

2021 Stanford CS PhD Student Climate Survey Report

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Executive Summary

Amid an unprecedented virtual academic year, the 2021 Stanford Computer Science Ph.D. climate survey was conducted by a team of 7 students in June 2021 with support from the department. The survey received 161 complete responses with 78% of the first year cohort responding.

Of note, is that certain demographic groups (for both race and gender), had fewer than five respondents. This raises concerns about the lack of underrepresented students in our PhD program and the support that is provided for these students.

Beginning with the most important relationship for PhD students, the advising experience was positive for most students in the program. However, some students still reported poor lab culture or difficulties addressing conflict with their advisor. Students suggested a third party to support students in their advising and personal difficulties as a path for improvement.

Students' experiences within the rotation system was a cause for concern. At an aggregate level, students tended to have a positive rotation experience. However, the rotation experience varies greatly across subfields, with up to 40% of students finding it negative or very negative in the worst case. Students' stress from uncertainty was also a cause for concern. 58% of the most recent rotation cohort did not have alignment offer by the start of the spring quarter. Rotation stress is also imbalanced across subfields: 8 students last year did not receive an offer after three rotations but 7 of them were in AI/ML. Overall, 51% of last years' rotation students found that rotations detracted them from self-care.

Though most students did not find breadth requirements difficult, students voiced concerns that they can be disproportionately challenging for students coming from interdisciplinary areas and smaller universities.

Students also listed concerns with the department atmosphere, including feelings of competitiveness, lack of diversity, few avenues for resolving working place issues, and a lack of transparency and communication from the department. Over 40% of women reported sexism as moderate to very prevalent in the department. Issues of sexual harassment were highlighted as the main concern that has not been addressed since the 2018 survey. Due to the lack of racial diversity in the program, the survey was not able to collect significant data on experience of racism in the program.

While 87% of students agreed that students do not engage in service equally across the department, only 40% of students agreed definitely that students should be required to engage in service. This raises the question of which students are disproportionately burdened with service in the department and how we can better support them.

Finally, students would like to see the department play greater in checking on their well-being, especially when it comes to advising relationships, and in supporting their professional development.

Recommendations. Finally, we present an initial set of suggestions for departmental actions. We also inline these recommendations in each of the summaries in Section 3, which would provide more context.

We emphasize that our recommendations are meant to (1) *start a conversation* about what should be done to address issues surfaced by the report, and (2) *highlight* the actions that the survey team believes would be most effective at addressing these issues, based on dozens of conversations with *students, faculty, and staff* as well as the student voices presented in this report.

This report concludes the efforts of the survey team, but we hope students, faculty, and staff will continue our efforts to improve quality-of-life in the department and consider our recommendations as a starting place for future initiatives.

1. Improve department communication and publish department policies in order to better support student needs and reduce student confusion. For example:
 - (a) Create a department wiki that is maintained by both students and staff that includes and clarifies the following department norms and processes:
 - i. procedure for investigating reported misconduct and harassment complaints, and privacy protections for students who file such complaints,
 - ii. available department interventions for students having trouble finding a advisor, students experiencing serious conflicts with their advisor, and students seeking to switch advisors
 - iii. onboarding information for new students, funding and work options for international students, leave-of-absence and vacation quarters options, and how to receive 5-years of guaranteed funding, especially when one is in-between advisors or without an advisor.
 - iv. anything else that would be helpful to the community as public information, e.g. student-written advice, FAQs, etc.
 - (b) Celebrate and publicize the success and accomplishments of students, such as news updates on the Stanford CS website and through community mailing lists.
2. Improve faculty-student communication. For example:
 - (a) Sponsor faculty-student lunches where students can build support structures with students and faculty outside of their research group.
 - (b) Create a process for faculty to receive and act on feedback from their students routinely, possibly through a third-party to ensure anonymity.
3. Improve rotation experiences and outcomes for first year students. For example:
 - (a) In subareas with alignment issues, require more commitment from faculty at admissions time by offering students soft alignment or by setting a limit on the number of students each faculty can vouch for.
 - (b) At time of admission, give students a list of who they are guaranteed to be able to rotate with, number of students each professor has committed to rotating with, and estimates of how many students each professor is looking to take.
 - (c) Fund and support students completing fourth rotations so that students do not feel abandoned by the department, especially since 10%-20% of students do fourth rotations.
4. Incentivize a more equitable distribution of service across the department. For example:
 - (a) Recognize students who engage in service within the department.
 - (b) Publicly list all committees with student representation (e.g., diversity, admission, hiring) and the application process to join such committees, so that students know what is available
 - (c) Define pre-approved acts of service that can be used to replace breadth requirements and provide funding opportunities for students who engage in service.

- (d) Continue department surveys, but recruit a more representative group of students to help conduct future surveys.
- 5. Strategize ways to better support underrepresented students within the department. For example:
 - (a) Better understand the needs and challenges of URM students by surveys or listening sessions which ask questions such as: How are URM students supported by their advisors and peers? Are URM students overburdened with service?
 - (b) Equip students, faculty, and staff with knowledge, skills, and resources to recruit, retain, and support current and future students from diverse backgrounds.
- 6. Strategize ways to support students who face additional obstacles of attendance. For example,
 - (a) Investigate how the PhD stipend, cost of health insurance (\$3,000) and overall cost of living affect first-generation and low-income students.
- 7. Improve department culture by addressing student concerns such as sexism, racism, and toxicity in the workplace. For example:
 - (a) Convene a committee consisting of students and faculty on department culture to address toxic behaviors and cultural norms expressed in the survey. This can overlap with the diversity committee's efforts to address sexist and racist behaviors within the department but should go beyond the DEI committee's core agenda.
 - (b) Begin department dialogue on topics including student mental health, community well-being, workplace norms, and sense of belonging.
- 8. Ensure equitable experiences for all students in the department in completing the PhD requirements. For example:
 - (a) Re-examine breadth requirements and discuss potential modifications to breadth categories, grade requirements, and waiver criteria. Consider whether the relative weighing of required categories reflect the changing and increasingly interdisciplinary nature of Computer Science.
 - (b) Ensure students who have completed required courses from non-top-10 computer science departments are awarded breadth requirement waivers.
 - (c) Ensure breadth approvers have the bandwidth to respond to waivers in a timely manner.

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1 Introduction

This report will present the results of this year's student survey conducted among CS Ph.D. students. This second iteration of the survey was conducted during Summer 2021, the sixth quarter of work from home since the COVID-19 lockdown. Understanding the challenges and victories of Ph.D. students becomes all the more important during these unprecedented times. This survey attempts to gather preliminary data on the climate of the Stanford Computer Science department as experienced by its current Ph.D. students.

The rest of this report is organized as follows: Section 2 will describe survey design, data collection, and participant demographics. Section 3 will present the results, organized by individual survey section and collected from both multiple choice questions and some free response questions. Section 5 will finally list all responses received to free response questions.

2 Survey methodology

2.1 Survey design

The 2021 survey was created through the Qualtrics platform. In total, the survey contained 63 questions across 9 sections. Table 1 summarizes the counts of multiple choice and free response questions in each section of the survey.

| Section | Multiple Choice Questions | Free Response Questions |
|----------------------------|---------------------------|-------------------------|
| Demographics | 5 | 0 |
| Advising | 9 | 1 |
| Rotation system | 13 | 2 |
| Department requirements | 5 | 0 |
| General atmosphere | 11 | 1 |
| Remote work and well-being | 5 | 2 |
| Professional development | 2 | 1 |
| 2018 Survey follow-up | 2 | 2 |
| General Feedback | 0 | 2 |
| Total | 52 | 11 |

Table 1: Summary count of questions in each section of the survey

We designed this survey based on the 2018 Ph.D. Survey conducted in the Computer Science department. The 2018 survey consisted of 6 sections with 25 multiple choice questions and 5 free response questions. Topics covered in the original survey included advising, rotation system, departmental requirements, general atmosphere, and general feedback.

Additional sections. We added additional questions and sections to capture a better understanding of the Ph.D. student experience, particularly during the COVID-19 work from home era. We added a “Remote work and well-being” section to understand how working from home and the pandemic have affected students personally and professionally. We also added a “Professional development” section to understand students’ career goals and how the department can better support students in their goals. Furthermore, to understand changes made in the department since the 2018 survey, we added a section to following up on the 2018 survey.

We also added questions to the existing sections from the 2018 survey. In the “Advising” section, we added questions about lab culture, conflict resolution, and advisor support in professional endeavors. In the “Rotation system” section, we added questions about soft-alignments, expected versus actual alignment, reasons for rotating, virtual rotations, rotation stress, and a fine-grained study of the most recent cohort’s rotation experience. We expanded this section significantly to understand where students might be struggling within the rotation system. In the “General atmosphere” section, we added questions about workplace harassment and the student service requirement. Detailed descriptions of these questions can be found in Section 3.

2.2 Response collection

We collected responses using an anonymous Qualtrics link from June 10, 2021 to June 30, 2021. In total, we received 185 responses. We removed duplicate and half-empty responses, and report

| Section | Number of Free Responses |
|--------------------------|--------------------------|
| Advising | 13 |
| Rotations | 87 |
| Atmosphere | 32 |
| Remote work | 70 |
| Well-being | 57 |
| Professional Development | 35 |

Table 2: Number of responses for free response questions by section. Students were particularly passionate about giving feedback about the rotation system and remote work. General feedback responses are not included in this table.

results summarized from 161 responses. Estimating that there are 326 total Ph.D. students currently enrolled, this represents about a 50% response rate.

To incentivize participation, we provided 10 dollar gift cards to all students who completed the survey. Students had the option to fill out their email on the first page of the survey. To preserve student privacy, we only used the student names to send out gift cards. For survey analysis, we removed names and emails from each entry and decoupled free responses with free answer questions.

The number of responses for free response questions vastly varied by section (Table 2). Students were particularly involved in giving feedback about the rotation system and remote work.

2.3 Respondent demographics

Delving further into responses received, Table 3 summarizes the participation percentage of each cohort by entering class. The first year class achieved almost an 80% participation rate while the rate for students in other cohorts were lower. The class sizes were estimated by taking the number of incoming students each year. These numbers does not account for students who may have left the program or graduated early, and it is likely an overestimate of class size and underestimate of participation.

| Year of Entry | Count | Est. Class Size | Percentage participation |
|---------------|-------|-----------------|--------------------------|
| 2020 | 58 | 74 | 78.4% |
| 2019 | 29 | 62 | 46.8% |
| 2018 | 26 | 63 | 41.2% |
| 2017 | 16 | 48 | 33.3% |
| 2016 | 22 | 52 | 42.3% |
| 2015 | 6 | 27 | 22.2% |
| 2014 | 4 | Unknown | Unknown |
| Total | 161 | 326 | 49.4% |

Table 3: Summary of responses by cohort where participation rate is calculated by estimated class size

Figure 1 summarizes the gender breakdown of survey respondents. The majority of respondents were male. Figure 2 summarizes the racial breakdown of survey respondents. We see that the 3 largest racial identities among Ph.D. students are East Asian, White, and South Asian. These three racial groups together make up 85% of the survey respondents.

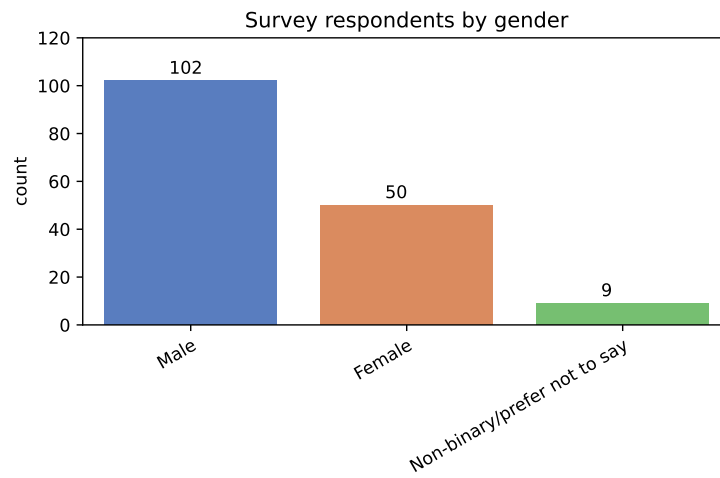


Figure 1: Gender breakdown of survey respondents

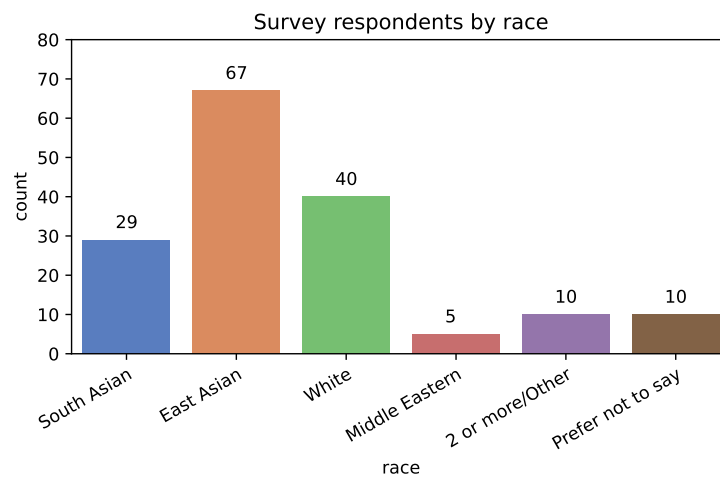


Figure 2: Racial breakdown of survey respondents

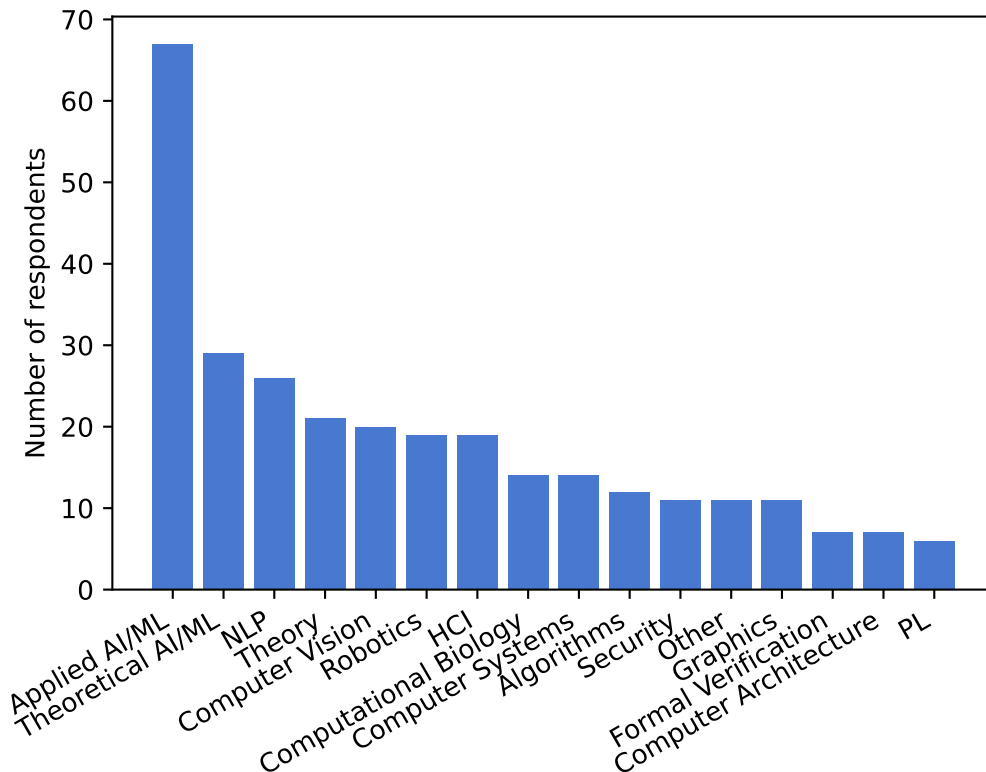


Figure 3: Subfield breakdown of survey respondents. Students were allowed to report as being in multiple subfields, leading to the large count in Applied AI/ML.

Figure 3 shows the number of respondents who identify with each research subarea. Each student had the option to select multiple subareas that they identified with.

2.4 Estimated hours of work

This project started in April 2021, amounting to over six months of volunteer work. Our team of seven met and worked on this project throughout this time in our spare time. Our contributions include designing the Qualtrics forms, launching the survey, cleaning and formatting the data, analyzing and visualizing the data, writing the report, presenting the results to the PhD student advisory council, presenting the results to a small faculty and staff group, presenting the results in a student town hall, and presenting these results at the 2021 Fall faculty retreat with follow-up presentations planned.

This survey took a tremendous amount of volunteer effort. We estimate that we spent at least 150 person-hours throughout the process. **We emphasize that this survey is student-volunteer-driven. In the future we hope there will be additional encouragement and support for future surveys, as they are beneficial to the entire community.**

3 Survey results

We report results on advising (Section 3.1), rotations (Section 3.2), department atmosphere (Section 3.3), remote work and well-being (Section 3.4), and professional development (Section 3.5). We follow up on the 2018 survey in Section 3.6. We report all anonymized qualitative responses in Section 5.

3.1 Advising

In this section, we asked students a variety of questions about their advising relationship and their lab culture via multiple choice questions.

Main findings. The main findings in this section are:

1. Students generally met with their advisor weekly and discuss long term career goals quarterly and annually (Figure 4 & 5).
2. There is a need to find additional support for students who are uncomfortable addressing conflicts with their advisors or who experience poor lab culture (Figure 7 & 10). 17 students felt uncomfortable addressing conflicts with their advisors. 34 students reported the lab culture to be average while 15 students reported that their lab culture is poor or terrible.
3. Students reported different amounts of support from their advisors in different areas. Students reported feeling most supported in research and fellowship opportunities. However, up to 20% of students did *not* feel supported in teaching, community/professional services, job/internship search, and personal challenges. (Figure 8).
4. Students greatly value the annual progress review instituted by the department. They also requested more frequent check-ins *from the department* on the quality of their advisor-advisee relationships.
5. Students commonly asked for a neutral third-party they can turn to for help in resolving issues related to their advising relationship.

Recommendations. Clear and open communication between both parties is crucial for good advisor-advisee relationships. However, academic power structures can make engaging in difficult conversations and resolving conflict challenging. A potential solution is to facilitate difficult conversations by creating a process for faculty and students to act on feedback from each other routinely, possibly through a third-party to ensure anonymity. The department can also support students in such difficult situations by helping them build a support structure of students and other faculty they can trust for help, for example by sponsoring regular informal faculty-student lunches with people outside of the same research group.

3.1.1 Quantitative results

The questions in the advising section were designed to understand students' relationships with their advisors. The two main themes we investigated were the frequency of advisor and group interaction, and the amount of support students received.

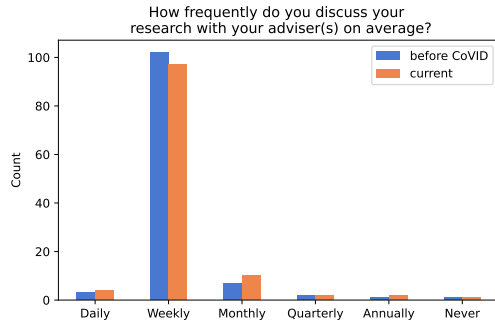


Figure 4: Advisor meeting frequency: most students meet with their advisors weekly. The frequency of meetings mostly remained the same since COVID began.

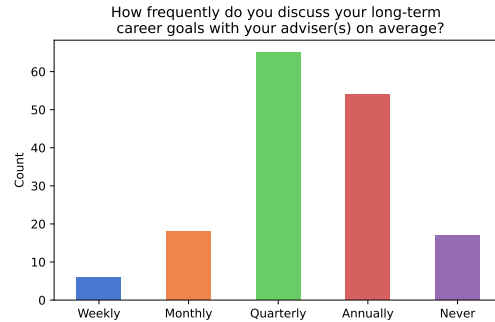


Figure 5: Career discussion frequency: most students discuss career goals quarterly or annually with their advisors. 18 students report never discussing career goals with their advisor.

Theme 1: Frequency of interaction

1. How frequently do you discuss your research with your advisor(s) on average?

Figure 4 shows the frequency of students-advisor meetings before COVID-19 and currently. We see that other than the small number of students who shifted to monthly meetings with their advisors, most students kept their weekly meetings with their advisor.

2. How frequently do you discuss your long-term career goals with your advisor(s) on average?

Figure 5 shows that most students discuss career goals with their advisors either quarterly or annually. However, 18 students reported never discussing their long term career goals with their advisor, which suggests this could be an area where students would benefit from further support. We suggest the department to include discussions about long-term career goals in the annual check-ins between advisors and their students.

3. How frequently do you present your research on average (even in less formal settings, like a group lunch)?

Most students present to their groups regularly; either once per month or quarter (Figure 6). However, some students report that they have never presented at group meeting. We suggest that faculty ensure that their students have regular opportunities to publicly present their research.

Theme 2: Support and overall advising relationship

1. How comfortable are you with addressing conflicts that may arise between you and your advisor(s)?

Figure 7 shows that most students feel moderately or very comfortable with addressing conflicts with their advisor. However, there are still 17 students who are uncomfortable with addressing such conflicts. We suggest that the department create official venues that help

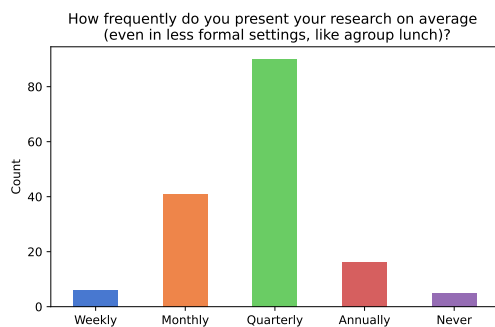


Figure 6: Most students present their research monthly or quarterly to their labs.

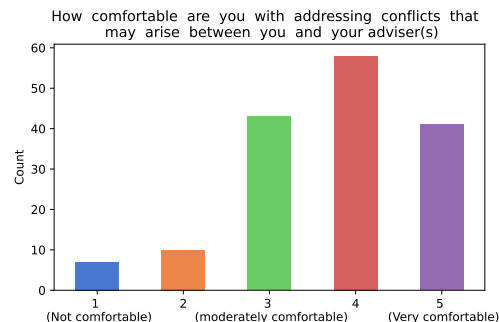


Figure 7: Most students are at least moderately comfortable while 17 students do not feel comfortable addressing conflicts with their advisor.

students resolve difficult conflicts with their advisor. We also suggest faculty being more mindful of students' potential discomfort in bringing up important issues that may cause conflict.

