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UCSF Mentorship Climate Survey

BACKGROUND

Who
The Associated Students of the Graduate Division (ASGD) in collaboration with Graduate Division staff developed and administered a survey to gather data about graduate students’ perspectives about their mentors, who we defined in the survey as whomever students consider their primary thesis/dissertation advisor, often referred to as their Principal Investigator (PI).

What
As part of an ongoing effort to understand and address issues with mentorship, the purpose of the survey was to collect information about the mentorship experience of UCSF graduate students and identify target areas for improvement.

When
The survey questions were developed during Spring 2017 and the survey was distributed on April 6, 2017 via email listerv to the entire UCSF graduate student body. The survey was closed and responses extracted from Qualtrics on May 2, 2017.

Why
In 2014 at UC Berkeley, the Graduate Assembly issued the Graduate Student Happiness and Well-being Report based on findings from a survey administered to a random sample of graduate students in Spring 2014. They found that having an advisor who is a good mentor was a predictor for students’ life satisfaction.

On April 6, 2017, a forum called Perspective Matters was organized by the UCSF Multicultural Resource Center, S4D, WILS, LGBTQ Student Association, SACNAS, and ASGD. The event gave a venue for students, faculty, and the wider UCSF community to discuss a number of challenging issues: managing family and career, navigating mentor-mentee relationships, balancing your personal and professional self, coping with government policies, or dealing with implicit bias. A common theme that emerged across all discussions was that good mentorship plays a crucial role in addressing nearly all these issues.

Improving mentorship for science graduate students is a priority at universities across the globe. In October 2017, Nature released results from a survey of science graduate students showing that at least one third of students feel that their mentorship around career development and training is poor.¹

Registered campus organizations: SACNAS (Society for Advancement of Chicanos/Hispanics and Native Americans in Science), S4D (Scientists For Diversity); WILS (Women In Life Sciences)
SURVEY QUESTIONS

Questions collected information on the following:

- Demographics (year in program, age, race/ethnicity, gender, etc)
- Career path of interest (academia, non-academia, or either)
- Financial security
- Mentorship
- Use of Individual Development Plans (IDP)
- Choosing and switching labs
- Having thoughts about leaving graduate school

The survey distributed to students is provided as Appendix 1.

The survey also included an opportunity to share any additional thoughts in a free-response textbox to ensure that any additional topics of interest to students were also captured.

PRESENTATION OF RESULTS

For each survey question, we display the results as percentage of students for each answer choice for all students and stratified by groups based on Year, career interest, race/ethnicity, and gender.

Note about Years: Comparing trends across Years gives an estimated idea of how perceptions change as a student progresses through their time at UCSF. But due to ongoing changes in mentorship practices, policies, and requirements, the current experience of students in their later Years may not accurately predict the future experience of students currently in their early Years. For example, the current experience of Year 6 students may not reflect the future experiences of Year 2 students in four years time.

Comparison across groups: We have also summarized main takeaways at the bottom of each figure highlighting any major differences across groups. One caveat to note however, we have refrained from making conclusions about how groups categorized as “Other” compare to the other groups due to the uncertainty of who self-report as “Other” which can include either those who preferred to enter a free-response answer or to not provide an answer.

Regarding n totals: For some categories, the total sum of the n values (respondent count) is not 347 due to missing responses to those questions. For example the total for the n values under Career Interest are n=65 academic, n=129 either, and n=89 outside, which total to 283 since 64 individuals did not provide an answer to that question. Thus all percentages calculated for Career interest are based on a denominator of 283 individuals rather than 347 individuals.
RESPONSE RATE

To estimate the survey response rate, we compared respondent demographics against enrollment data from the UCSF Graduate Division office.

Figure 1. Survey response rate across demographics.

Main Takeaways:
- The size of the pies represents the size of that population at UCSF.
- Achieved at least 50% response rate for Years 2-4.
- Under-represented students are more likely to respond than White or Asian students.
- Women were more likely to respond than men.
SUMMARY

Mentorship
Student satisfaction with mentorship decreases over time in the graduate program.

While mentorship around research is consistently rated as effective, mentorship around training opportunities and career goals is rated as less effective. Students also indicate that expectations of them are not clear and that many mentors do not take students’ well-being into consideration in their mentoring relationship.

Recommendations:
• Mentorship must evolve over time, as the needs of students in their 5th Year are different from the needs of students in their 2nd Year.
  o Both students and mentors must set aside time specifically to have discussions about career goals and needed training, which should not be squeezed into existing meetings to discuss research. Additionally, the frequency of these meetings should increase over time.
• Mentors should keep in mind students need training outside the lab as well as inside the lab regardless of whether they stay in academia or not. For example, opportunities to review papers, mentor newer students, give talks, write fellowship applications, teach, attend meetings, etc. should be offered to students.
• Mentors should be provided with training opportunities to improve their knowledge and skills in mentorship and management. Specifically, training in communicating expectations, mentoring across differences, and understanding student wellness and mental health are frequently mentioned areas for improvement.
• Students should be educated on how to assess mentoring relationships before they choose their thesis advisor and on how to be effective mentees to maximize the mentoring they do receive.
• Students should be aided and expected to develop mentorship relationships that complement the one they have with their primary thesis/dissertation advisor. Students should understand that they need mentoring in many dimensions, not all of which can be served by the thesis/dissertation advisor. This could include peer mentors, other faculty, and mentors in the student’s chosen career path.

