



Student Perspectives on Barriers to Progression in the College of Professional Studies

August 5, 2013

Executive Summary

- A survey of students within the College of Professional Studies was implemented in two deployments in spring semester 2013 to identify student views on barriers to progression and timely graduation.
- The results of this study provides insight into the ways the university may support and assist students in graduating on time, which will aid the university in increasing graduation rate goals set by the CSU Graduation Initiative.
- Respondents from populations of concern (including under-represented minorities, first-generation college attenders, low GPA, and low-income students) have a significantly higher mean level of concern regarding job and family obligations affecting course access and timely progression.
- Results also indicate that students perceive course availability as being the most important progression barrier, and having greatest influence on their course choices. In separate questions, the schedule of course offerings and the availability of space in classes were on average rated as very important barriers to timely progression.
- Respondents indicated that earliest and latest scheduling zones were problematic, and under-represented minority and first-generation college attenders showed significantly greater concern about courses scheduled in these zones. As members of these two groups are already graduating at lower rates than non-group members, it may be worth reexamining the role of zones 1 and 7 in the context of supporting student progression and success.
- Open-ended comments regarding how the university can reduce barriers to progression centered mostly on the need for more class sections and a strong preference for removing the unit cap.

1. Introduction

Graduation rates (also known as completion rates) are an indicator of quality at institutions of higher learning (Shapiro et al., 2012). As the cost of college attendance (and student indebtedness) rises, and as states struggle to continue subsidizing public colleges and universities, the imperative to generate value for that investment (in terms of degree completion) also increases. Students can use simple web-based tools such as the College Navigator (National Center for Education Statistics, US Department of Education, 2013) to compare graduation rates and use that information as a part of their college selection process. In response to concerns regarding low graduation rates in the California State University (CSU) system the CSU adopted the Graduation Initiative to increase graduation rates overall, and to reduce the graduation gap between underrepresented minority students and other students (California State University, 2013).

A key question is whether lower graduation rates are an attribute of a college, or an attribute of the preparedness of students who are admitted to a college. Comparing cohorts of high school graduates from the 1970s and 1990s, Bound et al. (2010) found that while the fraction of high school graduates entering college had increased, overall (eight year) graduation rates had declined. This was attributable to several contributing factors: attendance at lower-ranked public universities and community colleges, lack of availability of institutional resources, and declines in student preparedness. Falling graduation rates were almost entirely concentrated among men at “lower-ranked” public universities and community colleges (as measured by *U.S. News and World Report* rankings, with similar results for resources per student and admissions selectivity) (Bound, Lovenheim, & Turner, 2010).

In an empirical study that controls for student quality across different colleges, Cohodes and Goodman (2012) found that state scholarship students (who qualify by scoring in the top 25% on a state assessment exam) choosing a lower quality college significantly lowered their on-time graduation rate over other such scholarship students who attended higher quality colleges. For the marginal student, enrolling at an in-state public college lowered the probability of graduating on time by more than 40% (Cohodes & Goodman, 2012). In addition, for students beginning college at a lower-ranked public university, Bound et al. found that declines in academic preparation were too small to explain more than a trivial portion of the drop in graduation rates, while increases in student-faculty ratios (a measure of declining financial resources per student) accounted for over three quarters of the total observed decline in graduation rate (Bound et al., 2010). In contrast, Bound et al. (2010) found that nearly 90% of the decrease in community college student completion rates could be explained by declines in student preparedness.

While the evidence suggests that declining financial resources at public four-year institutions play a key role in poor graduation rates, the CSU system provides an opportunity to compare graduation rates across campuses with fairly similar financial resources per student. There is a remarkably large variation in six year graduation rates for freshmen across the campuses. For example, assessing six year graduation rates for the freshman class of 2005, Cal Poly San Luis Obispo had a graduation rate of 75.1% , San Diego State had a graduation rate of 65.6%, Humboldt State had a graduation rate of 39.7%, and CSU Dominguez Hills had a graduation rate of 24.4% (CSRDE, 2013). System-wide the six year graduation rate in the CSU was 51.3% for the freshman class of 2005. The relatively weak performance of HSU

within the context of the CSU system raises questions about campus-specific barriers to timely student progression towards graduation.

The purpose of this report is to solicit student perception information regarding various types of barriers to timely student progression towards graduation at Humboldt State University. We begin in section 2 with a brief review of the literature on factors that impact timely student progression towards graduation. In section 3 we describe our online student survey instrument and survey design. In section 4 we report the results of the survey. In section 5 we summarize key findings and suggest next steps.

2. Factors Impacting Timely Student Progression

Assisting students in reducing their time-to-degree helps both students and institutions (Volkwein & Lorang, 1996). Achieving efficient progression toward graduation reduces financial burdens for students and more effectively utilizes scarce public higher education resources. Improved student progression is accomplished through properly sequencing their required courses, minimizing their enrollment in unnecessary courses, and limiting the potential for students to have to take extra semesters to complete their baccalaureate requirements (Hackett, Thaler Petersen, & Panelli, 2013).

Several conceptual models have been constructed to help explain the interactions influencing college student persistence (Titus, 2004). These models take into account the diverse backgrounds, abilities, and goals of students, their varying levels of academic preparation, declared major, and extent of involvement in campus life, their attitudes about the institution they attend, and their financial need, which in turn dictates how many hours they work (Titus, 2004). There are also institutional level factors that can impact student progression, including characteristics of their fellow students, structural and demographic characteristics, aggregate student attitudes and experiences with academics and community involvement, and availability of financial support (Titus, 2004).

University factors that improve student retention and further progress toward graduation

Successful student retention programs share some common design principles, including prioritizing student success relative to other institutional goals, being committed to the education of all students, and recognizing the critical importance of social and intellectual community (Education Advisory Board, 2009a; Tinto, 1993). Upon arrival, transition assistance programs can help acclimate students to the academic demands of college life, including the necessary study skills and habits, writing skills, and information on institutional resources, like libraries (Tinto, 1993). Incorporating students into the social and academic communities of their college through formal and informal interactions with faculty and staff can create a compelling affiliation for students, and has been shown to be very effective in student retention (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006).

As students progress in their studies, freshmen-interest classes, learning communities, or first-year study programs, built around common interests, can help create student communities that also encourage persistence (Kuh et al., 2006; Tinto, 1993). Classes that have supplemental instruction opportunities, through which students have access to optional, informal, peer-mentor support, can help prevent course-level attrition and improve performance in traditionally difficult courses (Bowles, McCoy, & Bates, 2008). Increasing student contact with support services through student success courses helps to increase

persistence as well (Kuh et al., 2006). Between 40 and 50 percent of students never seek out or use academic support services during college, but when such services are incorporated into a class, students are much more likely to access, and benefit from, their use (Kuh et al., 2006). For those who are not likely to seek out support, early warning systems tied into computer systems can be effective, allowing instructors to alert advisors about absenteeism or other risky academic behavior before it is too late for students (Education Advisory Board, 2009a).

Developmental or remedial classes have been established at many universities for those students who have not yet achieved requisite college-level English or math skills (Tinto, 1993). While the purpose of such classes would seem to predict a positive effect on student progression and graduation rates, this is not always the result (Tinto, 1993). In situations where remediation classes are not eligible for college credit they delay student progression, and grow the number of units toward possible unit caps for financial aid (Tinto, 1993).

Programs that assist academically at-risk students may include the following components: assessment, academic progress monitoring, and early warning capabilities; intrusive intervention when necessary; development of learning and study skills; assistance in enhancing basic writing, reading, and math skills; and the ability to create or identify appropriate study settings (Education Advisory Board, 2009a).

Factors that assist students with retention and timely graduation include the adoption and implementation of principles and programs aligned with promoting a student-centered and community-oriented learning environment, and providing appropriate academic support services and courses. Monitoring student progress and intervening to help when necessary and providing opportunities for informal contact with campus communities of students, staff, and faculty are additional elements of successful retention programs and encourage students' timely progress to degree.

Causes of student attrition and delay of graduation

The leading causes of delayed graduation include stop-out, transfer, taking a light class load, withdrawal from classes, attending school part-time, and change of major (Hoe, 2002; Volkwein & Lorang, 1996). The thread common to all of these factors is slower progress in accumulating credits, and a resulting longer time-to-degree (Volkwein & Lorang, 1996). Moreover, lack of space in required courses has been identified as causing longer time-to-degree for students (Hall, 1999; Kramer, 1993; Volkwein & Lorang, 1996)

Transfer students can encounter barriers to their progress in the articulation of courses and transferring of credit, which is often not a smooth process (Tinto, 1993). In addition, institutions often fail to provide them with orientation programs, so that it can be more difficult to make the transition into a school as a transfer (Tinto, 1993). Four-year schools that receive a large proportion of their students as transfers from two-year schools can improve retention and graduation rates of their transfer students by establishing transfer centers that would serve to smooth the transition for their new students, both academically and socially (Zamani, 2001).

