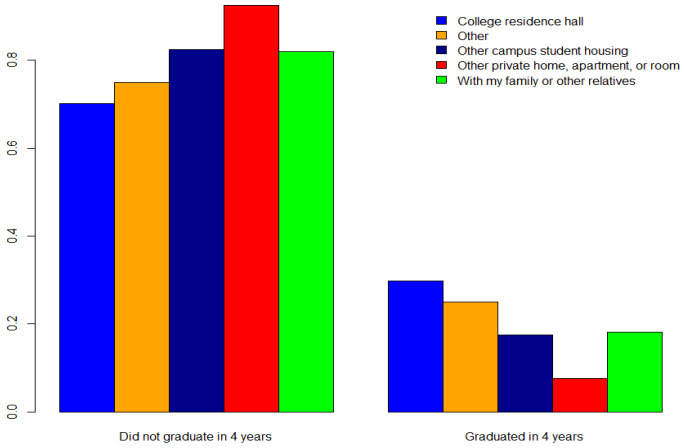

Figure 3. NUMAPPLY: To how many colleges other than this one did you apply for admission this year?

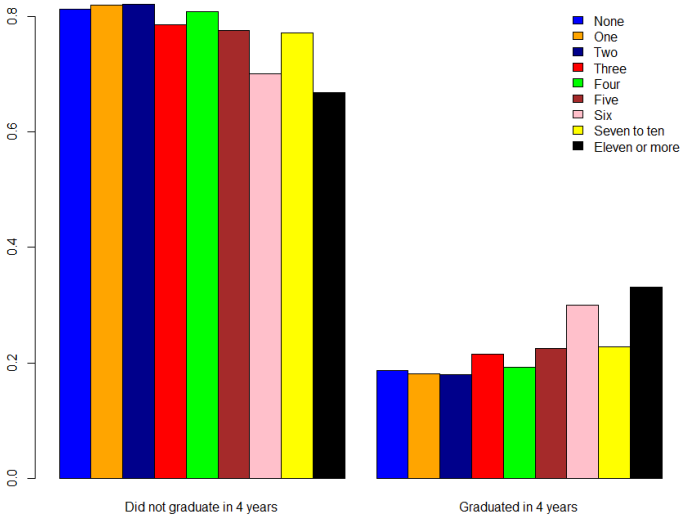

Figure 4: PREMED: Do you consider yourself Pre-Med?

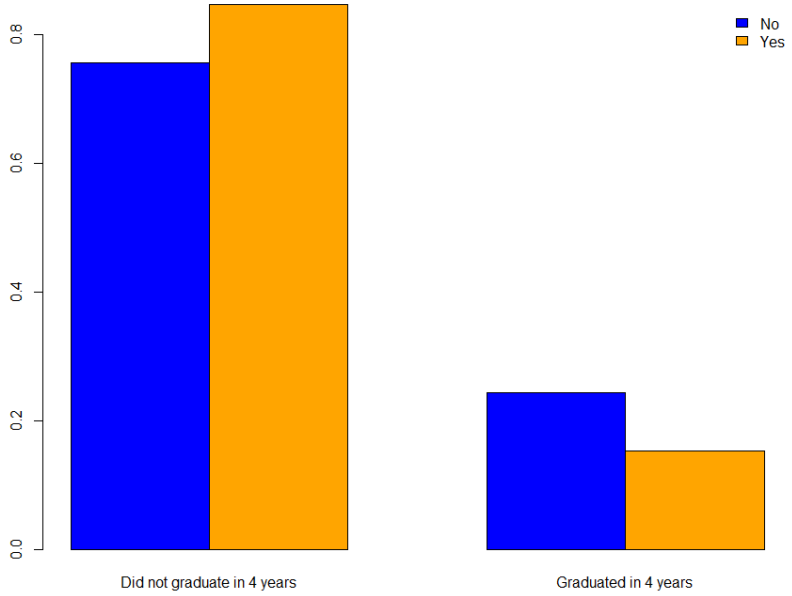

Figure 5. AID1: How much of your first year's educational expenses (room, board, tuition, and fees) do you expect to cover from: Family resources (parents, relatives, spouse, etc.)?

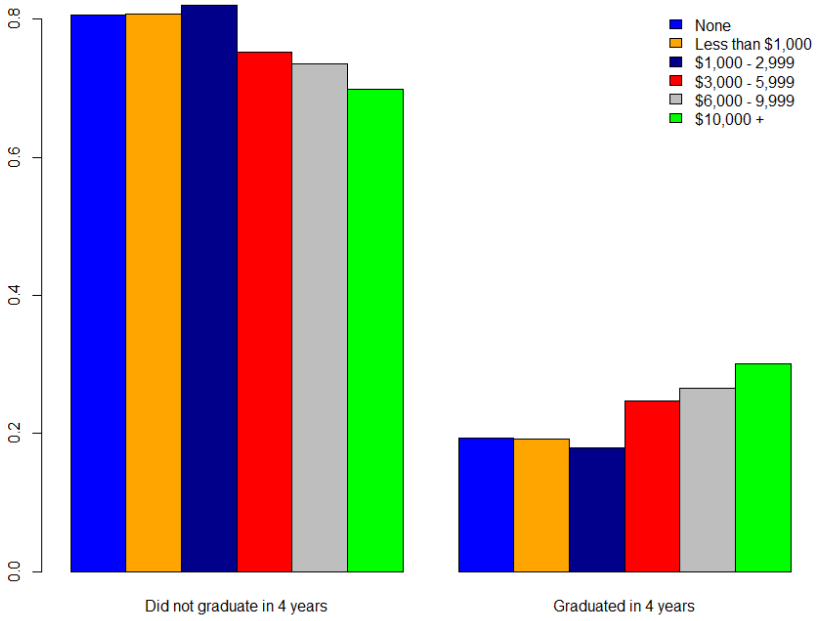

Figure 6. RATE01: Rate yourself on each of the following traits as compared with the average person your age: Academic ability. We want the most accurate estimate of how you see yourself.