Individual Development plans
Majority of students have filled out IDPs (59%) but of those, most have not met with their advisor to discuss the IDP. Non-white students are more likely to complete IDP’s and meet with their mentors to discuss their IDP compared to White students.

Recommendations:
• The IDP is only a conversation starter; the importance is to have a meeting to discuss thoughts that emerged while filling out an IDP, which would hopefully expand into a discussion about career exploration and planning.
• Students should understand that their mentors can only help them achieve their goals if the student has communicated these goals to their mentor.
Main Takeaways:

- 76% of respondents are currently in Year 1-4 of their PhD program.
  - Note the data shown for Year 7+ is only based on the response from 10 individuals, interpret data from Year 7+ with caution due to small sample size.
- 80% of respondents are age 20-29.
- 57% of respondents are women.
- 69% of respondents are White or Asian and 11% are from under-represented groups hereby referred to as Under-represented minorities (URM), using the NIH definition for underrepresented racial and ethnic groups include those that self-reported as: Black or African American, Hispanic or Latinx, Native Hawaiian or Pacific Islander.
  - Note that those self-reporting as Other also include individuals who preferred not to provide their racial/ethnic identity.
CAREER PATH OF INTEREST

We believed that mentorship needs might be different for students considering different career paths. Therefore we included this question to explore these possibilities.

Figure 3. Are you considering a career in academia or outside of academia?

- In academia (faculty, non-faculty researcher, administration, etc)
- Outside of academia (e.g., industry, consulting, health/science policy, science communication, business development, etc.)
- Either in academia or outside of academia (considering both paths)

77% of students are considering careers outside academia (either + outside)

Main Takeaways:

- **By Year:** Students are more likely to begin considering careers outside of academia as they are in their program longer.
- **By Program Type:** Social and Population Science (SocPop) students more likely to be interested in academic careers than basic science students (40% SocPop vs. 19% Basic Sci).
- **By Gender:** Women more likely to be interested in academia than men.
  - Note we were concerned that this difference between men and women was due to SocPop students, who are majority women and are more likely interested in academia, but restricting to only basic science students showed the same pattern, see below.
FINANCIAL SECURITY

We included the following two questions about finances to evaluate the sense of financial security among graduate students, which could influence their experiences at UCSF.

Figure 4. Can you get by financially without having to cut back on too many of the things that are important to you?

34% of students report financially cutting back (strongly + somewhat disagree)

By Year

By Race/Ethnicity

By Career Interest

By Gender
Figure 5. Do your concerns about money affect your work?

39% of students report that concerns about money affect their work
(strongly + somewhat agree)

By Year

Year 1 (n=62)
Year 2 (n=65)
Year 3 (n=67)
Year 4 (n=70)
Year 5 (n=47)
Year 6 (n=26)
Year 7+ (n=10)

By Race/Ethnicity

White (n=164)
Asian (n=76)
URM (n=38)
Other (n=69)

By Gender

Men (n=101)
Women (n=198)
Other (n=48)
MENTORSHIP

Our main goal in this survey was to quantify the level of mentorship satisfaction at UCSF. We first asked a general question about overall satisfaction, then subsequent questions ask about specific components of mentorship to provide more specificity around this topic.

Figure 6A. How satisfied are you with your relationship with your mentor?

Main Takeways:

- **By Year:** Students’ in Year 6 are more likely to be dissatisfied (50%) with their mentor than Year 2 (10%)
- **By Career Interest:** Students interested in careers outside academia are more likely to report dissatisfaction with their mentors
- **By Gender:** Men are more likely to be dissatisfied with their mentors than women

*Note: We considered this gender difference was due the pattern in SocPop students, who are majority women and more likely to be more satisfied with their mentors, but restricting to only basic science students showed the same pattern, see below.*

Figure 6B. Mentorship satisfaction among Basic Science students only
Main Takeways:

- **By Year:** Those later in their program (4+) are also more likely to report mentors having unreasonable expectations.
- **By Race/Ethnicity:** URM students most likely to view their mentor’s expectations of them are unreasonable.
- **By Career Interest:** Students considering careers outside academia are more likely to report mentor’s expectations are unreasonable.
Components of Mentorship

We evaluated eight components of mentorship: 1) the ability to discuss mentee’s research, 2) the ability to discuss mentee’s progress to graduation, 3) the ability to discuss mentee’s career goals, 4) the ability to provide a mentee with training opportunities outside the lab, 5) the ability to respect program policies, 6) the ability to clearly communicate expectations to a mentee, 7) the ability to make a mentee feel like a valued member of the lab/group, 8) and the ability to discuss a mentee’s well-being. This is not intended to be an exhaustive list of all components that make up mentorship but these were ones that students report struggling with based on anecdotal evidence.