The scholarly literature is less clear with regard to the impact of financial aid on student progress toward graduation (Ishitani, 2006; Umbricht, 2012). Some studies show that student employment slows down their progress, in particular when the demands of work prevent them from taking more than 12 credits per semester (Hall, 1999; Volkwein & Lorang, 1996). Loan-type aid has been shown by one study to result in shortest time-to-degree, but more than one researcher has noted that first-generation students, students from low-income backgrounds, and those who are underrepresented minorities, prefer not to borrow money to finance education (Lam, 1999). Financial aid has been shifting to a largely loan-based approach for the last 30 years, and many students, especially those who are first-generation college attenders, or from low-income backgrounds, tend to be averse to taking out loans to fund their education (Burdman, 2005). They and their parents are often concerned about taking on a substantial debt prior to beginning their career, so they choose to attend college part-time, while working long hours to finance their academic pursuits (Burdman, 2005). Not only does this slow down their progress toward graduation, it also reduces the likelihood that they will graduate at all (Burdman, 2005; Education Advisory Board, 2009a, 2012). Gift aid, or grants, which students do not need to pay back, tend to allow them to move more quickly toward graduation (Lam, 1999). Overall, financial aid prevents students from stopping out, which would otherwise slow their progress toward timely graduation (DesJardins, Ahlburg, & McCall, 2002).

Another factor related to finances that can generate barriers to students' progression and timely graduation is a lack of financial literacy, which is apparent in student failure to make timely credit card payments, maintain a balanced budget, and demonstrate skills in handling a new level of financial responsibility with possibly scarce resources (Eitel & Martin, 2009). Getting behind in payments, or finding themselves short on cash, can drain student motivation to continue in higher education, or slow their progress when they endeavor to take on part-time work, or increase hours at their current jobs (Eitel & Martin, 2009).

Growing numbers of university students are studying part-time, living off-campus, and working long hours, and this has caused a decrease in the six-year graduation rate (Ramsden, 2008; Volkwein & Lorang, 1996). Higher education institutions also serve adult students who have very different needs than those students who are considered 'traditional'; often adult students must work part-time while completing their degree to provide for their family, and are prevented from taking a full-time course load by their work schedule and family commitments (Kuh et al., 2006; Volkwein & Lorang, 1996). Students with families benefit from access to on-campus child care facilities, and are more likely to stay enrolled, graduate in fewer years, and maintain higher grades if such facilities are available (Kuh et al., 2006). Access to student support services outside of normal business hours is also beneficial for adult and parent learners (Kuh et al., 2006). Relative availability of non-academic services can have a powerful impact on students of all types of backgrounds (Tinto, 1993).

In summary, a review of the literature indicates that student attrition from higher education, and longer time-to-degree, is caused by the slow accumulation of credits as a result of inadequate course capacity and students stopping out, working part-time, taking lighter course loads, withdrawing from classes, and changing their major. Financial concerns can contribute to larger numbers of hours devoted to employment. In addition, students who arrive as transfers may experience difficulty with courses articulating, which may require them to extend their time-to-degree.

To ascertain the degree to which students at Humboldt State University are slowed in their progress to degree by factors such as work, family obligations, financial constraints, changing majors, lack of course offerings or capacity, and advising, a survey was constructed to study student perceptions of their impact. A description of the survey is provided below.

3. Survey instrument and sampling design

A survey eliciting student perceptions regarding barriers to progression and timely graduation was deployed online via SurveyMonkey with the help of the Office of Institutional Research, and distributed via email to students in the College of Professional Studies (see Appendix A). In an initial iteration, email invitations to the survey were sent out in February to a random sample of 500 CPS sophomores and juniors. Freshmen and seniors were omitted due to their participation in another survey around the same time. Using an initial invitation, along with a single follow-up reminder to non-respondents, 69 complete or partial responses to the online survey were received. A second iteration of the survey was launched to another randomly selected group of 600 students of all class ranks in mid-April. In order to enhance response rates, participants in the second iteration were given the chance at a single \$100 cash award. In both iterations of the survey, the link was open to receive students' responses for two weeks. An additional question about student attitudes towards newly-implemented scheduling zones was added to this second iteration of the survey.

Eight questions were posed, six of which were open-ended, and two which listed multiple items with a five-point 'importance' scale. This scale was used to rate a number of factors with regard to impact on student course choice decisions. Questions were drawn from factors identified in the scholarly literature cited in this report, and through consultation with academic deans, chairs of departments in the College of Professional Studies, the Office of Institutional Research, and a student focus group. Students were asked about their expectations upon arriving at HSU, and how long they expected to take to graduate. They were asked about changing majors, and how many major advisors they'd had since arriving at HSU. We sought to ascertain the importance of various factors in their course choice decisions, as well as those factors that would cause them to take courses out of sequence, including convenience, work schedule, family obligations, financial constraints, direction from their advisor, course availability, and the availability of space in required courses. The added question in the second iteration of the survey was multiple-choice, and asked which of the new course schedule zones would be most difficult for them.

4. Survey Results and Analysis

As described above, 69 complete or partial responses were received for the initial iteration of the student survey sent to sophomores and juniors. The second iteration, with one question added regarding scheduling zones and a \$100 cash incentive, and including students from all class levels, received 120 responses. The figures that appear in the narrative below were created by the online survey platform used to collect responses: SurveyMonkey.

The results from both iterations were assessed for sampling effects. T-tests were used to study differences between response groups for quantitative variables, and chi-square tests were employed to examine differences between categorical variables and demographics.

Upon analysis, significant differences were apparent in demographic representation between iterations of survey deployment with regard to ethnicity, low-income status, under-represented minority status, and first-generation college attender status (with higher numbers of each of these demographics in the second iteration). Respondents showed significant differences on only two of the seven factors offered in the seventh question (importance of course choice), with students in first iteration putting greater importance on schedule of offerings, and the availability of space in general education, pre-requisite, or major courses. In addition, only one of the 14 factors listed for the eighth question (why classes were taken out of order or why progression was slowed) showed significant differences in importance, related again to the lack of space in general education, pre-requisite, or major courses, with the first iteration rating this factor as more important.

Based on the preceding information, we came to the conclusion that the few differences in samples from the two iterations were complimentary to each other, as responses were received from slightly different student demographic representations in the two iterations of the survey. As responses were not greatly different between the two, combining them adds to the generalizability of the results to the greater population of CPS students. Consequently the analysis that follows is drawn from a pooled sample from both iterations of the survey.

To assess generalizability, we created representation tables that compare the pooled sample demographics to the demographics of all students in CPS (based on data provided by Institutional Research and Planning) as shown below.

Table 1: Representation of class levels in survey compared to CPS

Level	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Freshmen	13	6.9	316	16.2
Sophomores	44	23.3	309	15.9
Juniors	68	36.0	569	29.2
Seniors	64	33.9	752	38.6
Total	189	100	1,946	100

For class level, the largest differences between the sample and the population as a whole are apparent for freshmen (6.9% vs. 16.2%) and sophomores (23.3% and 15.9%). The low number of freshmen respondents, and the somewhat lower number of seniors, is attributable to the fact that they were included in only the second iteration of the survey.

Table 2: Representation of majors for survey respondents compared to CPS

Major	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Business Admin.	9	4.8	104	5.4
Business: Accounting	5	2.6	81	4.2
Business: Finance	3	1.6	45	2.3
Business: International	3	1.6	28	1.4
Business: Management	6	3.2	132	6.8
Business: Marketing	3	1.6	79	4.1
Economics	6	3.2	49	2.5
Kinesiology: Health Promotion	15	7.9	178	9.2
Kinesiology: Physical Therapy	10	5.3	132	6.8
Kinesiology: Physical Education	2	1.1	60	3.1

Liberal Studies: Child Develop.	24	12.7	160	8.3
Liberal Studies: Elemen. Educ.	16	8.5	134	6.9
Lib. Stud.: Recreation Adminis.	9	4.8	109	5.6
Pre-nursing	1	0.5	7	0.4
Psychology	60	31.7	470	24.3
Social Work	17	9.0	167	8.6
Total	189	100	1935	100

Regarding representation by major, the sample and the population of the college are quite similar, aside from the number of students majoring in Business Administration: Management students (1.6% vs. 4.1%), Liberal Studies: Child Development (12.7% vs. 8.4%), and Psychology (31.7% vs. 24.3%).