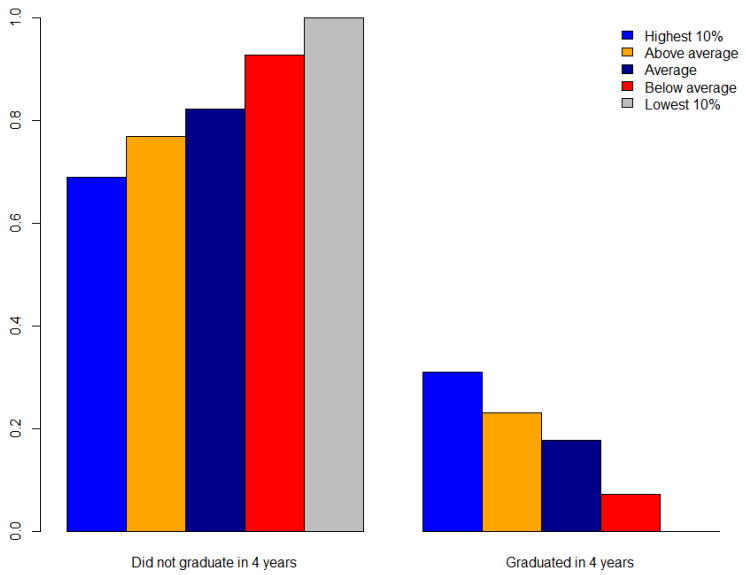

Figure 7. RATE20: Rate yourself on each of the following traits as compared with the average person your age: writing ability. We want the most accurate estimate of how you see yourself.

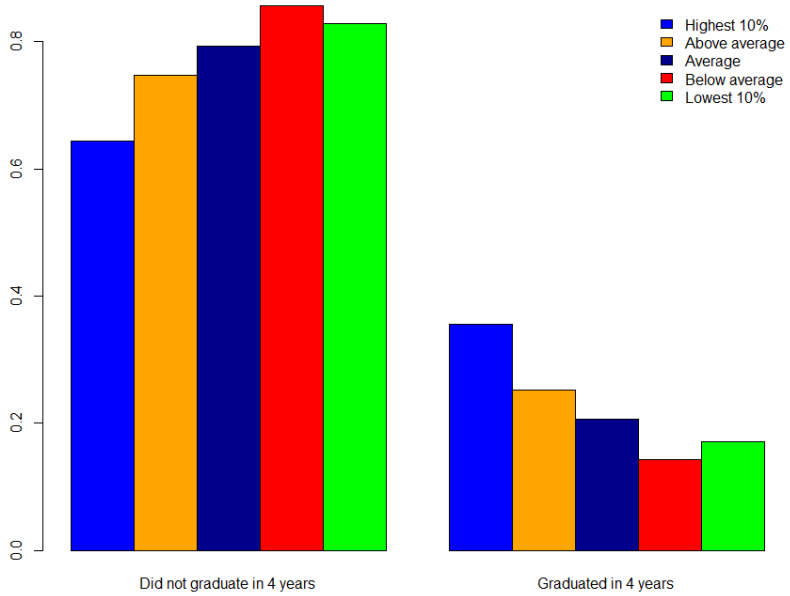

Figure 8. SLFABL11: Think about your current abilities and tell us how strong or weak you believe you are in each of the following areas: *manage time effectively*

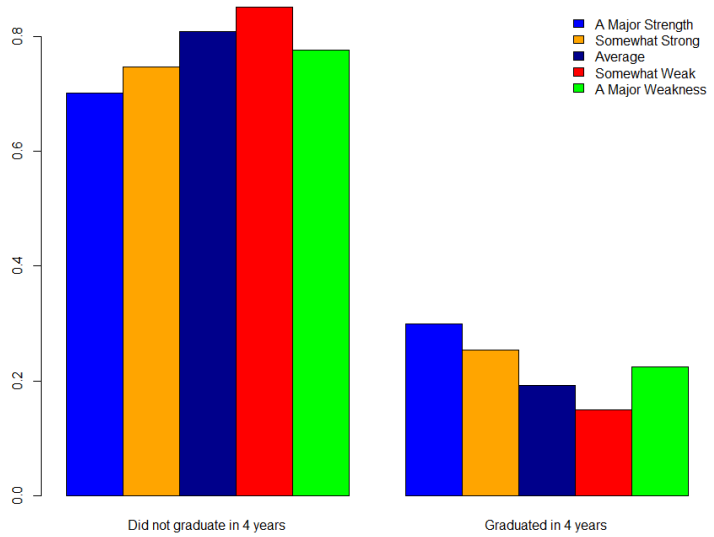

Figure 9. SLFAB13: Think about your current abilities and tell us how strong or weak you believe you are in each of the following areas: *interpersonal skills*