2. How adequately do you feel supported by your advisor(s) in the following areas?

- (a) Research
- (b) Teaching
- (c) Job/internship search
- (d) Funding/fellowship opportunities
- (e) Community and professional service
- (f) Work life balance
- (g) Personal challenges

In Figure 8, we see that most students feel well supported by their advisor in research and funding opportunities. However, up to 20% of students did *not* feel supported in teaching, community/professional services, job/internship search, and personal challenges. We suggest that the department and the faculty be more mindful of ways to support their students outside of research and funding.

3. How would you rate your relationship with your advisor(s)?

For the most part, students reported having a moderately to very good relationship with their advisor (Figure 9). However, there still remains a handful (6) students who feel like their advisor-advisee relationships are very bad or bad. We suggest that the department check-in on advisor-advisee relationships more frequently to help ameliorate such relationships before they become irreparable.

4. How would you rate the overall culture / sense of community within your lab?

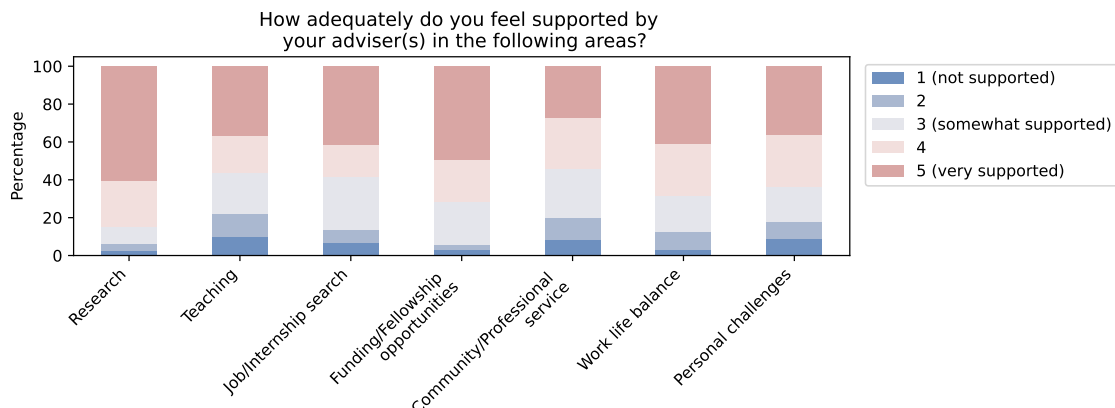


Figure 8: The vast majority of students felt very supported or supported by their advisors in Research and Funding/Fellowship opportunities while a number of students feel not supported in areas such as Teaching, Community/Professional service, Job/Internship search, and Personal challenges.

As illustrated by Figure 10, most students reported their overall lab culture to be good or excellent. Another 34 students reported their lab culture to be average while 15 students reported that their lab culture is poor or terrible. Since we did not precisely define “lab culture”, each student responded with their own understanding of the term. We suggest that future iterations of this survey define “lab culture” more clearly, possibly breaking it down into separate axes like “collaborativeness”, “mentorship”, and “congeniality”.

3.1.2 Qualitative results

In the free response questions in the advising section of the survey, we gave respondents the prompt: “If you have any additional comments about PhD student advising in the CS department or clarification to the above answers, please write them in the space below (optional)”.

Students expressed their support for the annual check-in system recently introduced in the program. For example:

“ while I think the student annual check-ins are a step forward for feedback, I think the department really needs an advisor annual check-in where students have an opportunity to give feedback to their advisors on how they can better support their students’ goals. my advisor has never asked for feedback or how they can improve before, and I think having a formal channel of communication for these kinds of conversations would be beneficial to both advisors and students. ”

“ I like annual progress reviews, because they prompt good discussion around graduation progress. I think it would be nice to also have quarterly informal reports to talk about other aspects too, such as career progression, teaching, community service, etc. ”

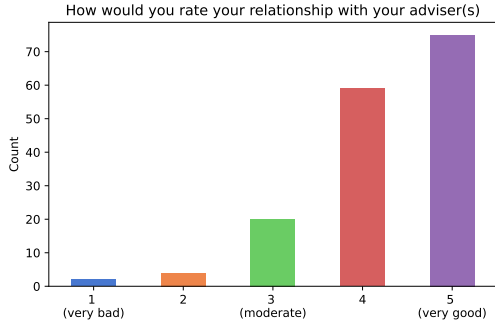


Figure 9: Most students reported having very good or good relationships with their advisors overall.

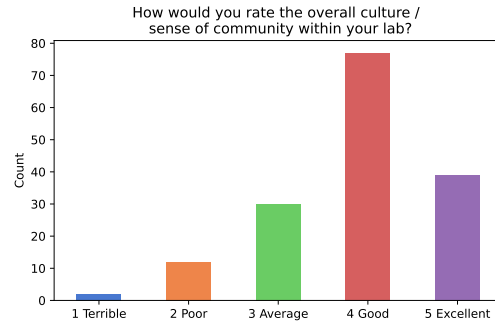


Figure 10: Most students rated their lab culture average, good, or excellent.

We suggest that the department continue to encourage regular discussions between advisors and their students on important issues, possibly providing more guidelines on what is expected from both parties during these discussions.

Another common theme is suggestions for more administrative support from the department and in addition to advisor support. For example:

“ It would be great if the department hired a person whose sole purpose was to discuss personal issues related to our advising situation with. The current CS staff seem quite busy/overworked, and may not have the right mental health training to listen to us. ”

“ It would help if the CS department tracked advising outcomes and student welfare in different labs, so that advisors can get feedback and incoming students can be more informed instead of relying on hearsay. ”

“ While I generally feel very supported by my advisor, I find it uncomfortable bringing up any research or personal challenges I’m facing because I’m concerned it will show weakness and affect how my advisor recommends me to others. I find it much more helpful to talk to friends and go to therapy to work through such issues, which for me are fine avenues for getting support. ”

We suggest the department make it clear who students can turn to as a neutral third-party in navigating difficult discussions between students and their advisors. We also suggest that the department track advising relationship quality and student welfare more frequently.

3.2 Rotations

In this section, we report on questions and their responses related to the CS department rotation system. We group the questions into the following sections:

1. overall rotation experience, both aggregated and by area,
2. questions related to rotations and admissions,
3. usefulness of rotations in helping students narrow down their interests,
4. general outcome of rotations.

Additionally, we study in detail the experiences of the most recent group of rotation students during the 2020-2021 academic year. Finally, we conclude with responses to the following free-response questions:

1. what students wish they knew about the rotation system,
2. suggestions on how to improve the rotation experience.

Main findings. At the aggregate level, we find the following:

1. Students overall are more likely to have a positive experience rotating than negative. However, AI areas are much more likely to have negative or very negative experiences. About 20 – 40% of those students had a negative or very negative experience (Figure 14).
2. 21% of students believed they received inaccurate or very inaccurate information at admissions about the rotation system compared to their actual experience (Figure 16).
3. 86% of students found rotations at least somewhat useful in finding their area of interest (Figure 18).
4. 41% of students did not align with a professor they thought they would originally align with prior to coming to Stanford (Figure 21), though 70% aligned in the *area* they thought they would.

From our fine-grained study on rotations in the past year (2020-2021), consisting of 58 students who responded to this survey, we find the following:

1. **58%** of the 58 students did not have an alignment offer by the start of their spring rotation (Figure 29), adding stress from uncertainty to the overall experience.
2. 20% of the 40 students who did exactly 3 rotations (out of the 58) did not receive an alignment offer by the end of spring quarter. All but one of those eight students were in AI/ML (Figure 26). Note that when we consider all first year students from last year, not just those who responded to this survey, only 10% did not align in their first year, according to department records.
3. Of students who were offered alignment, 54% received only one offer, suggesting that students generally do not have much choice beyond choosing their rotations.

4. 51% of the students found that rotations detracted them from self-care, such as mental health, socializing, etc.

During the townhall, older PhD students expressed concerns about the increasing overadmission and competitiveness in the rotation system over the years. Students also expressed the importance in clarifying the role of the buddy professor—e.g. that the professor is not accountable for your alignment or is not expected to align with the student upon admission.

Finally, we show some representative quotes to our free response questions, doing our best to not cherry-pick extreme examples. Students had significantly more engagement with the free-response questions in this section, measured by number of responses and length of responses, compared to other sections. We leave the full set of responses in Section 5.2, grouped by their general sentiment. In general, students most commonly expressed the need for more **transparency, faculty accountability, official guidance and support** in the rotation program.

Examples of what students wish they knew.

“... [High student to faculty ratio in AI] made the rotation feel more like an extended interview, where I needed to be producing something concrete week-to-week or fear getting left behind. Most importantly, however, the pressure to keep producing significantly impacted my ability to explore new research topics (such as by working on other side projects, starting new collaborations, taking more classes, etc.), since all of those activities would take away time from working on the main rotation project. It’s also harder to schedule “exploratory” rotations if your other rotations are with popular faculty - you may opt to do all your rotations in the research are you’re most comfortable with in order to guarantee alignment in 3 quarters...”

“...it was not clear that some students already received soft alignment offers and it feels like students are not on a level playing field through the rotation program.”

“The rotation system felt noncommittal and sometimes faculty had little interest in investing time and resources on students they weren’t excited about or going to continue working with formally, though faculty, students, and admin could also be immensely helpful.”

Example suggestions for the department.

“Not overhire. Considering the yield rate of Stanford has been very high in recent years, the department should drastically decrease the number of admitted students.”

“I think having at least one professor that guarantees they’ll take you when you’re admitted would greatly relieve the stress involved in rotations. One source of unease was the uncertainty about funding in case alignment doesn’t happen by the third rotation.”

“I’ve been saying this for a while, but we need an accessible document for all rotators that shows how many students each professor has funding for. We just need more transparency in the rotation system.”

“I think a greater level of transparency would go a long ways towards making the rotation system better. First, the list of how many spots each faculty member plans to take that year should definitely be shared with the students - of course, that list shouldn’t be binding, but having even an estimate of that information can help a lot when deciding who to rotate with. Second, it would also be beneficial if faculty could specify their preferences towards alignment - whether they prefer to do it at the end of the year or if they evaluate per quarter...”

“Advisors should not have more than 3x the number of rotation students than they have spots to rotate”

“Professors should give students an adequate amount of time (e.g. at least 1 week) to decide whether to accept an alignment offer. ”

“There should be an expectations guide for students and rotation advisors about when and how to talk about alignment”

Recommendations. Students rotation experience varied greatly depending on their subfield. In subareas with alignment issues, there is a clear imbalance between student supply and faculty demand, leading to significant stress. Though some may argue that students’ nearly always find an alignment *eventually*, many students must go through a preventable ordeal in their first year. Potential solutions to address this imbalance include

1. requiring more commitment from faculty at admissions time by guaranteeing all students in some subareas “soft alignments” or by setting a limit on the number of students each faculty can vouch for based on a faculty availability
2. provide newly admitted students a list of the faculty that vouched for them at admissions and would be happy to rotate with them

Providing official onboarding information and guidance on how to succeed in a rotation would also help relieve some of the uncertainties that new students experience during their rotations.

3.2.1 Overall rotation experience

Figure 11 and Figure 12 show the aggregated responses of students’ rotation experience and feelings of competition during the rotation. To account for variance across subfields of CS, Figure 13 and Figure 14 separate the distribution by respondents’ subfields.

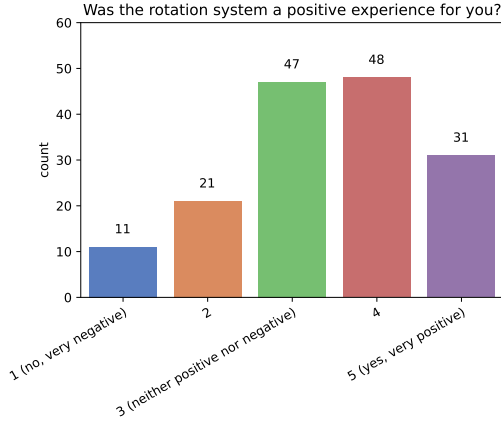


Figure 11: Students were more likely to be positive about the rotation system than negative, though 30% were ambivalent.

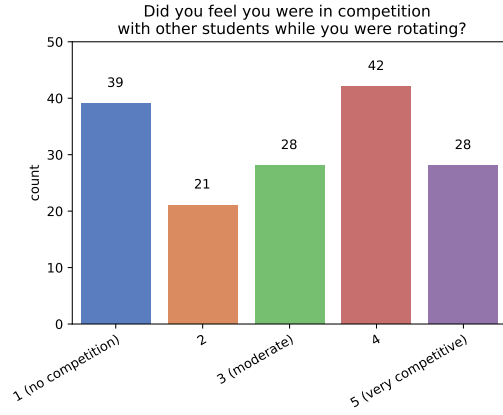


Figure 12: Though many students experienced little feelings of competition, $\sim 44\%$ of students responded with a 4 or a 5.

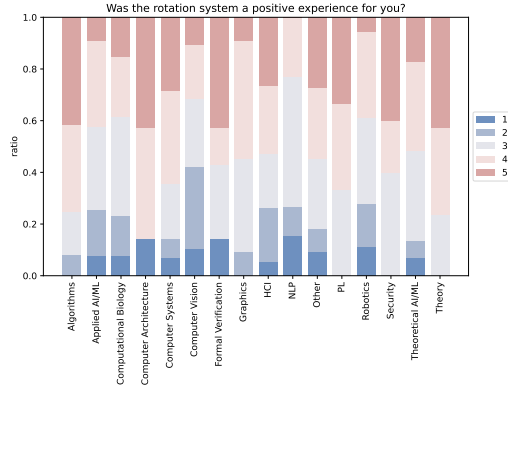


Figure 13: Rotation experience by area (5 is “very positive” and 1 is “very negative”). AI areas such as Computer Vision, NLP, Applied AI/ML, Robotics, etc. have between 20-40% of students experiencing negative or very negative rotations. See Figure 3 for subarea counts.

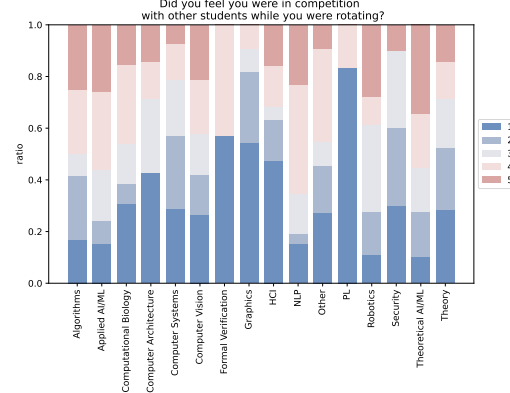


Figure 14: Feeling of competition by area (5 is “very competitive” and 1 is “not competitive at all”). See Figure 3 for subarea counts.

3.2.2 Rotations and admissions

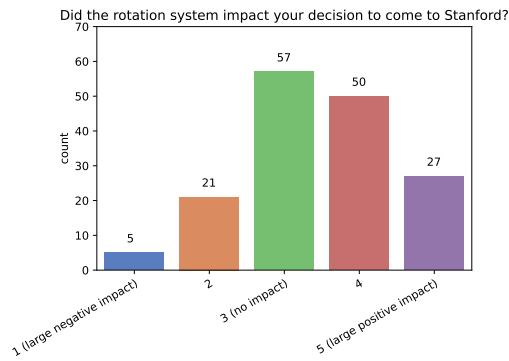


Figure 15: Despite the selection bias of polling students who accepted Stanford's offer, ~ 16% of students said the rotation program had a negative impact on their offer acceptance decision.

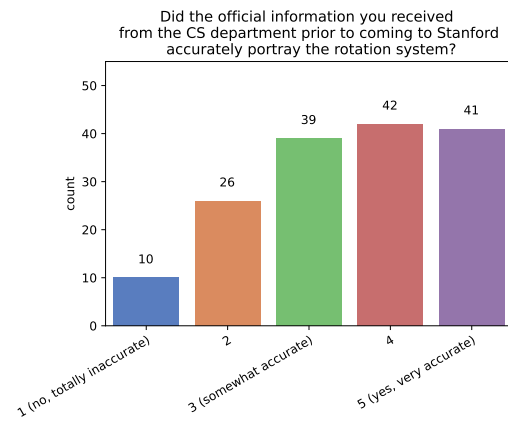


Figure 16: ~ 21% of students, responding with 1 or 2, believe they received information that did not accurately portray the rotation system.

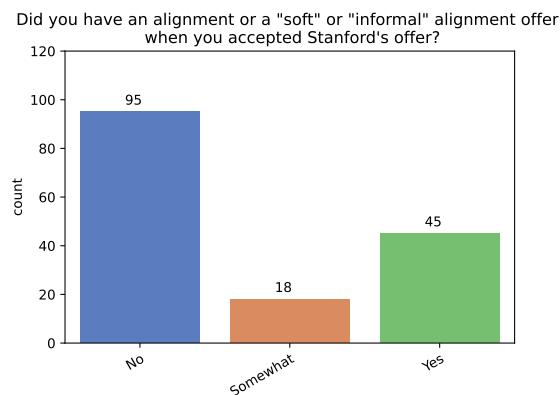


Figure 17: 28% of students out of ("Yes", "No", and "Somewhat") received a soft alignment offer during admissions (responded with "Yes").

3.2.3 Rotation usefulness

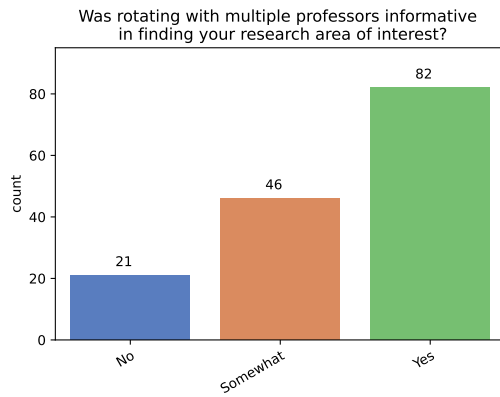


Figure 18: $\sim 86\%$ of students (out of those who answered “Yes”, “Somewhat”, and “No”) found rotations at least somewhat useful in finding their area of interest.

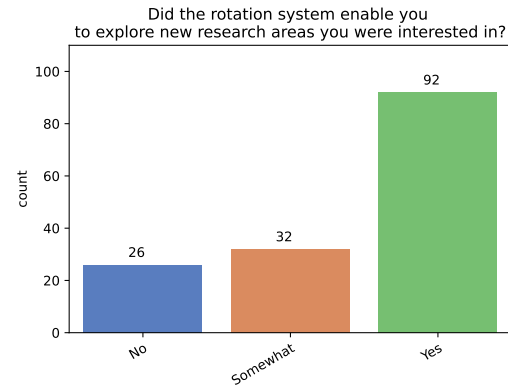


Figure 19: $\sim 61\%$ of students (out of those who answered “Yes”, “No”, and “Somewhat”) found rotations unambiguously useful in exploring new research areas.

3.2.4 Rotation alignment outcome

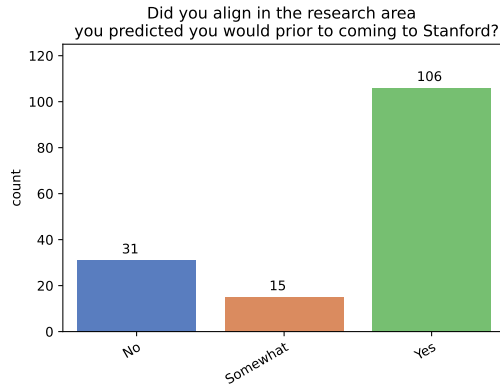


Figure 20: 70% of students aligned in the research area they originally thought they would.

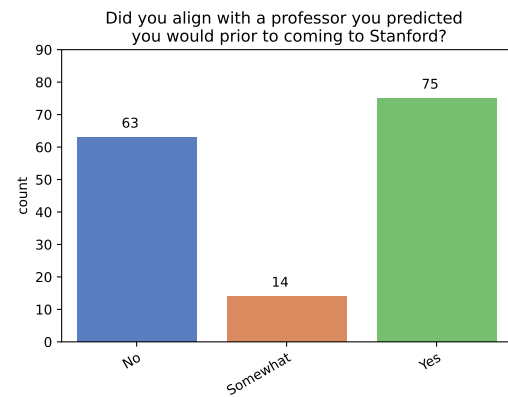


Figure 21: 41% of students did not align with a professor they originally thought they would.

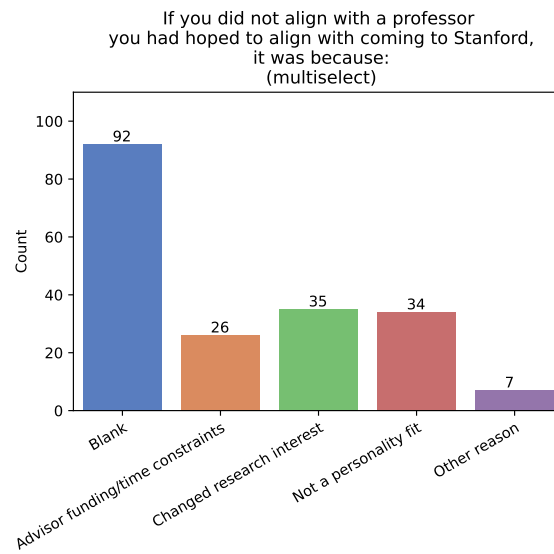


Figure 22: Unfortunately 92 out of 161 students did not respond to this question, possibly because the survey did not have an option for “I don’t know”. Note that respondents could choose more than one answer to this question.