Table 3: Representation of respondents' sex compared to CPS

Sex	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Female	145	76.7	1299	59.5
Male	44	23.3	886	40.5
Total	189	100	2185	100

The representation of female students was much higher in our sample than in CPS as a whole (76.7% vs. 59.5%).

Table 4: Representation of ethnicity of survey respondents compared to CPS

Ethnicity	Frequency in survey	% in survey	Frequency in CPS	% in CPS
American Indian	5	2.6	50	2.3
Black	8	4.2	108	4.9
Latino	33	17.5	553	25.3
Asian	9	4.8	86	3.9
Pacific Islander	1	0.5	9	0.4
Two or more	15	7.9	114	5.2
White	110	58.2	1049	48
Unknown	8	4.2	187	8.6
Nonresident Alien	0	0	29	1.3
Total	189	100	2185	100

With regard to ethnicity, representation was similar between our sample and the population of the college in most cases. Differences appeared for Latino (17.5% vs. 25.3%) and White students (58.2% vs. 48%). A larger number of Latino students participated in the second iteration of the survey, bringing the percentage in the survey sample closer to the proportion in the college population.

Table 5: Representation of under-represented minorities among survey respondents compared to CPS

Under-represented	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Unknown	9	4.8	111	5.1
No	123	65.1	1314	60.1
Yes	57	30.2	760	34.8
Total	189	100	2185	100

The proportion of under-represented minorities who participated in the survey is comparable to the proportion in the college as a whole.

Table 6: Representation of region of origin among survey respondents compared to CPS

Origin Region	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Local	35	18.5	515	23.6
Northern CA	21	11.1	218	10.0
SF Bay	33	19.5	248	11.4
Sacramento	3	1.6	44	2.0
Coast	8	4.2	75	3.4
Central CA	9	4.8	106	4.9
Los Angeles	55	29.1	586	26.8
San Diego	11	5.8	162	7.4
WUE state	6	3.2	127	5.8
Other state	8	4.2	71	3.2
Missing	0	0	33	1.5
Total	189	100	2185	100

A somewhat larger proportion of students from the San Francisco Bay area participated in our survey than exist in the College of Professional Studies as a whole (19.5% vs. 11.4%). Other regions of origin were represented in similar proportions to the population surveyed.

Table 7: Representation of first-generation students among respondents compared to CPS

First-generation	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Unknown	8	4.2	88	4.0
No	84	44.4	928	42.5
Yes	97	51.3	1169	53.5
Total	189	100	2185	100

The proportion of responses from first-generation students and non- was similar to the proportion of those students in the college as a whole.

Table 8: Representation of low-income students among respondents compared to CPS

Low-income	Frequency in survey	% in survey	Frequency in CPS	% in CPS
Unknown	33	17.5	239	10.9
No	83	43.9	1005	46.0
Yes	73	38.6	941	43.1
Total	189	100	2185	100

Low-income students were also represented in proportions similar to that of the college.

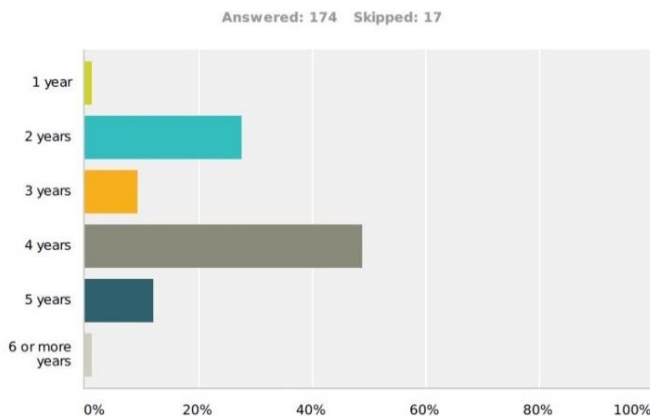
The analysis above shows that the survey sample was fairly representative of the College of Professional Studies as a whole, with a few notable differences occurring in different majors, sex, and ethnicity. The difference in representation of students from different class levels may be attributable to the fact that the first iteration of the survey was sent only to sophomores and juniors, while the second also included freshmen and seniors.

Based on survey data augmented with student data from the Office of Institutional Research and Planning, analysis was performed on disaggregated responses based on the following group characteristics: under-represented minority vs. non, low-income vs. high-income, first-generation college attender vs. not, high or low GPA (high above 3.74, and low below 2.38, with thresholds selected to generate meaningful sample sizes in each bin), class level, and sex. Note that in all instances of mean scale responses reported below, 1=unimportant and 5=very important. Unless otherwise stated, significant differences are based on a t-test or ANOVA result at the 5% or higher level. Results are described below.

Quantitative results

The first question in the survey was multiple-choice, and asked students about their expectations surrounding the time they planned to take to graduate upon their arrival at Humboldt State.

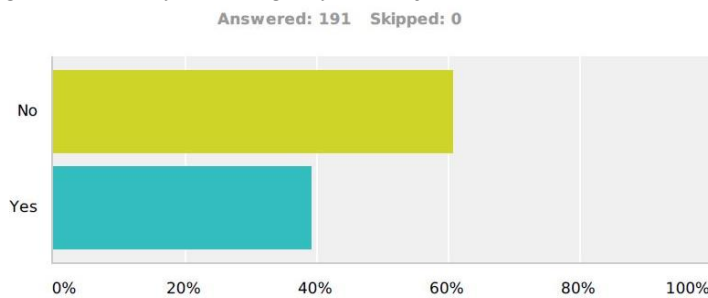
Figure 1: When you arrived at HSU, how many years did you plan to take to graduate?



Responses were concentrated at 2 years and 4 years, which would align with freshmen and transfers who may expect to graduate in 4 and 2 years, respectively. These expectations contrast with the reality of the six year graduation rate at Humboldt State, however, which is under 40%. Clearly a-priori student expectations are optimistic, and actual student progression relative to these expectations is thwarted by various unanticipated factors.

The second survey question asked about changing majors, as the literature suggests changing major can contribute to delays in graduation for some students.

Figure 2: Have you changed your major?

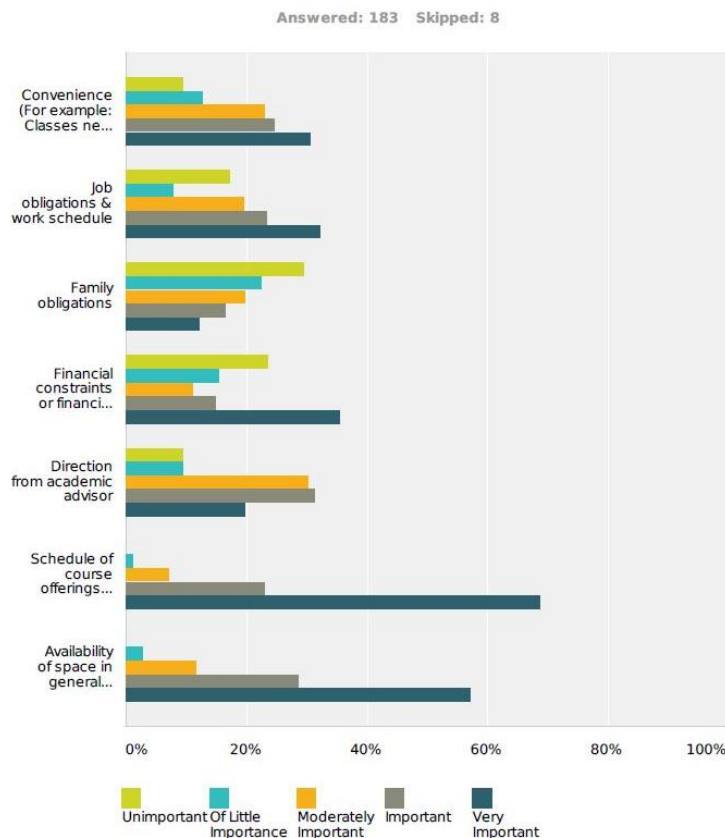


From Figure 2 we can see that a sizeable minority of respondent students changed their major. The third question asked students how many semesters they believed they have remaining until graduation. The majority of freshman respondents indicated six semesters, with 18% indicating seven semesters. Amongst sophomore respondents the most common response (at 34%) was four semesters, with sizeable numbers at five (21%) and six (23.7%) semesters. Junior respondents most frequently reported two semesters to go (32.8%), with sizeable numbers at three (29.3%) and four (25.9%) semesters. Senior respondents were mostly split between zero remaining (35.7%) and one semester remaining (39.3%), with another 16% at three semesters to go.