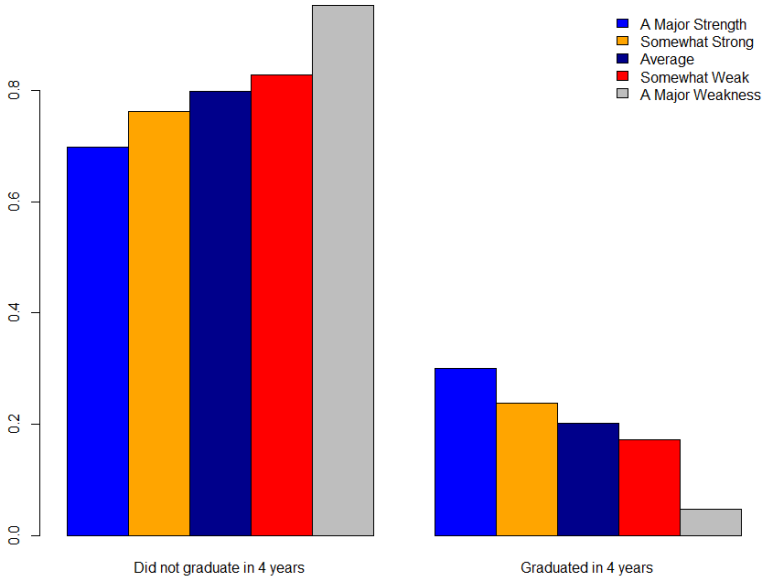

Figure 10. CHOOSE06: Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here? *I was offered financial assistance*

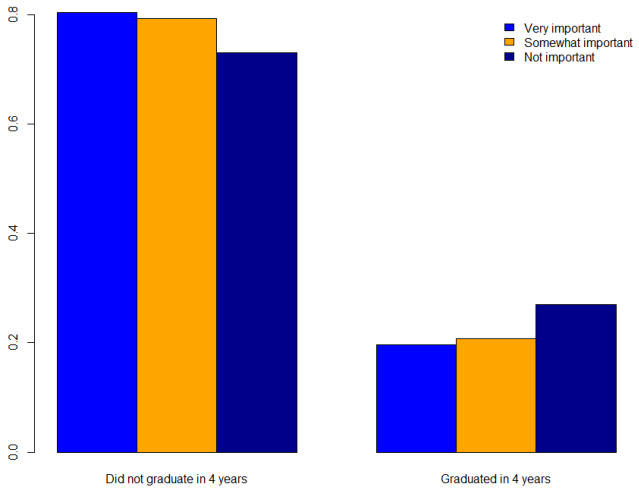

Figure 11. CHOOSE10: Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here? *I wanted to live near home*

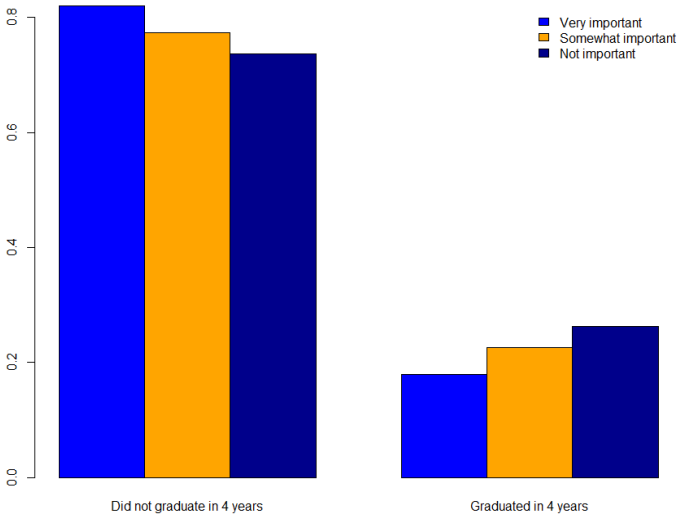

Figure 12. RACEHS: How would you describe the racial composition of the high school you last attended?

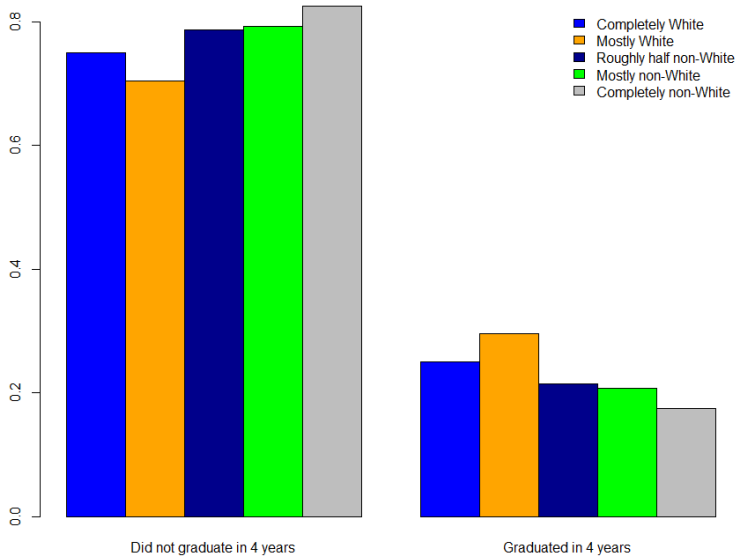

Figure 13. RACENEIB: How would you describe the racial composition of the neighborhood where you grew up?

