2012-2013

Major Declaration Study

By Samved Sangameswara, Chancellor’s Undergraduate Intern for Undergraduate Advising Assessment
With assistance from Stacey Sketo-Rosener, Academic Advising Coordinator and Dr. Anna Sher, Principal Institutional Research Analyst

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UC Santa Cruz
Section 1: Introduction

The 2012-2013 Major Declaration Study was designed to identify ways in which students could be aided with the process of choosing, qualifying for, and declaring a major. In 2012 Executive Vice Chancellor and Campus Provost Alison Galloway issued a list of goals for the university titled “5 for 2015.” Among these goals were “Increase retention rates for undergraduate students” and “Enhance academic pathways to allow students to graduate in four years or less.” Both of these goals are directly tied to the process of choosing, qualifying for, and declaring a major.

To ensure that students are able to declare their majors and complete a degree in a timely manner, the UCSC Academic Senate requires that “Students must formally declare their major field before enrolling for their third year (or equivalent). Students admitted to the University of California with upper-division standing must formally declare their major field during their second term of residency, if they have not done so earlier” (Chapter 10, Article 4.1).

Timely major declaration is related to retention and graduation. The UCSC Institutional Research and Policy Studies office did a report on major migration, tracking which majors students moved to and from during their time as undergraduates at UCSC. The report found that students who were undeclared in a major in the first quarter of their third year were less likely to graduate within six years. Specifically, at least 90% of students declared across divisions graduated within 6 years. Students undeclared in the first quarter of their third year graduated at a rate of less than 75%.

Students who are able to declare their major in a timely manner are in a better position to graduate and would be integrated in programs of study which may deter them from dropping out or transferring to another institution.

A comprehensive survey was designed to identify obstacles to timely major declaration. Students who were at risk of remaining undeclared beyond the campus deadline were selected to participate in an online survey. The survey was administered in December 2012 and January 2013.

Population and Respondents

We surveyed students in the fall 2010 frosh cohort who were enrolled in fall 2012, and who had received a message from their college in spring 2012 indicating that they needed to declare their major before enrolling in the fall 2012 term. Of the 600 students invited to complete the survey,
107 participated (18%). The survey respondents were similar to the non-respondents in terms of their academic preparation and academic performance at UCSC.\(^4\)

**Methods**

The survey contained three sections: Choosing a Major, Declaration Requirements, and Advising (the entire survey instrument is included in Appendix).

I. Choosing a Major: This section asked students about their initial major choice upon entering UCSC and how it may or may not have changed during their time here. It also asked about students who were undecided or had multiple majors in mind upon entry and asked students to explain how they settled on the major or majors they eventually ended up pursuing.

II. Declaration Requirements: Here students were asked about the actual process of qualifying for and declaring the major, including what prerequisite courses were required of them and any difficulties they may have had. It also asked students about disqualification from majors and how that may have affected them.

III. Advising: The final section examined how advising was used by the students in the process of choosing and declaring a major. Students were asked about their consultations with advisers, if any, as well as how advising could have further helped them with the qualification and declaration process.

The survey was administered online from December 14, 2012 to January 8, 2013 with eligible students receiving three reminder emails over that time period. All students who completed the survey were entered in a drawing for a $25 gift certificate to the Bay Tree Bookstore, three of which were given out.

**Analysis**

The 107 respondents included two types of students: those who successfully declared after receiving the message from their college and who entered the fall 2012 term declared in a major, and those who were unable to declare and who were allowed to continue into the fall 2012 term undeclared. This gave us an opportunity to focus on the differences in responses between the two groups. In the comparative analysis we refer to the following two groups:

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\(^4\) No statistically significant differences at \(p<.05\) were found between the respondents and the non-respondents based on their average high school GPA score and average UCSC GPA score respectively.
**Group A** (44 Responses): Successfully declared a major prior to fall 2012.

**Group B** (63 Responses): Continued into the fall 2012 term undeclared.

By comparing the two groups we were able to put together a more complete picture of some of the obstacles that students run into when trying to choose and declare a major.\(^5\)

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\(^5\) UCSC's Institutional Research office maintained confidentiality of student responses. The report's author analyzed the crosstabulated data and lists of open-ended responses that were not linked to any specific students.
Section 2: Summary of Findings and Recommendations

Findings

Major Decision and Declaration
- Entering completely undecided on a major may delay major declaration.
- Entering UCSC with two or more majors in mind may be more beneficial to timely declaration than entering with a single major in mind.
- Successful completion of prerequisite courses in the first year is more strongly associated with timely major declaration.
- Students who are unable to access lower division major prerequisite courses may have more difficulties declaring a major by the deadline.

Disciplines of Interest
- Major migration from the biological sciences may affect timely declaration.
- Students who are unable to declare by the deadline are more often pursuing majors in the social sciences and the School of Engineering.

 Increased Interaction with Advisers
- A majority of respondents indicated that they would benefit from mandatory meetings with advisers prior to major selection.
- Many respondents indicated that their career choice affected their major decision; however, few met with a Career Center adviser.

Recommendations

Major Decision and Declaration
- Creating and publicizing course pathways for first year students that fulfill both general education requirements and prerequisite requirements for more than one similar majors.
- Examination of ways to increase access to required prerequisite courses for some majors, particularly for first and second year students.
- Encourage exploration of more than one major in the first year.