Figure 8. Component (1) How effective is your mentor at...discussing your research?

Main Takeaways:

• Overall, most students (90%) are satisfied with their mentor’s effectiveness in discussing their research, and a majority rate their mentors as extremely effective in this component of mentorship.

• **By Career Interest:** Students pursuing careers in academia are more likely to report lower satisfaction than students pursuing careers outside academia.
  
  o We speculate that students staying in academia may require more feedback in developing an independent research area they can take with them to their postdoc or faculty positions.
Figure 9. Component (2) How effective is your mentor at discussing your progress to graduation?

Main Takeaways:
- Although not as highly rated as the ability to discuss research, 72% of students believe their mentor is effective at discussing their progress to graduation.
- **By Year:** Satisfaction begins to decrease as students remain longer in their program, shown by a steady increase in ratings of ineffectiveness from Year 2 to Year 6.
**Figure 10. Component (3) How effective is your mentor at...discussing your career goals?**

**Main Takeaways:**

- Although the ability to discuss career goals was overall similarly rated as effective as compared to the ability to discuss progress to graduation, the proportion of students who reported that their mentors were not effective at all doubled (11% career goals compared to 5% progress to graduation).

- **By Year:** Students in later years, especially Year 5, are most likely to report that their mentor is not effective in discussing their career goals.

- **By Career Interest:** Students pursuing careers outside academia are most likely to report that their mentors are not effective in discussing their career goals.
Figure 11. Component (4) How effective is your mentor at...providing training opportunities (not research)? i.e., reviewing papers, internships, etc.

Main Takeaways:

- Fewer students (63%), compared to other components feel their mentor is effective at providing training opportunities outside the lab.
- **By Year:** This is especially apparent as students progress through their program with more students reporting ineffectiveness as their Year increases, particularly in Year 6 where a majority of students report their mentors are ineffective in providing training opportunities.
- **By Career Interest:** Both students who have decided on their career path (either in academia or outside) feel they are not receiving training opportunities.
Figure 12. Component (5) How effective is your mentor at...respecting program policies? i.e., allowing time for TA responsibilities

**Main Takeaways:**
- Most students (85%) believe their mentor respects program policies such as giving them time out of the lab to fulfill TA duties.
**Main Takeaways:**

- **By Year:** Mentors’ ability to communicate expectations of mentees in their lab is reported as being less effective in later Years.
- **By Career Interest:** Students pursuing careers outside academia are also reporting that their mentors are less effective in communicating expectations of them.
Figure 14. Component (7) How effective is your mentor at...making you feel like a valued member of the lab?

78% believe their mentor is effective at making them feel like a valued member of the lab/group

Main Takeaways:
- Many students (70%) feel their mentor makes them feel like a valued member of the lab/group.
- **By Year:** This satisfaction decreases over time with students in later Years more likely to report their mentors are not effective at making them feel like a valued member.
Figure 15. Component (8) How effective is your mentor at discussing your well-being?

53% believe mentor is effective at discussing well-being

Main Takeaways:

- The ability to discuss well-being was the component that students felt mentors were least effective.
  - Note that well-being could be interpreted as mental and physical health, but interpreted either way, a student’s well-being can impact their productivity as a member of the lab and is a relevant aspect of mentorship.

- By Year: Later Years are more likely to report their mentors are not effective at discussing their well-being.

- By Career Interest: Those pursuing careers outside academia also were more likely to rate mentors as ineffective at discussing well-being.

- By Gender: Although the discussions around the lack of women in science led us to expect that women would be more likely to report their mentors as ineffective at discussing well-being, the data show that men are more likely to report their mentors as ineffective.

- By Race/Ethnicity: Similarly, URM students are less likely than other students to report their mentors as ineffective at discussing well-being.
Types of Feedback

To better understand how mentors give feedback to students, we wanted to know how often students believe they are receiving feedback. We developed two categories of feedback, constructive and non-constructive. Constructive feedback, both negative and positive, is a useful type of feedback for a student whether it is to appropriately acknowledge real achievements or to redirect a student in an area for improvement. On the other hand, non-constructive feedback is considered not useful for a student, such as empty praise or general dismissal of their work, because a student did not feel that useful information was communicated. The figure titles show the exact language used in the survey to describe these types of feedback to respondents.

Main Takeaways:

- Majority of students (at least 60%) are receiving constructive feedback at least monthly and many students never receive non-constructive feedback (43% empty praise and 64% general dismissal of work).
- However 18% feel they are getting non-constructive negative feedback, general dismissal of their work, at least monthly.