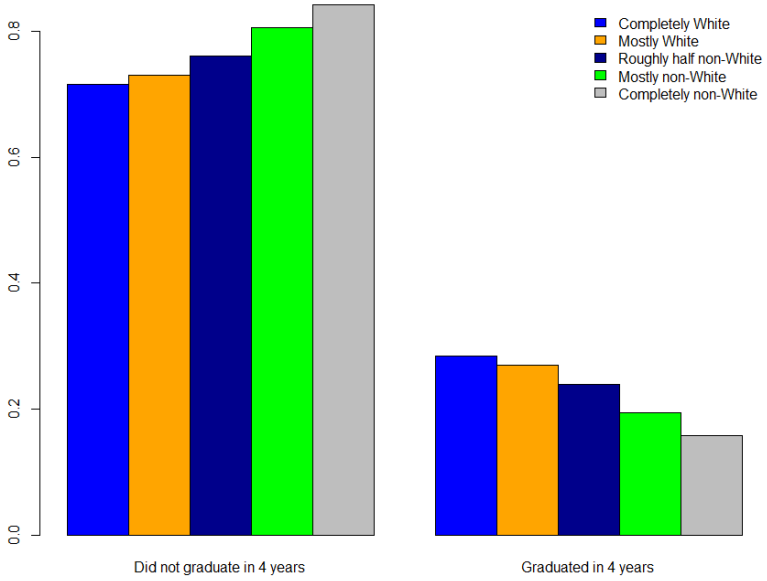

Figure 14. EXPGRAD: Number of years you expect to graduate from this college

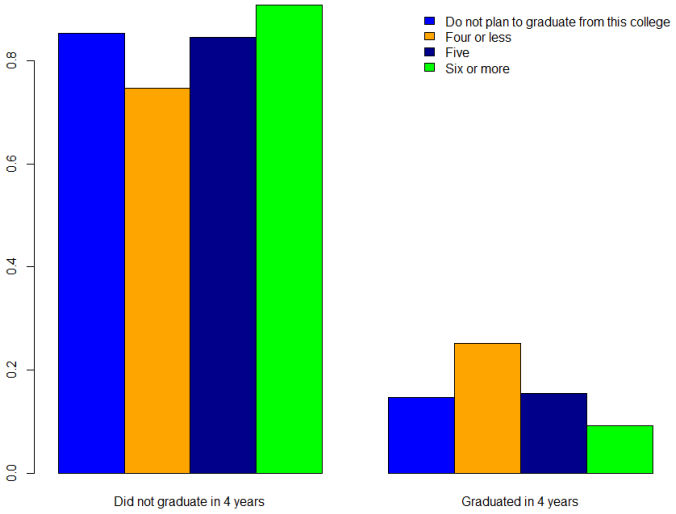

Figure 15. GOAL09: Please indicate the importance to you personally of: *Goal - making theoretical contribution to science*

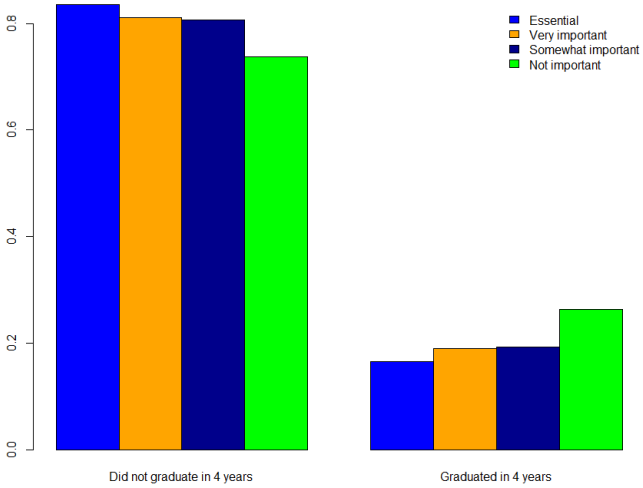

Figure 16. FUTACT10: What is your best guess as to the chances that you will: Need extra time to complete your degree requirements?