Disciplines of Interest
- Consider ways in which to support students in deciding on and qualifying for majors in social sciences and engineering in a more timely manner.

Increased Interaction with Advisers
- Consider ways to ensure that students meet with the advisers most relevant to their needs (college, major, and Career Center) in their first or second year.
Section 3: Findings

The report presents the results of the survey in 6 sections: Academic and Background Indicators, Intended Major, Prerequisite Courses, Changing Majors, Class Availability, and Advising. Below are selected results followed by analysis.

Academic and Background Indicators

This section of the findings focuses on academic preparation, academic performance, and the first generation status of the respondents and the 2010 frosh cohort as a whole. The tables presented in this section combine the survey results with institutional data to give a more complete picture of the respondents.

Academic preparation and performance

TABLE 1.1

<table>
<thead>
<tr>
<th></th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
<th>Is the difference statistically significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School GPA</td>
<td>3.6</td>
<td>3.5</td>
<td>No</td>
</tr>
<tr>
<td>UCSC GPA</td>
<td>2.9</td>
<td>2.7</td>
<td>Significant p&lt;.05</td>
</tr>
</tbody>
</table>

The above table shows the group average grade point average (GPA) of the two groups in both high school and UCSC. In high school there was no difference in GPA. However, in their first two years at UCSC Group A had a higher average GPA than Group B by 0.2 with a statistical significance of p<0.05. This tells us that although students from both groups came into UCSC with comparable academic preparation, in the first two years at UCSC students in Group B experienced noticeably more academic difficulty.

TABLE 1.2

<table>
<thead>
<tr>
<th></th>
<th>Entire Fall 2010 Frosh Cohort (Double Major)</th>
<th>Entire Fall 2010 Frosh Cohort (Single Major)</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School GPA</td>
<td>3.7</td>
<td>3.6</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>UCSC GPA</td>
<td>3.3</td>
<td>3.1</td>
<td>2.9</td>
<td>2.7</td>
</tr>
</tbody>
</table>
Table 1.2 compares our respondents to the entire 2010 frosh cohort. While our respondents came in with similar academic preparation to the rest of the cohort, there is noticeable difference in UCSC GPA between students who were able to declare two majors, one major, and the respondents in Group A and Group B.

The students in Group B had a lower academic performance measured by GPA. This has implications for retention and graduation. Students with lower academic performance and also a lower sense of belonging are at a higher risk of leaving UCSC (“Who Leaves Santa Cruz and When? Retention and Graduation Among Freshman Cohorts”). It is possible that integration in a program of study is essential to a student’s “sense of belonging.” Students who are considering leaving UCSC because of both academic performance and lacking a sense of belonging could benefit from efforts to help them find, pursue, and declare a major. Although the students we surveyed had returned to UCSC for their third year, this group may be at risk of attrition based both on the report referenced above and the major migration reports referenced earlier.

First Generation Students

Almost two thirds (64%) of the survey respondents were first generation students, Of the first generation students in the fall 2010 cohort, 27% received a notice about the approaching deadline compared to 21% among non-first generation students.

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Intended major

**TABLE 1.3 Division of major currently being pursued**

<table>
<thead>
<tr>
<th>Division</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
<th>Total Respondents</th>
<th>Total Fall 2010 Frosh Cohort (As of spring 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical and Biological Sciences</td>
<td>14% (6)</td>
<td>3% (2)</td>
<td>8% (8)</td>
<td>28%</td>
</tr>
<tr>
<td>School of Engineering</td>
<td>25% (11)</td>
<td>18% (11)</td>
<td>21% (22)</td>
<td>9%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>48% (21)</td>
<td>67% (42)</td>
<td>59% (63)</td>
<td>40%</td>
</tr>
<tr>
<td>Humanities</td>
<td>7% (3)</td>
<td>10% (6)</td>
<td>8% (9)</td>
<td>13%</td>
</tr>
<tr>
<td>Arts</td>
<td>7% (3)</td>
<td>2% (1)</td>
<td>4% (4)</td>
<td>7%</td>
</tr>
<tr>
<td>Undeclared</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Group Total</strong></td>
<td>100% (44)</td>
<td>100% (63)</td>
<td>100% (107)</td>
<td>100% (2602)</td>
</tr>
</tbody>
</table>

Table 1.3 shows the two groups of respondents and the division of their intended major. The majority of respondents (59%) intended to have a social science major and a fifth of respondents were pursuing majors in the School of Engineering. When we compared our respondents to the entire fall 2010 frosh cohort, we found that these divisions were overrepresented in our respondent group (both Group A and Group B). This suggests that students in both Groups A and B may have difficulty qualifying for School of Engineering majors by the deadline. Students initially interested in other majors but unable to declare may have moved to pursuing social science majors as their second choice major and this would explain the overrepresentation in this division.

In social sciences, however, more than half of the students were concentrated in the psychology and sociology majors. Since psychology and sociology each only require 3 courses prior to declaration, this finding is likely due to students not being able to access lower division courses or due to students deciding to pursue the major after completing their first year.