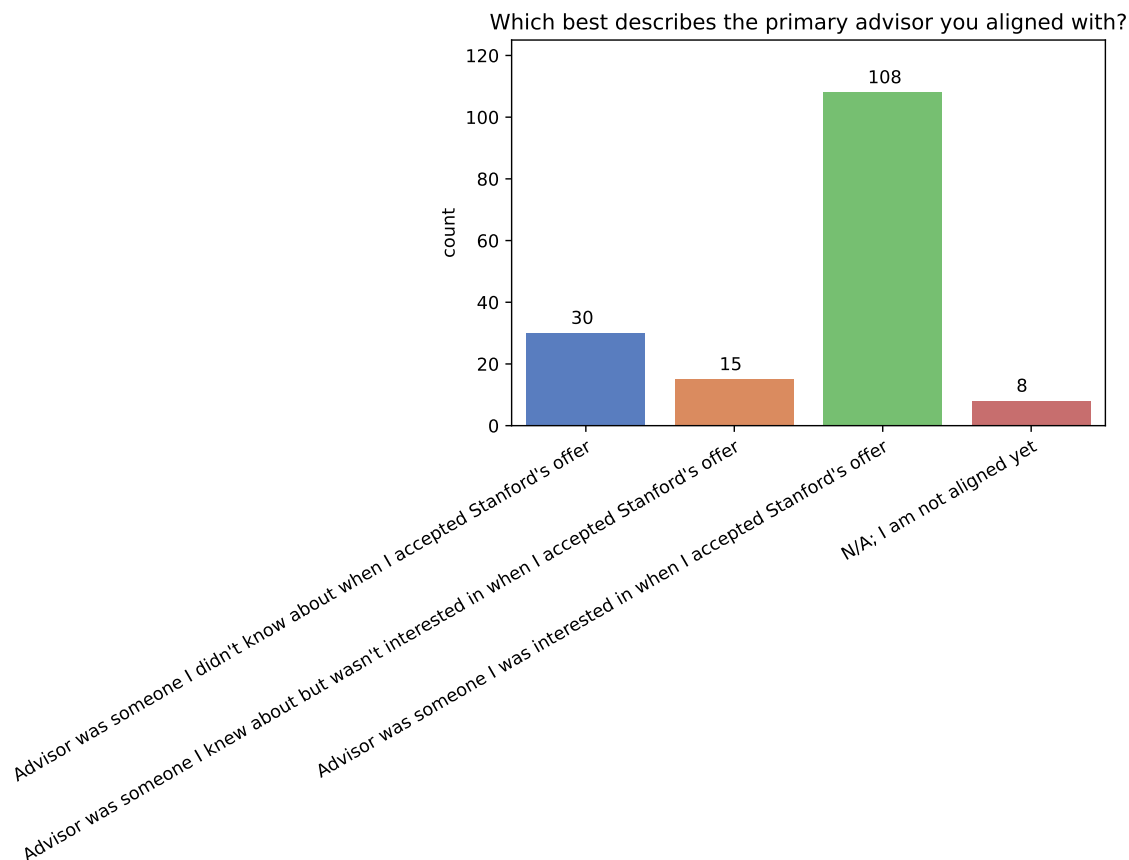


Figure 23: $\sim 20\%$ of students aligned with a professor unfamiliar to them when they accepted Stanford's offer.

3.2.5 Rotation experience during Fall 2020 - Spring 2021

To examine the rotation experience during the Fall 2020 - Spring 2021 academic year, we filtered the survey responses by those who said they rotated that year; see Figure 24. Among these 58 rotation students, we examined two themes: 1) the effect of the rotation system on their quality of life and 2) the trend in rotation dynamics over time spread across the three quarters.

With regards to 1), we found a few worrying trends. Arguably the most important aspect of the rotation for students is in finding an alignment. However, Figure 25 shows that 15% of those 58 rotation students did not receive a single alignment offer in this year. Adjusting for students who may have been second year students or who deferred admission by one or more quarters, we still find that 20% of the 40 first-year students who did exactly 3 rotations in Fall 2020 - Spring 2021 did not receive a single offer in Figure 26.

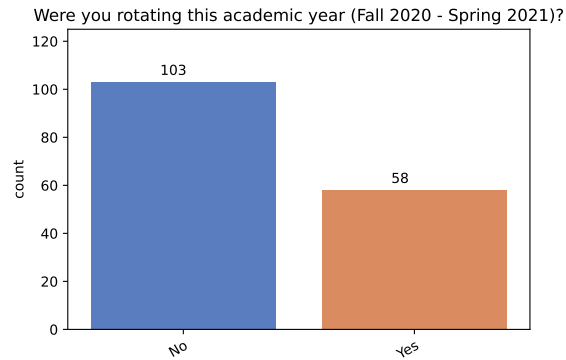


Figure 24: 36% of respondents rotated during the Fall 2020 - Spring 2021 academic year. All following figures are created using this set of 58 rotation students.

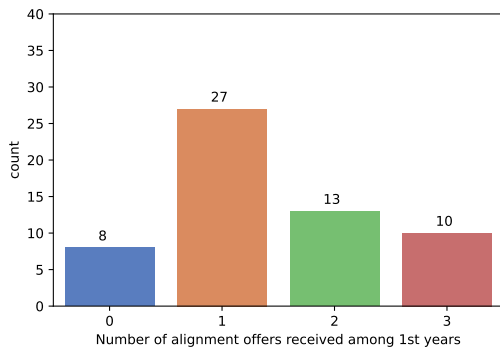


Figure 25: Among the 58 rotation students, most received only 1 alignment offer in the entire Fall 2020 - Spring 2021 academic year. 15% did not receive a single offer. This suggests most students do not get to choose among multiple alignment offers.

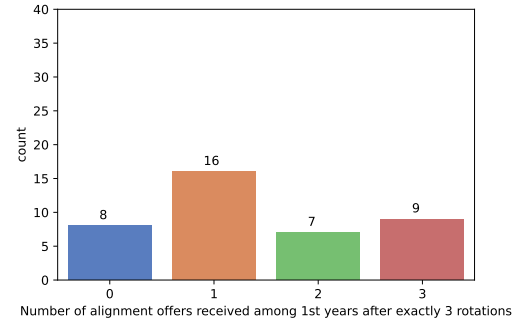


Figure 26: Among the 40 rotation students who did exactly 3 rotations in Fall 2020 - Spring 2021, which excludes e.g. second year students and students who deferred by one or more quarters, 20% of students did not receive a single offer. All but one of those eight students self-described as being in AI/ML.

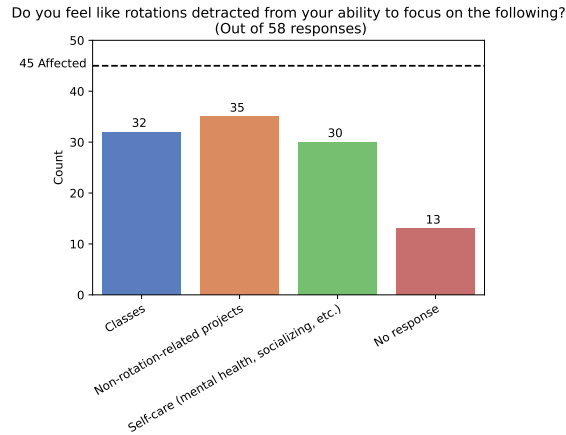


Figure 27: Among the 58 rotation students, 45 felt that rotations affected their focus on classes, non-rotation projects, or self-care. Worryingly, 30 out of 58 rotation students felt that rotations detracted them from their focus on self-care.

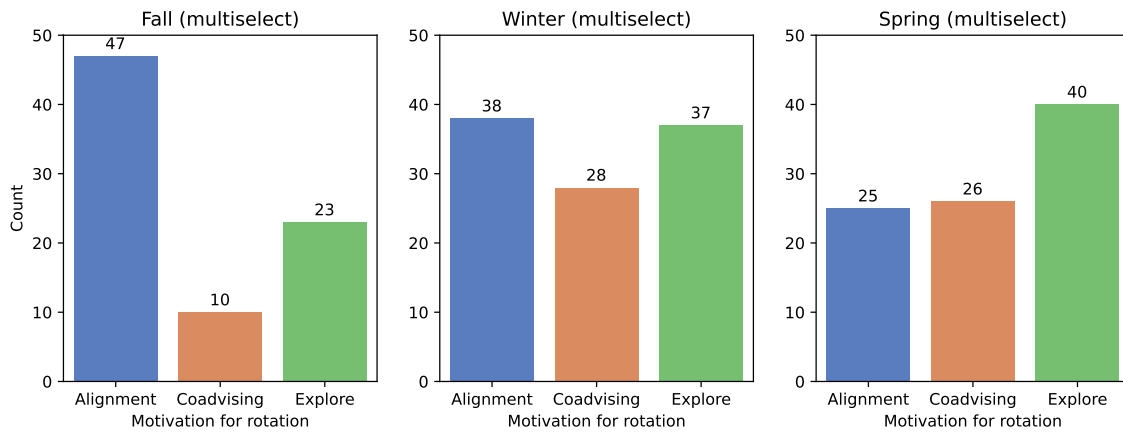


Figure 28: Among the 58 rotation students, they are more likely to seek alignment-focused rotations in the Fall and to seek exploration- or coadvising-focused rotations in the Spring.

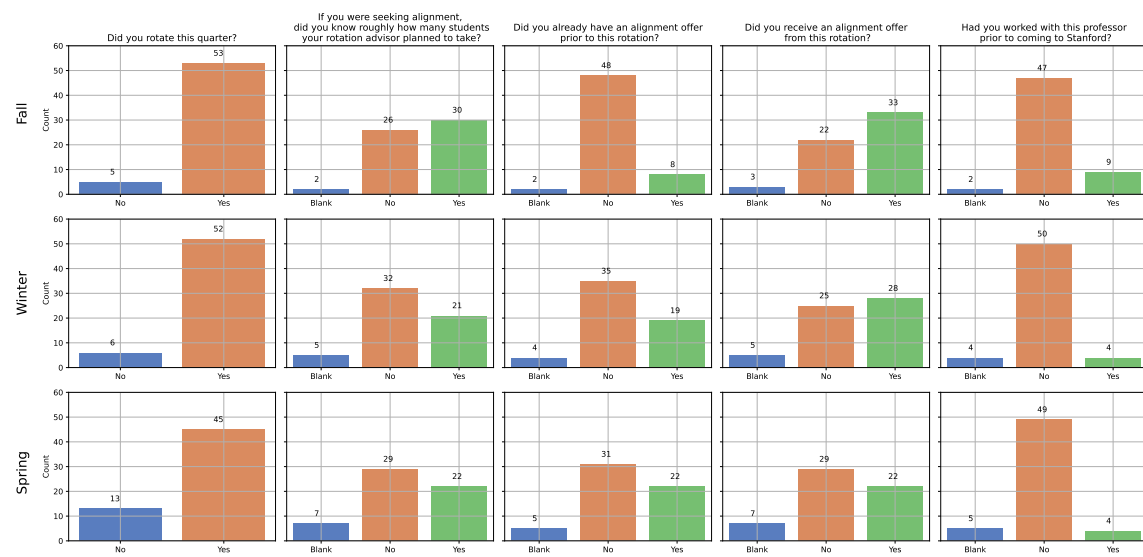


Figure 29: Responses over three quarters from the 58 rotations students this past year who responded to the survey. 58% of these 58 students who rotated in Spring did not have an alignment offer when they started their Spring rotation.

3.3 Department requirements and atmosphere

We asked students a broad range of questions about department requirements, including breadth requirements and qualifying exams, and the department atmosphere.

Main findings. The main findings are as follows:

1. Students expressed concern over the breadth requirements - particularly students who come from interdisciplinary backgrounds non-top-10 universities struggle more with waiving or fulfilling them.
2. Students expressed a lack of communication and support from the department - for example, in hosting department-wide events or other ways to keep students connected.
3. Many students reported on lack of diversity, accounts of sexism and racism, or forms of harassment; 40% of women reported sexism as moderate to very prevalent in the department (Figure 36).
4. 40% of students believe all students should engage in a service requirement (Figure 41), but 87% of students say they do not think service is currently equally distributed (Figure 40).

Recommendations. While breadth requirements should ensure all students have foundational training in Computer Science, students' experiences with completing these requirements vary greatly depending on their backgrounds. Students whose background do not fall into one of the core breadth categories, particularly ones who come from the ever-broadening "Applications" category, often struggle more with completing the breadth requirements than students in those core categories, such as "Theory" and "Systems". Additionally, students who graduated from non-top-10 universities report more difficulty with waiving breadth requirements using courses from their previous institutions. Given that Computer Science as a field is becoming more interdisciplinary and that we have made strides for greater inclusiveness, we recommend re-examining the breadth requirements to ascertain if they fully capture what we now consider to be Computer Science and if they are equitable for students from different institutions.

The survey results also make clear that we must improve department culture by addressing student concerns such as sexism, racism, and toxicity in the workplace. Often these experiences are nuanced and complex, as demonstrated by the student free-responses, so it is difficult to present broad recommendations that address students' concerns without additional discussions with all parties. Nevertheless, this is an important issue, and we recommend convening a committee consisting of *faculty and students* on department culture to address toxic behaviors and cultural norms expressed in the survey. This can overlap with the diversity committee's efforts to address sexist and racist behaviors within the department but should go beyond the DEI committee's core agenda.

Finally, we recommend incentivizing service to ensure a more equitable distribution of service among students, given that 87% of students do not believe service is equally distributed. There are a myriad of ways to serve the community, for example service for the student body, service for subarea events, service for the department, etc. However, these important tasks are often concentrated among only a small subset of students. Incentivizing service and making it easier to engage in service would help ease the burden off of this subset of students and improve quality of life in the department by ensuring enough attention paid to each of these important tasks.

3.3.1 Department requirements

The first set of questions we asked were related to current department requirements for students, namely breadth requirements and qualifying exams. Most students found that breadth requirements were moderate to very easy to satisfy. However, we found that students' answers varied by subarea, with students in Computer Systems and Robotics finding them easier to satisfy than students in Graphics, HCI, and NLP (Figure 30).

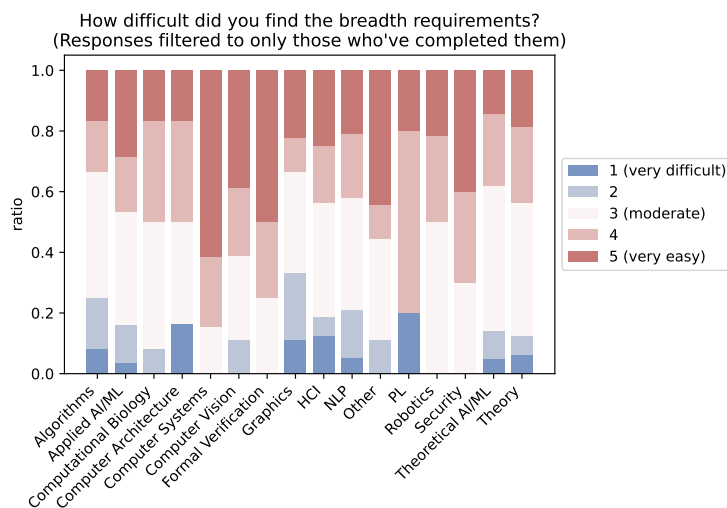


Figure 30: Students found breadth requirements to be varying levels of difficulty depending on subarea students reported to be in. Responses were filtered to only those who completed the requirements.

Students expressed two concerns during the town hall regarding the breadth requirements. The first concern is that breadth requirements significantly disadvantage students who come from unique or disadvantaged backgrounds. Students who did their undergrad at elite institutions may have their waivers more readily accepted than their peers who attended less prestigious schools. Many students who work in interdisciplinary fields like HCI also found breadth requirements challenging, especially for those who come from non-CS backgrounds. The second concern is that some breadth approvers can take weeks or months to respond to waiver requests, which can make it difficult for students to plan their coursework and result in students unnecessarily taking courses that they later learn could have been waived.

We report students' ratings of the qualifying exams in their area (Figure 31). Finally, we also plot which qualifying exams were taken by students stratified according to their entering year in Figure 32. We see that there is a steady increase in students taking AI or Statistical ML qualifying exams over time, albeit with significant year-to-year variability.

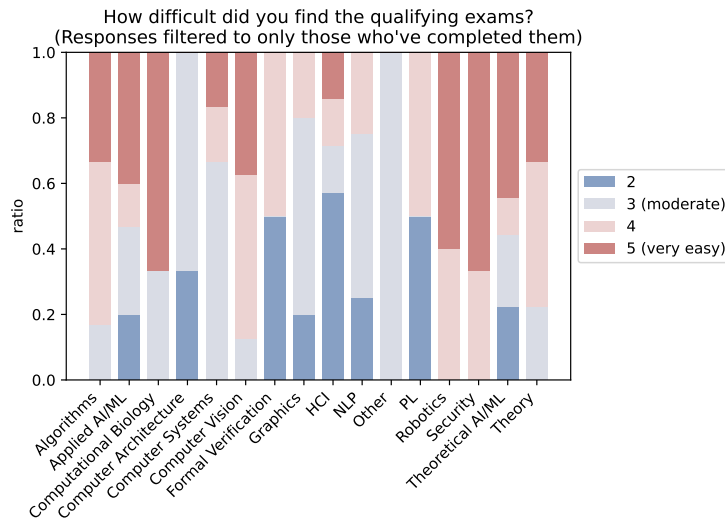


Figure 31: Most students found qualifying exams to be moderate to very easy but there was significant variation across subfields. Responses were filtered to only those who completed the requirements.

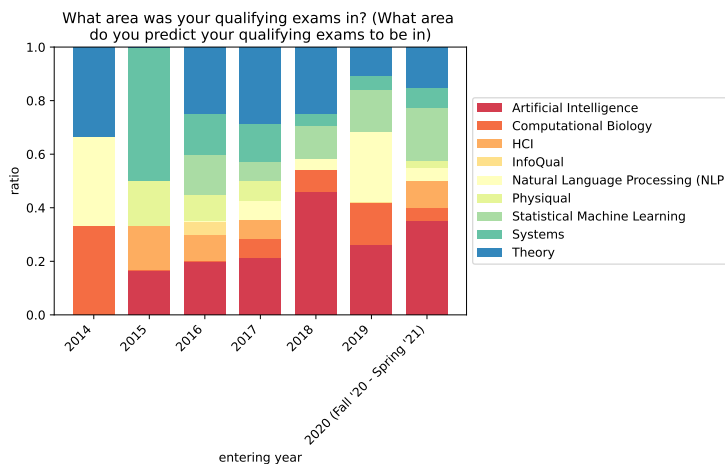


Figure 32: The number of students completing their qualifying exams in each area varies by entering year.

3.3.2 Department atmosphere

General comments. Although many students expressed a good sense of community in their labs and perceived other students as friendly, significant concerns were raised regarding lack of transparency and communication from the department, lack of diversity, competitiveness, and workplace

harassment and the lack of safely reporting such issues.

Lack of communication and transparency. There were multiple comments made on the need for more communication from the department. For example, students would like to receive more updates on the building renovations when they can resume going to the office. In addition, one comment suggested hiring a social media coordinator to help advertise the successes of faculty and students.

“I’m not sure where else to put this so mentioning it here – The CS department at my previous institution had a media specialist on staff who wrote and posted articles about faculty and student accomplishments, major department events and milestones, national awards and big grants (e.g., list of NSF GRFP winners, new major multi-institution collaborations), test-of-time or lifetime achievement awards from top conferences and associations, etc. This was an excellent way for members of the department to stay current on who was doing what, good PR for prospective donors, and great visibility for the people being highlighted (especially students). ”

Competitiveness. Some students find the atmosphere in the department to be moderately competitive, though this varies across subfields (Figure 33). A higher proportion of women report a competitive atmosphere compared to men (Figure 34).

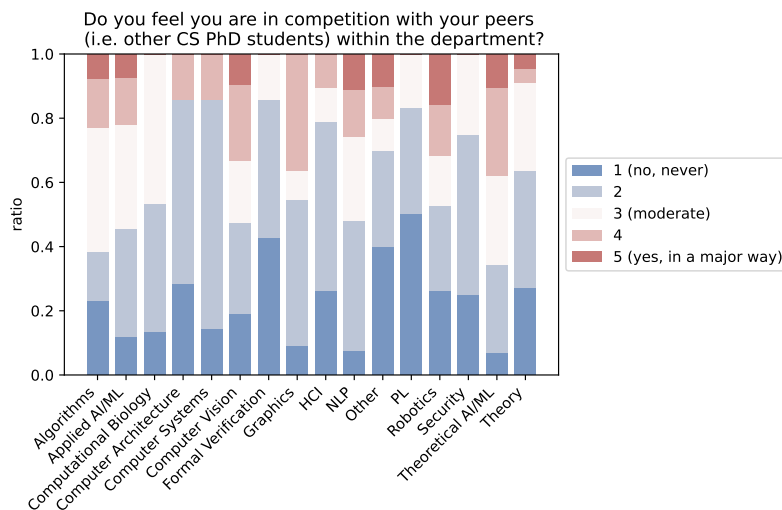


Figure 33: Students from different subject areas reported different levels of feelings of competition with peers.

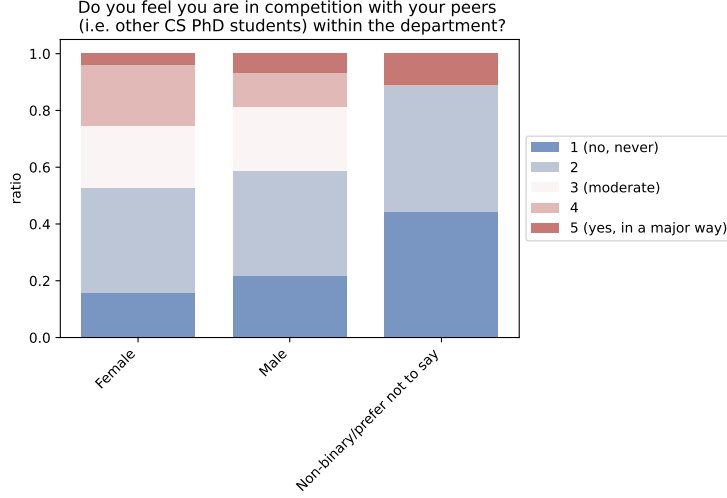


Figure 34: A slightly higher proportion of female students reported a competitive atmosphere than male students.

“I noticed that at the end of rotations in my first year, the only females in [REDACTED] were those who already had an offer before starting at Stanford and were either competitive themselves or mindful of and guarded against competitive behaviour. One woman I knew of who had the option to align in [REDACTED] turned down the offer, whereas a male making the same decision was unconcerned. Other women, who incidentally cared deeply about kindness in their interpersonal relationships, wound up in [REDACTED] where the atmosphere was said to be more congenial and less cutthroat. I personally found the competitiveness disillusioning and not reflective of individual capability or the nature of the field, that people were frequently not genuine in their interactions, and that discussions sometimes seemed less accessible to diverse perspectives.”

“Disappointed with how the department mishandled the Ullman case. You should strive to make all students feel welcome and prioritize our well-being and want to increase our sense of belonging.”

Lack of diversity. Students mentioned a number of times the lack of diversity both at the faculty level and the student level. They mention the lack of racial diversity and comment on how gender diversity has improved over the years. Students reported experiencing varying levels of racism (Figure 35) and sexism (Figure 36) within the department. Over 40% of women say sexism is currently moderate to very prevalent in the department.