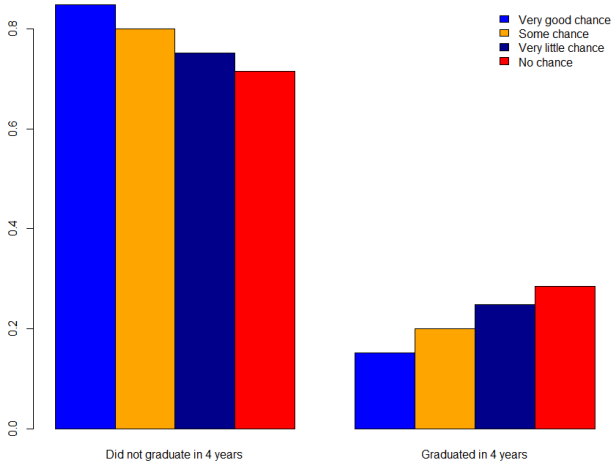

Figure 17. NEEDREM1: Need special tutoring or remedial work in English

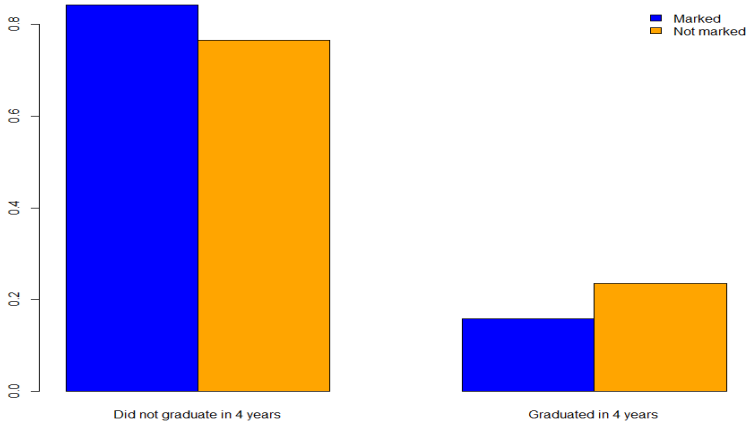

Figure 18. NEEDREM3: Need special tutoring or remedial work in Mathematics

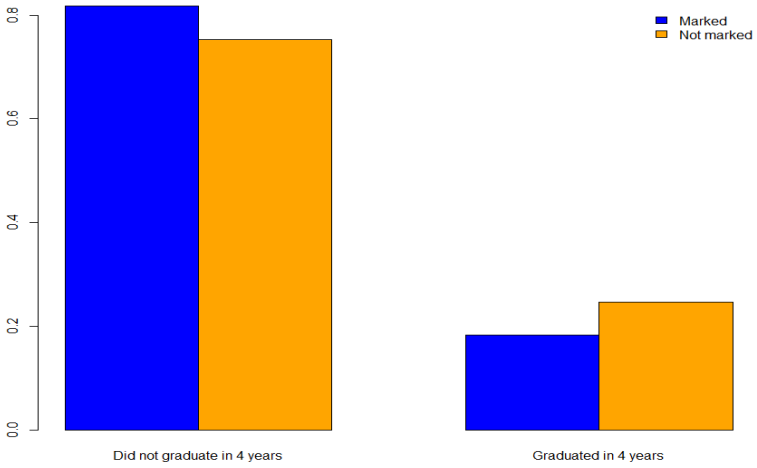

Figure 19. NEEDREM7: Need special tutoring or remedial work in writing

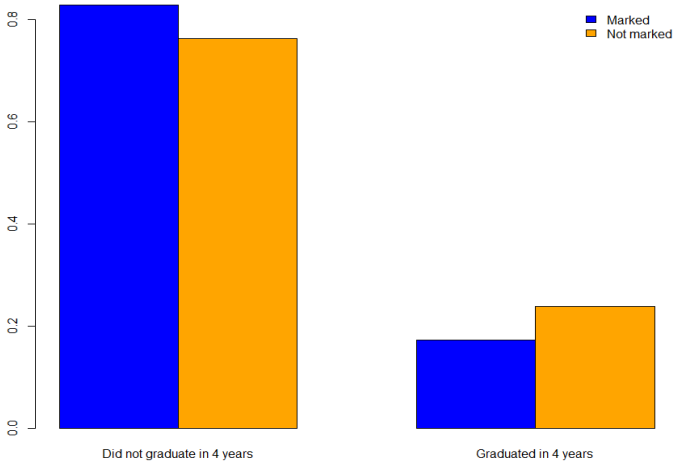

Table 4. Important Variables Selected from the Four Models

LASSO	SCAD	MCP	RANDOM FOREST (top 100 most important variables)
SEX_CODEF	RACETWO_OR_MORE_RACES_INCLUDING_MINORITY	RACETWO_OR_MORE_RACES_INCLUDING_MINORITY	TUE_YEAR2
RACETWO_OR_MORE_RACES_INCLUDING_MINORITY	ELM_PROFICIENCY_STATUSP	ELM_PROFICIENCY_STATUSP	MEAN_GPA_Y2
ENGLISH_PROFICIENCY_STATUSA	TRANSFER_UNITS_EARNED	TRANSFER_UNITS_EARNED	TOTAL_FAILING_CLASSES
ENGLISH_PROFICIENCY_STATUSS	LBUSD_FLAGYes	LBUSD_FLAGYes	TUE_YEAR1
ELM_PROFICIENCY_STATUSP	ENTRY_COLLEGEUniversity_Programs	SWITCHED_DEPTyes_2_or_more	MEAN_GPA_Y1
TRANSFER_UNITS_EARNED	SWITCHED_DEPTyes_2_or_more	TUE_YEAR1	TRANSFER_UNITS_EARNED
LBUSD_FLAGYes	TUE_YEAR1	LAST_COLLEGEEngineering	LAST_COLLEGE
ENTRY_COLLEGELiberal_Arts	LAST_COLLEGEEngineering	LAST_COLLEGELiberal_Arts	ENTRY_COLLEGE
ENTRY_COLLEGEUniversity_Programs	LAST_COLLEGELiberal_Arts	TOTAL_FAILING_CLASSES	APP_STEM_INDEX
SWITCHED_DEPTyes_2_or_more	LAST_COLLEGECNSM	SUMMER_CLASSES_TAKEN	APP_ELIGIBILITY_INDEX
TUE_YEAR1	TOTAL_FAILING_CLASSES	N_REMED_MATH_AND_ENGLISH	ELM_PROFICIENCY_STATUS
LAST_COLLEGEEngineering	SUMMER_CLASSES_TAKEN	WHEN_SWITCHED_DEPT2152	NUMAPPLY

LAST_COLLEGELiberal_Arts	N_REMED_MATH_AND_ENGLISH	WHEN_SWITCHED_DEPT2162	SAT_WRITING_SCORE
LAST_COLLEGECNSM	WHEN_SWITCHED_DEPT2152	WHEN_SWITCHED_COLLno_switch	ENGLISH_PROFICIENCY_STATUS
TOTAL_FAILING_CLASSES	WHEN_SWITCHED_DEPT2162	EAP_MATHEMATICS_STATUS5	HS_GPA
SUMMER_CLASSES_TAKEN	WHEN_SWITCHED_COLL2144	EARLY_START_ENGLISH2	HPW04
N_REMED_MATH_AND_ENGLISH	WHEN_SWITCHED_COLLno_switch	DEPENDENT_INCOME_CODE4	N_NOT_GOOD_STANDING
WHEN_SWITCHED_DEPT2152	EAP_MATHEMATICS_STATUS5	DISTHOME101_to_500	SAT_ACT_COMP_SCORE
WHEN_SWITCHED_DEPT2162	EARLY_START_ENGLISH2	PLANLIVEWith_my_family_or_other_relatives	SAT_CRIT_READING_ACT_ENLGISH_SCORE
WHEN_SWITCHED_DEPT2164	EARLY_START_ENGLISH7	NUMAPPLYSix	WHEN_SWITCHED_DEPT
WHEN_SWITCHED_COLL2144	DEPENDENT_INCOME_CODE4	PREMEDYes	HIGHEST_PARENT_EDUC
WHEN_SWITCHED_COLL2162	DISTHOME101_to_500	PRELAWYes	HPW13
WHEN_SWITCHED_COLLno_switch	PLANLIVEOther	MNDHAB10Not_at_all	DEPENDENT_INCOME_CODE
EAP_MATHEMATICS_STATUS5	PLANLIVEWith_my_family_or_other_relatives	RATE09Highest_10_perc	HPW07
EARLY_START_ENGLISH2	NUMAPPLYSix	RATE13Highest_10_perc	SAT_ACT_MATH_SCORE
EARLY_START_ENGLISH7	PREMEDYes	RATE17Average	HPW01
DEPENDENT_INCOME_CODE3	PRELAWYes	RATE20Highest_10_perc	HPW09