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7 When we compared the major that respondents indicated they were pursuing with their “proposed major” in AIS, we found only 60% of the “proposed majors” matched with the respondents stated intentions. For this reason we used the term “intended major” to refer to the major that the respondent indicated they were pursuing on the survey.
**TABLE 1.4 Selected majors being pursued upon entry and in third year**

<table>
<thead>
<tr>
<th>Major</th>
<th>Group A (upon entry to UCSC)</th>
<th>Group A (in their third year)</th>
<th>Group B (upon entry to UCSC)</th>
<th>Group B (in their third year)</th>
<th>Both Groups (upon entry to UCSC)</th>
<th>Both Groups (in their third year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>18% (8)</td>
<td>2% (1)</td>
<td>21% (13)</td>
<td>0% (0)</td>
<td>19% (21)</td>
<td>1% (1)</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>9% (4)</td>
<td>7% (3)</td>
<td>2% (1)</td>
<td>2% (1)</td>
<td>5% (5)</td>
<td>4% (4)</td>
</tr>
<tr>
<td>Computer Science</td>
<td>7% (3)</td>
<td>4% (2)</td>
<td>6% (4)</td>
<td>2% (1)</td>
<td>7% (7)</td>
<td>3% (3)</td>
</tr>
<tr>
<td>Business Management Economics</td>
<td>7% (3)</td>
<td>9% (4)</td>
<td>10% (6)</td>
<td>2% (1)</td>
<td>8% (9)</td>
<td>5% (5)</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>2% (1)</td>
<td>5% (3)</td>
<td>1% (1)</td>
<td>3% (3)</td>
</tr>
<tr>
<td>Psychology</td>
<td>11% (5)</td>
<td>16% (7)</td>
<td>11% (7)</td>
<td>24% (15)</td>
<td>11% (12)</td>
<td>20% (22)</td>
</tr>
<tr>
<td>Sociology</td>
<td>7% (3)</td>
<td>11% (5)</td>
<td>5% (3)</td>
<td>14% (9)</td>
<td>6% (6)</td>
<td>13% (14)</td>
</tr>
</tbody>
</table>

The percentages are calculated based on all majors, not just the majors shown in table 1.4.

Table 1.4 shows some of the most common majors being pursued by respondents when they entered UCSC and what proportion of them are now pursuing these majors. The table reveals a pattern of migration, particularly in Group B. For example, we found that about 19% of our respondents were originally interested in biology, but by the beginning of their third year, only 1% of our respondents were still pursuing a biology major. It should be noted that for the fall 2010 cohort, there were no qualification requirements for biological science majors. There were however, disqualification policies in effect.

It appears that for our respondents, roughly twice as many were interested in psychology and sociology majors in their third year than were interested when they began at UCSC. This may in part explain the large number of students intending to major in psychology or sociology who were unable to complete declaration requirements by the deadline.

Note that our results did not indicate that the students who move out of the biology major are the same students who move into psychology and sociology majors.
Decided/Uncided Upon Entry

Survey Question: When you began your first term at UCSC, did you have a specific major (e.g., literature, psychology) or a field of studies (such as biology or engineering) in mind that you were interested in pursuing?

**TABLE 2.1**

<table>
<thead>
<tr>
<th></th>
<th><strong>Group A</strong> (Declared by Fall 2012)</th>
<th><strong>Group B</strong> (Undeclared by Fall 2012)</th>
<th><strong>Total</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No, I was completely undecided about my major/field of studies</td>
<td>21% (3)</td>
<td>79% (11)</td>
<td>100% (14)</td>
</tr>
<tr>
<td>Yes, I had one major/field of study in mind</td>
<td>39% (25)</td>
<td>61% (39)</td>
<td>100% (64)</td>
</tr>
<tr>
<td>Yes, I had two or more major/field of studies in mind</td>
<td>55% (16)</td>
<td>45% (13)</td>
<td>100% (29)</td>
</tr>
</tbody>
</table>

This table shows how many, if any, majors respondents had in mind upon entering their first term at UCSC. A majority of respondents who were completely undecided when they began as frosh (79%) did not complete prerequisites by the deadline. This is an important but not a surprising finding.

When we compared students who had one major in mind to students who had two or more majors in mind, we found that respondents exploring more than one major were more likely to declare by the deadline (Group A). This suggests that exploration of more than one major in the first year is more likely to result in timely declaration.
Prerequisites

Survey Question: When did you start prerequisite coursework needed to satisfy the declaration requirements for the major you are currently pursuing?

**TABLE 3.1**

<table>
<thead>
<tr>
<th></th>
<th><strong>Group A</strong></th>
<th><strong>Group B</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Declared by Fall 2012)</strong></td>
<td><strong>(Undeclared by Fall 2012)</strong></td>
<td></td>
</tr>
<tr>
<td>Prior to Fall 2010</td>
<td>9% (4)</td>
<td>3% (2)</td>
</tr>
<tr>
<td>Fall 2010</td>
<td>36% (16)</td>
<td>16% (10)</td>
</tr>
<tr>
<td>Winter 2011</td>
<td>11% (5)</td>
<td>10% (6)</td>
</tr>
<tr>
<td>Spring 2011</td>
<td>2% (1)</td>
<td>16% (10)</td>
</tr>
<tr>
<td>Summer 2011</td>
<td>5% (2)</td>
<td>2% (1)</td>
</tr>
<tr>
<td>Total of students who began taking prerequisite courses in first year</td>
<td>64% (28)</td>
<td>46% (29)</td>
</tr>
<tr>
<td>Began taking prerequisite courses after first year</td>
<td>36% (16)</td>
<td>54% (34)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (44)</td>
<td>100% (63)</td>
</tr>
</tbody>
</table>

The survey asked respondents when they began prerequisite coursework for their intended major and we found that a majority (64%) who completed prerequisite courses on time had begun taking them in their first year, with 36% beginning in their very first quarter. Forty six percent of respondents in Group B began prerequisite coursework in their first year, with 16% beginning in the first quarter. This suggests that an early and successful start on major requirements affects students’ ability to be declared before the third year.
Survey Question: Before settling on this major, have you taken any prerequisite courses for another major that you decided NOT to pursue?