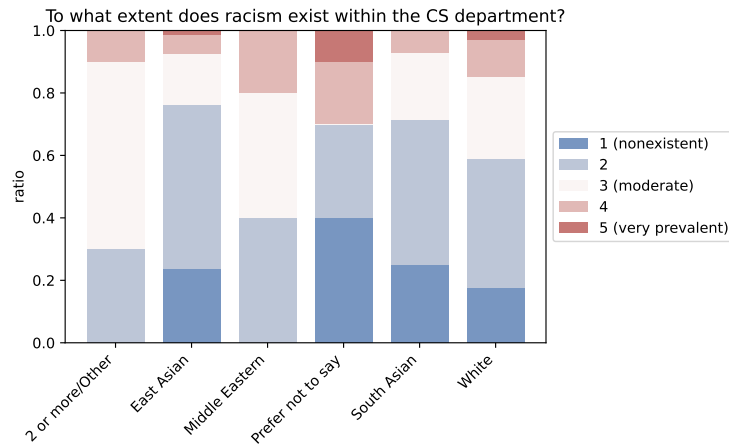


Figure 35: 51 out of 153 students who responded to this question reported that racism is moderate to very prevalent within the department. Respondents who choose not to self-identify reported racism to be very prevalent with the highest frequency.

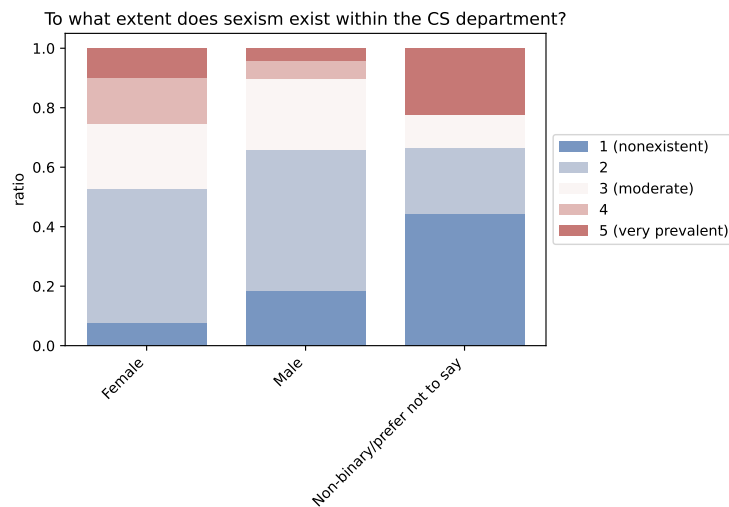


Figure 36: Overall a third of students overall and more than 40% of female students reported that sexism is moderate to very prevalent in the department.

“I think the atmosphere is very poor for underrepresented groups. Many of us are made to feel that we are only here as part of diversity initiatives, which adds to feelings of imposter syndrome, and then in collaborations pushed to work on less-interesting aspects of projects (e.g. making plots). Many peers not from these backgrounds seem eager and willing to ‘help’ and mentor us, but don’t seem to view us as legitimate researchers. I think this is clear from observing group dynamics in most groups here.”

“ Observed extremely sexist remarks by faculty in front of new admits. Still often find myself in situations where faculty will look to me over a female colleague even if she knows the same/more about a topic. ”

Harassment. A number of workplace harassment complaints and instances of discrimination were also reported. Students feel unsupported in this area, and they also mention the difficulty in reporting workplace issues to neutral third parties.

We measured workplace harassment in a number of different categories: excessive demands, demeaning demands, intrusion into personal life, personal humiliation, critical remarks, ostracizing behaviors, intimidation tactics, retaliation, verbal harassment, and sexual harassment. In Figure-37, there were a small number of people who reported experiencing harassment in each category.

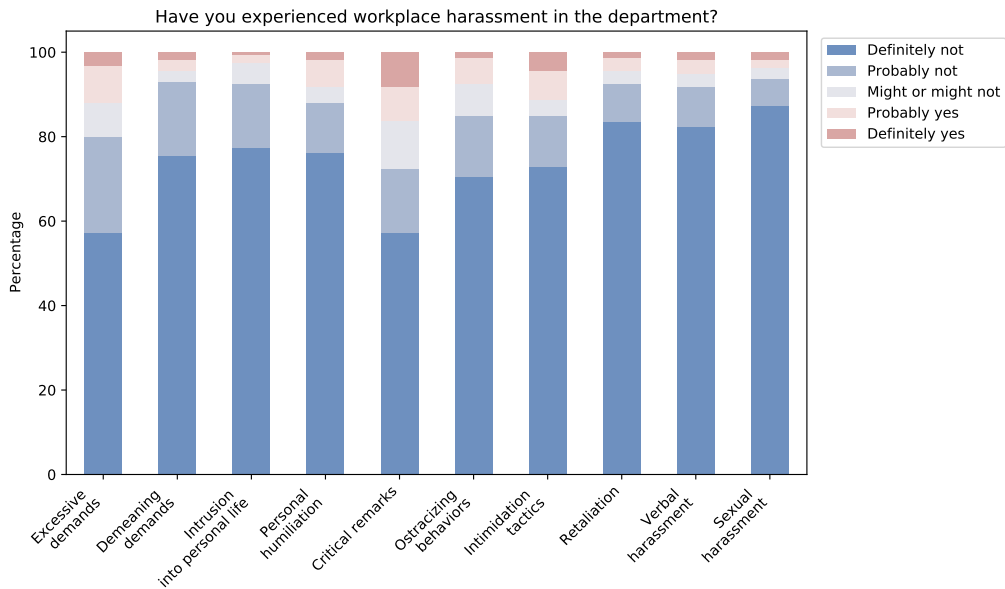


Figure 37: Workplace harassment was reported to be low across most categories. Excessive demands, critical remarks, and intimidation tactics were the most common categories.

We highlight "Critical remarks" in Figure 38, since this category had a larger number of those who reported "Definitely yes". Importantly, most of these reports seem to come within a few specific CS subfields; we choose to omit which specific areas in this report due to anonymization concerns.

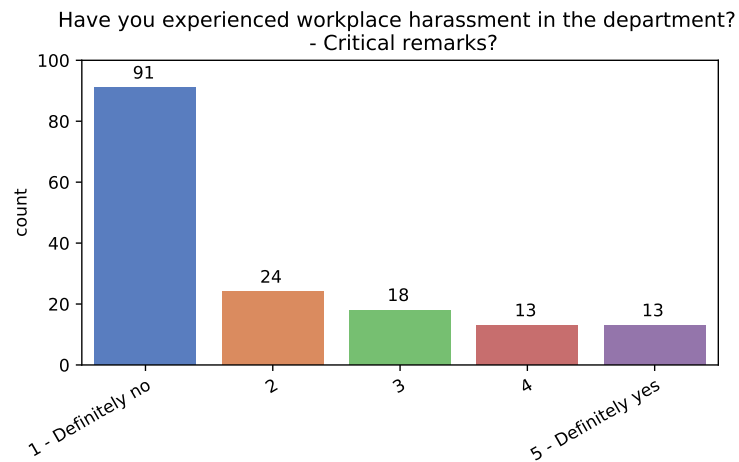


Figure 38: The most commonly reported workplace harassment behavior was critical remarks. 26 students report probably or definitely experiencing critical remarks.

While the overall rate of harassment in other categories is low, many students did not feel comfortable reporting incidents of harassment if they did occur. Breaking down further by gender in Figure 39, almost 70% of female students reported feeling extremely uncomfortable or uncomfortable reporting incidents of workplace harassment to the department. This suggests that implementing an inclusive, fair, and transparent process of complaints as well as informing students about avenues of reporting within and outside the department are extremely urgent issues to be addressed.

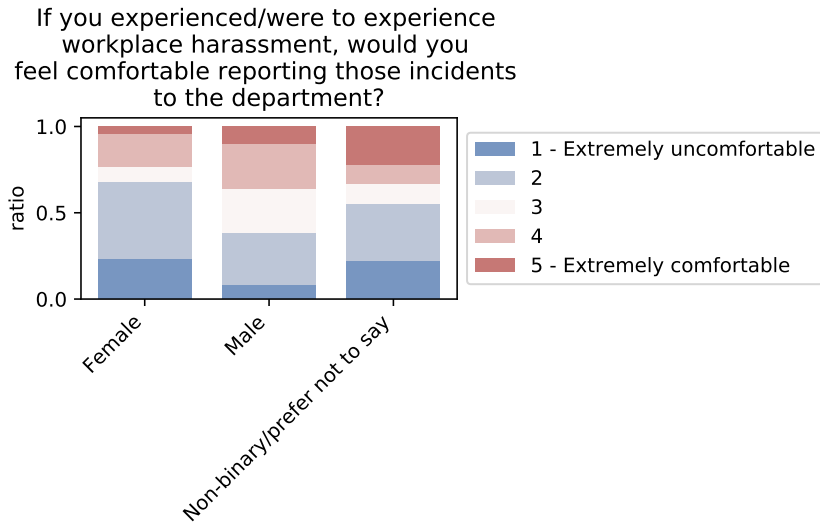


Figure 39: Almost 70% of female students are extremely uncomfortable or uncomfortable with reporting harassment compared to around 40% of male students.

3.3.3 Service requirement

We measure perception of student engagement in service. We found that 87% of the respondents to the question, “Do you think all students currently engage equally in service?” answered “Definitely no” or “no”, agreeing with the sentiment that not all graduate students are equally involved in service.

Figure 40 shows a demographic breakdown by gender of how service is currently being distributed in the department. A higher proportion of female and non-binary students are engaged in service compared to male students.

Of the students who answered, “Do you think all students in the department should engage in service?”, 40% of students answered “Definitely yes” or “yes”, 35 % answered “maybe” and 25% answered “Definitely no” or “no” (see Figure 41). We see that the most students who vehemently oppose a service requirement are male.

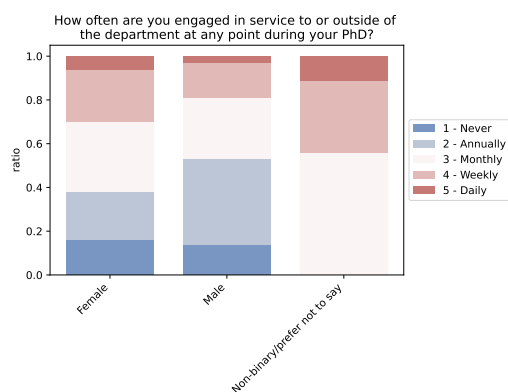


Figure 40: When we break down how often students engage in service by gender, we see that a higher portion of female and non binary respondents engage in service monthly or more frequently.

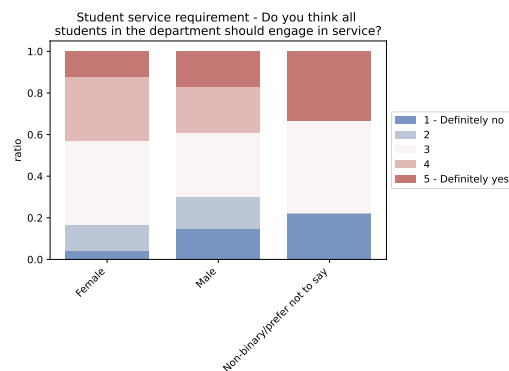


Figure 41: We observe more male students opposed and strongly opposed to requiring a service requirement than any other group.

3.4 Remote work and well-being

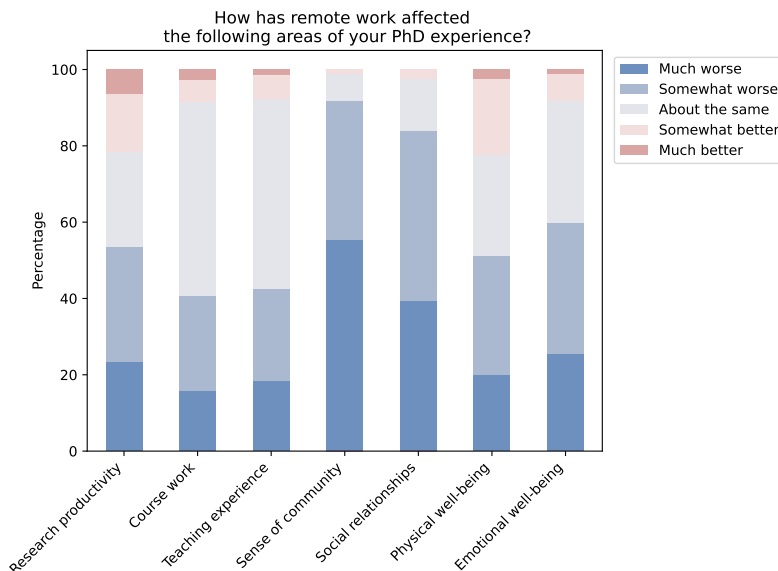
Main findings. In this section, we asked students how the pandemic and remote work has broadly impacted their quality of life. The main findings of this section are as follows:

1. Across all categories surveyed, the vast majority of students felt that remote work negatively impacted their lives, with sense of community social relationships being among the most negatively impacted areas.
2. Several students pinpointed a lack of daily structure and social interaction as key factors leading to a lack of motivation and overall worse quality of life, and called for more department support and social events going forwards.

3.4.1 Quantitative results

Remote work negatively impacted numerous aspects of students' overall experiences. As illustrated by Figure 42, the overwhelming majority of respondents felt that the pandemic either negatively or at best neutrally impacted nearly all aspects of their lives. Though of the categories surveyed, research productivity and physical well-being appeared the least impacted, with a fraction of students even reporting a positive impact.

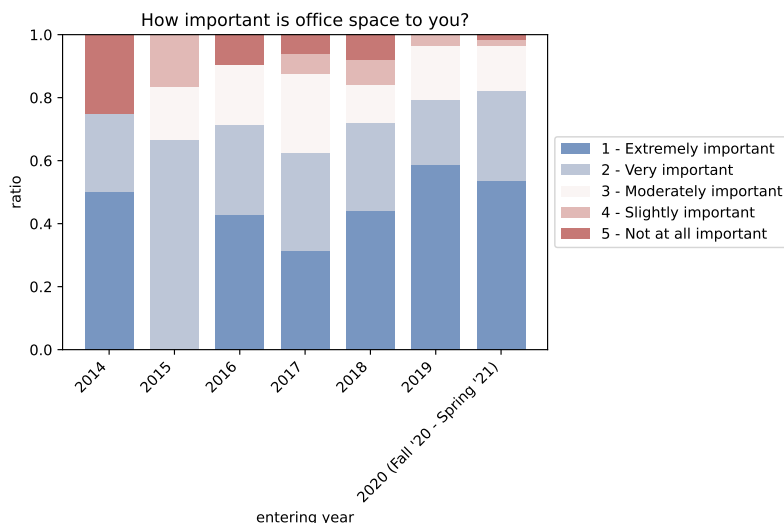
Figure 42: Across all areas surveyed, the overwhelming majority of students felt that remote work negatively affected their quality of life. Research productivity and physical well-being were among the less impacted areas, with a notable fraction of students even responding that their quality of life in these areas actually improved over the pandemic. Social relationships and sense of community were among the most negatively impacted areas.



In addition, over 75% of all students say that office space is either extremely or very important

to them, as seen in Figure 43. Recently entering students overwhelmingly note the importance of office space.

Figure 43: Across all years, the majority of students rated office space as either extremely or very important.



3.4.2 Qualitative results

Lack of motivation. Many students struggled with motivation and sense of purpose over the last year. Some attributed these struggles to a collapse in their daily routines as a result of the pandemic, while others pinpointed not just the pandemic but also the various global challenges and social issues that emerged over the past year as key contributing factors.

“ Goals wise, I have stopped caring as much about research output, because there are more serious issues impacting people in the world. ”

“ I find myself listless and unproductive working at home, with neither the change of scenery to get me into a working mindset or the social ability to ask questions and engage deeper into my work. I get less exercise without commuting and walking around, and feel less creative and motivated without change in my day to day life.” ”

Personal challenges. A number of personal issues arose that impacted students’ PhD experience, spanning mental health, imposter syndrome, and learning disabilities. These issues were in many cases particularly exacerbated by the pandemic.

“ Professors don’t appear to acknowledge the pandemic’s effects on us. Some have made comments that they are enjoying working from home for productivity reasons, despite knowing that many of us are away from our families, missing social interactions, and dealing with grief and stress, and worried about future employment prospects. ”

Lack of social interactions. Students commented on the lack of social interactions throughout the year, voicing concerns about feeling lonely, missing others, and the absence of casual hallway conversations.

“Some parts of the CS department do a much better job of building community, such as NLP group, whereas others like StatML do not. Having this first year be completely remote has also made the experience a lot more alienating. It would be great if the CS dept could at least do a weekly happy hour at a bar or some venue where all the students could mingle and get to know one another - especially considering the restrictions are being loosened now. ”

“ The sense of community is very weak because we’re not physically together. I can’t wait for Gates to reopen. It would both make me more productive and make me have more fun. ”

Suggestions. Students had a number of suggestions for how the department could improve the remote work experience, which may be relevant moving forwards until the reopening of Gates and in case the pandemic persists through 2022.

“ I didn’t feel like the department reached out to check-in on us. It would have been nice for them to suggest things we could do together/host events/fund events. ”

“ I think some ergonomic support would be nice. I have developed back pain, which wasn’t there when working in gates with standing desks and ergo chairs. ”

3.5 Professional development

Main Findings. In this section, we asked students about their career aspirations, and whether and how they expect the department to support these aspirations. The main findings of this section are as follows:

1. Overall, students felt that support for their professional development should be a department priority, as illustrated by Figure 45.
2. Research positions, whether in industry or academia, were the most popular career paths, as illustrated by Figure 44.

Unfortunately, students often report a lack of clarity in how to prepare for the job market, especially for academic jobs which require more preparation.

Recommendations. The department can better support students in their professional development by providing centralized information and advice on how to best prepare oneself for the job market. Students can greatly benefit by hearing from multiple sources and faculty AMAs help provide that perspective from sources other than the students' own advisors. Additionally, the department can help students be better positioned for the job market by making their achievements more visible and publicizing their accomplishments.

3.5.1 Quantitative results

We surveyed the career paths most frequently sought after by students, and also asked students to rate the importance of department support for their professional development. Students predominantly sought research-focused positions, whether in academia or industry, and generally felt that professional development support, broadly defined as taking a number of different forms, should be a department priority.

Figure 44: In this plot, we surveyed students career interests, where each respondent was allowed to select as many of the categories as they were interested in. The vast majority of students were interested in research positions, with a nearly equal split between industry and academia. Of the students interested in academia, a small but significant number sought teaching-focused faculty positions.

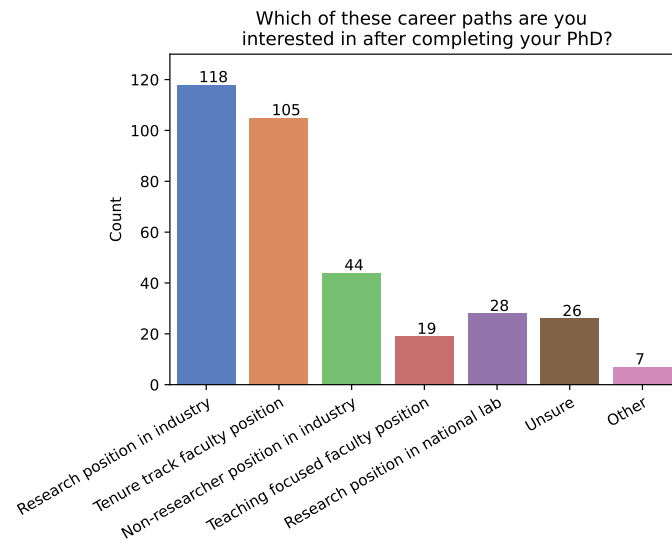
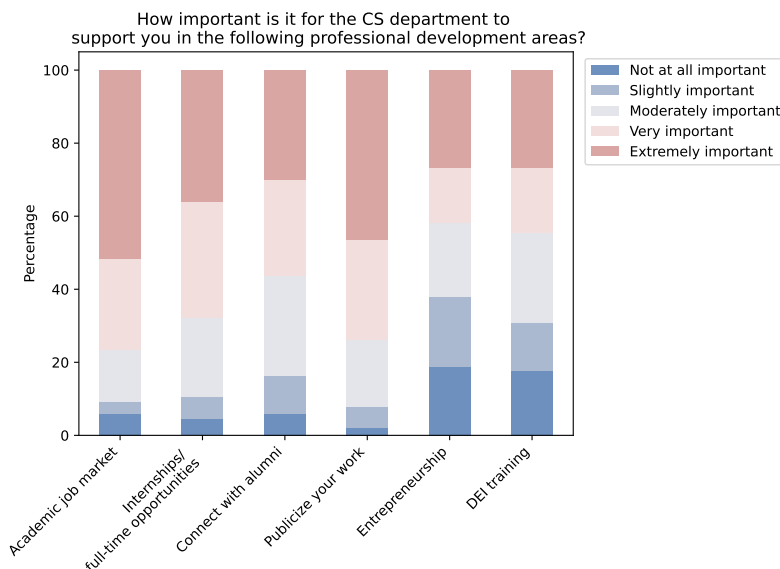


Figure 45: Students generally felt that support for professional development across a number of different areas should be a department priority. The two areas most frequently rated as extremely important by students were the academic job market and publicizing students' work. Interestingly, female-identifying students were 15% more likely to rate department support for publicizing their work as either extremely important or very important compared to male-identifying students.



3.5.2 Qualitative results

Lack of clarity. Many students felt particularly uninformed and ill-prepared regarding the job market, and that the department could be doing more to guide and advise students through the process. In particular, students expressed concerns around the lack of clarity on what the overall trajectory of applying for faculty jobs entails.

“ I don’t feel like I have a clear idea of everything one should do to prepare to apply for faculty jobs. Obviously advisors are the best resource for this, but perhaps the department should provide more guidance as well. ”

“ I don’t know of much structured advice around being successful in the larger academic community: for instance, getting a faculty job or publicizing my work. What I know mostly comes from 1:1 conversations with my advisor. I have a good sense of what he thinks is important, but don’t have a great sense of timelines, how other people tend to do things, or what other strategies are possible. ”

“ When I started preparing job materials, I realized I didn’t know any faculty other than my advisor well enough to ask for feedback. I have also struggled to get enough letters of recommendation because I only worked closely with my advisor and there was little collaboration outside my group. ”

Need more structure. Several students expressed in particular a desire for more structured, department-wide (i.e. beyond the level of the individual advisor) initiatives for propagating information, resources and feedback relevant to professional development opportunities.

“ Quarterly reports (similar to the annual progress review) to help facilitate discussion around professional development and career trajectory. ”

“ Workshops for those interested in academic jobs (e.g. writing good cover letters, interview prep, how to prepare for the year(s) leading up to the job search, what you should be focusing on, etc), as well as more insight on alternative career paths like startups. ”

Meanwhile, students appreciated existing events such as Faculty AMAs and practice job talks.