DEPENDENT_INCOME_CODE4	HIDEGREEOther	SLFABL11Average	HPW12
HIGHEST_PARENT_EDUC5	DIVRATE2Somewhat_Strong	SLFABL12Somewhat_Strong	HPW08
HIGHEST_PARENT_EDUC6	MNDHAB02Occasionally	HPW053_to_5_hours	AID1
DEPENDENT_FAMILY_SIZE2	MNDHAB10Not_at_all	HPW113_to_5_hours	HPW02
DISTHOME101_to_500	RATE09Highest_10_perc	HPW126_to_10_hours	DISTHOME
DISTHOME5_or_less	RATE10Highest_10_perc	HPW12None	RACE
DISTHOME51_to_100	RATE13Highest_10_perc	RACEHSMostly_White	HPW10
DISTHOMENov_to_50	RATE15Average	GOAL01Somewhat_important	AID3
PLANLIVEOther	RATE17Average	GOAL11Not_important	WHEN_SWITCHED_COLL
PLANLIVEWith_my_family_or_other_relatives	RATE20Highest_10_perc	FUTACT03Very_good_chance	PROBATION_Y1
NUMAPPLYFour	SLFABL11Average	FUTACT07Very_good_chance	HPW06
NUMAPPLYSix	SLFABL11Somewhat_Weak	FUTACT10Very_good_chance	AID4
NUMAPPLYTwo	SLFABL12Somewhat_Strong	FUTACT10Very_little_chance	HPW11
CHOICEThird_choice	SLFABL13Average	TUE_YEAR2	HPW05
ECONOMICDisagree_strongly	CHOOSE03Somewhat_important		SLFABL12
HADREM3Not_marked	CHOOSE10Very_important		SLFABL11

HADREM6Not_marked	HPW053_to_5_hours		PELL_ACCEPT_BALANCE
NEEDREM3Not_marked	HPW113_to_5_hours		DEPENDENT_FAMILY_SIZE
NEEDREM5Not_marked	HPW126_to_10_hours		RATE18
PREMEDYes	HPW12None		RATE02
PRELAWYes	MILITARYROTC_cadet_or_midshipman_at_a_service_academy		RATE20
AID2_10000_or_more	RACEHSMostly_White		RATE13
AID3Less_than__1000	EXPGRADFour_or_less		RACENEIB
AID4Less_than__1000	GOAL01Somewhat_important		SUMMER_CLASSES_TAKEN
AID4None	GOAL04Very_important		AID2
HIDEGREEOther	GOAL10Very_important		HPW03
DIVRATE1Average	GOAL11Not_important		DEGASP
DIVRATE2Somewhat_Strong	GOAL11Very_important		RATE10
MNDHAB02Occasionally	GOAL13Very_important		SLFABL06
MNDHAB07Not_at_all	FUTACT01Some_chance		EAP_ENGLISH_LANGUAGE
MNDHAB10Not_at_all	FUTACT03Very_good_chance		FUTACT07
MNDHAB12Occasionally	FUTACT05Very_little_chance		RATE09

REASON02Very_important	FUTACT07Very_good_chance		GOAL12
REASON03Very_important	FUTACT10Very_good_chance		RATE16
RATE02Below_average	FUTACT10Very_little_chance		RATE06
RATE03Average	FUTACT11Some_chance		RACEHS
RATE04Highest_10_perc	TUE_YEAR2		SLFABL09
RATE05Highest_10_perc			RATE14
RATE06Lowest_10_perc			RATE03
RATE08Lowest_10_perc			SLFABL05
RATE09Below_average			RATE12
RATE09Highest_10_perc			FUTACT20
RATE10Below_average			FUTACT19
RATE10Highest_10_perc			SLFABL04
RATE12Below_average			EARLY_START_ENGLISH
RATE13Highest_10_perc			COLLEGE_PREPARATORY_MATH
RATE14Average			PROBATION_SEM1
RATE14Below_average			DIVRATE3

RATE15Average			GOAL05
RATE17Average			RATE11
RATE18Average			FUTACT10
RATE20Highest_10_perc			RATE08
SLFABL02Somewhat_Strong			GOAL14
SLFABL06A_Major_Weakness			RATE17
SLFABL08Somewhat_Strong			PLANLIVE
SLFABL10Average			CHOICE
SLFABL10Somewhat_Weak			RATE15
SLFABL11Average			FUTACT01
SLFABL11Somewhat_Weak			GOAL02
SLFABL12A_Major_Weakness			SLFABL13
SLFABL12Average			DIVRATE4
SLFABL12Somewhat_Strong			GOAL09
SLFABL13A_Major_Weakness			GOAL19
SLFABL13Average			FUTACT03
CHOOSE03Somewhat_important			GOAL20
CHOOSE05Very_important			ECONOMIC
CHOOSE06Very_important			FUTACT05