Figure 16. When giving feedback, how often does your mentor provide…”constructive positive” feedback? (i.e., acknowledge your accomplishments)
Figure 17. When giving feedback, how often does your mentor provide...“constructive negative” feedback? (i.e., helpful suggestions)
Figure 18. When giving feedback, how often does your mentor provide ... “non-constructive positive” feedback? (i.e., passive or empty praise)
Figure 19. When giving feedback, how often does your mentor provide...“non-constructive negative” feedback? (i.e., general dismissal of your work)
**Frequency of Communication with Mentor**

We hypothesized that students may believe their mentor is ineffective at discussing certain topics because these conversations do not take place often or with any regularity. Therefore, we compared the frequency with which they discuss their progress to graduation, career goals, and well-being to the frequency with which they discuss their research.

**Figure 20. How often do you and your mentor discuss...your research?**

88% of students talk to their mentor at least monthly about their research.

**Main Takeaways:**
- Discussions about research most commonly happen on a weekly basis.
Figure 21. How often do you and your mentor discuss...progress to graduation?

Main Takeaways:

- Discussion of progress toward graduation most commonly happens on a quarterly basis.

By Career Interest: Students who are pursuing careers in academia have discussions about progress to graduation more frequently than other students, with more academia students reporting having this discussion on a monthly basis than a quarterly basis compared to either or outside students.
Figure 22. How often do you and your mentor discuss...career goals in academia?

Among students pursuing a career in academia, 22% never talk with their mentor about their career goals in academia (Restricted to Career Interest = Academia or Either)

Main Takeaways:

- About 22% of students with career goals in academia (students who indicated their career interest was “academia” or “either”) report never having a discussion with their mentor about career goals in academia.
- **By Year**: We hypothesized that most students who never had this career discussion with their mentors were in their early Years and may not have felt to need to discuss it yet. However when looking across Years, there is a consistent proportion of students (at least 20%, with the exception of Year 6 in which there was 13%) in each Year that have never talked to their mentors about pursuing a career in academia.
- **By Race/Ethnicity**: Asian students are less likely than White or URM students to have these conversations about career goals in academia.
Among students pursuing careers outside academia, 40% never talk with their mentors about their career goals outside of academia (Restricted to Career Interest = Outside or Either).

### Main Takeaways:

- **About 40% of students** with career goals outside academia (students who indicated their career interest was "outside academia" or "either") report never having a discussion with their mentor about career goals outside academia.
- **Compared to the previous question**, not discussing career goals seems to be a larger problem for career goals outside of academia (40%) than career goals in academia (22%).
Figure 24. How often do you and your mentor discuss your well-being?

Main Takeaways:
- 32% of students never discuss well-being with their advisors
- **By Career Interest**: Students with career goals outside academia are twice as likely to report never discussing their well-being with their mentor (45%) compared to students with career goals in academia (22%).
Perceived vs. actual approachability

To compare perceived approachability versus what occurs in reality, we asked students two related questions: First, whether they feel they can ask (perceived approachability) their mentor for help and second, whether they actually ask (actual approachability) their mentor for help. It is important to consider that there could be situations in which a student feels they can approach their mentor for help but hasn’t had the reason to approach them yet. Additionally students may feel they can approach their mentor for help but do not know when they should, especially asking for help with career goals. Both of these scenarios describe disconnect between perceived and actual approachability. As with the previous set of questions, approachability to discuss progress to graduation, career goals, and well-being are being compared to approachability to discuss research. If students answered they definitely do not actually ask their mentors for help, we provided a free-text response box to explain why. Selected anonymous responses are shown.

Main Takeaways for Figures 25-33

- **Research:**
  - Students discuss research with their mentor regardless of whether they think they can ask for help with research (Figure 25 & 26: 92% can ask vs. 97% actually ask).

- **Graduation:**
  - Students are somewhat hesitant to discuss progress to graduation with their mentors even though most think they can ask for help with progress to graduation (Figure 27 & 28: 90% can ask vs. 75% actually ask).

- **Career Goals:**
  - Students feel they can ask for help with career goals but many do not actually ask (Figure 29 & 30: 83% can ask vs. 55% actually ask).

- **Well-being:**
  - Fewer students feel they can ask for help with their well-being and most do not actually ask (Figure 31 & 32: 64% can ask vs. 31% actually ask).

- **Disconnect between perceived vs. actual approachability:** The percentage of students with a disconnect between their perceived and actual approachability with their mentors, in which they answered definitely/probably yes to “can ask” but answered rarely or definitely not to “actually ask”, is most notable for discussions around career goals and well-being.

<table>
<thead>
<tr>
<th>Topic</th>
<th>% Students with disconnect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>1.5</td>
</tr>
<tr>
<td>Graduation</td>
<td>21.8</td>
</tr>
<tr>
<td>Career goals</td>
<td>34.5</td>
</tr>
<tr>
<td>Well-being</td>
<td>34.9</td>
</tr>
</tbody>
</table>

- **By Year:** Almost half of students rarely or definitely do not discuss their career goals with their mentor. This is also more likely in later Years, despite the relevance of this discussion increasing over time.