“ Getting to know the personal and academic trajectories of Stanford CS professors is very valuable. Events such as the Faculty AMA are super helpful, and perhaps we could have more of those. ”

“ I think publicizing nominated fellowships and having faculty attend practice job talks has been a great start. More partnerships with Stanford News to publicize research, having an accessible PhD alumni network/directory, publishing anonymous aggregated statistics of where PhD graduates end up. ”

Diversity. Lastly, multiple students sought to formally integrate DEI initiatives and training as part of professional development training.

“ Offer training about bias, inclusion and diversity in the academic setting. ”

“ Bring in speakers with a diversity of backgrounds and career paths. Hire more non-male, BIPOC faculty. ”

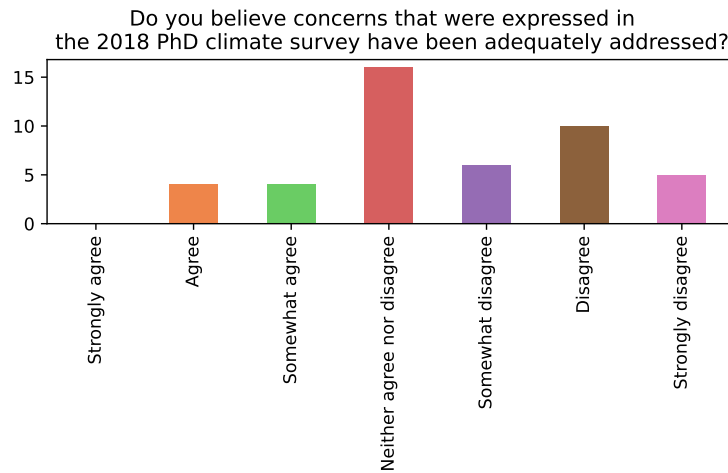


Figure 46: A significant number of students disagree that concerns raised in the 2019 survey had been adequately addressed

3.6 Lack of progress since the 2018 climate survey

Main findings. As mentioned in Section 2, a similar PhD student survey was conducted in 2018. Two main points emerged in this section:

1. Students highlighted that the yearly advisor check-ins, introduced in response to the previous student survey has been helpful to facilitate discussion.
2. Most students who responded to the question believe the concerns raised in the 2018 survey have not be adequately addressed (Figure 46). Specifically, concerns about sexually harassment and toxic department culture remain unresolved.
3. The department should prioritize addressing issues of sexism and sexual harassment within the department to foster an environment where all students can thrive.

To understand how students felt about the progress since 2018, we asked respondents whether they felt like concerns raised had been adequately addressed. We asked students: “Do you believe concerns that were expressed in the 2018 PhD climate survey have been adequately addressed?” Of the 136 students who responded to this question, 91 did not remember any concerns from the 2018 survey. The remaining responses are summarized in Figure 46. With the exception of a few respondents, the vast majority of students do not believe the issues concerns have been adequately addressed.

Looking at the qualitative responses, students highlighted that annual progress reports, introduced in response to the 2018 survey, has improved their PhD experience. For example:

“ The annual CS PhD student, faculty checkin definitely helped improve my PhD experience since it allows me to have a formal way of checking in with my advisors/making sure that we are all on the same page. I also really appreciate the responsiveness of the CS PhD student services staff. ”

“ I think the annual review was introduced after the 2018 survey, and it’s a clear improvement. ”

“ I like the annual progress reviews. It helps facilitate discussion. ”

“ I think the annual progress review between student and advisor is a good step forward, though I’m not sure it quite asks the right questions – I think some students can still fall through the cracks without that conversation catching it. (This includes if a student is making technical progress but is deeply unhappy in their work.) The student committee that runs this climate survey is a crucial mechanism to improve understanding between students and administration; I hope it continues to flourish. ”

Other improvements mentioned include: the responsiveness of department admins, re-working of systems subarea quals, and Gates renovation.

In terms of concerns that remain unresolved, students highlighted that issues of sexism and sexual harassment remain largely unresolved or unaddressed. For example:

“ Sexism in the department. I think diversity training that encourages self-introspection is very important - some of the students/faculty that are most vocal about D&I efforts in my research area (who are often not members of underrepresented groups themselves) have been the ones who perpetuated the toxic culture. We need to encourage an attitude that we are all complicit / can improve our behavior wrt sexism, racism, and other forms of discrimination. ”

“ Male students constantly interrupting my female coworkers. Thankfully in my lab everyone gets time to speak but in social situations or in classes this is so annoying! ”

“ The sexual harassment issues brought up in the last climate survey. ”

“ What happened to the reports of sexual and other workplace harassment? ”

Other concerns brought up by students include: the lack of diversity in the department, lack of transparency about fees and summer funding, inequality and competition in the rotation system.

4 Ph.D. Student Town hall

The survey team held a town hall on October 5th, 2021 to present preliminary survey results to students in the department and to provide an additional venue for feedback.

Students from the town hall expressed strong interest for the department to defined actionables in addressing the concerns laid out *and* measuring that progress via, for example, another survey. Students stressed the importance of addressing these issues in a systematic way.

Regarding the rotation system, students expressed strong agreement that the department should *centralize* and make information more transparent on: (a) the role of the faculty buddy assigned at time of admission (ie. clarifying that the faculty buddy is not someone who the student is guaranteed to align with, and is only someone who vouched for them in the admission process), (b) how many students each faculty predicts to take on in a given year, (c) the number of students a faculty has already aligned with throughout the academic year, or committed to aligning with during the admission process. A number of students at the town hall expressed the need for more structure in how information regarding rotations is disseminated to students from visit days to the end of first year.

Regarding the increasing number of students being admitted (but a slower increase in faculty numbers), older graduate students expressed concerns that the stress put onto rotation students seems to be worsening. One student noted that the rotation section analysis contains “extremely concerning numbers.”

Regarding issues of racism and sexism, students expressed concern that the lack of racial diversity in survey results is a major limitation. When issues of sexual harassment do arise, it is unclear whether the department provides venues for students to raise these problems and have them addressed.

Regarding waiving breadth requirements, students raised concerns about significant disadvantages imposed on those who come from non-traditional computer science backgrounds. These include, but are not limited to, students who do not have a prior degree in computer science or students who come from non-Top 10 US research institutions in computer science schools (e.g. liberal arts colleges, international universities) where waiving equivalent classes would be more challenging. These disadvantages should be taken into consideration to ensure more equitable treatment across students.

5 Free response answers

5.1 Advising

If you have any additional comments about PhD student advising in the CS department or clarification to the above answers, please write them in the space below (optional):

“ Advisors should be more willing to fund students during the summer, and budget for this when deciding to take on students; even though it’s more expensive, students produce and gain a lot more from both the full-time focus on research and the continuity in research progress. It should be more than worth the cost. ”

“ I have two advisors, one is tenured one is not. Both groups have 5-10 students. ”

“ I like annual progress reviews, because they prompt good discussion around graduation progress. I think it would be nice to also have quarterly informal reports to talk about other aspects too, such as career progression, teaching, community service, etc. ”

“ I took a leave of absence last year. I couldn’t imagine a more supportive advisor. It would be great if the department hired a person whose sole purpose was to discuss personal issues related to our advising situation with. The current CS staff seem quite busy/overworked, and may not have the right mental health training to listen to us. ”

“ It would help if the CS department tracked advising outcomes and student welfare in different labs, so that advisors can get feedback and incoming students can be more informed instead of relying on hearsay. ”

“ None of the faculties I rotated with is able to align and the above answers are based on one of my rotation advisors. ”

“ One advisor is tenured, one it not. ”

“ Rated the culture as poor because it is essentially non-existent: we very rarely do lab activities together. The annual advisor/student review is not useful at all. ”

“ This survey doesn’t quite work for co-advising situations – I just responded with an average of my two advisors. ”

“ While I generally feel very supported by my advisor, I find it uncomfortable bringing up any research or personal challenges I’m facing because I’m concerned it will show weakness and affect how my advisor recommends me to others. I find it much more helpful to talk to friends and go to therapy to work through such issues, which for me are fine avenues for getting support. ”

“ while I think the student annual check-ins are a step forward for feedback, I think the department really needs an advisor annual check-in where students have an opportunity to give feedback to their advisors on how they can better support their students’ goals. my advisor has never asked for feedback or how they can improve before, and I think having a formal channel of communication for these kinds of conversations would be beneficial to both advisors and students. ”

5.2 Rotations

Is there anything you wish you had known about the rotation system that would have affected your decision to come to Stanford? (optional).

“ - too crowded in AI/ML space - [REDACTED] didn't reply to my email - implicit/tacit rotation alignments that happen before you even commit - some profs dont take students in spring, others wait till the end to decide (unclear what the norms are) ”

“ 1. Other students were talk to professors long before the first day at Stanford. If you start late, there is not many choices for rotation.

2. Campus visit is extremely important, for friendship and also rotation instantiation.

3. Ask directly about funding information, expectation about the rotation.

4. It is not rigid for the time framework. If you find out not match with someone or some project, change immediately.

5. Better to rotate with a lab that assign a well-defined project and senior mentor for you.”

“A PhD admission from Stanford is more like an offer to participate in a yearlong interview process which might eventually result in alignment with a good-fit advisor, or might not, for reasons outside of your control (funding, other students, etc.). It's not comparable to a more concrete offer from a good-fit advisor at most other schools, and if you have one of those you should probably take it instead.”

“Extremely competitive; it's more designed for advisors to test out students to make it less risky for them than the other way around. The rotation system should be designed for students to explore interests in a safe environment, but from what I've seen, students end up being in extremely high stress scenarios.”

“For “hot areas” (whatever that may mean) like applied ML (NLP/vision/robotics), there is immense competition. This isn't necessarily conveyed to prospective students at all, but the department should be very upfront about it. Competition also increases because folks accepted into different sub-fields also rotate in these labs. Having said that, I do not know of anyone from my year who did not align with a faculty of their liking, so maybe the dept does ensure that intake doesn't exceed demand.”

“Here are some things I wish I had known about rotating before coming to Stanford:

- Joint rotations are not a great idea. If you are interested in working with two people, do a single rotation with each of them to gauge their advising style and research interests. If you are going to do a joint rotation, make sure that one professor is clearly the point person for that rotation. Trying to triage the schedules and interests of two people in a 10-week period is very difficult. This means that figuring out if two potential co-advisors will work well together can be challenging.

- Doing interdisciplinary work across sub-departments of CS is challenging.

- You need to be ok with not aligning with the person/people you anticipate working with going in. That's the risk (and potential benefit) of doing rotations.

- When doing rotations, it makes sense to consider both research interests and personality fit in people you will rotate with.

- It's a good idea to keep your rotation schedule somewhat flexible. You might learn about a researcher while doing rotations (or while taking CS300) that you didn't have on your radar when coming into Stanford that you may want to try working with."

"I did not realize that the department would not fund students beyond the third rotation. The way funding and the rotation system was discussed during visit days was very misleading. I will go out of my way to make students aware of this in the future."

"I didn't know that some students already had 'soft' alignment offers before starting the PhD. It provided an unequal playing field in my opinion. There were some professors that I was interested in working with but didn't rotate with because I knew that they already had unofficially aligned with some students and therefore my chances of aligning were essentially nonexistent. This ultimately constrained my research options and didn't allow me to explore the full breadth of research topics I was interested in and wanted to try."

"I didn't realize how important it is to ask early for a rotation spot. Once a professor commits to 3-4 rotation students, they can't take you even if there might be a good fit. It may help to have a more structured system for signing up for rotations (maybe like how CURIS does matchings?)."

"I didn't rotate"

"I had heard it was very stressful and competitive, but the benefit of exploring different research areas was really important to me. It seems like it is well known amongst students how stressful the rotation system it is - not sure why the department does not seem to care, and even worse, seems to penalize students who seek to convey this fact to admits."

"I think prompting more transparency with rotations, such as encouraging students to ask professors how many students they plan to take ahead of time, and making aggregated stats available (e.g. number of people aligning with their 1st vs 2nd choice, number of people that aligned in Fall vs Winter) could be slightly painful to bring up but overall would have helped with planning ahead with decisions."

"I wish I had some idea about how competitive it was to get into certain labs, and looking back, I wish I had been given the option to align outright. I feel like I lost a good year of growth/research going through rotations, and definitely suffered because of it."

"I wish I would have known how important it is to choose good rotations, and how to choose them."

"If you know who you want to work with, it's possible and can be beneficial to skip rotations."

“It encourages producing results rather than learning fundamentals/developing strong research connections with others, which is an important thing for first year phd students to do.”

“It is competitive. Things fill up. There are area buckets and quotas.”

“It was not transparent that after 3 quarters the department provides no accommodation for you. The department must make it clear to prospective students that there will be no more funding and you are on your own after 3 rotations. Also it was not clear that some students already received soft alignment offers and it feels like students are non on a level playing field through the rotation program.”

“It would have been good to know that faculty wouldn’t want to make concessions and align with a student if the fit was poor, so that it was important to think about who I might be most excited to work with and go into the rotation with the idea of working with them to make steady progress - without being constrained by what I thought I had background in, because in reality, background wasn’t necessary. Knowing this last point, I might have been less afraid to consider options at other schools more seriously. I knew I wanted to switch areas, so aligning in the original area wouldn’t be a ”safe” option because it wasn’t what I was interested in and that showed. Although it wasn’t necessary, having a much clearer idea of what I wanted to do for the PhD and who was truly a good fit for my interests and personality would have made the whole experience much smoother. Then again, a lot changed over the course of starting the PhD and rotating both in my interests and my understanding of faculty, so it might have been hard to figure out much more beforehand. The rotation system felt noncommittal and sometimes faculty had little interest in investing time and resources on students they weren’t excited about or going to continue working with formally, though faculty, students, and admin could also be immensely helpful. Since I didn’t have a great sense of what research I wanted to do, I *might* have fared better at a school where faculty had initial commitments to students and so were more inclined to nurture the students they had, but I’m also glad that the rotation system forced me in a way to find an alignment situation that’s great for all parties rather than settling for a mismatch, and everyone that I could work with is stellar. Looking back, I might have considered sticking with faculty who were already interested in working with me and who I knew I enjoyed working with more heavily rather than rolling the dice, but that’s hindsight and I’m still glad I came here. It was a rough and bumpy ride, though!”

“It’s possible to switch rotations, but make sure to do it without offending anyone.”

“No, I think I got a pretty accurate sense of what the rotation system was like after talking to faculty and students at admit weekend.”

“ Only that I should have paid more attention to what was said when warning about its dangers.”

“Reach out to professors early to set up rotations. It can also be helpful to start project ideation a few weeks before the rotation starts so that you can get started quickly (10 weeks went by faster than I expected).”

“Rotations sound like a great system in theory, but in practice it can be very challenging when the student to faculty ratio is high, especially in certain ML subfields. The consequence of this high student:faculty ratio means that students (like me) more often feel like they’re in direct competition with other students for lab spots, which is a pretty stressful situation. Additionally, this made the rotation feel more like an extended interview, where I needed to be producing something concrete week-to-week or fear getting left behind. Most importantly, however, the pressure to keep producing significantly impacted my ability to explore new research topics (such as by working on other side projects, starting new collaborations, taking more classes, etc.), since all of those activities would take away time from working on the main rotation project. It’s also harder to schedule ””exploratory”” rotations if your other rotations are with popular faculty - you may opt to do all your rotations in the research area you’re most comfortable with in order to guarantee alignment in 3 quarters. Thus, for ML in particular, the rotation system seems to break down quite often and gets in the way of its own supposed strength of allowing you to explore more.”

“There are also more subtle alignment dynamics that can make rotations hard to navigate. For example, some students already ””soft”” align with their advisor before committing - which makes it confusing when discussing with faculty how many students they plan to take (since they’ve already pre-allocated some spots). Additionally, some faculty wait till the end of the year to align with students, whereas some do not. This can be confusing since faculty can fill up their lab spots before spring quarter even rolls around, which is something that is not communicated to incoming students (instead, the rotation system is pitched more as “rotate with 3 faculty through the year and then find mutual alignment”).”

“There have also been cases where I suspect the high demand for rotating with certain faculty somehow means less responsibility for the faculty towards students. I had a case where a faculty member simply stopped replying in the middle of our conversation to my emails when I was attempting to set up a rotation with them - this is simply unacceptable IMO. At least let the student know that you cannot rotate with them instead of ghosting them.”

“Stanford says that you can do four rotations if the three don’t work out. This is true, but when June of your first year rolls around and you decide you want to do a fourth, the department insists that fourth rotations are not a real thing.”

“Stanford’s rotation system is pitched as an opportunity for students to explore 3 different research areas or explore working with 3 different professors as a way of giving students freedom and autonomy to choose the advisor that is best for them. However, I feel as though I had the opposite experience—I needed to prove myself to each professor that I worked for with the hopes of getting an alignment offer from someone (anyone!).”

“That pre-alignment exists”

“The rotation system involves students competing with each other for very limited spots (at least in AI)”

“The system was actually presented very accurately to me. People said that it allows one to explore and find an advisor who was a good fit, but also creates an ”after-market” for advising—generally this market isn’t too competitive, but in some cases/areas it can be more intense.”

“You can only take 1 class next to the rotation.”

“- share with students the list of number of students each prof is planning on taking
- more transparency/communication from dept and profs”

“- Students should have default advisors who will take them - Advisors should not have more than 3x the number of rotation students than they have spots to rotate - There should be an expectations guide for students and rotation advisors about when and how to talk about alignment - Advisors should take more responsibility in helping their students find other faculty to work with then they reject a student”

“ [Written by an aligned student who was not rotating this year.] Several people I knew were too stressed out about failing to align at all, myself included. More broadly, it can be stressful to feel you’re being evaluated again post-admission before you can ”earn” your place at Stanford: I felt this in my first year and I know others who feel/felt similarly, and I can say it is not a good combination with imposter syndrome. I think there should be more open communication from the department and a clearer safety net. While rotations helped me make the best alignment, they did so as ways to connect with more faculty and have more flexibility. But I think we should communicate more clearly to what degree we think of rotations as post-enrollment filter. I think the answer is ”Not at all!” , but we should help everyone see how this applies to their case.”

“ 1. Give every student a soft alignment, and convey this information to them 2. Professors should not visibly play favorites with rotation students. Giving some rotation students extra privileges adds to the competitiveness 3. Professors should take into consideration the possibility that some first-year students may behave uncooperatively to other first-year students rotating in their same lab, creating a disadvantage for the other students to excel in the rotation. Professors should be more vigilant about noticing this. 4. The rotation system implicitly privileges students with more confidence and assertiveness. Professors should not solely rely on these traits, often more common with groups that are well-represented in this field, as signals of research ability. 5. Professors should inquire about well-being during meetings with first-year rotation students.”

“1. Professors should make a decision about whether they will take a student at the end of a student’s rotation. 2. Professors should give students an adequate amount of time (e.g. at least 1 week) to decide whether to accept an alignment offer. 3. Students should have a default advisor who they can align with should their rotation advisors not offer alignment. 4. Professors should not be allowed to rotate at more than 2x their capacity.”

“1. Rotations shouldn’t need to be aligned to the quarter. A rotation should be able to be terminated or started at any time, like in the biosciences.

2. The department should make it clearer that you don’t have to rotate all 3 quarters; it isn’t bad to stop rotating.”

If you have any additional comments about the rotation system or how the department can improve the system, please write them in the space below (optional).

“A soft acceptance would probably be a good idea. I had a great experience with my rotations because I was never worried about who I was going to align with.”

“Actually take the number of available slots into account when admitting students.”

“After talking to multiple students and reading between the lines, I realized that the rotation was going to be another selective process. It was the reason why I actively started considering going to other schools. In the end, my intuition proved to be correct – many students in certain areas were not able to align with whom they thought they would be working with. While I am happy with my current advisor, I don’t see the rotation system as particularly attractive.”

“ As i wanted to study computational biology it would have helped me to start out by taking a lot of biology classes and then rotate afterwards. Instead I ended up not being able to understand anything from my first rotation and it was practically useless for both me and the advisor.”

“ Based on interactions with other first years, there seems to be an overrepresentation of students in AI/ML who struggle to find an advisor. Though the admissions were supposed to account for being able to accommodate all admitted in AI/ML, it feels like it was not properly accounted for.”

“ Even accounting for the fact that 1) multiple AI/ML students deferred admission by a year to next year and 2) multiple AI/ML students had to explore alignment options outside of the field they intended to work in (especially students in stat-ml), alignment is STILL a struggle in AI/ML, especially stat-ml. ”

“ This creates an environment where many students feel powerless when it comes to choosing who to align with, and feel like it’s up to the whims of the professor who will “pick their favorites”. Definitely within AI/ML, it does not feel like “students get to choose faculty” as originally intended for the rotation program. It feels more like an season of The Bachelor or The Bachelorette where multiple students are hoping for one faculty to choose them as their student. ”

“ I hope the department can better account for AI/ML students in future admissions, even if it means admitting fewer students.”

“ Better to have a guaranteed or semi-guaranteed advisor. At least reserve a funding position for each student. ”

“ The fly on the air feeling could preventing student to enjoy and focus on the rotations.”

“ Change the expectation to be an alignment after 2 rotations to waste less time. ”

“ Assign another faculty member that the student is not working with to help the student design their rotation plan. ”

“Coming in, I thought alignment would be ground for future collaborations / learning from various people, turned out to be fairly useless in the end and losing almost a whole year”

“ Encourage rotating students to work on projects each quarter with other students in the lab. This should probably be the default option since it would be less stressful and a better opportunity to get to know the people in the group.”

“ For me, two rotations would have been more than enough. By the third rotation, I was busy with way too many loose ends from ongoing project. I think that rotations that are only for discovering new research areas could be left to the second year.”

“How to improve: 1. Not overhire. Considering the yield rate of Stanford has been very high in recent years, the department should drastically decrease the number of admitted students. 2. Make sure there is a faculty the student can always align with if none of the other rotations works out for him/her.”

“ I aligned with my first rotation advisor. I was already very set on my research area and only applied to Stanford because of my advisor and their group. Thus, I was anxious not to be able to align with them even though my advisor was very supportive. I am not sure what I would have done in that case since no other research area would not have been desirable at all for me.”

“ I almost did not come to Stanford because I wasn’t sure I would find anyone to align with, and I have heard similar concerns from other students as well. To mitigate this very real fear, every student that’s accepted into the program should have a backup advisor, or at least some faculty member that would promise to align with the student if they so choose. Obviously there would be no requirement that the student align with this faculty, and the personal fit may not work out, but this would ensure that every student has at least one potential option for alignment before joining the program. Also, students should be explicitly told who this faculty member is. To this day, I’m still not sure which faculty member vouched for me during admissions and would have (I would assume) liked for me to potentially join their lab. If this faculty member is indeed your faculty buddy during admit weekend, then that should be made much more clear to admitted students, as I was unaware and still am to this day.”