We also asked students how many times they had changed majors since arriving at HSU. The responses were very similar across all class levels – at least 2/3 of respondent freshmen, sophomores, juniors, and seniors had changed majors once.

Jumping ahead, the seventh question asked students to rate the importance of various factors in their course choice decisions. The factors that were to be rated were: convenience (for example, classes need to be scheduled after 8am or before 5pm), job obligations and work schedule, family obligations, financial constraints or financial aid problems, direction from academic advisor, schedule of course offerings (course availability), and availability of space in general education, prerequisite, or major courses.

Figure 3: How important is each of the following factors in your course choice decision each semester?



It appears that course offerings, and the availability of space in those courses, are the two most important factors in student course choice. This raises concerns about university practices, as these two factors are complete under university control, and outside the realm of student control. It is notable that direction from academic advisor is rated as so much less important overall by students, when that is, ostensibly, the predominant factor intended to influence student course choice.

Results from this question were examined for significant differences between mean responses of the populations of concern mentioned above. Significant differences are described in Tables 9-15. With regard to convenience, the mean response on a five point scale was significantly larger for first-generation relative to other students, and among freshmen more than seniors.

Table 9: Significant differences in convenience as a factor chosen in explaining course choice

Group	Mean response of group members	Mean response of non-group members	Difference in mean
First-gen. students	3.78	3.34	.44
Freshmen vs. seniors	4.25 (Frosh)	3.25 (Senor)	1

1=unimportant and 5=very important

The similar responses of these two groups may be due to the fact that both are, in a sense, new to the four-year university experience, and may not yet have acquired the cultural context for how convenience impacts course choice.

For the job obligations and work schedule factor, significantly different means were found for three groups of interest.

Table 10: Significant differences in job obligations/work schedule as a factor explaining course choice

Group	Mean response of group members	Mean response of non-group members	Difference in mean
First-gen. students	3.74	3.16	.58
Low GPA	3.74	3.18	.56
Female students	3.70	2.63	1.07

1=unimportant and 5=very important

The largest difference in mean responses for this question is female vs. male students. It is difficult to know what conclusion to draw from this result. It is also interesting to note that low-income student responses about the impact of job obligations/work schedule were not significantly greater than non-low-income students, as one would suppose that they would be more likely to be working during their college career, and thus be more impacted by their jobs than non-low-income students. This is likely the case, however, with first-generation students, as they are much more likely to be low income than non-first-generation students, as shown in Table 11.

Table 11: Percentage of first-generation students who are also low-income

Income status	First-gen. students	Non-first-gen. students
Low-income	56.7	31.7
Non- low-income	43.3	68.3

Note: Chi square = 9.04, sig = 0.003, Cramer's V = 0.245

Thus a majority of first-generation students must navigate the culture of college with potentially less preparation than their non-first-generation classmates, they must do it with the added burden of fewer financial resources, and they may also have to maintain a job while taking their courses.

Family obligations as a factor determining course choice were significantly more important for several groups.

Table 12: Significant differences in family obligations as a factor explaining course choice

Group	Mean response of group members	Mean response of non-group members	Difference in mean
Under-represented minorities	3.00	2.41	.59
Low-income	2.91	2.43	.48
First-gen. students	2.82	2.31	.51
Low GPA	2.85	2.32	.53
Sophomores vs. juniors or seniors	3.18 (Soph)	2.43 (Jr) 2.25 (Senior)	.75 .93
Female students	2.72	2.14	.58

1=unimportant and 5=very important

Aside from the significant differences in class level, the other groups appearing in Table 12 are all populations of concern when it comes to college success. Their responses provide valuable insight into

the additional factors impacting their college experience, such as family obligations, that are not shared by non-members.

Another factor which resulted in significantly larger mean responses among some groups was financial constraints or problems with financial aid.

Table 13: Significant differences in financial issues as a factor for explaining course choice

Group	Mean response of group members	Mean response of non-group members	Difference in mean
Under-represented minorities	3.94	2.92	1.02
Low-income	4.07	2.96	1.11
First-gen. students	3.82	2.59	1.23
Freshmen vs. juniors and seniors	4.25 (Frosh)	3.01(Jr) 3.10 (Senior)	1.23 1.15
Female students	3.44	2.52	.92

1=unimportant and 5=very important

Aside from class level and sex, the groups with significantly higher mean ratings of importance regarding financial issues were, again, populations of concern in terms of college success. The overlap in first-generation and low-income students, and in under-represented minorities and low-income students, makes these results quite poignant upon reflection. Again, students who already may experience a more challenging college experience due to their background and circumstances are also impacted in their course choice by needing to consider finances.

With regard to academic advising, just two groups rated advisor direction as significantly more important in their course choice decision.

Table 14: Significant differences in advisor direction as a factor for explaining course choice

Group	Mean response of group members	Mean response of non-group members	Difference in mean
Under-represented minorities	3.73	3.27	.46
First-gen. students	3.62	3.27	.35

1=unimportant and 5=very important

The importance of advising to under-represented minority students, and to students who are first-generation college attenders, is clear. Thus it is imperative that advising to be done effectively and accurately in order to ensure the success of students who are members of these groups. See Hackett et al., (2013).

The availability of space in courses was rated significantly more important for members of under-represented minorities, female students, and freshmen and sophomores vs. seniors.

Table 15: Significant differences in the availability of space in courses as a factor explaining course choice

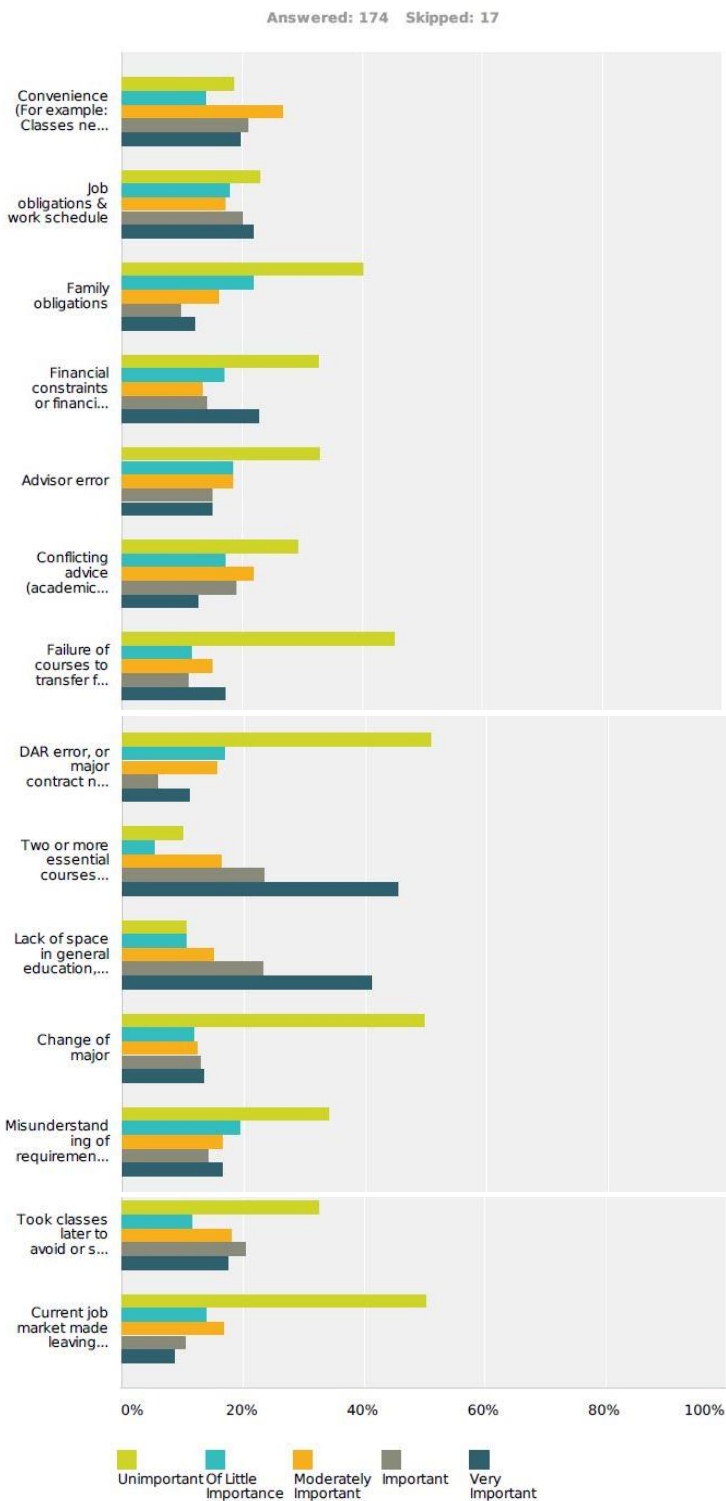
Group	Mean response of group members	Mean response of non-group members	Difference in mean
Under-represented minorities	4.58	4.32	.26
Freshmen and sophomores vs. seniors	4.75 (Frosh)	4.13 (Senior)	.62
	4.56 (Soph)	4.13 (Senior)	.43
Female students	4.46	4.19	.27

1=unimportant and 5=very important

On average all categories of students identify space availability as a very important in explaining course selection. Seniors who may have a larger proportion of smaller upper-division major courses with adequate capacity may be somewhat less concerned than freshmen and sophomores competing for access to key gateway courses.