### TABLE 3.2

<table>
<thead>
<tr>
<th></th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not sure</td>
<td>9% (4)</td>
<td>6% (4)</td>
</tr>
<tr>
<td>No, I have only taken prerequisite courses for a major I am currently pursuing.</td>
<td>27% (12)</td>
<td>21% (13)</td>
</tr>
<tr>
<td>Yes, I have taken prerequisite courses for another major but decided not to pursue it</td>
<td>64% (28)</td>
<td>73% (46)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (44)</td>
<td>100% (63)</td>
</tr>
</tbody>
</table>

The intent of this question was to identify the extent of pre-major migration. We found that the majority of respondents (64% of Group A and 73% of Group B) took prerequisite courses for another major but decided not to pursue it. To explore this further, we asked a number of questions of those students who indicated that they had changed their major choice sometime in the first two years.
### Changing Majors

**Survey Question:** What were your reasons for deciding to pursue another major? (*Respondents could choose multiple answers here*)

#### TABLE 4.1

<table>
<thead>
<tr>
<th>Reason</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
<th>Total respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>I learned about another major that seemed like a better fit for me</td>
<td>30% (13)</td>
<td>41% (26)</td>
<td>36% (39)</td>
</tr>
<tr>
<td>I had difficulty in the lower-division courses for the major I originally intended</td>
<td>25% (11)</td>
<td>38% (24)</td>
<td>33% (35)</td>
</tr>
<tr>
<td>My career goals have changed</td>
<td>21% (9)</td>
<td>27% (17)</td>
<td>28% (30)</td>
</tr>
<tr>
<td>I took a class outside my intended major that inspired me to change</td>
<td>25% (11)</td>
<td>25% (16)</td>
<td>25% (27)</td>
</tr>
<tr>
<td>I could not meet the declaration requirements for my first choice major</td>
<td>21% (9)</td>
<td>27% (17)</td>
<td>24% (26)</td>
</tr>
<tr>
<td>I did not like the lower-division courses in the major I originally intended</td>
<td>11% (5)</td>
<td>29% (18)</td>
<td>22% (23)</td>
</tr>
<tr>
<td>I learned more about the requirements for the major I originally intended, and it no longer seemed attractive to me</td>
<td>21% (9)</td>
<td>14% (9)</td>
<td>17% (18)</td>
</tr>
</tbody>
</table>
The three most common responses across both groups were:

- I learned about another major that seemed like a better fit for me
- I had difficulty in the lower-division courses for the major I originally intended
- My career goals have changed

The responses indicate that while a number of students change a major due to academic difficulty, more may change simply because their academic interests and career goals change. Assisting students in clarifying their goals earlier could have a significant affect on timely major declaration.

Class Availability

*Survey Question*: During the 2011-12 academic year, were you able to take all of the prerequisite classes when you needed/wanted them without having to wait until the next term?

<table>
<thead>
<tr>
<th>TABLE 5.1</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
<th>Both Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, I was able to enroll in prerequisite classes</td>
<td>59% (26)</td>
<td>42% (27)</td>
<td>50% (53)</td>
</tr>
<tr>
<td>No, I tried to enroll but the class was full</td>
<td>32% (14)</td>
<td>33% (21)</td>
<td>33% (35)</td>
</tr>
<tr>
<td>No, I tried to enroll but the class was not offered</td>
<td>7% (3)</td>
<td>13% (8)</td>
<td>10% (11)</td>
</tr>
<tr>
<td>No, I postponed for other reasons</td>
<td>0% (0)</td>
<td>6% (4)</td>
<td>4% (4)</td>
</tr>
<tr>
<td>No response</td>
<td>2% (1)</td>
<td>5% (3)</td>
<td>4% (4)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (44)</td>
<td>100% (63)</td>
<td>100% (107)</td>
</tr>
</tbody>
</table>

A third of respondents in both groups said that they could not enroll in all of the prerequisite classes because classes were full. An additional number of respondents were not able to take the classes because they were not offered in the quarter that the respondent wished to take them. This suggests that increased capacity in lower-division major gateway classes might
have a significant impact on students’ ability to be declared in a major by the campus deadline. Specifically, psychology stood out as a major that was particularly affected by class capacities. Out of 22 respondents who indicated they were pursuing a major in psychology, 14 answered “No, I tried to enroll but the class was full” to the above question.