“ I am happy with my decision not to rotate. I appreciate the stability of a guaranteed place in a lab I like, the freedom to plan big exciting projects that take more than 10 weeks to execute, and the flexibility to focus on end-of-quarter classwork deadlines for a week without worrying about the consequences of losing 10% of time in a rotation. I’m still able to connect with other labs socially and professionally, and I intend to continue doing so. I’ve heard from plenty of people whose first year truly put them through the wringer (stressing about whether faculty would be willing to align with them, trying to hit the required A- in their classes, struggling to balance rotation projects that roll over into the next rotation), and I’m glad that my personal situation was much simpler. I think our department culture should be such that a student can establish a good relationship with another lab without formally rotating in it, and I think participation in the rotation program is a very individual decision.”

“I benefited a lot from the rotation system, in terms of finding a great advisor, meeting other PhD students who became my good friends, and exploring new research areas that I hadn’t been exposed to in undergrad. Uncertainty from both students (who they want to align with) and faculty (who they will offer to join their group) is inherent in the rotation system, but I think a more tangible area of improvement is continuing to make sure that the number of admitted students aligns with how many students each faculty expect to take the following year.”

“ I did not rotate all quarters and I felt that helped a lot with how much I enjoyed rotations. I think it is helpful to mention that students can but do not have to rotate for all 3 quarters. Additionally, I did not rotate with one of my co-advisors so it would be useful to mention that you do not have to rotate with a professor to align with them.”

“ I didn’t rotate”

“ I felt the rotations were quite stressful while I was doing them, but the fact that I did rotations has been extremely helpful since in terms of the relationships I developed with faculty members and students in different parts of the department.”

“ I found that professors outside of the CS department may not be that knowledgeable about the CS rotation system. To students interested in rotating outside of CS, I would recommend that you be extremely clear the professor in question about the structure and expectations of the rotation system.”

“ I found the rotation process to be quite stressful, but it led to me finding a much better fit and I think probably improved my PhD experience overall. The main cause of stress was feeling like I constantly had to impress faculty (even though I wasn’t trying to align with ”competitive” faculty). I think if I’d had frank conversations with faculty about their rotation expectations *before* the rotation, I would’ve been less stressed and we’d have achieved the same outcomes (in terms of alignment and research output).”

“ I loved the rotation system. It helped me realize that I wanted to work in a different area with a different professor.”

“ I skipped rotations altogether as I just wanted to make progress on my PhD asap. I had interacted with my adviser prior to coming to Stanford, which is why they were comfortable offering me a place in their lab.”

“ I think a good thing the department could do is ensure that the already available information about the rotations system and its pitfalls is easily accessible to the students at any point during the first year. Maybe it would be a good idea to remind the students of the CS PhD orientation slides at the end of the Fall quarter.”

“ I think a greater level of transparency would go a long ways towards making the rotation system better. First, the list of how many spots each faculty member plans to take that year should definitely be shared with the students - of course, that list shouldn’t be binding, but having even an estimate of that information can help a lot when deciding who to rotate with. Second, it would also be beneficial if faculty could

specify their preferences towards alignment - whether they prefer to do it at the end of the year or if they evaluate per quarter. This suggestions may seem like an additional burden to the faculty, but the fact remains that the current rotation system is not a sustainable or healthy way to support the large number of students in ML.”

“ I think having at least one professor that guarantees they’ll take you when you’re admitted would greatly relief the stress involved in rotations. One source of unease was the uncertainty about funding in case alignment doesn’t happen by the third rotation.”

“ It would have been informative to know the frequencies of different outcomes of the rotation process. How many students don’t have an advisor yet by the end of their first year? How often do professors take students that rotate in each quarter? That is, is a Fall rotation often more successful for alignment (since it’s usually with your best guess for future advisor)? I think these data support students when picking rotations.”

“ I think rotations are good, especially because many times you don’t know if the adviser will be a good fit based on interpersonal factors until you actually work with them a little bit. One potentially frustrating aspect of rotating is that (at least when I did it) it’s not clear when to reach out to professors and I was told by one professor they already filled all their spots and by another that it’s too early to decide at the same time.”

“ I think that I liked that rotations enabled me to try new project areas (and I wasn’t restricted to the specific area I was admitted in) for a short amount of time (e.g., 1 quarter). However, I found the prospect of alignment extremely stressful because I had no ”soft offer” from any advisor prior to rotating. If there were a way to guarantee a ”fallback” advisor before coming to Stanford, this would make rotations until an alignment offer much less stressful.”

“ I think that the system works *extremely* well in the areas I work in (systems & theory).”

“ I think the rotation system is a great feature of Stanford’s program! I praise both the students who started this survey and the CS Department for being open to suggestions for improvement, as there are things that can indeed be improved.

The first lesson for the next years is that remote rotations are not a good option (at least for me, but I would not be surprised to find out I am not the only one). I think it would have been a better option to have given the students the chance of doing CAships the entire year, while at the same time working towards their breadth requirements. Hopefully, next year will be a normal, in-person, one, but it is impossible to be sure of that right now, hence I find it worth mentioning this. Back to rotations. In retrospect, I was warned about all the problems of the rotation system that I encountered. The crucial piece of advice I overlooked was asking the professor *before* the rotation how many students he/she was planning to take, and if I had a chance of being one of those. One thing I think would be helpful would be doing an anonymous pre-Fall quarter survey to the admitted students asking who are the faculty they are interested in rotating

with. The results of this survey could then be published (to the incoming students) as a table with the following information: Faculty name, Number of rotation students in the past year, Number of aligned students in the past year, Number of incoming students interested in rotating, (optional) number of alignment spots. Just numbers, but that would help students plan ahead their rotations.

Finally, regarding detracting, doing classes can be very detracting from doing rotations. On the other hand, there is the pressure of the breadth requirement. For students who need to complete the 6 courses, 6 quarters (where 3 of those include rotations) may not seem enough to do it.”

“ I’m adding a note here because I don’t feel like my rotation experience was summed up very well by the multiple choice/rating questions.

I found rotating to be quite stressful. I was lucky in that I had options for who I wanted to align with was not in danger of not having an advisor. However, finding advisor(s) who shared my research vision was still challenging. I wanted to do interdisciplinary research, so I was potentially looking for co-advisors, which made the search problem more challenging. Furthermore, I underestimated the challenge of doing research across sub-departments of CS at Stanford. Different sub-departments (i.e. AI, theory, HCI, systems, etc) have very different cultures and are quite separate. Thus, I was trying to find advisors amenable to spanning different disciplines while also refining my own research vision. This was a lot to juggle.

On top of this, the pandemic removed a big part of the support system for rotating students. I was diligent about reaching out to senior students and professors for advice about research, rotations, and advisors. However, an occasional Zoom call does not substitute for the repeated social interactions that students have in person. Advice from upper-level students and hearing about experiences from other first-year students is a very important source of information, especially in the context of a rotation system, where there are a lot of informal rules and dynamics and where students are trying to quickly evaluate potential advisors. This information was much harder to come by during COVID. I was surprised to find during Spring quarter, when COVID restrictions started to lift and I was able to socialize more with other first-years, how much informal information I learned through just comparing rotation experiences that I had not had access to in the Fall and Winter. Furthermore, when it came time to pick an advisor, I found that it was difficult to find trusted people to talk to when I needed advice or guidance about potentially sensitive questions. Because I didn’t yet have an advisor and had not built up strong relationships with older PhD students, I wasn’t sure who to turn to.

In light of my experiences, I have a few recommendations for the department:

- Give students an academic advisor for their first year. This can be a “default” advisor or someone else, but there should be someone in the department that students can ask for high-level advice about research direction.
- It is VERY IMPORTANT to find office space for new students (1st and 2nd years) in Fall 2021. Being remote is an impediment to rotating effectively. It deprives students of information and social support that they need to make a good advising decision. Please find space for students so that this doesn’t happen again.

- There are several AI rotators right now who do not have advisors. This should not be happening. The department probably knows how to fix this better than I do, but I think the school has a responsibility to find advisors for the students it admits. If it can't find advisors for everyone, maybe it should consider admitting fewer students. "

" I'm curious if the department has considered making alignment a more consolidated or structured event, e.g. the easiest change being to have professors only give alignment offers at the end of the year.

Right now, certain subfields (e.g. ML) are already pretty one-sided re: many students wanting to work with few professors, and with this "rolling" alignment process there's the concern that students might feel overly competitive with just getting rotation spots earlier in the year. To prevent this unraveling (where students might be pressured to even try to set up summer rotations before they officially start their programs), it may be helpful (but not a perfect solution) to consolidate alignment offers at the end of the year.

Also more of a curiosity, I understand viewing rotations + alignment as a stable matching problem might take away from some positive aspects of the current system, but I'm curious if related strategy-proof implementations (rural hospitals thm, Gale-Shapley, residency matching) have been considered? "

" I've been saying this for a while, but we need an accessible document for all rotators that shows how many students each professor has funding for. We just need more transparency in the rotation system."

" I've known CS faculty who promised a student they'd align with them and then told them they no longer have space at the end of the year. How can we make the environment more safe for students? For a first year student who isn't yet established, something like this can be very traumatizing."

" If faculty accepts a rotation student they should be required to meet with them regularly, at least once a week. There is no point in rotating with an advisor if they are never available to meet. I've heard multiple first-year students complain about this during the pandemic this year."

" In my opinion, the rotation system should be revamped. Students should get an admission offer linked to a certain lab, and then they should be allowed to rotate if they wish to. This would massively improve mental health for the first year, and help students make a better decision during admissions time."

"Informing students ahead of time when and how to schedule rotations (e.g. in the summer), rather than waiting for the pre-fall department presentation

Being upfront about the stress/mental burden rotation students will face. Eg. could host a student panel on different people's experiences in different subareas.

Being upfront about the kinds of questions a student should ask before rotating. Which rotations to schedule (e.g. exploit in first quarter, explore later?)"

“ It would be helpful to know which professors are interested in working with each student and how likely they are to be interested in aligning before the rotation begins. This sort of feedback can be awkward and difficult to get.”

“ It would be useful to have very clear communication when starting the rotation. I would have found it useful to know which faculty are taking students, how many students they are taking, what funding looks like, etc. prior to starting rotations. Some faculty are better than others at communicating this kind of information openly and honestly maybe one solution would be to have some sort of centralized portal/list where students could look.”

“ Maintain rotations, but every student should have a hard offer from one professor on admission.”

“ My rotations were really positive, but I suspect that I got lucky in a lot of ways: (1) the faculty I rotated with all knew each other; (2) there were existing project ideas that my rotation advisors were actively excited about that I could contribute to; and (3) my winter and spring rotation projects were related, so it was easy to be productive.”

“ Other things I wish I’d known about the rotation system:

Unless a rotation advisor specifically recommended taking a course, courses really weren’t necessary at all and had no positive material effect. Upper years encouraged not taking any courses during the competitive rotations.

My advisors did not in fact secretly expect me to “reinvent the wheel” or try to impress them by suggesting and driving my own projects during the short span of a rotation. Instead, it was better to focus on making steady progress working with them and finding a “home”. Fit was the most important factor, so it was okay not to rotate if I wasn’t excited about the prospect, and previous background wasn’t necessary, so it was okay to rotate if I was excited about but new to something. (YMMV.)

One thing that would have relieved stress was not seeing the rotation program as a “weed out” measure. I came in feeling very insecure despite all the warnings of imposter syndrome, and was scared that the attrition rate was in part made up of students not “making the cut”. That wasn’t the sense I got after talking with the department, and I wish it had been articulated more. All in all, official communication about the rotation system felt minimal.

I’m not sure what else the department can do about this but many students don’t have a clear answer regarding alignment until the very end of the year which makes it extremely difficult to plan for the summer and know whether or not they need to arrange an internship, and at least a few cases needed to make last-minute arrangements. Communication upfront about what might happen in this situation could have been helpful.

I wonder if it would be possible to have faculty or upper years formally suggest faculty for individual students to work with after the first rotation or so (with an optional small rationale if possible), because they have a much better view of the characters of various groups, personalities, research styles and interests, etc., and because hopefully this could be a lightweight, high impact way to help students navigate an otherwise

confusing system and save a lot of time without making a heavy demand on the faculty's side. Of course, these things are hard to get exactly right, but suggestions are simple to make and non-binding so the harm of getting them wrong should be low.

Unfortunately it's extremely unclear when the right time to reach out to faculty or ask about alignment is, and there's a tension between wanting to set up rotations early but then running into challenges in not being able to renege on an earlier agreed-upon rotation. Sometimes it might be necessary to follow up multiple times with faculty, but not all students would realize this. It would be helpful to add in more structure and clarity, especially if there are yearly patterns, rather than having each generation of students go through the same hurdles and stress."

" Professors oftentimes taking fewer students after rotations than they predicted before admission should not be allowed to make large predictions next year"

" Rotation system is quite stressful and mandatorily having a soft alignment for every admitted student would be nice."

" Seems like it would be ideal if each student had a soft alignment offer at the start."

" Students should have a guaranteed spot in a lab."

" Tell people it is competitive, things fill up and there are area bucket quotas."

" The department should have a small amount of funding set aside to support students doing a fourth rotation, instead of just abandoning those students. "

" The rotation system can be extremely harsh. While it has advantages, it also creates feelings of competition, stress, and inadequacy, especially in fields where there is a lot of demand. It is demoralizing to start a research career with rejections from multiple professors. There's no safety net and it's easy for students to feel like no one else is looking out for them. Having a guaranteed advisor would make the rotation system a much better experience for students."

" The system does not seem to be a net benefit when weighed against the stress and lost time that it causes. The pressure to try and complete 3 research projects in such a short time frame was really difficult to deal with. Unfinished business from my rotation projects is still causing me stress."

" To facilitate discussion, might be good to ask rotating advisors and students to fill out an informal report (similar to the annual progress review). In the report, professors can answer questions like satisfaction of student's work, whether they would take the student, and what aspects could the student improve, etc. The student can indicate whether they are interested in aligning, etc. The goal of the report would be to get explicit feedback from professors and to facilitate discussion. It also puts something in writing, in case professors backtrack on offers. "

5.3 Department atmosphere

If you have any additional comments about the general atmosphere in the CS department, please write them in the space below (optional).

“ A major issue is that we have no publicized protocols in place for handling workplace harassment other than ”email JS/JO.” JS and JO are not neutral third parties and we have no idea what may or may not happen after sending such an email. A better solution would involve a public description of specific steps that would be taken if a student reports workplace harassment and how it would be handled in a neutral way.”

“ build more connections between students and different labs. Better to have a professional social platform for PhD students. Better to have some fun activities (boardgames, sports competitions, etc).”

“ Disappointed by department’s mishandling of Ullman and lack of support for those impacted/alienated by his behavior and remarks.”

“ Disappointed with how the department mishandled the Ullman case. You should strive to make all students feel welcome and prioritize our well-being and want to increase our sense of belonging.”

“ [URL] Other than that (meaning: if that topic is completely avoided), pretty great atmosphere.”

“ I don’t feel like I’m wired into the broader CS community, since I work in a different department. I’d like more opportunities to be a part of the community, especially once we’re back in person.”

“ I felt a pretty strong community within my research group (theory), but very little community (or collaboration) with other research groups.”

“ I find it difficult to comment on the general atmosphere of the department because 1) the department is so decentralized and 2) there’s so much disparity in the experiences of individual PhD students. I do get the sense that there’s an attitude among many faculty/students of ”PhD students are here to do research, so if you have concerns about anything else, take them outside the department.” There is no one in the department I would feel comfortable talking to about sexual harassment, mental health, imposter syndrome, etc.”

“I noticed that at the end of rotations in my first year, the only females in [REDACTED] were those who already had an offer before starting at Stanford and were either competitive themselves or mindful of and guarded against competitive behaviour. One woman I knew of who had the option to align in [REDACTED] turned down the offer, whereas a male making the same decision was unconcerned. Other women, who incidentally cared deeply about kindness in their interpersonal relationships, wound up in [REDACTED] where the atmosphere was said to be more congenial and less cutthroat. I personally found the competitiveness disillusioning and not reflective of individual capability or the nature of the field, that people were frequently not genuine in their interactions, and that discussions sometimes seemed less accessible to diverse perspectives. ”

“ I think it is quite good, people are generally friendly and happy to discuss about research. There are many possible avenues (cross-group lunches, reading groups, seminars) to chat with folks from all around the department.”

“ I think service (to or outside of the department) is important, but I think it’s important to recognize that there could be a number of reasons why a student chooses to not engage in service during a particular time period. For example, student could be struggling with mental health and needing to prioritize taking care of yourself, or not feeling connected to the department / people within it.”

“I think the atmosphere is very poor for underrepresented groups. Many of us are made to feel that we are only here as part of diversity initiatives, which adds to feelings of imposter syndrome, and then in collaborations pushed to work on less-interesting aspects of projects (e.g. making plots). Many peers not from these backgrounds seem eager and willing to “help” and mentor us, but don’t seem to view us as legitimate researchers. I think this is clear from observing group dynamics in most groups here. ”

“ I’m generally happy with the atmosphere I’ve encountered so far, though my experience has been limited by the pandemic.”

“ I’ve discussed this with other peers, but I think the breadth requirement is a bit unreasonable; I understand the motive behind it, but the main categories are somewhat narrowly defined, and given that a PhD is meant for students to go deep in an area, I don’t see why it’s necessary for students to have to prove their knowledge in areas like systems or theory. Further, the A- requirement adds a great degree of stress and distracts from research during these early years when it’s critical to be able to focus on research rotations to determine the entire trajectory of our PhD programs. This setup also disproportionately sets back students who don’t come from traditional CS backgrounds while giving students with substantial CS experience a bit of a “head start” to focus on research, especially if they came from a systems or theory background. Additionally, so many CS areas get batched into the “Applications” area, even students with substantial experience have ended up having to go back and take many additional breadth courses that seemed more detrimental (to research progress and mental wellbeing) than beneficial.”

“ I’ve found it hard to reach out to faculty and they respond super slow. J has been nice though.”

“ It is hard to develop connections across labs, especially during covid”

“J is extremely helpful and knowledgeable!

I had to put in an immense effort to get answers to my breadth requirement waiver requests. I am still waiting for one reply. I send that request out in October, so 9 months ago! Even though I repeatedly emailed reminders I have gotten no reply. It feels horrible and I am not sure what to do anymore. ”

“ My view of the service requirement: one effect of it might be a more equal distribution of service, but in my mind that is not what it is about. It’s about asking the question.

"what skills, experiences, and values are important to being an academic?". Service (skills related to it, experience with it, and a commitment to it) is critical to being an academic (and to being a community member in general). A service requirement is an investment in our students and our community."

" Observed extremely sexist remarks by faculty in front of new admits.

Still often find myself in situations where faculty will look to me over a female colleague even if she knows the same/more about a topic. "

" Overall, I think it's a good atmosphere. However, I would like to address two points

1) There are some issues where the discourse is clearly one-sided. I find that to be relatively dangerous since it might end up reinforcing the conviction that, since I hold the same opinions as everyone else, then I'm right and whoever disagrees with me is wrong. (I do not see this happening when talking about computer science, which is what we all are studying; it happens in other areas that none of us has studied with the same depth, if at all; I don't think this is a coincidence).

2) TL;DR The way to change the department for the better is to change hearts, not regulations or initiatives. Full version: Every sexism and racism episode that might exist in the department ultimately boils down to individual attitudes, and so the way to change that is if individuals change their attitudes. For this to happen, several things need to happen at a personal level. First, one needs to accept that one is not perfect, and that one can make mistakes. Second, if one is not perfect, then it is not fair to demand perfection from others. Third, one needs to make a personal decision to strive to be better. Fourth, one must in good-faith accept that others will also want to be better themselves, and help each other be better (sadly, this may not always be true, but the real problem is when we are the ones betraying the good-faith of our colleagues, since our actions are the ones we can control). With all these pieces in place, one can actually start changing for the better, and by doing so one improves the environment all around oneself. The others see this and may be inspired by that example. And that is how we can bring about real change, by changing our own attitudes in a way that others feel inspired to change their own, and by living in a way that everyone around us feels comfortable in lovingly correcting us and allowing themselves to be lovingly corrected by us. This will bring about a much deeper change than that that would be achieved by creating new regulations and initiatives. Of course those are also important. If a person harasses someone, action should be taken. But if we don't change hearts, then the change is only cosmetic."

" Some parts of the CS department do a much better job of building community, such as [REDACTED] group, whereas others like [REDACTED] do not. Having this first year be completely remote has also made the experience a lot more alienating. It would be great if the CS dept could at least do a weekly happy hour at a bar or some venue where all the students could mingle and get to know one another - especially considering the restrictions are being loosened now."

" Something is very wrong if a student feels comfortable emailing the entire CS PhD student body with a condescending and poorly-reasoned email that contains the sentence "do you have any evidence that contributing to society is important for a PhD"?"

“ The CS department’s recent statement on the Turing Award didn’t mention Jeff Ullman nor our Iranian students and faculty, defined an inclusive community as one where anyone could say what they wanted, and blamed others for interpreting his statements wrongly. This is an unfortunate indicator of the general atmosphere in the department.”

“ The department chairs do not value us. Our time and efforts in departmental service are not valued. The department chairs do their best to discourage change from the department’s status quo. They do not support the efforts of students or see us as people like them. I feel disgustingly dehumanized after trying to work with them. I don’t think the department values people from backgrounds different from the majority. They are not doing nearly enough to support people from marginalized backgrounds.”

“ The sense of community is very weak because we’re not physically together. I can’t wait for Gates to reopen. It would both make me more productive and make me have more fun.”

“ The service questions are worded poorly. I think students should engage in service because it’s ultimately good for their careers (esp mentorship). I do not think that a service requirement achieves this goal. I trust that those who are currently not engaging in those types of service have good reasons to do so.

I also don’t think that a service requirement will function to equalize the distribution of who does service (and how much) across PhD students. Some forms of service are much more time-consuming, but also much more important (recruiting, admissions). Those will always be time sinks - and they are important enough that you want the people who are passionate about them to do them (i.e., exactly not the people who would be forced into doing service by a service requirement). ”

“ The student lead town hall that happened earlier in 2020 was really helpful. I thank the students who organized it and hope to see more events like that – with a response from the administration sent out to all the PhDs – going forward.”

“ There is a lot of work that needs to be done to foster an atmosphere of inclusion in the department. As a first year, I was frankly in shock at the email thread that followed from the service requirement proposal. I thought we would all be on the same page that community service is a good thing, and one quarter of service is a very small ask.

I was also in shock at the department’s handling of Jeffrey Ullman’s Turing award. The statement they released was too little, too late. This makes me ashamed to be a Stanford student. It’s not too much to ask to publicly denounce a professor that justifies colonization with ””that’s the way things happen and always have happened””. I would have thought that we (as a department) would have been able to agree on that. ”

“ We as students have very little transparency into how decisions are made. The faculty seem to have veto power over any changes suggested by students, and seem to be largely uninterested in making any changes to improve the experience and mental health of grad students of their own accord (or at least they are unable to reach consensus, resulting in no action being taken).”