The eighth question also asked students to rank the importance of various factors on a five-point scale, explaining instances in which courses were taken out of sequence, unnecessary courses were taken, or progression toward graduation was otherwise slowed. The factors assessed were: convenience (for example, classes need to be scheduled after 8am or before 5pm), job obligations and work schedule, family obligations, financial constraints or financial aid problems, advisor error, conflicting advice (academic advisor, EOP, Advising Center, other faculty, coaches, other students, online/catalog major requirements, etc.), failure of courses to transfer from another school to HSU, DAR error, or major contract not integrated into DAR in timely fashion, two or more essential courses scheduled at overlapping times, lack of space in general education, prerequisite, or major courses, change of major, misunderstanding of requirements for major or GE courses, took classes later to avoid or seek out instruction by a certain professor, and current job market made leaving school less appealing.

Figure 4: How important are each of the following factors in explaining instances in which you took courses out of sequence, took courses you didn't really need, or otherwise slowed your progress toward graduation?



The two most important factors explaining unnecessary courses, out of sequence courses, and otherwise delayed graduation appear to be course conflicts (overlapping courses) and a lack of space in necessary courses. Again, as in question 7, student pathways to graduation seem to be impacted heavily by the schedule of course offerings. One open-ended response that illustrates the quantitative result above is: “I cannot stress how hard it is for me scheduling classes my junior and senior year of college. I always find a conflict with classes for my major that I need to graduate.”

Mean responses regarding importance ratings were significantly greater in several groups of interest, and are depicted in Tables 16-22. As before, significance is based on t-test or ANOVA results at the 5% significance level or better.

Job obligations and work schedule were significantly more important for first-generation students, and for female students, as shown in Table 16 below.

Table 16: Significant differences in job obligations and work schedule as a factor explaining unnecessary courses, out-of-sequence courses, and delay of graduation

Group	Mean response of group members	Mean response of non-group members	Difference in mean
First-gen. students	3.23	2.72	.51
Female students	3.14	2.92	.22

1=unimportant and 5=very important

Family obligations were significantly different for several groups: first-generation students, students with low GPA, sophomores more than seniors, and female students, as shown in Table 17 below.

Table 17: Significant differences in family obligations as a factor explaining unnecessary courses, out-of-sequence courses, and delay of graduation

Group	Mean response of group members	Mean response of non-group members	Difference in mean
First-gen. students	2.61	1.93	.68
Low GPA	2.52	2.12	.40
Soph. vs. seniors	2.80 (Soph)	1.93 (Senior)	.87
Female students	3.24	2.15	1.09

1=unimportant and 5=very important

Financial constraints or financial aid problems were significantly more important as a factor explaining why courses were taken out of sequence, unnecessary courses were taken, or progress toward graduation was slowed for under-represented minorities, low-income students, first-generation students, and female students.

Table 18: Significant differences in financial issues as a factor explaining unnecessary courses, out-of-sequence courses, and delay of graduation

Group	Mean response of group members	Mean response of non-group members	Difference in mean
Under-repres. min.	3.18	2.58	.60
Low-income	3.49	2.53	.95
First-gen. students	3.27	2.20	1.07
Female students	2.44	1.90	.54

1=unimportant and 5=very important

There were four factors that students with low GPAs rated significantly more important in terms of explaining a delay in progress toward graduation due to unnecessary or out-of-order classes: advisor error, conflicting advice (academic advisor, EOP, Advising Center, other faculty, coaches, other students, online/catalog major requirements, etc.), change of major, and taking classes later to avoid or seek out instruction by a certain professor.

Table 19: Significant differences in responses for students with low GPAs

Factor	Mean response of students with low GPAs	Mean response of students with high GPAs	Difference in mean
Advisor error	2.87	2.37	.50
Conflicting advice	2.94	2.46	.48
Changing major	2.54	2.06	.48
Certain professor	3.06	2.54	.52

1=unimportant and 5=very important

Lack of space in classes was a significantly greater concern for sophomores and juniors than seniors in making timely progress toward graduation, as shown in Table 20 below.

Table 20: Significant differences in lack of space in classes as a factor explaining unnecessary courses, out-of-sequence courses, and delay of graduation

Factor	Mean response of group members	Mean response of non-group members	Difference in mean
Soph. vs. seniors	4.12	3.26	.86
Juniors vs. seniors	4.02	3.26	.75

1=unimportant and 5=very important

Misunderstanding graduation requirements for major or GE courses was a concern for students with low GPAs, and a significantly larger concern for sophomore students than seniors, as shown in Table 21.

Table 21: Significant differences in misunderstanding graduation requirements as a factor explaining unnecessary courses, out-of-sequence courses, and delay of graduation

Factor	Mean response of group members	Mean response of non-group members	Difference in mean
Low GPA	2.89	2.34	.55
Soph. vs. seniors	3.18	2.16	1.02

1=unimportant and 5=very important

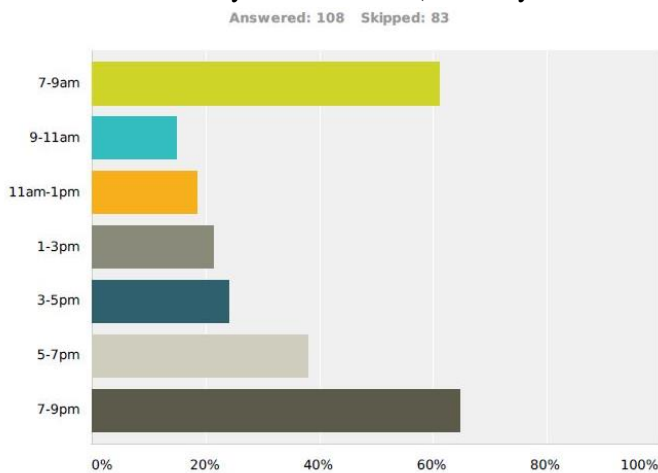
Concerns about the current job market present a significantly greater concern in delaying progress toward graduation for first-generation students and students with low GPAs.

Table 22: Significant differences in concerns about the job market as a factor explaining unnecessary courses, out-of-sequence courses, and delay of graduation

Factor	Mean response of group members	Mean response of non-group members	Difference in mean
First-gen. students	2.36	1.85	.51
Low GPA	2.47	1.81	.66

The tenth question concerned student perceptions of HSU's new zone schedule configuration that will begin in fall semester 2013.

Figure 5: Next year, classes at HSU will occur within the following zones: 7-9am, 9-11am, 11am-1pm, 1-3pm, 3-5pm, 5-7pm, and 7-9pm. Please indicate which of the new scheduling "zones" you believe would be most difficult for your schedule? (You may indicate more than one.)



The two most problematic time slots for students overall are 7-9am and 7-9pm. Responses to this question were analyzed with regard to populations of interest, and significant differences were found between group members and non-group members.

Table 23: Percentage of under-represented minority students who indicated zones were problematic

Zone	URM students	Non-URM students
7-9am	40.4	30.1
9-11am	10.5	7.3
11am-1pm	8.8	11.4
1-3pm	12.3	11.4
3-5pm	19.3*	10.6*
5-7pm	31.6*	14.6*
7-9pm	52.6*	26*

Note: * denotes sig < 0.05

From Table 23 we can see that underrepresented minority students see significantly more problems in the early (7-9am) or the late (7-9pm) zones. Among under-represented minority students, the most problematic time zone for classes is 7-9pm. The 3-5pm and 5-7pm zones were also significantly more problematic than for non-under-represented minority students.

Table 24: Percentage of low-income students who indicated zones were problematic

Zone	Low-income students	Non- low-income students
7-9am	37	33.7
9-11am	11	7.2
11am-1pm	9.6	10.8
1-3pm	12.3	12
3-5pm	19.2*	8.4*
5-7pm	24.7	18.1
7-9pm	41.1	36.1

Note: * denotes sig < 0.05

From Table 24 we can see a similar pattern as in Table 23. A larger percentage of low-income students than non- low-income students rated the early and late zones as problematic, though these are not significant at usual levels.