Perceived and actual approachability seems related to a student’s satisfaction rating of their mentor’s effectiveness. (Figure 33)
Figure 25: Hypothetically, do you feel like you can ask your mentor for help with your research?

92% of students think they can ask their mentors for help with their research.

Figure 26: In practice, do you actually ask your mentor for help regarding with your research?

Nearly all students do actually ask mentors for help with research.
Figure 27. Hypothetically do you feel like you can ask your mentor for help with your progress to graduation?

90% of students think they can ask their mentor for help with their progress to graduation

- Definitely yes: 61.69%
- Probably yes: 28.74%
- Probably not: 8.05%
- Definitely not: 1.53%

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=70)
- Year 5 (n=47)
- Year 6 (n=26)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
- Asian (n=76)
- URM (n=38)
- Other (n=69)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)

By Race/Ethnicity
- White (n=164)
- Asian (n=76)
- URM (n=38)
- Other (n=69)

Figure 28. In practice, do you actually ask your mentor for help regarding with your progress to graduation?

75% of students do actually ask their mentors for help with progress to graduation

- Definitely yes: 36.78%
- Sometimes: 37.03%
- Rarely: 20.69%
- Definitely not: 4.60%

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=70)
- Year 5 (n=47)
- Year 6 (n=26)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
- Asian (n=76)
- URM (n=38)
- Other (n=69)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)
Figure 29. Hypothetically do you feel like you can ask your mentor for help with your career goals?

83% of students think they can ask their mentor for help with their career goals

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=76)
- Year 5 (n=47)
- Year 6 (n=26)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
- Asian (n=76)
- URM (n=38)
- Other (n=69)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)

Figure 30. In practice, do you actually ask your mentor for help regarding with your career goals?

57% of student do actually ask their mentors for help with career goals

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=76)
- Year 5 (n=47)
- Year 6 (n=26)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
- Asian (n=76)
- URM (n=38)
- Other (n=69)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)
Please comment on why you selected "Definitely Not".

- When students were asked why they definitely could not ask their mentor for help with their career goals it was clear that students didn’t when the appropriate time was to have a conversation about careers:
  - “I feel that asking for help this late in my graduate career will be taken as a sign of weakness or procrastination.” (student in Year 5)
  - “Have not asked; too early” (student in Year 2)
- “I don’t feel comfortable asking for help with career goals outside of academia because I worry my PI doesn’t approve and will look down on me for it.”
- “Assumption that I want to end up in academia”
Figure 31. Hypothetically do you feel like you can ask your mentor for help with your well-being?

<table>
<thead>
<tr>
<th>Definitely yes</th>
<th>Probably yes</th>
<th>Probably not</th>
<th>Definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.80%</td>
<td>31.80%</td>
<td>24.14%</td>
<td>12.26%</td>
</tr>
</tbody>
</table>

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=70)
- Year 5 (n=47)
- Year 6 (n=28)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
- Asian (n=75)
- URM (n=38)
- Other (n=48)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

By Race/Ethnicity
- White (n=164)
- Asian (n=75)
- URM (n=38)
- Other (n=48)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

Figure 32. In practice, do you actually ask your mentor for help regarding with your well-being?

<table>
<thead>
<tr>
<th>Definitely yes</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.88%</td>
<td>19.16%</td>
<td>43.68%</td>
<td>25.29%</td>
</tr>
</tbody>
</table>

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=70)
- Year 5 (n=47)
- Year 6 (n=28)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
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- Other (n=48)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)
Please comment on why you selected "Definitely Not".

• When students were asked why they definitely could not ask their mentor for help with their well-being four common themes emerged:
  o **Not their job or prefer not to discuss:**
    ▪ “It’s not my PIs job to be my therapist.”
    ▪ “I prefer to discuss well-being with family and friends.”
    ▪ “I don’t consider my mental/physical health to be any concern of my PI’s unless it is affecting the quality of my work”
  o **Student feels uncomfortable bringing up discussion:**
    ▪ “Felt inappropriate to discuss my well-being with my ‘boss’”
    ▪ “Doesn’t feel like the right forum”
    ▪ “Bringing the conversation about mental health or ‘feelings’ seems very awkward and out of place given long established context and tone of our meetings”
    ▪ “Just don’t feel comfortable discussing, don’t have that type of relationship”
  o **Discussing well-being perceived as a weakness:**
    ▪ “I fear that if I were to bring up my own well-being that would be perceived as weakness.”
    ▪ “It seems unprofessional.”
  o **Fear of consequences from having discussion:**
    ▪ “I very frequently wish that I could tell my PI ‘I am not happy, and it is because of your expectations of me.’ I fear that if I do so, he will reduce my freedom and limit my research budget.”
Figure 33. Mentor’s perceived and actual approachability influences students’ satisfaction rating of mentor’s ability to discuss research, progress to graduation, career goals, and well-being.
INDIVIDUAL DEVELOPMENT PLANS

Figure 34. Have you filled out an IDP?