The “changed major” portion of the survey provided students with a space to explain their difficulties with declaration and multiple students indicated that class capacity was an issue. One student from Group B wrote, “Because the classes that I needed were at the same time and sometimes not offered during the quarter or the class was full,” and another said, “I could not get into the class I needed for the math requirement I needed. So I decided to just take it over the summer.”

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**Advising**

Respondents were asked about their utilization of major staff advisers, college advisers, and faculty advisers in deciding on a major. The following three tables summarize the findings.

*Survey Question: During the 2011/12 academic year, did an adviser assist you with deciding on a major that suits your interests, skills, and/or career plans?*

**TABLE 6.1 Major Staff Adviser**

<table>
<thead>
<tr>
<th></th>
<th><strong>Group A</strong> (Declared by Fall 2012)</th>
<th><strong>Group B</strong> (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not want/need their help with this</td>
<td>21 (49%)</td>
<td>17 (28%)</td>
</tr>
<tr>
<td>Met with a major adviser about this</td>
<td>15 (35%)</td>
<td>29 (48%)</td>
</tr>
<tr>
<td>Wanted/needed their help but did not meet with a major adviser about this</td>
<td>7 (16%)</td>
<td>14 (23%)</td>
</tr>
</tbody>
</table>
TABLE 6.2 College Adviser

<table>
<thead>
<tr>
<th>Did not want/need their help with this</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 (45%)</td>
<td>20 (33%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Met with a college adviser about this</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 (50%)</td>
<td>27 (44%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wanted/needed their help but did not meet with a college adviser about this</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (5%)</td>
<td>14 (23%)</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 6.3 Faculty Adviser

<table>
<thead>
<tr>
<th>Did not want/need their help with this</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 (60%)</td>
<td>30 (51%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Met with a faculty adviser about this</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 (25%)</td>
<td>14 (24%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wanted/needed their help but did not meet with a faculty adviser about this</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 (15%)</td>
<td>15 (25%)</td>
<td></td>
</tr>
</tbody>
</table>

Of the three, college and major staff advisers were the most highly utilized. Specifically, 50% of Group A met with a college adviser, 35% met with a major staff adviser, and 25% met with a faculty adviser about deciding on a major. In Group B, 48% met with a major staff adviser, 44% met with a college adviser, and 24% met with a faculty adviser. Compared to Group A, a higher percentage of respondents in Group B wanted/needed help but did not meet with advisers (almost a quarter of Group B). In terms of satisfaction with the quality of advising, we found that almost 80% of students in Group B were provided by major staff advisers with information they found useful in making progress towards major declaration. Of this group 65% said their major staff advisers made them feel welcome most of the time. Regarding college advisers, we found that 75% of the students in Group B were provided by college advisers with information they found
useful in making progress towards major declaration. When asked if the college advisers made them feel welcome a similar number, 73% said yes.

Very few (about 15%) of our respondents met with Career Center advisers. However, a significant number of them indicated that career choice affected their major choice (see table 4.1). This may indicate that an important campus resource is being underutilized by students who are clarifying their educational and career goals (both Groups A and B).

Survey Question: Do you think that a mandatory meeting with a major adviser and/or college adviser to plan major declaration would be helpful to students during their first two years at UCSC? Please select one of the following options:

**TABLE 6.4**

<table>
<thead>
<tr>
<th>Survey Response</th>
<th>Group A (Declared by Fall 2012)</th>
<th>Group B (Undeclared by Fall 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, meetings with advisers to plan major declaration should not be required</td>
<td>10% (4)</td>
<td>7% (4)</td>
</tr>
<tr>
<td>Yes, a mandatory meeting with a college adviser should be required</td>
<td>5% (2)</td>
<td>9% (5)</td>
</tr>
<tr>
<td>Yes, a meeting with a major adviser should be required</td>
<td>28% (11)</td>
<td>42% (24)</td>
</tr>
<tr>
<td>Yes, meetings with both advisers should be required</td>
<td>56% (29)</td>
<td>42% (24)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (39)</td>
<td>100% (57)</td>
</tr>
</tbody>
</table>

The large majority of the respondents, and particularly those who did not meet the declaration requirement by the deadline (Group B), wanted more interaction with advisers. When respondents were asked about usefulness of a mandatory meeting with advisers to plan major declaration, the majority (84%) of all respondents supported a mandatory meeting with either a major staff adviser alone, or both a major staff and a college adviser.
Section 4: Discussion and Recommendations

The following are suggestions for further exploration made from analyzing the results of the Major Declaration Survey.

Exploration of More Than One Major

Our findings indicated that while entering UCSC completely undecided on a major may not be beneficial, being entirely focused on a single major may not be the answer. Because our results indicate that respondents who entered UCSC considering more than one major declared by the deadline at a higher rate than those who were focused on a single major upon entry, it may be beneficial to explore advising strategies that encourage students to take courses that fulfill prerequisite requirements for more than one major in their first year. This could also potentially be achieved by creating and publicizing specific general education course paths which would enable students who are not entirely decided on a single major to take a set of courses that simultaneously fulfill prerequisite requirements for a few, similar majors and the general education requirements.

It is important to note that advising strategies such as these should be pursued not just with students who tell us they are “undecided.” Our data shows that those respondents who entered UCSC “decided” on one major failed to declare at a higher rate than those who were still deciding between two or more majors.