“ While I think all students in the department should engage in service, I am opposed to a service requirement. I don’t appreciate how the ”student service requirement” questions seem to be set up to imply student support for a requirement without asking about one directly.”

“ Would be great to make the breadth requirements more diverse. Add other systems classes. Change the requirement to a B+.”

5.4 Remote work

How has working remotely this past year impacted your well-being? What do you find challenging about doing research remotely? How have your goals and expectations for yourself changed?

“1. Professors don’t appear to acknowledge the pandemic’s effects on us. Some have made comments that they are enjoying working from home for productivity reasons, despite knowing that many of us are away from our families, missing social interactions, and dealing with grief and stress, and worried about future employment prospects.

2. Goals wise, I have stopped caring as much about research output, because there are more serious issues impacting people in the world.”

“Being cooped up in a small apartment for extended periods of time has been very detrimental to my well-being. Coupled with ever increasing responsibilities, this has been a hard period.

The most challenging aspect of remote work is to maintain a sense of community. All interesting research happens when there are collaborations, and remote work completely discourages that.”

“Collaboration is significantly harder. Focus and a clean space to work is at a minimum.”

“Due to a disability, I was already working primarily remotely, so my work was not substantially affected by COVID. In fact, I felt like there were more resources available to me (e.g., research talks, office hours), due to everything now being remote, where previously many of these resources were only available in-person.”

“Everything about the same, just less communication in person now. I do miss writing together with my collaborators on a whiteboard and going to lunch together.”

“Experiencing rejection via the rotation process has been acutely painful in the isolation of working remotely. I am not sure if I am just a worse researcher than other rotation students or if the work from home environment is just how I thrive. Also, emailing professors without having ever met them is quite harrowing.”

“Fewer (natural) opportunities to talk about ideas with labmates and give/receive feedback.”

“Hard to foster new collaborations / do collaborative things”

“Hard to stay focused at home.”

“Having greater family support, not having to commute, and having more distance from stressors on campus has made this remote year unexpectedly better than previous years on campus.”

“I am extremely social, both in my personal life and the work I do, and I got none of that the past year. It felt extremely isolating.”

“I did rotations remotely, and while it was great that people were so willing to set up video calls and respond over slack, it was definitely harder to get a feel for groups through weekly advisor and group meetings alone and to have potentially critical conversations or start up collaborations. I didn’t realize how out of place I was in one lab, and how another felt more familiar. An upper year mentioned how they found the atmosphere between two groups completely different and so they were able to switch over early on, whereas during the pandemic, casual run-ins across separate communities were much rarer. For the most part, things still probably worked out okay, but it took longer to find the right community and people and to hear about useful information, and for people who might be less responsive over email it’s been harder to be able to get ahold of them because it’s no longer possible to simply find them during office hours or in their office, and Zoom windows sometimes close too early or disallow direct messaging. There were many smaller conversations that would have been nice to have after talks, and virtual conferences meanwhile have been a limited substitute for physical ones. Being around others in the lab and running into people on campus has a moderating effect that I realized makes a huge difference for me, and it was all too easy to feel isolated this year.

The pandemic has been an incredibly stressful time for me and many others I know in a way that has deeply affected emotional and physical well-being, with major rifts surfacing in long-term relationships and people struggling to feel stable. During this time, at least a few people I know of neglected their health - also due to rotation pressure - in one or two cases unaware of a more serious underlying problem which they are now learning about and needing to combat, and which if they had not caught earlier could have turned into life-threatening problems. My goals and expectations for myself have personally changed radically after seeing how stress and poor lifestyle habits had damaging consequences on my and others’ wellbeing.”

“I didn’t like not being able to socialize easily with other grad students and make connections both within and outside my department.”

“I don’t know what other people are working on. I haven’t been exposed to as many different ideas/directions to continue refining my own. It is hard to collaborate effectively. I ask fewer questions. I haven’t been able to observe older students’ research processes to improve my own.”

“I don’t meet people that regularly, and Zoom is still a bit unnatural. Doing research remotely means that it’s harder to ask senior phd questions.”

“I feel like I have been able to adapt well to the remote setup. My well-being has not been as affected as I would have initially thought. I am doing well.”

“I feel like my pace of research has slowed down”

“I feel like my plans to become a researcher have been obliterated by the pandemic. I hope that I can slowly put them back together.”

“I feel lonely and without a network to support me.”

“I find it challenging to stay productive during the day, and I no longer socialize much with other PhD students. I think my expectations for myself have dropped since I started working remotely regarding my research progress and when I will graduate.”

“I find myself listless and unproductive working at home, with neither the change of scenery to get me into a working mindset or the social ability to ask questions and engage deeper into my work. I get less exercise without commuting and walking around, and feel less creative and motivated without change in my day to day life.”

“I get a lot of energy from working with others and in collaborations. Doing this first year online has been very difficult in that regarding, and I have frequently lost research motivation. I changed goals to focus more on community events and getting to know my peers for this first year since I know that will help propel me throughout the PhD.”

“I just have way lower expectations for myself in terms of research accomplishments now. Over the last year+, I have finally been able to adapt to doing work in a non-office environment, but it was truly a struggle. I really loved my office and officemates and the shared sense of personal and intellectual camaraderie we had. It has been really difficult to accomplish work without that social accountability. While I know many offices tried Zoom open offices for a while, I think everyone dropped this – it just wasn’t the same as replicating the social dynamics. There have been many days where I was completely unable to focus or accomplish basic tasks that would have been no challenge pre-pandemic. Furthermore, I find it extremely privileged and weird to be a graduate student during this time where many American social institutions are collapsing or further exacerbated in the public eye (e.g. anti-Black and Asian racism, unemployment) and we’re just here trying to push out our silly publications.”

“I miss having officemates and bouncing ideas off of them in person; this was always a great way to form new project ideas. I also miss having more of a separation between work/life – it gets quite lonely working all day in my apartment.”

“I miss seeing people in person – the impromptu hallway chats, lunch meet-ups, white-board brainstorming sessions, and even simple “good morning” greetings as officemates arrive. I’ve fared better than many since I share a living space with 3 other people, but I’m still looking forward to getting back to normal.”

“I struggle to separate life and work. I feel lonely and stuck without people to discuss my problem. I lost external motivation and interests in my research.”

“I think being in an office really helps my productivity, so it was unfortunate to not have that.”

“I think I have really enjoyed the opportunity to be closer to family, but I think the lack of in person collaboration is a barrier to effective research.”

“I’ve certainly been more patient with myself.”

“I’m an edge-case for reasons unrelated to Stanford, so I’d rather not answer.”

“It becomes harder to communicate with my advisor.”

“It has been very difficult to focus on my research and do it productively, as there are so many distractions at home, I could not make a distinction between work place and life place at home (which is studio), and I am the type of person who focuses much better at office.”

“It is difficult to have quick discussions.”

“It is hard to organically collaborate and bounce ideas with lab mates. A lot of good research comes from spontaneous, low-barrier conversations about topics, which are not possible if we only have calls for meetings. Similarly it’s hard for labmates to ask for help if it takes a message or video call, and they’re not sure if their labmates are busy. I have suggested occasionally having a call open in the background while working (e.g. once a week), but most grad students in my office are shy and are not comfortable with it. This is one area where remote work worsens productivity.”

“It was challenging staying at home all day, not knowing how to properly take breaks.”

“It was not easy to stay focused, while working at home. As there was no distinguishment home and workspace, I could not clearly distinguish the time to work and time to take rest.”

“It’s a bit hard to keep oneself motivated to do research; It feels a bit isolated to do research in your own room.”

“It’s fine”

“it’s hard to define the boundary between working and not working; there’s a sense that you should be working 24/7 since everything happens at home, which is pretty counterproductive. i found that i personally need to set more frequent, smaller subgoals for myself to stay motivated.”

“It’s hard to have ad hoc conversations or ask for quick help. It’s also been harder to get a sense of other’s schedules and what they are and are not working on.”

“It’s just harder to focus at home because of the other people here.”

“It’s the only thing keeping me in the PhD now. If I have to come back, I will likely quit.”

“Less social interaction is a bit difficult, and the biggest thing missing from working in person is the ability to ask questions or discuss ideas whenever they occur to you.

My goals and expectations for myself have not changed.”

“Low productivity”

“Maintaining motivation is so hard. I had to set my expectations very low to not feel bad.”

“Maintaining routines have been challenging”

“Mostly increased difficulty recruiting and leading Master’s and undergraduate students to do research.”

“My well-being is completely fucked. I am a hollowed out shell of the person I was before lockdown. All sense of departmental community is gone. My lab has no sense of community anymore. My productivity is embarrassingly low. I have thought about quitting the PhD because of lockdown.”

“Need to find work-life balance.”

“Negative. Things in general moved slower.”

“No atmosphere of working with people together.”

“Not changed much. The biggest challenge is the ease of communication. Not changed”

“Nothing particularly challenging, but days can feel repetitive and so sometimes it feels tiring. In terms of well-being, has had a significant negative impact on physical fitness.”

“Reaching for help on research becomes more difficult.”

“remote conferences are awful

Social gatherings on gather.town are atrocious”

“Remote work has definitely been worse for social well-being and group interaction. Virtual collaboration is harder over Slack/Zoom as opposed to just popping in to someones office and talking to them. This makes research harder since it is harder to overcome obstacles/get unstuck. However, my personal research productivity has increased so my goals and expectations have not changed due to COVID.”

“Remote working has advantages, especially for mechanical tasks that better be done as fast as possible and do not require external help. However, for other tasks where collaboration is crucial, it is much better to be in the same physical space as others, as this allows for much faster collaboration than having to wait for someone to reply to emails or messages.”

“Research is intrinsically alone, thus I need more peer support which I could have got if I were in campus.”

“Small learning opportunities from sharing a lab space disappear (e.g. seeing what papers others are reading, asking about random equations written on a board, asking simple questions).”

“So depressing to be alone all the time.”

“Taking coursework has been atrocious, especially for courses such as chemistry that’s very much an in-person experience. Research meetings have been pretty good I would say on Zoom. I find the lack of social arrangements hard mentally and emotionally. Also, I don’t feel like we have had many social events.”

“The hardest part has been finding inspiration from casual conversations, research seminars, etc. – these have generally gone down in frequency”

“The lack of workspace social interactions was really detrimental to my mental health.”

“The main difference for me has been socializing mainly with people outside of the Stanford community, which I’ve mostly enjoyed.

Research productivity has been about the same, maybe slightly better due to fewer opportunities to be social.”

“This is my first year, so it’s hard to say. Compared to my experience working from home during the pandemic as a software engineer during Spring/Summer 2020, however, I’ve found myself to be more productive doing research and classes.”

“Very negative impact. Not able to adapt to working and sleeping at the same place.”

“Working remotely can be pretty stressful. While it was also stressful before COVID, there were social events / gatherings that helped de-stress. Now it’s takes more work to maintain a good work-life balance and take care of mental health.

Avoiding burn-out is more difficult in remote work situations. I’ve learned to stick to a stricter schedule (work for X amount of hours, then relax) to avoid burn out.”

“Working remotely enables me to have a more flexible schedule and I get more time for myself. It’s challenging to interact organically with lab members - you always have to schedule meetings in advance.”

“Working remotely has greatly improved my physical well-being. I live a much healthier lifestyle now when I am not contained to being at specific places at specific times.

It has also made me much more productive. Being able to watch lectures at any pace I want greatly improved my coursework experience. I’m also better able to think and focus when I’m by myself instead of in an office surrounded by people.”

“Working remotely has made research much more challenging for me. It is harder to get help from senior students, and I haven’t been able to get to know any senior students. I also really miss the accountability and atmosphere that comes with working in an office. My work goals have been significantly reduced while working remotely.”

5.5 Well-being

How can the department better support your well-being while conducting research remotely?

“Acknowledge the unusual and unique challenges in navigating the PhD this year, from being understanding of students who are encountering longer times to meet and contact faculty and find alignment, and who need to rotate more, to extending the usual maximum number of months on leave of absence during the program, to supporting students who need to CA to support themselves financially while conducting research remotely. I am aware that at least one student was dealing with the loss of a family member due to COVID, and expecting that student to carry on as usual seems entirely unreasonable yet officially there seemed to be little acknowledgement of difficulties like these.

It might have been nice to have one or two larger Gather Town events to get to talk to faculty and students in a more casual setting with everyone present, though the logistics, organization, viability and general attractiveness might make such a thing impractical. Similar efforts have been greatly appreciated though!”

“Actually acknowledge the pandemic and its hardships in an email, at bare minimum, particularly for first-year students who had to rotate virtually.

Give first-year students monitors, keyboards, and other work from home equipment.

Impose a department standard for being able to take time-off this year for mental health issues exacerbated by working remotely.”

“actually not sure what the department can do here...”

“Be understanding to slowdowns in achieving research milestones.”

“Department-organized social events / breaks could be nice”

“Don’t really know, felt as supported as I would be normally. Maybe paying for some home office supplies (e.g. monitor/keyboard)?”

“Extend the amount of time that students are guaranteed funding while they complete their degree by at least one year.”

“For me, it basically can’t. The main benefits of campus and an office are having a quiet place to work, seeing peers and using campus amenities (like the gym).”

“For well being in general: benefits, like employer-sponsored health insurance, etc.”

“Funding food delivery for online social events is always a nice pick-me-up when in-person gatherings are not an option.”

“Funds for remote monitors or ability to take them home.”

“Funds to buy good office equipment e.g. chairs perhaps on a rental basis”

“Give us an office please”

“Give us office spaces to work in with our peers.”

“Giving us an allowance to purchase things for our personal office space would be great!”

“Hmm, I am not sure...”

“Hold training sessions for students on how to stay productive while working remotely, how to set up a healthy workstation, and reminders/tips on how to take care of mental health. Encourage a healthy work-life balance.”

“Host online social events with some regularity. On the Fall quarter there were a couple of TGIF on Nooks, but that ended up waning. To their credit, the PhD social fund sent some reminders that they had funds available for students who wanted to organize activities. However, my guess is that the hard thing is to come up with ideas for activities. I don’t know if we will need it going forward, but it could probably be interesting to organize weekly/monthly game nights/movie nights (I’ve heard from some colleagues that there are several ways to do this legally and for free) as a way of building community remotely and within the department.”

“I am honestly not sure.”

“I didn’t feel like the department reached out to check-in on us. It would have been nice for them to suggest things we could do together/host events/fund events.”

“I don’t know. Maybe a virtual lab space would be nice.”

“I don’t know. Perhaps organizing some seminar or chatting ON DIFFERENT TIME ZONES”

“I guess not much due to the nature of remote research.”

“I think one thing that would be immediately helpful is a fund to help students purchase anything that could help them with work from home (e.g., a new office chair). I didn’t get a chance to grab my chair from gates when gates was closing – so this would help a lot.”

“I think some ergonomic support would be nice. I have developed back pain, which wasn’t there when working in gates with standing desks and ergo chairs.”

“I think the department has done what it can. It should focus on getting us back as soon as possible.”

“I think the department is doing as good of a job as it can. The main thing the department can do is support in person work in the fall.”

“I think we could all (remote work or not) benefit from better mental health services. Graduate students are particularly at risk and I feel like the department could do more to promote these services (e.g., free drop-in counseling for students regardless of insurance)”

“I wish there are more meetings in person or over zoom both for research and for socialization.”

“I’m sad that TGIF died during the pandemic. I wish there were other ways to connect with people remotely in a more unstructured fashion.”

“It is impossible.”

“It would be better if the department led virtual/socially distanced social events between students and students+faculty+staff. I also think this would improve the sense of community in the CS department.”

“It would be great to have some designated social events for phd students to meet each other and develop a better sense of community.”

“Let us come back into the office if we would like to”

“Mandatory social events.”

“More opportunities to get to know professors in a structured and consistent way.”

“More social events – I barely have any interaction with the CS department”

“More social events would help foster a sense of community among PhD students”

“Not sure. Maybe DoorDash credits.”

“Now that things are opening up a little, the department can facilitate working spaces outside that allow students to congregate without being unsafe.”

“Offering in-person work in some capacity as soon as possible.”

“Organize more social events where students can meet or talk to people outside of their immediate lab circles.”

“Organize social events with other students and faculty.”

“Perhaps creating a virtual department building with gather.town to facilitate seeing people”

5.6 Professional development

How can the department better support your professional development goals?

“1. Give students time off dedicated to job search, or at least ensure faculty understand that other output will be reduced or interrupted. 2. Have career workshops, guides, and resources, and publicize them”

“bring in speakers with a diversity of backgrounds and career paths. Hire more non-male, BIPOC faculty. remove the unanimous voting requirement in the department and let the new generation of faculty have a voice rather than old emeritus faculty.”

“Building connections inside of the department. Training of future plans.”

“Getting to know the personal and academic trajectories of Stanford CS professors is very valuable. Events such as the Faculty AMA are super helpful, and perhaps we could have more of those.”

“Have a dedicated faculty who are not our advisor but we can talk to about anything”

“Health insurance is a major concern and a cost that is not well communicated when the offers are sent out. This is an unfair disadvantage especially for students who are older or their parent’s do not have a good insurance, or international students. For example, MIT and Berkeley both cover health insurance so I did not consider this when I was considering my offers, but it is a significant expense.”

“Help ensure students have been able to collaborate with at least two faculty who are not their primary advisor by the time they hit the job market so that they might have three decent letters of recommendation, in case some advisors are reluctant to encourage collaborations outside their group.”

“Host network events with Stanford grad alumni, have faculty host workshops on how to prepare for job market, what things to think about throughout the PhD in preparation for xyz careers.”

“I believe getting Ph.D. students prepared for the academic job market is extremely important, but is currently missing in the department.”

“I don’t feel like I have a clear idea of everything one should do to prepare to apply for faculty jobs. Obviously advisors are the best resource for this, but perhaps the department should provide more guidance as well.”

“I don’t know of much structured advice around being successful in the larger academic community: for instance, getting a faculty job or publicizing my work. What I know mostly comes from 1:1 conversations with my advisor. I have a good sense of what he thinks is important, but don’t have a great sense of timelines, how other people tend to do things, or what other strategies are possible.”

“I think publicizing nominated fellowships and having faculty attend practice job talks has been a great start. More partnerships with Stanford News to publicize research, having an accessible PhD alumni network/directory, publishing anonymous aggregated statistics of where PhD graduates end up.”

“I think we need more realistic understanding of how people are living their life in different career paths. I don’t want to have a false sense of positivity about different paths.”

“I’d like to see a more communal approach to going on the job market. My undergrad institution certainly had this w.r.t. grad school, and that was very helpful. It made the process a lot more fun.”

“I’m not aware of any list of professional development resources. If it exists, it would be good if the students could be reminded of it. If not, it would be good if it could be made.”

Regarding diversity and inclusion training, very few of the 151 students who replied to the 2018 survey mentioned lack of diversity as a problem. Maybe this changed in the meantime, but that does not seem to be a problem today. However, the fact that those students didn't mention the type of diversity they were referring to (ethnic diversity, nationality diversity, age diversity, political leaning diversity, academic background diversity, broader background diversity, any other kind of diversity?) makes it harder to evaluate whether anything changed, or even if anything should change. In my view, the department has a lot of ethnic diversity. Not much so of the other ones. For example, most of the students did CS in undergrad. Instead of DEI training, I think it would be valuable to bring in more engineers, philosophers, mathematicians, architects, economists, musicians, historians, psychologists, painters, doctors, etc.; if not as PhD students, then as a regular presence around the CS students, thus fostering interdisciplinary dialogue and exchange of knowledge between all those fields and computer science. If done well, everyone would benefit tremendously from it! (or at least benefit more than from a boring workshop that one attends and then forgets)

Another use, better in my opinion, for the DEI money is to use it to hire high school interns from underrepresented groups. This would give them early access to academia, get them excited about it, and furnish them with the confidence, the curriculum, and the connections required to have a shot at acceptance at a top-tier research university (or even apply to university at all). Even better than that, they will know that they were accepted due to their individual merits, and not to fulfill some DEI quota (living in doubt of having been accepted due to merit or due to DEI objectives is very frustrating)."

"I'm not sure where else to put this so mentioning it here – The CS department at my previous institution had a media specialist on staff who wrote and posted articles about faculty and student accomplishments, major department events and milestones, national awards and big grants (e.g., list of NSF GRFP winners, new major multi-institution collaborations), test-of-time or lifetime achievement awards from top conferences and associations, etc. This was an excellent way for members of the department to stay current on who was doing what, good PR for prospective donors, and great visibility for the people being highlighted (especially students)."

"Make a start-up and CEO club. Learn how to spin a research project into a start-up. Help us understand the patent, IP structure etc. for if I want to commercialize my research."

"Maybe have internship programs for grad students (ICME department has partnerships with companies)."

"Maybe have speakers talk about the various post-PhD stuff we could do and how that went for them?"

"Maybe some informal talks that reveal some caveats about getting faculty position?"

"More industry research opportunities"

"Most of my internships I found myself. It'd be better if there was a more direct connection to at least lab alumni for internship placement and possibly full time interviews."

“Not really sure, feel pretty supported already.”

“Not sure about professional development generally, but the department can do a much better job about communicating and being transparent about PhD student funding. All of my friends and I have been wondering for the past year how funding is calculated for us, and even for those of us on the exact same funding plan (e.g. NSF + 10% RAship), our quarterly take-home amounts are different. The biggest obstacle in understanding this is that fact that the payments/charges/etc on Axxess have absolutely no descriptive modifiers next to them except for “Engineering standard charge” which makes it extremely difficult to reason about how the funding package was calculated and how much we should be expecting.

There have also been cases where multiple students have emailed different people on the administrative staff and gotten directly contradictory answers. I think we should have some sort of funding town hall or open QA with the department so our questions can be directly answered, and then compile this information into an FAQ sheet that is shared with everyone. I know that dozens of other students are having this confusion about funding as well (we have a whole separate chat just for trying to figure it out).”

“Offer training about bias, inclusion and diversity in the academic setting.”

“Organize workshops on different aspects of preparing for different career options. I feel like information may not be as widely shared or transparent as it could be (e.g. some people are told certain “tricks” or timelines to follow if they want to have X job; although these could benefit everyone and provide more equal footing, they may currently be restricted to personal conversations and harbor senses of competition)”

“Publicize my research and provide 1-1 career counseling opportunities with either a trained professional or Stanford alumni.”

“Quarterly reports (similar to the annual progress review) to help facilitate discussion around professional development and career trajectory.”

“Some statistics / reports on the trajectories of past graduates would help inform my own decisions.”