59% of students have filled out an IDP

Main Takeaways:

- Majority of students (59%) have filled out an IDP.
- **By Year**: As one would hope to see, students in later Years—who are more likely to have begun thinking about career options—are more likely to have filled out an IDP than earlier Years (at least 50% for Year 3 through Year 7+).

- **By Race/Ethnicity**: Non-white students, Asian (72%) and URM (63%), are more likely to have filled out an IDP than White students (54%).

- **By Career Interest**: Those pursuing careers outside academia are more likely to have filled out an IDP (74%) than those pursuing careers in academia (42%).
Figure 35. If you have filled out an IDP, have you met with your mentor to discuss your IDP?

Of those who filled out an IDP, only 38% had a meeting with their mentor to discuss it.

Main Takeaways:
- Although a majority of students have filled out an IDP most have not met with their mentor to discuss it (62% have not).
- **By Race/Ethnicity:** Non-white students, Asian and URM (47%) students, are more likely to have had an IDP meeting than white students (32%).
- **By Career Interest:** Those who are considering careers in academia are most likely to have had an IDP meeting (52%).
Figure 36. If yes, how helpful was this meeting?

Main Takeaways:
- **By Year:** Students in later Years were less likely to find the IDP meeting helpful.
- **By Gender:** Women were less likely to find the IDP meeting helpful.
- **By Career Interest:** Students pursuing careers outside of academia were the least likely to find the IDP meeting helpful.
CHOOSING AND SWITCHING LABS

ASGD has developed events in the past to help students choose mentors and to use their rotations to gather information about whether a lab or mentor is the right fit for them. It was also evident in speaking with students who have needed to switch labs that there is enormous stigma around switching labs if they felt they have chosen the wrong lab or mentor for them. The following questions make an effort to measure how common it is to have switched labs and whether students feel they are able to switch labs if they wanted to.

Figure 37. Did you feel like you knew what to look for in a mentor?

20% of students did not feel they knew what to look for in a mentor

Main Takeaways:

• **By Year**: As students progress through to later Years, an increasing percentage of students report that they did not know what to look for in choosing a mentor, with almost 50% of 6th years not knowing what to look for.
  - This may indicate better education of newer students, or it may indicate that it takes a few years for students to realize that they didn’t know what to look for, i.e. what is important to them in later Years was not apparent to them in earlier Years.
Main Takeaways:

- **By Race/Ethnicity**: URM students are more likely to report that rotations were not helpful for choosing a lab/group.
- **By Gender**: Women are also more likely to report that rotations were not helpful for choosing a lab/group.
Main Takeaways:

- **By Year**: Students in later Years are less likely to believe that switching labs would be difficult.
- **By Career Interest**: Students considering careers in academia are less likely to believe that switching labs would be difficult.
Figure 40. Would your program be supportive of switching labs if you are not satisfied?

**Main Takeaways:**
- **By Career Interest:** Students pursuing careers in academia are the least likely to believe that their program would be supportive of them switching labs.
- **By Gender:** Women are less likely to believe that their program would be supportive of them switching labs.
Figure 41. Do you know of people who have switched labs?

78% of students know of someone who has switched labs

By Year
- Year 1 (n=62): 56.67%
- Year 2 (n=65): 74.14%
- Year 3 (n=67): 81.97%
- Year 4 (n=70): 81.25%
- Year 5 (n=47): 92.86%
- Year 6 (n=26): 91.67%
- Year 7+ (n=10): 77.78%

By Race/Ethnicity
- White (n=164): 76.22%
- Asian (n=76): 75.00%
- URM (n=38): 78.95%
- Other (n=69): 87.50%

By Career Interest
- Academia (n=65): 75.00%
- Either (n=129): 83.62%
- Outside (n=89): 86.59%

By Gender
- Men (n=101): 78.22%
- Women (n=198): 77.78%
- Other (n=48): 73.68%

Main Takeaways:
- **By Career Interest**: Students pursuing careers in academia are less likely to know someone who has switched labs (75%) compared to those pursuing careers outside academia (87%).
- **By Year**: Students in earlier years are less likely to know someone who has switched labs (67% of Year 1 and 74% of Year 2 students).
Figure 42. To what extent have you thought about switching labs?

Main Takeaways:

- **By Year**: Over time, students are more likely to have thought about switching labs (darker colors increase as Year increases).
- **By Race/Ethnicity**: Asian students are least likely to think about switching labs.
- **By Gender**: Women are least likely to think about switching labs.
Figure 43. Are there other students at UCSF that you can talk to about switching labs?