Major Movement

One of the major trends found in the survey results is that a disproportionately high number of our respondents entered UCSC intending to pursue a major in biology and changed to a different major some time in the first two years. We also found a movement toward social science majors, specifically psychology and sociology. As the survey also found that students who switch their intended major after spending considerable time pursuing an initial major are less likely to declare on time, this deserves further study to identify ways to address this issue.

Enrollment in Prerequisite Courses

The results also found that a significant number of students have issues with enrolling in required prerequisite courses due to class capacity. For example, the majority of students who were pursuing a psychology major said that they ran into difficulty with completing prerequisite courses because those classes were full (our survey did not ask them to identify specifically which courses they had trouble enrolling in, so we do not know whether the respondents were referring to psychology courses or other major prerequisites offered by other departments). As the findings indicated that an early start to prerequisite coursework was a major indication of timely declaration, we suggest identifying ways to ensure students are able to access and enroll in major gateway courses in their first and second years.
First-Generation Students

Using institutional data on the 2010 frosh cohort, we also found that first generation students were at a significantly higher risk of missing the deadline for declaring a major at the end of their second year. Among the first generation students in the cohort, 27% received a notice about the approaching deadline compared to 21% among non-first generation students. Therefore it is important to note that almost two thirds (64%) of the survey respondents were first generation students, and that this study's findings and the recommendations are relevant to understanding and improving academic success of students who are first in their family to pursue a bachelor’s degree. A future effort might include a study of major choice and declaration specifically focused on our first generation students.

---

8 A Chi-square test was conducted to compare percentages of first generation and non-first generation students who were undeclared in their sixth quarter at UCSC and received a notice about the approaching deadline (p<.001).
Declaration of Major Survey

Online Survey conducted December 18, 2012 - January 15, 2013

Dear UCSC Undergraduates,

Welcome to the Major Declaration Survey!

In an effort to improve our services in a way that most benefits our students Undergraduate Advising is surveying students who were not declared in a major at some time during the spring 2012 term.

Your survey responses will provide us with valuable information about the following steps in declaration of major:

a) selecting a major,

b) meeting the declaration requirements, and

c) using academic advising.

The survey takes about 5-10 minutes to complete.

Help us make improvements and win a PRIZE! Students who complete the survey will have a chance to win one of three $25 gift cards to the Bay Tree Bookstore.

To take the survey:

   enter your 7 digit student ID ____________________________

If you can't log in, contact Anna Sher at asher@ucsc.edu.

Protecting Your Privacy

Please be assured that your responses will be maintained securely and confidentially. The survey data will be collected, stored, and analyzed by UCSC's office for Institutional Research (IRPS). The survey results will be reported only as aggregate data and identities of respondents cannot be ascertained. Any quotations from responses to open ended questions will be paraphrased to protect the respondent's identity.

If you have any questions regarding the survey's confidentiality, please contact Anna Sher, IRPS analyst at asher@ucsc.edu

(End of Page 1)
PART 1. Selection of major

1. When you began your first term at UCSC, did you have a specific major (e.g., literature, psychology) or a field of studies (such as biology or engineering) in mind that you were interested in pursuing?

- No, I was completely undecided about my major/field of studies
- Yes, I had one major/field of studies in mind
- Yes, I had two or more majors in mind

If “No, I was completely undecided about my major/field of studies” SKIP TO Page 8
If “Yes, I had one major/field of studies in mind” SKIP TO Page 4

(End of Page 2)

2. Were you interested in two or more majors because you wanted to

- pursue one major but was not sure which one
- pursue one major and a minor
- explore more than one major to decide if you wanted a single or a double major
- pursue a double major?

(End of Page 3)
3. Please select ONE major you were **most interested** in when you started at UCSC?

- **Arts as the field of studies or specifically:**
  - Art
  - Film and Digital Media
  - History of Art and Visual Culture
  - Music
  - Theater Arts

- **Engineering as the field of studies or:**
  - Bioengineering
  - Bioinformatics
  - Computer Engineering
  - Computer Science (including Computer Science: Game Design)
  - Electrical Engineering
  - Robotics Engineering
  - Technology and Information Management

- **Humanities as the field of studies or:**
  - Classical Studies
  - Feminist Studies
  - German Studies
  - History
  - Italian Studies
  - Jewish Studies
  - Language Studies
物理与生物科学领域或：
- 物理学：物理学、应用物理学、物理学教育，或物理学（天体物理学）
- 生物化学和分子生物学
- 生物学（包括生物学、生态学与进化、人类生物学、海洋生物学、分子细胞与发育生物学、神学科学、植物科学）
- 化学
- 地球科学
- 数学

社会科学领域或：
- 人类学
- 认知科学
- 经济学（包括经济学、工商管理经济学、全球经济学）
- 环境研究
- 拉丁美洲和拉美裔研究
- 法学
- 政治学
- 心理学
- 社会学
- 其他

(End of Page 4)
4. Are you still pursuing this major? %shows answer from Q3%

- Yes, this is the major I am pursuing
- No, not exactly
- No, not at all

(End of Page 5)

5. What was the SECOND major you were most interested in when you started at UCSC?

- Arts as the field of studies or specifically:
  - Art
  - Film and Digital Media
  - History of Art and Visual Culture
  - Music
  - Theater Arts