Table 25: Percentage of under-represented students who are low-income

Income status	URM students	Non-URM students
Low-income	61.1*	38.9*
Non- low-income	38.3*	61.7*

Note: * denotes sig < 0.05

It is worthwhile noting that a significantly larger proportion of under-represented students are also low-income. In other words, these populations overlap considerably, and often what is true for one is true for the other, which helps explain the results in Tables 23 and 24.

Table 26: Percentage of first-generation students who indicated zones were problematic

Zone	First-generation students	Non-first-generation students
7-9am	40.2*	26.2*
9-11am	11.3	6
11am-1pm	13.4	7.1
1-3pm	17.5*	6*
3-5pm	19.6*	8.3*
5-7pm	26.8	15.5
7-9pm	52.6*	26*

Note: * denotes sig < 0.05

From Table 26 we can see that first-generation students found the 7-9am and 7-9pm zones problematic in significantly higher proportion than non-first-generation students, with 7-9pm having the largest difference between groups.

Table 27: Percentage of low GPA students vs. high GPA students who indicated zones were problematic

Zone	Low GPA	High GPA
7-9am	22.6	30
9-11am	6.5	0
11am-1pm	12.9	6.7
1-3pm	12.9	6.7
3-5pm	22.6	6.7
5-7pm	6.5	23.3
7-9pm	12.9*	43.3*

Note: Low GPA < 2.38, High GPA > 3.74; * denotes sig < 0.05

From Table 27 we see that the pattern changes for low vs. high GPA students in terms of problematic zones. The only schedule zone that showed a significant difference between students with low and high GPAs was 7-9pm, where a much higher proportion of students with high GPAs found it problematic than students with low GPAs. This could be because high GPA students set aside evenings for course work and preparation.

Table 28: Percentage of students from different regions who indicated zones were problematic

Zone	Local	Northern CA	SF Bay	LA	San Diego
7-9am	31.4	42.9	21.2	38.2	45.5
9-11am	5.7	4.8	9.1	10.9	9.1
11am-1pm	8.6	9.5	15.2	9.1	18.2
1-3pm	11.4	9.5	21.2	7.3	27.3
3-5pm	14.3	19	12.1	14.5	27.3
5-7pm	17.1	28.6	6.1	32.7	9.1
7-9pm	37.1	52.4	15.2	41.8	54.5

Note: Insufficient number of responses for analysis from other seven possible regions; * denotes sig < 0.05

There were no significant differences in responses from students from different regions about the scheduling zones.

Table 29: Percentage of students from different regions who are low-income

Origin Region	% low income
Local	50*
Northern California	47.1*
San Francisco Bay	29.6*
Los Angeles	58.7*
San Diego	37.5*

Note: * denotes sig < 0.05

In examining students' region of origin, it is noteworthy that there are a significantly larger percentage of low-income students from certain regions: locally, from northern California, the San Francisco Bay area, Los Angeles, and San Diego.

Table 30: Percentage of students from different class levels who indicated zones were problematic

Zone	Freshmen	Sophomores	Juniors	Seniors
7-9am	53.8*	20.5*	22.1*	51.6*
9-11am	23.1	4.5	7.4	9.4
11am-1pm	15.4	6.8	8.8	14.1
1-3pm	30.8	9.	10.3	12.5
3-5pm	23.1	11.4	13.2	14.1
5-7pm	23.1*	11.4*	14.7*	34.4*
7-9pm	46.2*	20.5*	23.5*	57.8*

Note: Insufficient number of responses for analysis from other seven possible regions; * denotes sig < 0.05

A significant proportion of students from different class levels indicated that similar zones were problematic: 7-9am, 5-7pm, and 7-9pm. The largest proportions of problematic ratings appeared among seniors, except for 7-9am among freshmen.

In looking at the results as a whole, similarities are apparent between under-represented minority students, first-generation students, and students with low GPAs, significantly large proportions of whom indicated that the 7-9pm schedule zone was problematic. These three populations of students have historically struggled with success in college, so it is worth further examination to discover why they find the later time slot problematic.

Results of this question were also examined with regard to students who were concerned with work obligations, and which zones they indicated were problematic. The level of concern about work obligations was ascertained by examining importance-rating responses to questions 7 and 8. Responses were disaggregated by those students who had rated job obligations/work schedules as ‘important’ or ‘very important’, and their choices regarding schedule zones were examined. Results are shown in Table 31.

Table 31: Percentage who find zone problematic, disaggregated by the importance rating assigned to job obligations with regard to course choice

Zone	Rated job > 3 as factor influencing course choice (n=99)	Standard deviation	Rated job < 3 as factor influencing course choice (n=45)	Standard deviation	Diff. betw. job important & unimportant
7-9am	37.37	0.486	31.11	0.468	6.26
9-11am	12.12	0.628	2.22	0.149	9.9
11am-1pm	14.14	0.350	8.89	0.287	5.25
1-3pm	12.12	0.328	11.11	0.318	1.01
3-5pm	15.15	0.360	8.89	0.288	6.26
5-7pm	22.22	0.418	20.00	0.404	2.22
7-9pm	41.41	0.495	33.33	0.477	8.08

The zones that the largest proportion of students found problematic were the earliest and the latest. The greatest differences between students who had rated work obligations as important or not important occurred for the 9-11am zone and the 7-9pm zone. As the only difference between these groups is the importance of work obligations in deciding course choice, it is possible that those students who feel

strongly obliged to uphold their work schedule are more likely to have work obligations during these times.

Table 32: Percentage who find zone problematic, disaggregated by the importance rating assigned to job obligations with regard to unnecessary courses, out of sequence courses, or otherwise slowed progression

Zone	Rated job > 3 as factor influencing progression (n=72)	Standard deviation	Rated job < 3 as factor influencing progression (n=71)	Standard deviation	Diff. betw. job important & unimportant
7-9am	33.33	0.475	43.66	0.499	-10.33
9-11am	13.89	0.348	4.23	0.203	9.66
11am-1pm	18.06	0.387	4.23	0.203	13.83
1-3pm	15.28	0.362	9.86	0.300	5.42
3-5pm	15.28	0.362	16.9	0.377	-1.62
5-7pm	22.22	0.419	29.6	0.459	-7.38
7-9pm	40.28	0.494	49.3	0.504	-9.02

The negative numbers in the right-most column of the table above indicate that a larger percentage of students who rated jobs as fairly unimportant indicated that particular schedule zone as more difficult for them. For students who attributed out of sequence courses, unnecessary courses, and otherwise slowed progression to job obligations, there appeared to be less of a problem with the earliest and latest schedule zones, and more concern about 9-11am and 11am-1pm.

Students who had assigned a high importance rating to job obligations were further disaggregated by GPA, divided by GPA either above or below 3.1.

Table 33: Percentage of students who indicated that zones were problematic, disaggregated by job importance ratings related to course choice and low GPA

Zone	Jobs important, and low GPA (n=55)	Standard deviation	Jobs not important, and low GPA (n=17)	Standard deviation	Diff. betw. job important & unimportant
7-9am	32.73	0.473	23.53	0.437	9.2
9-11am	12.73	0.336	5.88	0.242	6.85
11am-1pm	14.55	0.356	17.65	0.393	-3.1
1-3pm	10.91	0.315	17.65	0.393	-6.74
3-5pm	20.00	0.404	17.65	0.393	2.35
5-7pm	21.82	0.417	5.88	0.243	15.94
7-9pm	34.55	0.479	17.65	0.393	16.9

The greatest differences in the percentage of students with low GPAs between those who rated job obligations as important and those who did not occurs between the 5-7pm and the 7-9pm schedule zones. Students who rated job obligations as important found the 11am-1pm and the 1-3pm schedule zones somewhat more problematic than those who rated job obligations as unimportant.

Table 34: Percentage of students who indicated that zones were problematic, disaggregated by job importance ratings related to course choice and high GPA

Zone	Jobs important, and high GPA (n=44)	Standard deviation	Jobs not important, and high GPA (n=28)	Standard deviation	Diff. betw. job important & unimportant
7-9am	43.18	0.501	35.71	0.488	7.47
9-11am	11.36	0.321	0	0	11.36
11am-1pm	13.64	0.347	3.57	0.189	10.07
1-3pm	13.64	0.347	7.14	0.262	6.5
3-5pm	9.09	0.290	3.57	0.189	5.52
5-7pm	22.73	0.424	28.57	0.460	-5.84
7-9pm	50.00	0.506	42.86	0.504	7.14

Large percentages of students indicated that the early and late scheduling zones were problematic, with those students with high GPAs who rated jobs as important showing the greatest difference from other high GPA students who had rated jobs as less important for the 9-11am and 11am-1pm schedule zones.