17% of students do not have other students they can talk to about switching labs/groups

By Year
- Year 1 (n=62): 26.00%
- Year 2 (n=65): 29.55%
- Year 3 (n=67): 28.23%
- Year 4 (n=77): 26.13%
- Year 5 (n=47): 28.19%
- Year 6 (n=26): 26.77%
- Year 7+ (n=10): 22.22%

By Race/Ethnicity
- White (n=164): 26.00%
- Asian (n=76): 25.00%
- URM (n=38): 31.58%
- Other (n=69): 25.00%

By Gender
- Men (n=101): 24.75%
- Women (n=198): 28.28%
- Other (n=48): 10.53%

By Career Interest
- Academia (n=65): 25.00%
- Either (n=129): 22.41%
- Outside (n=89): 32.93%

Main Takeaways:
- **By Race/Ethnicity**: URM students are more likely to report that they do not have someone (either other students or faculty) to talk to about switching labs
- **By Gender**: Women are also more likely to report that they do not have someone to talk about switching labs.

Figure 44. Are there faculty at UCSF you can talk to about switching labs?

26% of students do not have a faculty member they can talk to about switching labs/groups

By Year
- Year 1 (n=62): 25.00%
- Year 2 (n=65): 29.31%
- Year 3 (n=67): 26.23%
- Year 4 (n=70): 28.13%
- Year 5 (n=47): 26.19%
- Year 6 (n=26): 16.67%
- Year 7+ (n=10): 22.22%

By Race/Ethnicity
- White (n=164): 25.61%
- Asian (n=76): 25.00%
- URM (n=38): 31.58%
- Other (n=69): 25.00%

By Gender
- Men (n=101): 24.75%
- Women (n=198): 28.28%
- Other (n=48): 10.53%

By Career Interest
- Academia (n=65): 25.00%
- Either (n=129): 22.41%
- Outside (n=89): 32.93%
**Main Takeaways:**

- **By Race/Ethnicity:** URM students are more than twice as likely to switch labs than any other group (17% vs. 8%).
THINKING ABOUT LEAVING GRADUATE SCHOOL

Anecdotally, it seemed that many students felt that there was stigma around having thoughts about leaving graduate school. We want to stress that this question is not meant to measure how satisfied students are with being a graduate student at UCSF, rather we wanted to share how common it is to have thoughts about leaving graduate school which should be considered a normal reaction to pressures faced during graduate school.

Figure 46. Have you thought about leaving your graduate program?

Many students (43%) have thoughts about leaving graduate school

<table>
<thead>
<tr>
<th>By Year</th>
<th>Yes (n)</th>
<th>No (n)</th>
</tr>
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<tbody>
<tr>
<td>Year 2 (n=65)</td>
<td>39.60%</td>
<td>56.92%</td>
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<tr>
<td>Year 3 (n=67)</td>
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<tr>
<td>Year 4 (n=70)</td>
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<td>53.12%</td>
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<tr>
<td>Year 5 (n=47)</td>
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<td>50.00%</td>
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<tr>
<td>Year 6 (n=26)</td>
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<td>40.67%</td>
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<tr>
<td>Year 7+ (n=10)</td>
<td>48.44%</td>
<td>51.56%</td>
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<table>
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<th>By Race/Ethnicity</th>
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<th>No (n)</th>
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</thead>
<tbody>
<tr>
<td>White (n=164)</td>
<td>45.65%</td>
<td>54.35%</td>
</tr>
<tr>
<td>Asian (n=76)</td>
<td>41.67%</td>
<td>58.33%</td>
</tr>
<tr>
<td>URM (n=38)</td>
<td>53.33%</td>
<td>46.67%</td>
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<tr>
<td>Other (n=69)</td>
<td>56.67%</td>
<td>43.33%</td>
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</table>

<table>
<thead>
<tr>
<th>By Career Interest</th>
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<tbody>
<tr>
<td>Academia (n=65)</td>
<td>33.33%</td>
<td>66.67%</td>
</tr>
<tr>
<td>Either (n=129)</td>
<td>50.00%</td>
<td>50.00%</td>
</tr>
<tr>
<td>Outside (n=89)</td>
<td>52.44%</td>
<td>47.56%</td>
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<table>
<thead>
<tr>
<th>By Gender</th>
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<th>No (n)</th>
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<tbody>
<tr>
<td>Men (n=101)</td>
<td>42.50%</td>
<td>57.50%</td>
</tr>
<tr>
<td>Women (n=198)</td>
<td>46.58%</td>
<td>53.42%</td>
</tr>
<tr>
<td>Other (n=48)</td>
<td>70.59%</td>
<td>29.41%</td>
</tr>
</tbody>
</table>

Main Takeaways:
• **By Career Interest**: Students pursuing careers outside of academia are more likely to have thought about leaving graduate school (52%) than those pursuing careers in academia (33%).
• **By Year**: Students in later years are more likely to have thought about leaving graduate school.
Figure 47. Do you have the resources (e.g., people to talk to, panel discussions, etc) to help you decide whether or not to leave graduate school?

33% of students do not believe they have the resources to decide whether or not they should leave grad school.