- Engineering as the field of studies or:
  - Bioengineering
  - Bioinformatics
  - Computer Engineering
  - Computer Science (including Computer Science: Game Design)
  - Electrical Engineering
  - Robotics Engineering
- Technology and Information Management

- **Humanities as the field of studies or:**
  - Classical Studies
  - Feminist Studies
  - German Studies
  - History
  - Italian Studies
  - Jewish Studies
  - Language Studies
  - Linguistics
  - Literature
  - Philosophy

- **Physical and Biological Sciences as the field of studies or:**
  - Physics: Physics, Applied Physics, Physics Education, or Physics (Astrophysics)
  - Biochemistry and Molecular Biology
  - Biology (including Biology, Ecology and Evolution, Human Biology, Marine Biology, Molecular Cellular and Developmental Biology, Neuroscience, Plant Sciences)
  - Chemistry
  - Earth Sciences
  - Mathematics

- **Social Sciences as the field of studies or:**
  - Anthropology
  - Cognitive Science
  - Economics (including Economics, Business Management Economics, Global Economics)
6. Are you still pursuing this major? %shows answer from Q5%

☐ Yes, this is the major I am pursuing

☐ No, not exactly

☐ No, not at all

(End of Page 7)
[if no longer pursues intended major or had no major in mind]

7. What major are you pursuing now?

- UNDECIDED

- *****Arts Division*****
  - Art
  - Film and Digital Media
  - History of Art and Visual Culture
  - Music
  - Theater Arts

- *****School of Engineering*****
  - Bioengineering
  - Bioinformatics
  - Computer Engineering
  - Computer Science
  - Computer Science: Game Design
  - Electrical Engineering
  - Robotics Engineering
  - Technology and Information Management

- ***Humanities Division***
  - Classical Studies
  - Feminist Studies
  - German Studies
  - History
○ Italian Studies
○ Jewish Studies
○ Language Studies
○ Linguistics
○ Literature
○ Philosophy
○ ***Physical and Biological Sciences***
○ Physics
○ Applied Physics
○ Physics (Astrophysics)
○ Physics Education
○ Biochemistry and Molecular Biology
○ Biology
○ Ecology and Evolution
○ Human Biology
○ Marine Biology
○ Molecular Cellular and Developmental Biology
○ Neuroscience
○ Plant Sciences
○ Chemistry
○ Earth Sciences
○ Mathematics
○ ***Social Sciences***
○ Anthropology
☐ Cognitive Science
☐ Business Management Economics
☐ Economics
☐ Global Economics
☐ Environmental Studies
☐ Latin American and Latino Studies
☐ Legal Studies
☐ Politics
☐ Psychology
☐ Sociology
☐ Other ____________________

(End of Page 8)
PART 2. Declaration requirements

8. Please select below the term when you took the first and the last prerequisite courses needed to satisfy the declaration requirements for the major you are currently pursuing. If you are/plan to be a double major, tell us about your first major.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished/Will have finished prerequisites</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Before settling on this major, have you taken any prerequisite courses for another major that you decided NOT to pursue?

☐ No, I have only taken prerequisite courses for a major I am currently pursuing.

☐ Yes, I have taken prerequisite courses for another major but decided not to pursue it

☐ I am not sure

Destination: Page 11 (No, I have only taken prerequisite courses for a major I am currently pursuing.)

(End of Page 9)
9A. What were your reasons for deciding to pursue another major? (Check all that apply)

- I could not meet the declaration requirements for my first choice major
- My career goals changed
- I took a class outside my intended major that inspired me to change
- I learned about another major that seemed like a better fit for me
- I learned more about the requirements for the major I originally intended, and it no longer seemed attractive to me
- I did not like the lower-division courses in the major I originally intended
- I had difficulty in the lower-division courses for the major I originally intended
- Other ____________________

(End of Page 10)
9B. Did you have to retake one or more prerequisite courses to meet the declaration requirements for your current major?

- No
- Yes
- Other _______

9C. During the 2011-12 academic year, were you able to take all the prerequisite classes when you needed/wanted them without having to wait until the next term?

- Yes, I was able to enroll in prerequisite classes when I needed them.
- No, I tried to enroll but the class was full
- No, I tried to enroll but the class was not offered that quarter
- No, I postponed for other reasons

9D. If you did NOT declare a major by the end of Spring 2012: please briefly explain the main issue that affected your ability to be declared (for example, a particular class, life event, or difficulties in your personal life)

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

(End of Page 11)
PART 3. Academic advising

Major Adviser

10A. During the 2011/12 academic year, did a major adviser assist you with the following steps in declaring a major:

<table>
<thead>
<tr>
<th>Step</th>
<th>Met with a major adviser about this</th>
<th>Wanted/needed their help but did not meet with a major adviser about this</th>
<th>Did not want/need their help with this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. deciding on a major that suits your interests, skills, and/or career plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. information about specific majors such as pre-requisites, requirements, and necessary skills to succeed in the major</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. planning a course schedule to meet the major’s declaration requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10B. During the 2011/12 academic year, did you meet with a major adviser for more than one major/academic program?

- Met with an adviser in one major/academic program
Met with an adviser in two or more majors/academic programs

Did not meet with a major adviser.