The same disaggregation based on GPA above or below 3.1 was used to look at students who had indicated that job obligations were an important factor in forcing them to take unnecessary courses, out of sequence courses, or otherwise slow their progression.

Table 35: Percentage of students who indicated that zones were problematic, disaggregated by job importance ratings related to slowed progression and low GPA

Zone	Jobs important, and low GPA (n=36)	Standard deviation	Jobs not important, and low GPA (n=31)	Standard deviation	Diff. betw. job important & unimportant
7-9am	30.56	0.468	41.94	0.502	-11.38
9-11am	13.89	0.351	6.45	0.249	7.44
11am-1pm	19.44	0.401	6.45	0.249	12.99
1-3pm	13.89	0.351	12.9	0.341	0.99
3-5pm	19.44	0.401	29.03	0.461	-9.59
5-7pm	22.22	0.422	22.58	0.425	-0.36
7-9pm	30.56	0.467	48.39	0.508	-17.83

Interestingly, students with low GPA who did not rate job obligations as an important factor in slowing their progression found the early and late schedule zones problematic in larger numbers than did those who had rated their jobs as an important factor. The only schedule zone that those job-obligated students found more problematic was from 11am-1pm.

Table 36: Percentage of students who indicated that zones were problematic, disaggregated by job importance ratings related to slowed progression and high GPA

Zone	Jobs important, and high GPA (n=36)	Standard deviation	Jobs not important, and high GPA (n=40)	Standard deviation	Diff. betw. job important & unimportant
7-9am	36.11	0.487	45.00	0.504	-8.89
9-11am	13.89	0.350	2.5	0.158	11.39
11am-1pm	16.67	0.378	2.5	0.158	14.17
1-3pm	16.67	0.378	7.5	0.267	9.17
3-5pm	11.11	0.319	7.5	0.267	3.61
5-7pm	22.22	0.421	35.00	0.483	-12.78
7-9pm	50.00	0.507	50.00	0.506	0

Students with GPAs greater than 3.1 who indicated that jobs were an important factor in slowing their progression toward graduation had concerns about 9-11am and 11am-1pm schedule zones more than those who did not cite jobs as an important factor. For those who did not cite jobs as a factor in slowing their progression, the 7-9am and 5-7pm schedule zones were most problematic.

In considering the zone ratings of students disaggregated by how highly they rated their job obligations as a factor in course choice or in slowing their progression toward graduation, some clear differences are apparent. Those who indicate that jobs are important tend to find 7-9am, 11am-1pm, and 7-9pm schedule zones problematic more often than those for whom jobs are less important.

Qualitative results

Three survey questions garnered a number of qualitative responses from students:

- How did changing your major influence your progression toward graduation?
- How important are each of the following factors in explaining instances in which you took courses out of sequence, took courses you didn't really need, or otherwise slowed your progression toward graduation? (When students listed specific examples for the factors listed.)
- In your opinion, what should HSU do to better support timely student progression and success?

Responses were coded and categorized based on their topic. There were some responses to each question that did not readily fit into a larger category, or that were not useful for this research. The number of responses in each category was different in the two different iterations of the survey. This is thought to be due to the differences in the time of year in which the survey was deployed, and what sorts of concerns are on students' minds at each different time; for example, as registration occurs in April, students are generally thinking more about finding available spaces in required classes for their next semester at that point in the year than in February. In addition, a cash incentive was offered for survey respondents in the second iteration, which may have affected results. The second iteration of the survey garnered a larger number of responses to all qualitative questions. For these reasons, results from the two iterations are presented separately. The relevant and coded responses are presented below:

Table 37: How did changing your major influence your progression toward graduation?

February Iteration	
It didn't	13
It delayed my progress because I had to take more classes	8
It made it so that I took unnecessary classes	3
Total number of responses	24

April Iteration	
It didn't	18
It delayed my progress	22
It sped up my progress	3
Total number of responses	43

For the first iteration, a slightly larger number of students were not delayed by changing majors, whereas for a small majority of students in the second iteration, their progress was delayed by changing majors.

Table 38: How important are each of the following factors in explaining instances in which you took courses out of sequence, took courses you didn't really need, or otherwise slowed your progression towards graduation? (Responses for: Please list specific examples and courses for the factors above.)

February Iteration	
No available seats in courses/fill up fast	6
Time commitments interfered with class scheduling	5
Needed courses overlapped/conflicted	4
Advisor error	3
Hasn't happened	3
Took unnecessary courses	3
Family commitments	1
Total number of responses	30

April Iteration	
No available seats in courses/fill up fast	1
Time commitments interfered with class scheduling	4
Needed courses overlapped/conflicted	8
Advisor error	7
Hasn't happened	0
Took unnecessary courses	3
Family commitments	1
Total number of responses	32

For students in the first iteration of the survey, more shared concerns about finding available space in courses than in the second iteration. Time commitments were concerns in arranging class schedules for both groups. Overlapping course times and advisor error were mentioned more often by the second group, perhaps because April is when many students meet with advisors to work on scheduling classes for the coming fall. A small number of students in both iterations described situations in which they took unnecessary courses, or had family commitments that delayed their graduation.

Table 39: In your opinion, what should HSU do to better support timely student progression and success?

February Iteration	
Offer more class sections	15
Remove or increase unit cap	8
Advise students better	7
Change (lessen) GE requirements	7
Remove emphasis on graduating quickly	3
Change class number limits	2
Lessen graduation process bureaucracy	1
Total number of responses	43

April Iteration	
Offer more class sections	23
Remove or increase unit cap	1
Advise students better	20
Change (lessen) GE requirements	5
Remove emphasis on graduating quickly	0
Change class number limits	1
Lessen graduation process bureaucracy	0
Total number of responses	50

In terms of student responses about what the university can do to improve student progression and success, a larger number of students in the second iteration thought that advising needed to be improved. There were a large number of responses from both iterations about offering more sections of each class, rising, presumably, from difficulty in finding space in necessary and/or desirable classes. Unit cap issues were mentioned more in the first iteration than the second, which is somewhat surprising considering that students are signing up for fall classes in April, so the unit cap would likely be on their minds more at that time. There was a wider distribution of different types of responses in the first iteration, while responses in the second iterations were focused mostly on offering more class sections and on advising students better, with little mention of other subjects.

5. Summary and Discussion

Most students surveyed anticipated finishing in the standard two (for transfers) and four years (for first-time freshmen). As only 39% of HSU freshmen starting in 2005 finished their college education within six years, there would seem to be something interfering with their timely graduation.

Following are some key findings and discussion points from this report:

- *Changing majors is not widely perceived as impacting progression toward graduation for most students.* About 40% of sampled students have changed majors, and most students did not select changing majors as an important factor in delaying their graduation, so it seems likely that there are other factors involved that act as barriers.
- *Disaggregating survey responses yielded significant results with regard to influences on course choice.* Significant differences were found in responses to the question about course choice among the following disaggregated groups: under-represented minority vs. non-, low-income vs. non-, first-generation college attender vs. non-, high or low GPA (high above 3.74, and low

below 2.38), class level, and sex. Job commitments and work schedules were rated as more important by first-generation students, female students, and students with low GPAs. First-generation students may feel more pressure from their families to earn money while in college - the cost of a four year school can be daunting for families who have never borne it before.