CHOOSE07Somewhat_important			FUTACT06
CHOOSE09Very_important			GOAL17
CHOOSE10Very_important			GOAL03
CHOOSE12Very_important			SLFABL03
CHOOSE14Very_important			
CHOOSE17Somewhat_important			
HPW053_to_5_hours			
HPW05None			
HPW063_to_5_hours			
HPW06Less_than_one_hour			
HPW073_to_5_hours			
HPW07None			
HPW08Less_than_one_hour			
HPW0916_to_20_hours			
HPW09Over_20_hours			
HPW103_to_5_hours			
HPW113_to_5_hours			
HPW126_to_10_hours			
HPW12None			

MILITARYROTC_cadet_or_midshipman_at_a_service_academy			
RACEHSMostly_White			
EXPGRADFour_or_less			
GOAL01Not_important			
GOAL01Somewhat_important			
GOAL04Very_important			
GOAL07Somewhat_important			
GOAL08Not_important			
GOAL08Somewhat_important			
GOAL10Very_important			
GOAL11Not_important			
GOAL11Very_important			
GOAL13Very_important			
GOAL15Somewhat_important			
GOAL19Very_important			
FUTACT01Some_chance			

FUTACT03Very_good_chance			
FUTACT05Very_little_chance			
FUTACT07Very_good_chance			
FUTACT07Very_little_chance			
FUTACT08Very_little_chance			
FUTACT09Very_little_chance			
FUTACT10Very_good_chance			
FUTACT10Very_little_chance			
FUTACT11Some_chance			
FUTACT16Very_good_chance			
FUTACT18Some_chance			
FUTACT18Very_little_chance			
FUTACT23Very_little_chance			
FUTACT25Very_good_chance			
FUTACT25Very_little_chance			
TUE_YEAR2			

Table 5. Variable Importance Rank in Random Forest

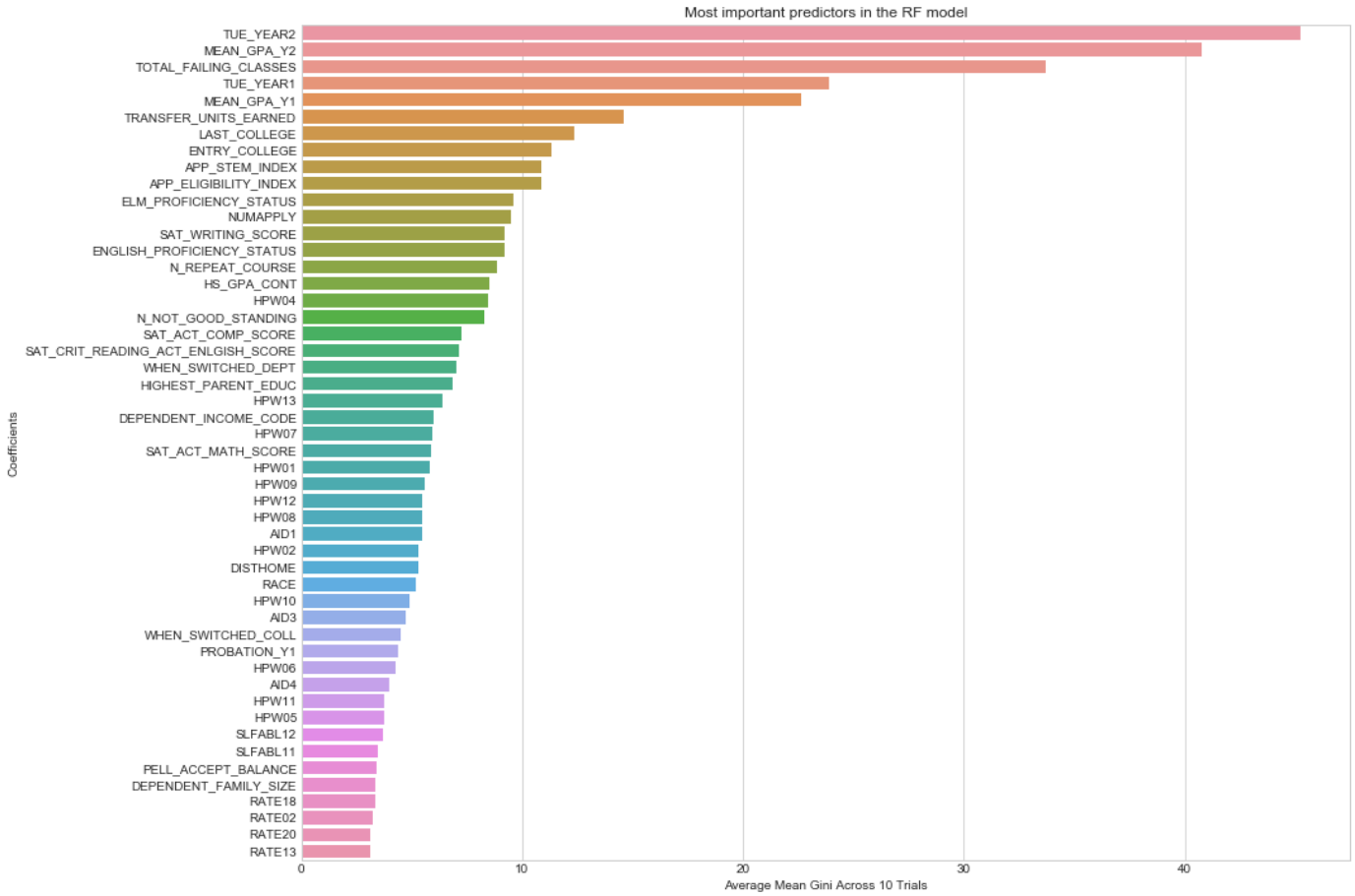

Table 6. CIRP Survey Items related to college plans, self-ratings, and activities in the senior year

Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself. 1=Lowest 10% 2=Below Average 3=Average 4=Above Average 5=Highest 10% Academic ability Drive to achieve Leadership ability Public speaking ability Self-understanding Spirituality Writing ability Artistic ability Competitiveness Computer Skills Cooperativeness Creativity Emotional health Leadership ability Mathematical ability Physical health Popularity Self-confidence (intellectual) Self-confidence (social) Understanding of others
During your last year in high school, how much time did you spend during a typical week doing the following activities? 1=None 2=Less than one hour 3=1 to 2 hours 4=3 to 5 hours 5=6 to 10 hours 6=11 to 15 hours 7=16 to 20 hours 8=Over 20 hours Studying/homework Exercise or sports Partying Volunteer work Playing video/computer games Socializing with friends Talking with teachers outside of class Working (for pay)

Student clubs/groups
Watch TV
Household/children duties
Reading for pleasure
Online social networks (Facebook, Twitter, etc.)

What is your best guess as to the chances that you will:

1=No Chance
2=Very Little Chance
3=Some Chance
4=Very Good Chance

Change major field
Change career choice
Participate in student government
Get a job to help pay for college expenses
Work full-time while attending college
Join a social fraternity or sorority
Play club, intramural, or recreational sports
Play intercollegiate athletics (eg NCAA or NAIA-sponsored)
Make at least a 'B' average
Need extra time to complete your degree requirements
Participate in student protests or demonstrations
Transfer to another college before graduating
Be satisfied with your college
Participate in volunteer or community service work
Seek personal counseling
Communicate regularly with your professors
Socialize with someone of another racial/ethnic group
Participate in student clubs/groups
Participate in a study abroad program
Have a roommate of different race/ethnicity
Discuss course content with students outside of class
Work on a professor's research project
Take courses from more than one college simultaneously
Take a leave of absence from this college temporarily
Take a course exclusively online at this institution
Take a course exclusively online at a different institution

Table 7. Comparison of four models based on AUC

Model	AUC
LASSO	85.7%
SCAD	86.2%
MCP	85.7%
RANDOM FOREST	86.8%

Table 8. Parameter and odds ratio estimates of MCP model

	Estimate	Std. Error	Odds Ratio Estimates
(Intercept)	-9.638704224	0.739261027	
RACETWO_OR_MORE_RACES_INCLUDING_MINORITY	-0.614613699	0.2840611	0.540849786
ELM_PROFICIENCY_STATUSP	0.37942257	0.173052653	1.461440466
TRANSFER_UNITS_EARNED	0.006014943	0.000572031	1.006033069
LBUSD_FLAGYes	-0.436886421	0.188581315	0.646044805
SWITCHED_DEPTyes_2_or_more	-0.602539328	0.314420184	0.547419791
TUE_YEAR1	0.114882745	0.020147412	1.1217419
LAST_COLLEGEEngineering	-0.491405214	0.182871837	0.611766127
LAST_COLLEGELiberal_Arts	1.34371837	0.143061952	3.833270556
TOTAL_FAILING_CLASSES	-0.443973867	0.036198587	0.641482185
SUMMER_CLASSES_TAKEN	0.492156276	0.058940178	1.635839741
N_REMED_MATH_AND_ENGLISH	-0.408360538	0.103738514	0.664739172
WHEN_SWITCHED_DEPT2152	0.654327299	0.211236271	1.923847907
WHEN_SWITCHED_DEPT2162	-0.81503539	0.408378886	0.442623663
WHEN_SWITCHED_COLLno_switch	0.419266679	0.161460705	1.520845879
EAP_MATHEMATICS_STATUS5	-0.433010176	0.12523751	0.648553892
EARLY_START_ENGLISH2	0.596734849	0.190721643	1.816179009
DEPENDENT_INCOME_CODE4	-0.502912083	0.245010892	0.604766961
DISTHOME101_to_500	0.217276886	0.172323125	1.242688137
PLANLIVEWith_my_family_or_other_relatives	-0.312413245	0.132239082	0.731679103
NUMAPPLYSix	0.554823303	0.183343887	1.741633216
PREMEDYes	-0.436329678	0.154873592	0.646404586
PRELAWYes	0.722988958	0.249688558	2.060583011
MNDHAB10Not_at_all	-1.360063655	0.525649066	0.25664444
RATE09Highest_10_perc	0.197814752	0.152960257	1.218736604
RATE13Highest_10_perc	0.196001618	0.211966343	1.216528874

RATE17Average	-0.288723331	0.121115509	0.749219462
RATE20Highest_10_perc	0.291576518	0.197922837	1.338536052
SLFABL11Average	-0.202808472	0.120326882	0.816434597
SLFABL12Somewhat_Strong	-0.302740914	0.135042919	0.738790482
HPW053_to_5_hours	-0.544912209	0.187538785	0.579892691
HPW113_to_5_hours	0.375616066	0.181883915	1.455888061
HPW126_to_10_hours	-0.344028803	0.243038199	0.708908509
HPW12None	0.121992743	0.121704903	1.129745903
RACEHSMostly_White	0.230225703	0.143960488	1.258884112
GOAL01Somewhat_important	-0.247962442	0.146337697	0.780389253
GOAL11Not_important	0.239226962	0.129411193	1.270266807
FUTACT03Very_good_chance	0.516410211	0.232150766	1.67600035
FUTACT07Very_good_chance	-0.458511984	0.150791593	0.632223705
FUTACT10Very_good_chance	-0.436606134	0.255706222	0.646225907
FUTACT10Very_little_chance	0.174800784	0.117477929	1.191008924
TUE_YEAR2	0.172234444	0.015927573	1.18795631

VIII. References

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