By Year
- Year 2 (n=65)
- Year 3 (n=67)
- Year 4 (n=70)
- Year 5 (n=47)
- Year 6 (n=26)
- Year 7+ (n=10)

By Race/Ethnicity
- White (n=164)
- Asian (n=76)
- URM (n=38)
- Other (n=69)

By Career Interest
- Academia (n=65)
- Either (n=129)
- Outside (n=89)

By Gender
- Men (n=101)
- Women (n=198)
- Other (n=48)
Figure 48. Can you talk to your mentor about leaving grad school?

66% of students do not feel they can talk to their mentor about leaving grad school
Figure 49. Would your mentor be supportive of your decision to leave grad school if it’s the right decision for you?

34% of students do not think their mentor would be supportive of a decision to leave grad school

By Year

By Race/Ethnicity

By Career Interest

By Gender
Figure 50. Would other people (besides mentor) be supportive of your decision?

74% of students have people (besides mentors) who would be supportive of their decision to leave grad school.

By Year:
- Year 2 (n=65): 22.50% strongly agree, 51.67% somewhat agree, 10.00% neither agree nor disagree, 10.00% somewhat disagree, 5.83% strongly disagree.
- Year 3 (n=67):
- Year 4 (n=70):
- Year 5 (n=47):
- Year 6 (n=26):
- Year 7+ (n=10):

By Race/Ethnicity:
- White (n=164):
- Asian (n=76):
- URM (n=38):
- Other (n=69):

By Career Interest:
- Academia (n=65):
- Either (n=129):
- Outside (n=89):

By Gender:
- Men (n=101):
- Women (n=198):
- Other (n=48):
Figure 51. Would dropping out of a graduate program make it difficult to get a job you want?

63% of students believe it would be difficult to get a job they want if they left graduate school.
Figure 52. What factors prompted you to think about leaving? (Check all that apply)

- Issues with PI
- Work culture at UCSF
- Work culture in academia in general
- My interests have changed
- Financial reasons
- Family circumstances
- Visa and immigration

Main Takeaways:
- The top cited reason for why students think about leaving their graduate program is the work culture in academia.
FREE RESPONSE

Since the purposes of this survey were exploratory to develop possible hypotheses for why students anecdotally seemed dissatisfied with their mentorship at UCSF, we gave students the opportunity to discuss anything that we did not already cover in our survey questions. The following is a summary of what they submitted.

Is there anything else you’d like to share with us?

Most responses fell under the following general themes:

- Accountability for bad mentors (n=12)
- Faculty need training in management and mentorship (n=10)
- Stigma still exists around non-academic careers (n=7)
- Need more formal support for those switching labs (n=4)
- Need help in choosing mentors in first year (n=3)
- Peer support (n=3)

A clear request from students was regarding accountability for bad mentors:

- “There is no accountability or incentive structure in this institution for PIs to be good mentors.”
- “There should be some mechanism for reporting negligence or inappropriate managerial behavior.”

Additionally more institutional resources was requested for students who need to switch labs or thinking about leaving graduate school:

- “It would be great if UCSF could provide more institutional resources to students who are struggling in lab or having issues with their PI or thinking about switching labs and/or quitting graduate school.”
NEXT STEPS

On October 23, 2017 UC Berkeley hosted a meeting organized by NatureResearch to discuss how to sustain and improve the scientific, ethical, social, and psychological health of research groups. In this meeting, one key to improving mentorship was identified: eliminating ambiguity in the expectations of each member of the mentorship relationship. In an eLife article published in October, 2017 and co-authored by UCSF Graduate Division Dean Elizabeth Watkins, four more action items were identified:

1. Train Mentors
2. Train Mentees
3. Market the value of mentor training
4. Encourage trainees to seek multiple mentors and build networks of mentorship

ASGD aims to bring these action items to UCSF by advocating for and supporting new resources:

- To train mentors, the Biomedical Sciences and Developmental Stem Cell Biology graduate programs have designed an in-person mentorship training course mandatory for faculty who take on new students from these graduate programs, with support from the Office of Career and Professional Development (OCPD) as well as the NIH Office of Intramural Training and Education. We want to support this program so that it may expand to all graduate programs.
- To train mentees, UCSF administration has created a re-orientation event for students in their third year. This event addresses the changes in the mentor-mentee relationship that begin after students pass the qualifying exam in both graduate division-wide and program-specific forums.
- To train mentees how to develop and communicate their own expectations within a mentoring relationship, ASGD is partnering with OCPD to develop a module to be included in the basic science program bootcamps. This material will help educate first year students about how to use their rotations to identify the mentors with whom they work best before they choose their thesis labs.
- To encourage trainees to seek multiple mentors, the Graduate Division Alumni Association has launched UCSFConnect, an online professional networking platform for current and alum members of the UCSF community. This tool specifically identifies people who are “willing to help” and provides a dedicated pathway for creating mentoring relationships.

See https://researchgrouphealth.berkeley.edu/ for presented material in PDF format.