10C. When you met with a major adviser during last academic year, did he/she ... [If you met with several major advisers, answer about the adviser in the major you are currently pursuing]

<table>
<thead>
<tr>
<th></th>
<th>All or most of the time</th>
<th>Sometimes</th>
<th>Rarely or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>make you feel welcome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide explanations and advice that were clear and easy to understand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide information and advice that helped you make progress towards declaring your major</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10D. Please use the space below to tell us about the assistance you received from a major adviser(s): what was particularly helpful to you and what could be improved?

________________________________________________________________________

________________________________________________________________________

Destination: Page 15
10E. Looking back, could you have benefited from consulting a major adviser about your selection of major and/or the courses you needed to take to be declared in the major?

- Yes
- No
- Maybe

10F. Please explain your answer

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

(End of Page 14)
**College Adviser**

**11A. During the 2011/12 academic year, did your college adviser assist you with ...**

<table>
<thead>
<tr>
<th></th>
<th>Met with a college adviser about this</th>
<th>Wanted/needed their help but did not meet with a college adviser about this</th>
<th>Did not want/need their help with this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. deciding on a major that suits your interests, skills, and/or career plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. information about specific majors such as pre-requisites, requirements, and necessary skills to succeed in the major</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. planning a course schedule to meet the major's declaration requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**11B. During the 2011/12 academic year, did you meet with a college adviser about your major or other issues?**

- ☑ Met with a college adviser once
- ☑ Met with a college adviser more than once
- ☑ Did not meet with a college adviser

Destination: **Page 17** *(Did not meet with a college adviser)*

(End of Page 15)
11C. When you met with your **college adviser** during last academic year, did he/she …

<table>
<thead>
<tr>
<th>All or most of the time</th>
<th>Sometimes</th>
<th>Rarely or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>make you feel welcome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide explanations and advice that were clear and easy to understand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide information and advice that helped you make progress towards declaring your major</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11D. Please use the space below to tell us about the assistance you received from your college adviser(s): what was particularly helpful to you and what could be improved?

_______________________________________________________________

_____________________________________________________________

**Destination: Page 18**

(End of Page 16)
11E. Looking back, could you have benefited from consulting a college adviser about your selection of major and/or the courses you needed to take to be declared in the major?

☐ Yes
☐ No
☐ Maybe

11F. Please explain your answer

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(End of Page 17)
Faculty Adviser

12A. During the 2011/12 academic year, did a faculty adviser assist you with ...

<table>
<thead>
<tr>
<th>Met with a faculty adviser about this</th>
<th>Wanted/needed their help but did not meet with a faculty adviser about this</th>
<th>Did not want/need their help with this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. deciding on a major that suits your interests, skills, and/or career plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. information about specific majors such as pre-requisites, requirements, and necessary skills to succeed in the major</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. planning a course schedule to meet the major’s declaration requirements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12B. During the 2011/12 academic year, did you meet with a faculty adviser about your selection of major or other issues?

- Met with a faculty adviser once
- Met with a faculty adviser more than once
- Did not meet with a faculty adviser

Destination: Page 20 (Did not meet with a faculty adviser)

(End of Page 18)
12C. When you met with a faculty adviser during last academic year, did he/she …

<table>
<thead>
<tr>
<th></th>
<th>All or most of the time</th>
<th>Sometimes</th>
<th>Rarely or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>make you feel welcome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide explanations and advice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>that were clear and easy to understand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide information and advice that</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>helped you make progress towards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>declaring your major</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12D. Please use the space below to tell us about the assistance you received from your faculty adviser(s): what was particularly helpful to you and what could be improved?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Destination: **Page 21**

(End of Page 19)
12E. Looking back, could you have benefited from consulting a faculty adviser about your selection of major and/or the courses you needed to take to be declared in the major?

☑ Yes
☑ No
☑ Maybe

12F. Please explain your answer

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(End of Page 20)
13A. During the 2011/12 academic year, did you meet with a Career Center adviser about your selection of major or other issues?

- Met with a Career Center adviser once
- Met with a Career Center adviser more than once
- Did not meet with a Career Center adviser

Destination: Page 23 (Did not meet with a Career Center adviser)

(End of Page 21)
13B. When you met with a Career Center adviser during last academic year, did he/she ...

<table>
<thead>
<tr>
<th></th>
<th>All or most of the time</th>
<th>Sometimes</th>
<th>Rarely or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>make you feel welcome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide explanations and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>advice that were clear and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>easy to understand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide information and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>advice that helped you make</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>progress towards declaring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>your major</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q13C. Please use the space below to tell us about the assistance you received from a Career Center adviser: what was particularly helpful to you and what could be improved?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(End of Page 22)
14. Do you think that a mandatory meeting with a major adviser and/or college adviser to plan major declaration would be helpful to students during their first two years at UCSC? Please select one of the following options:

- Yes, a meeting with a major adviser should be required
- Yes, a mandatory meeting with a college adviser should be required
- Yes, meetings with both advisers should be required
- No, meetings with advisers to plan major declaration should not be required

Thank you very much for your feedback!

If you are interested in participating in focus group discussions about academic advising and major declaration please provide your email address below. These focus groups will be led by Samved Sangameswara, a student intern in Undergraduate Academic Advising who will contact you sometime in Winter 2013.

email ____________________

To finish your survey, CLICK SUBMIT

Survey ends