“Specific PhD internship recruitment events and host Stanford CS PhD alumni events.”

“Supporting the stanford computer forum is the best thing the department can do.”

“the department could do anything it wants and it would be better than the status quo”

“The department is doing a great job. It might be useful if the department could focus its professional development efforts on things specific to CS. For example, D&I training is probably similar across all of engineering and seems to me like it should be a top SoE or Stanford-wide priority, where there will also be more expertise in doing such programs well. On the other hand, the CS academic and industry job markets are fairly different from other fields, so perhaps this is a place where the department could provide resources separate from those offered already by other parts of the university.”

“When I started preparing job materials, I realized I didn’t know any faculty other than my advisor well enough to ask for feedback. I have also struggled to get enough letters of recommendation because I only worked closely with my advisor and there was little collaboration outside my group.”

“Workshops for those interested in academic jobs (e.g. writing good cover letters, interview prep, how to prepare for the year(s) leading up to the job search, what you should be focusing on, etc), as well as more insight on alternative career paths like startups.”

5.7 General feedback

What are some actions made by the department that have improved your PhD experience?

“1. Increased stipends. 2. The added annual activity report requirement really helps steer or focus a conversation, once a year, toward progress and the future.”

“Annual progress reviews are great. Thank you, everyone who made that happen. The systems qualifier re-work (in progress) is also great, although I haven’t interacted with it myself.”

“CS PhD Student Town Hall”

“Formalized annual evaluation of my performance with advisors”

“I appreciate the quick responses I have been able to get to my emails from department admin (particularly Jay and Jam).”

“I do not remember if the department took any actions, other than instituting the yearly progress report.”

“I have not experienced anything different from before.”

“I like the annual progress reviews. It helps facilitate discussion.”

“I like the yearly checkin process.”

“I think the annual progress review between student and advisor is a good step forward, though I’m not sure it quite asks the right questions – I think some students can still fall through the cracks without that conversation catching it. (This includes if a student is making technical progress but is deeply unhappy in their work.) The student committee that runs this climate survey is a crucial mechanism to improve understanding between students and administration; I hope it continues to flourish.”

“I think the annual review was introduced after the 2018 survey, and it’s a clear improvement.”

“I wasn’t at Stanford in 2018, but it seems like gender diversity has improved significantly since then. Sexism is not yet non-existent, but as a woman, I don’t recall experiencing any explicit discrimination from students, faculty, or admin since I’ve joined the department.”

“It sounds like the Gates renovation might address some of the raised concerns although it’s still in the works and remains to be seen.”

“Jay and John were incredibly supportive when covid derailed my rotations.”

“No comparison available. I’m first year.”

“none”

“None so far, but I’m pretty happy except for the pandemic stuff.”

“None. The annual PhD progress reviews have not been helpful for me, as there weren’t any issues I hadn’t already discussed with my advisor that I would feel comfortable bringing up because of the formal review.”

“not sure”

“Nothing.”

“PhD progress review.”

“The annual CS PhD student, faculty checkin definitely helped improve my PhD experience since it allows me to have a formal way of checking in with my advisors/making sure that we are all on the same page. I also really appreciate the responsiveness of the CS PhD student services staff.”

“The annual review with advisor.”

“The changes over the last few years to several of the quals have made the experience much more relevant and helpful.”

What are some issues that still remain unresolved?

“All of the issues with the rotation that I addressed previously. Also, a number of sexual harassment cases were highlighted in the previous survey, and I’m not sure there have been any concrete steps taken about that. I understand the survey is anonymous, but at the very least the department should be interested in re-running the survey again every year *given that they found cases of sexual harassment*. Why this hadn’t been done is boggling to me.”

“As a first-year who joined during the pandemic, I have a limited window into this. So far my biggest observation is that compared to my previous institution, the Stanford CS department is not just “decentralized,” it’s downright uncoordinated. There is no department calendar, newsletter, or even Slack group where people can ask “whose keys are these that I found on the Xth floor” or “does anyone have recommended resources for how to do taxes as a PhD student on fellowship Y” or “has anyone found a good Python package for Z.” There are no email updates from the chair, department-wide seminar series, or even regular social events where people from different groups can mingle. Every entering PhD student has to reinvent the wheel w.r.t. navigating a sea of topic-specific mailing lists, confusing terminology (e.g., what does a 50% RAship mean?), and buried URLs. I hypothesize that one reason people appreciate Jay so much is that by exerting a superhuman effort she is able to bring a degree of order to the chaos.”

“Breadth requirements remain disproportionately challenging for students already coming to the program from weaker CS backgrounds, and they can set these students further behind.”

“Earlier this year, the department sent out an email titled “Resources and contacts for CS PhD students” containing information about who to contact when dealing with issues like advisor conflict, workplace harassment, etc. Most of the email addresses listed were for either J or J. If students are dealing with a workplace harassment issue from within the department, it might very well be difficult for them to report that issue to the people heading the department. Does the CS department have a system for handling harassment complaints?

Information around funding continues to be confusing. For example, when the department emailed out to current students about summer funding requirements a couple of weeks ago, many first-years were confused.”

“From looking at the results of the survey, it seems like the comments from students who had negative (in some cases extremely negative) experiences with the rotation program have not been addressed.”

“How fairness and diversity in admissions is addressed is not clear”

“However, I don’t think it helps much since it doesn’t change the nature of the student-advisor relationship. It may be better if a third party can involve the process. But overall, the problem is due to the surplus of talented students and the lack of faculty members. Basically, it means advisors can do whatever they want and still get great students, without feeling pressured.”

“I think that we don’t do enough to encourage investment in our community. A lot of this does happen, but we could go further.”

“I wasn’t here in 2018, so I cannot compare the current CS Department with what it was back then. That said, some of the questions, particularly regarding the rotation system, seem pretty current. I do not doubt the good will of the department, and I am aware that as a student there are many things that escape me. This makes me wonder to what extent the problems of the rotation system mentioned back in 2018 are actually fixable, and, if not, what are possible workarounds. Perhaps a town hall meeting with students, administrators, and faculty would be helpful to discuss the results of this survey, make clear what are the constraints the department is facing, and find consensual solutions to the mentioned problems.”

“Male students constantly interrupting my female coworkers. Thankfully in my lab everyone gets time to speak but in social situations or in classes this is so annoying!”

“Many concerns regarding the rotation system, imbalances in supply of faculty and demand from admitted students within subarea, breadth requirement, diversity and inclusion, and competitive atmosphere sound as if they could have been written today.”

“No standard summer funding level and opaque communication about it. It is very awkward for a student to ask and ensure he or she will be receiving full (90%) funding when it is not standardized and advisors appear unaware of a standard. Either way, at a minimum, the exact funding level needs to be communicated to students months in advance so that they can search for alternatives (apply to TA, internships, etc) if their advisors aren’t willing to provide full funding.”

“None really, except that I hate working fully remotely.”

“not sure”

“Really disappointing response from the faculty about Jeff Ullman. I think the department needs to be clear about what its values actually are, and work to uphold them.”

“Requirements and their associated forms (quals, thesis proposal, TGR, etc.) are still confusing and unorganized.”

“See challenges.”

“Sexism”

“Sexism in the department. I think diversity training that encourages self-introspection is very important - some of the students/faculty that are most vocal about D&I efforts in my research area (who are often not members of underrepresented groups themselves) have been the ones who perpetuated the toxic culture. We need to encourage an attitude that we are all complicit / can improve our behavior wrt sexism, racism, and other forms of discrimination.”

“The department organization is terrible. Repeatedly gave me incorrect bureaucratic advice and once tried to charge me a several thousand dollar fee.”

“The sexual harassment issues brought up in the last climate survey.”

“There is still a lot of work that needs to be done to improve diversity and an atmosphere of inclusion in the department. The department needs a set of values that we can all stand behind and hold each other to.”

“There is still confusion around how to fill out forms, what classes to enroll in to qualify for funding, and other minor communication/resource location issues.”

“There is still no way to evaluate advisors. It seems like only students are expected to improve, whereas the development of faculty as mentors and managers seems not to be of any concern, at least from a student perspective. If students would get the opportunity to also evaluate their managers i.e. advisors as it is common practice in industry and there would be consequences if advisors do not meet suggested improvements that would greatly improve the situation and power imbalance that exists between students and faculty in academia to date. Maybe such effort is already under way, but is entirely opaque right now.”

“What happened to the reports of sexual and other workplace harassment?”

What do you see as the most serious challenges facing the CS department?

“- Anxiety surrounding rotation system”

“- Building a sense of community - Making everyone feel safe and valued - Taking a stand against exclusionary behaviors.”

“- Having far too little office space in Gates.”

“- Increasing diversity in all levels of the department - Supporting student mental health”

“- Lack of diversity & faculty with views that oppose this goal - Taking funding from companies with questionable ethics (e.g., Aramco) - Lack of appreciation/no sense of responsibility for the greater societal implications of one’s work”

“- Racial diversity - The stress over rotations seems to be getting worse, or at least has not improved. I’ve witnessed multiple students rotate through my lab, work very hard while they were here, and end up with no alignment by the end of their first year.”

“1. Not enough resources (facilities, admin personnel, faculty, funding) to support all the students that are qualified to join the department, so too many students are rejected.
2. Undergrad classes, especially in ML, are too big and need more offerings to reduce the load on TAs”

“1) Stress amongst students for rotations 2) Lack of social cohesion amongst CS students”

“A chair who says things like “if you wanted this change enough, you would have made it happen, therefore the fact that it didn’t happen is your fault””. Great way to enforce the status quo,

Students who unironically say things like ””do you have any evidence that contributing to society is important for a PhD?””

“A reputation for having depressed students, an abysmal diversity record, and absentee professors distracted by startups – I almost didn’t apply to Stanford for these reasons, and it was only after many conversations (crucially, with my current advisor and his students) that I concluded it was a better fit for me than I originally thought. (And if I were in AI, I definitely would not have come to Stanford.)”

“AI hype attracting a lot of annoying people”

“Avoiding hype of overblown areas and focusing on research that matters.”

“Besides the challenges already mentioned in 2018 (lack of funding, lack of space, bad wifi, difficulties in scaling, rotations, etc.), I think a considerable challenge is the growing recourse to bullying by some groups of activists (examples can be found in the 2018 survey), and the increasing presence and application of Marxist-inspired theories and ideologies (one example is Critical Race Theory, which, by the account of its own creators, rejects objective truth: ”For the critical race theorist, objective truth, like merit,

does not exist, at least in social science and politics.” (Delgado & Stefancic, 2001); if there is no such thing as objective truth in social science, how can a social scientist say that systemic racism exists? It doesn’t make sense, and it is definitely not healthy for an engineering student, who has to deal with objective truth constantly, to host such a contradicting statement). The problem with Marxism is that its objective is to burn to the ground existing systems, and from the ashes build something better. However, as the world discovered after the Nazi dismantling of Göttingen’s maths department, destroying the greatest department in the world means that you will never again be the best. Is this what we want for Stanford CS? It is surely not a perfect department, and a lot can be improved. But let’s keep what we have, and peacefully cooperate to build from that, while focusing on what is important: high standards of academic excellence, and making the world a better place by furnishing it with the best humane computer scientists a university can form.”

“Collaboration and communication in remote work environments moving forward.”

“Community, responsiveness to student concerns, initiative to engage with students and their demands, initiative to support student ideas for improving the department.”

“Creating a space that is open and accessible to all accepted students, and as free from discrimination and bias as feasible.”

“Defining what our values are and understanding what ethical research is, and to what degree the department should be working to make sure research is ethical.

Building a more inclusive community, with more students of color and more students more invested in positive social change.”

“Diversity in the department, fairness of admissions and faculty recruitment
Faculty leaving for industry”

“Feel lonely. Easy to find someone talk about the project, but hard to find someone talk about the career macro strategies from a student’s perspective.”

“How to help members stay positive, motivated and productive with the mounting and increasing competition in the field (AI).”

“How to rebuild a community after covid, especially in light of the Gates building being inaccessible as a central social space.”

“I feel very trapped in my current advising situation. I wish there was more department level (financial) support for helping students.”

“I think a lot of CS fields have moved to publishing very quickly and on relatively short term projects and quickly changing focuses. It might be good for faculty to drive more of a longterm vision in their labs rather than following fads and having short publication cycles.”

“I think some of the faculty are out of touch and forget their privilege. My advisor is wonderful. But one professor made a comment about foodstamps that was very classist. Another professor said that burnout can be a good thing. I find these comments upsetting.”

“In general, transparency and having PhD student voices heard and considered when making decisions.”

“In no order: diversity, rotation one-sidedness / transparency”

“In order of importance: 1. A need for more investment in communal resources & the community itself. 2. I worry that the rotation program doesn’t work well in the AI sub-area, but I don’t know enough to know what is broken.”

“It seems to be getting harder and harder to do impactful CS research without the resources available in industrial labs (of course, this is not specific to Stanford).”

“Lack of collaboration between groups.”

“lack of diversity and the strength of the voice of a few people in the department is creating a non-inclusive environment. You may lose good students to other universities who acknowledge the shift and try and change some of their biased old ways.”

“lack of representation from people of color; lack of community / collaborative environment; lack of support from administration for student initiatives”

“Maintaining a sense of community. Currently, the department is extremely fragmented and decentralized which can make any sense of community hard. I partly blame the pandemic and remote work for this, but the department did nothing to fix this.”

“Maintaining a system that underpays PhD students for doing most of the work, while industry research labs flourish and provide better working conditions and access to resources. At some point academia will have to step up and provide industry-standard working conditions.”

“Mental and physical health. These are easily neglected under pressure but doing so can have hugely detrimental consequences. Attending to these concerns can be especially hard for international students who are new to the US healthcare system, and students who may not feel comfortable raising concerns with their advisors. The rotation system is guilty for making this much harder. So many people acknowledge that the rotation system is incredibly stressful, and the system incentivizes students to neglect their wellbeing. It shouldn’t need to be so damaging.”

“Not enough feeling of community. More competition than collaboration.”

“Not sure”

“Retaining (mainly senior, but also junior) faculty, e.g. so they don’t leave for startups/industry). Fostering more collaboration across research groups, e.g. incentivizing this in tenure evaluations.”

“Sexism / discrimination in the department, particularly in popular research areas that are more competitive. It is difficult to recommend Stanford as a good fit for underrepresented minorities.”

“Size”

“The biggest challenge that I see is the CS department’s sense of community, social interactions, interactions amongst /between various groups, students, and faculty. It would be great if we could have more interactions with more students within the department. I do acknowledge that COVID has definitely been detrimental to this challenge.”

“The critical problem is the surplus of talented students and the lack of faculty members. Basically, it means advisors can do whatever they want and still get great students, without feeling pressured.”

“The culture. The status quo that is always being defended here is one where students who don’t fit the white/Asian/south-Asian guy mold constantly feel like they don’t belong and are not supported by the department. Attempts to improve the department are made exclusively by students, who put in hundreds of hours of organizing labor, and then the department just dismissed those efforts. The department chairs have the audacity to accuse students who try to advocate for themselves of not caring enough when their efforts are shot down. It’s just cruel. The attitudes here need to change, or we are going to end up like UMich’s CSE department with Twitter shitshows about how terrible we are.”

“Too much depends on a single point of failure: the advisor/advisee relationship. It’s crucial to support students in bad situations and help advisors find advising styles that are healthy and productive for their students”

“Transitioning back to in person work.”

“We don’t have a building”

What steps would you suggest the CS faculty take to improve the department?

“- Improve sense of community. - Make rotations easier for first years especially in the currently hot areas. - Lobby for better allowances to purchase things for a home office (if working from home 1/2 times a week is going to be the new normal).”

“- Mandatory ethics in technology training - Mandatory *in person* diversity & inclusion training - Internal resources for students to report problematic events with actionable paths for recourse ”

“- Not sure if this has already been implemented, but a soft alignment offer for every student upon admission”

“1. Every student should have a faculty “buddy” outside of their research area they can chat with about any issues. Such faculty can volunteer. It would be nice to know who are the friendly faculty we can reach out to when we need serious help. 2. Advisors should inquire more about student’s well-being, both verbally and over email, so that issues do not end up growing / becoming harmful.”

“1) Be more transparent about rotations (how many students you plan to take, when you plan to take them, etc.) 2) More department-wide in-person events”

“Add more structure to the rotation program, make expectations much more explicit, require all students to have at least one offer of funding from a professor that is not dependent on rotations.”

“Be more open to current students. For example, there are some reading groups are not free to join.”

“Be transparent with the students about the constraints you are facing, and what the students can do to help with the problems that are already identified.”

“Better define the values of the department with respect to diversity and research ethics.”

“Don’t admit students who are self-absorbed jerks”

“Even though the department is doing a good job of supporting its students, I personally feel that the University as a whole does not support graduate students. I think CS faculty could do a better job of figuring out what issues their students have both inside and outside of the department to address larger concerns. As an example, graduate housing is extremely expensive compared to funding causing all graduate students to be “rent burdened” according to the government. If CS faculty could take steps to help support the graduate students when addressing the university, it would be great.”

“faculty should engage/advocate their students’ needs to the department regularly.”

“Funding for everyone. So students would be able to work with the professors they want. A lot of students find themselves unable to rotate or be advised with the professors they want due to lack of funding.”

“Give us a building”

“How come we (students) have heard nothing about the building renovation? I heard gossip that Gates won’t be done until after Thanksgiving at best, so we can’t return to office. I wish we had more transparency around that.”

“I think the Faculty AMA is wonderful. Unfortunately I had to miss quite a few of them due to schedule conflict, wish i could have been there. (Jeanette is a great host!)”

“I’m not sure. I think professors are skilled technically but don’t really receive training on how to deal with students. Would be nice if they were trained in basic people/management skills.”

“In research (especially systems and other applied fields), work on better understanding actual problems in industry”

“Less busy professors – e.g., cap the size of research groups.

Encourage faculty to provide more avenues to get to know them, be open to providing students who are not their advisees with feedback/informal meetings.”

“Make the best use of brain power of CS faculties give students the guidance they deserve”

“Make time for students and take our concerns seriously. Listen to the recommendations from the student advisory committee. Be humble and present.”

“Making more opportunities for cross-discipline and cross-department interaction”

“Much more standardized guidance and support. It feels like there is a wealth of information that is otherwise inaccessible and purely passed down through conversations yet crucial for students as they progress through the PhD and which each generation needlessly repeats without learning as much from the previous generation as they could have. Information on the official CS PhD site is extremely minimal too. It would help so much to have more information about what to expect during rotations and how to navigate them, FAQs about funding and fulfilling breadth requirements, dealing with difficult situations mid-PhD, navigating health and housing, etc.”

“One is for the department or research groups to pool funding for students (e.g. all graphics students funded from a graphics lab fund that faculty contribute to, or even, all CS students funded from a department fund that all faculty contribute to); that would encourage collaboration between research groups as there are fewer funding issues to navigate through.”

“Perhaps making rotation less stressful”

“Quick and reliable information on Gates reopening.

Much quicker replies to Breadth requirement waivers. I wrote so many emails and am still waiting for replies.

More programs to support women. The Women in CS lunch had such inconveniences with the funding for their lunches. It helps me immensely to go there. Maybe also have programs that include men.”

“Re: diversity, while speaking for AI / ML I think there have been great hires across certain less-represented demographics, there is still certainly room to increase representation with other highly qualified individuals from other less-represented demographics.

Increasing explicit awareness of these representation concerns among grad students and current faculty would also help. Through RA mentorships of current Stanford undergrads, we have a sizable influence on these aspects of the next generation of researchers.”

“Remove soft-alignments or remove rotations Create a more collaborative environment”

“remove unanimous voting. Let the majority’s voice get heard. listen to the non-male/BIPOC faculty. listen to the students. hold more townhalls. care about your students.”

“Research and publishing papers is only one of the three pillars of academia, yet the overall sentiment in the department is that it’s the only thing that matters and the only

skill that needs to be taught during the PhD. Faculty are never taught how to lead or run a research group, and so their students never learn either. Faculty also aren't required to serve on committees or explicitly give back to the community after tenure, and so their students learn that service to the department or broader community is a 'waste of time' since it takes away hours for doing more research and churning out more papers. It's hard to blame individual faculty members for propagating a department- or even field-wide problem, but that does not absolve the department and the faculty within from doing something to change it. To begin to make real, lasting change in this regard, place more emphasis and value on service and teaching / mentoring when hiring new faculty, not just scholarship, and do the same for tenure. Provide more structure and guidance within the PhD through milestones and requirements to help students learn the value in each of the three pillars of academia instead of just handing down requirements that students don't understand and ultimately come to resent. In order to fix the lack of community most CS graduate students experience, start to build a sense of community, collaboration, and support within the CS faculty too, not just the graduate students, because leading by example is the best way to bring about change. Indeed, if graduate students don't perceive any sense of community between the faculty members, that will then trickle down to the graduate students no matter how much programming you try and plan. Encourage more across-discipline collaboration and camaraderie. Rarely interacting with students from other sub-domains of CS, even though we all inhabit the same building, is very isolating and exacerbates the sense of lack of community. But most of all, do better when it comes to supporting students. Stanford breeds a certain maverick culture, which is especially strong in the CS department, which emphasizes "if you see something you don't like, fix it yourself. If you don't understand something, figure it out yourself" which are good life lessons to learn, but are harmful when taken too far, as is very much the case in the CS department. Indeed, the PhD program itself is so competitive that students must already possess these traits to even get into the program in the first place, so in most cases, if a student is struggling or asking for support, chances are they've already exhausted all of their own personal resources - and then some. Also, "do it yourself" is not an acceptable answer in many situations, such as when it comes to building community between students and tackling historical inequities students from marginalized communities face. These are by definition things that students cannot do all on their own, and it is faculty and staff's job to bring about these changes."

"See previous answer."

"Significantly hire more CS professors, especially in the hot research domains."

"Spend time with their students."

"Take a stronger stance to protect your students. The official message condemning Jeff Ullman came too late and was really watered down. I am ashamed of the response."

"Talk to current and former collaborators of potential faculty hires to hear what it's like working with them. The best researcher in the world isn't worth hiring if they aren't ready to advise students in a safe and healthy way"

“The department needs to grow bigger. More faculty, more PhD students, more buildings.”

“ The faculty need to fight for the advocacy efforts of students. Students time is valuable too, we are supposed to receive support from faculty, not be fighting them. We are wasting so much time fighting the department and failing because no one is listening to us, or maybe no one cares. Faculty need to invest in the humanity of their students more. ”

“The steps about the rotation systems I mentioned previously: 1. drastically reduce PhD hiring 2. have a guaranteed advisor for every student (if the other rotations do not work out)”

“There are bandwidth issues for both faculty and students, so hiring and empowering someone to be a full-time student advocate could be very helpful.”