- *Students who rate family obligations and financial issues as important factors in course choice are similar.* Seeing the list of respondent groups who rate family obligations and financial issues more highly as important factors in course choice, the story behind these responses becomes poignant: If there are first-generation, low-income, under-represented minority female sophomores with low GPAs, they feel family obligations keenly affect their choices in college courses. Financial issues are critical for any students who may be first-generation, low-income, under-represented female freshmen in deciding what courses to take. In responses explaining why students took courses out of sequence, took unneeded courses, or had their progression toward graduation slowed, we again find that first-generation female students with low GPAs feel that family obligations are an important factor in their college careers. Under-represented, low-income, first-generation college attenders who are female are concerned the most with financial issues in slowing their progress toward graduation. The fact that their responses regarding these factors are significantly different than students who are not members of these groups says that there are very different college experiences among students happening within the population of the College of Professional Studies. Providing support to students in such circumstances so that they can graduate on time is important.
- *Students with low GPAs indicated that their progression toward graduation had been slowed by advisor error, conflicting advice, changing majors and by avoiding or seeking out a certain professor.* A notable similarity in these factors is the fact that they are outside the control of students, and indeed hint at the idea that these students feel their progress toward graduation are somewhat out of the locus of their control. In psychological terms, it is worthwhile to consider students' perspective on their control over their own education. Attribution theory seeks to explain how people see the causes of what happens in their lives (Thomas, 1999). In thinking about ascribing cause to something, there are three dimensions to consider: whether it is internal or external, stable or unstable, and controllable or uncontrollable (Thomas, 1999). The internal or external nature of the situation is in reference to the locus of control, or where the cause is located from the person's perspective: whether in the person themselves or in outside forces. The stability or instability of a cause speaks to the permanence of its effect, and the controllability is also part of the perception. For students with low GPAs to most greatly attribute the factors contributing to slowing their progress toward graduation to outside forces--advisors responsible for directing them, conflicting advice from other staff and faculty at the university, and by avoiding or seeking out a certain professor--we may speculate that they see the control of their own college education in the hands of others: externally located, stable, and out of their control. It may be especially important to advise these students carefully, and to expose them to opportunities which may provide empowerment and a sense of self-efficacy.
- *It is important to consider those factors over which the university has control.* The two factors that were cited most commonly for both the question about influences on course choice and

causes of delay in progression toward graduation are largely controlled by the university: availability of seats in needed classes, and conflicting class schedules. These are both strongly impacted by budget concerns.

- *Student responses to the question about scheduling zones indicated issues with early and late zones for several populations of concern.* The responses of under-represented students and first-generation students in particular are worth noting: dislike of early (7-9am) and late (7-9pm) schedule zones was robust for students in these populations of concern. Students from populations of concern perceive the early and late schedule zones as problematic. As described earlier in this report, financial concerns and family obligations are already dictating the choices of students in these groups – providing a strong outside influence on their college career. For those students who indicated that jobs were important in making course choice decisions, and in impacting their progression toward graduation, early and late zones were also frequently problematic. It may be advisable to re-think the new scheduling zones, and instead work on forming inter-college “course schedule coordination” structures that will prevent schedule conflicts, making sure major courses do not conflict, and spreading GE requirements throughout the day.
- *Quantitative results aligned with qualitative results about unnecessary or out of sequence courses.* Quantitative results with regard to taking courses out of sequence, courses that were not necessary, or graduation was otherwise delayed were reiterated in qualitative responses to the same question, with a number of students concerned about finding available seats in courses and navigating course schedule overlaps and conflicts.
- *Most qualitative responses about what HSU can do to better support timely student progression focused on offering more class sections and eliminating the unit cap.* This result aligns closely with quantitative results, and provides clear feedback about what the university can do to help students with graduating on time. The quality of advising was also a concern. A working group has recently begun exploring the issue of academic advising on campus. Further research on the nature of student concerns regarding advising would be valuable.

Links to the literature

The student perceptions survey addresses a variety of factors related to graduation expectations and barriers to timely graduation. One of these areas is student expectations of the time required for them to earn their degree. One study of other influences on time-to-degree found that there is a lack of congruence between student expectations and actual outcomes, with many students taking longer than the four years they had expected (Hoe, 2002). Apparently student perceptions of how long it takes other students to graduate influences their expectations for themselves (Hoe, 2002). In addition, students majoring in science-related fields tend to expect a longer time to degree than those in humanities majors (Hoe, 2002).

Another subject covered in the survey is whether changing majors had an impact on student progress towards graduation. As described above, changing majors is considered a leading cause of increased time-to-degree (Hoe, 2002). Progress toward graduation is often slowed for students who change majors or

delay choosing a major until after their second year, whereas those who choose or change earlier may not be impacted (Education Advisory Board, 2012).

The impact of required course availability is also assessed in the survey. The literature has established that lack of space in required courses causes longer time-to-degree for students (Hall, 1999; Kramer, 1993; Volkwein & Lorang, 1996). Also examined are factors that influence students' course choices. With regard to arranging a course schedule, some students find it difficult to navigate their major's class requirements and a university's complex class schedule, and have to delay their graduation due to required courses being offered at overlapping times (Hall, 1999). Limited availability of major courses, as well as general education courses, can also slow down progress toward degree completion (Hall, 1999).

As described above, research on how work obligations affect college student persistence has shown varying results (Hall, 1999; Ishitani, 2006; Umbricht, 2012; Volkwein & Lorang, 1996). While some studies find that campus-based employment helps promote graduation, others find that it delays it by taking up hours that would otherwise be filled with classes (Ishitani, 2006).

Financial factors can play a significant role in time-to-degree for many students, whether with regard to financial aid, work obligations, or financial literacy. The survey and student data collected for this project provide information about students' work responsibilities and their family's financial situation.

In connection with the other factors involved in student course choices is the influence of their advisors. Advising is most effective when it is integrated with academic support services, and when the developmental needs of students from diverse backgrounds are addressed (Education Advisory Board, 2009b; Hackett et al., 2013; Kuh et al., 2006). Knowledgeable advising is needed to help guide students in planning their coursework with regard to sequence and coherence (Kuh et al., 2006). It is also helpful in counseling first-year students who are undecided as to their major, and working with upperclassmen, who benefit greatly from advising with regard to career planning and accomplishing life goals (Tinto, 1993). Informal contact with faculty outside of class, as in advising relationships, increases students' feeling of community at universities, and helps to influence them to persist toward their degree (Kuh et al., 2006). Relationships with staff that feel meaningful can help students to pull through challenges: "If students feel that staff believe in them, and care about the outcomes of their studying, they seem to gain both self-confidence and motivation, and their work improves...." (Thomas, 2002, p. 432). Counter to the positive influence of relationships with faculty, however, are the issues that arise when those relationships are not positive; one study found that dissatisfaction with a professor causes students to drop courses, and that students view this type of issue as a serious impediment to graduating in four years (Hall, 1999).

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APPENDIX A: Survey Instrument

Progression to Graduation Student Questionnaire

The College of Professional Studies wants to hear from students about what slows students down on their progression to graduation. We'd like to hear from you about your experience with issues and obstacles that can delay graduation. Please note that your participation is voluntary and you can stop this survey at any time. Your responses will be kept strictly confidential, and only grouped responses will be reported in a study to be shared with the campus community. Individual responses will be kept on a secure computer and will be deleted at the end of the study. If you have any questions, you can contact Anna Thaler Petersen via HSU email (aet10@humboldt.edu) or telephone (707-826-5870).

1. When you arrived at HSU, how many years did you plan to take to graduate? _____
2. If you did change majors, how did it influence your progression toward graduation?
 - a. How many different major advisors have you had at HSU (does not include Advising Center, EOP, etc)? _____
 - b. How many times have you changed majors since arriving at HSU? _____
3. How many semesters do you believe you have remaining until you graduate? _____
4. Next year, classes at HSU will occur within the following zones... 7-9am, 9-11am, 11am-1pm, 1-3pm, 3-5pm, 5-7pm, and 7-9pm. Please indicate which of the new scheduling "zones" you believe would be most difficult for your schedule? (Can indicate more than one.)

7-9am	
9-11am	
11am-1pm	
1-3pm	
3-5pm	
5-7pm	
7-9pm	

5. How important are each of the following factors in your course choice decision each semester?

Factor	Unimportant	Of Little Importance	Moderately Important	Important	Very Important
Convenience (For example: Classes need to be scheduled after 8am or before 5pm)					
Job obligations & work schedule					
Family obligations					
Financial constraints or financial aid problems					
Direction from academic advisor					
Schedule of course offerings (course availability)					
Availability of space in general education, prerequisite, or major courses					

6. How important are each of the following factors in explaining instances in which you took courses out of sequence, took courses you didn't really need, or otherwise slowed your progression towards graduation?

Factor	Unimportant	Of Little Importance	Moderately Important	Important	Very Important
Convenience (For example: Classes need to be scheduled after 8am or before 5pm)					
Job obligations & work schedule					
Family obligations					
Financial constraints or financial aid problems					
Advisor error					
Conflicting advice (academic advisor, EOP, Advising Center, other faculty, coaches, other students, online/catalog major requirements, etc.)					
Failure of courses to transfer from another school to HSU					
DAR error, or major contract not integrated into DAR in timely fashion					
Two or more essential courses scheduled at overlapping times					
Lack of space in general education, prerequisite, or major courses					
Change of major					
Misunderstanding of requirements for major or GE courses					
Took classes later to avoid or seek out instruction by a certain professor					
Current job market made leaving school less appealing					
Other (please specify below)					

Please list specific examples and courses for the factors above.

7. In your opinion, what should HSU do to better support timely student progression and success?

We'd like to be able to contact you if we have any follow-up questions about your experience. If you prefer not to be contacted, please check here: ☐.

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