

Climate Survey Summary

Department of Physics & Astronomy

The department conducted a climate survey in the summer of 2021. It included a total of 25 questions covering seven areas: Curriculum/Assessment, Workload, Research Advisor Relationship, Department/Structures, Belonging/Value/Social Network, and Concluding Questions.

A total of 88 responses were received that covered a wide spectrum of students in terms of Demographics, i.e. years in the program, domestic vs international, and area of specialization.

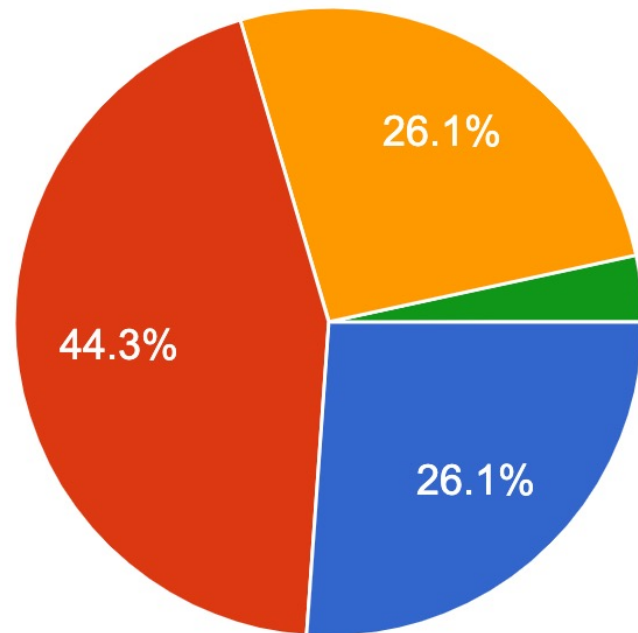
The data shows that on the majority of issues, most respondents have a neutral to positive experience. However, on Department/Structures and Belonging/Value/Social Network, a significant number of students reported a negative experience.

The data and summary of written responses is contained in this presentation.

Demographics

What year in the program are you in?

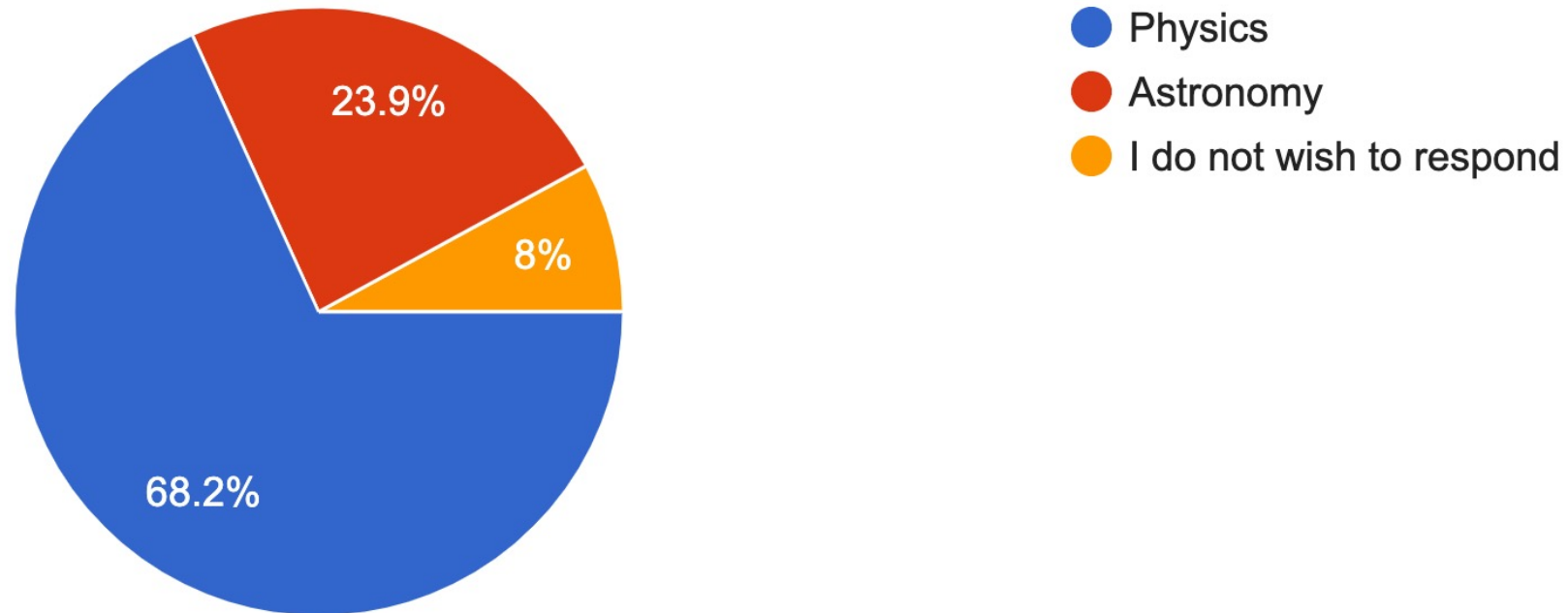
88 responses



- Year 1 or 2
- Year 3 or 4
- Year 5 or more
- I do not wish to respond

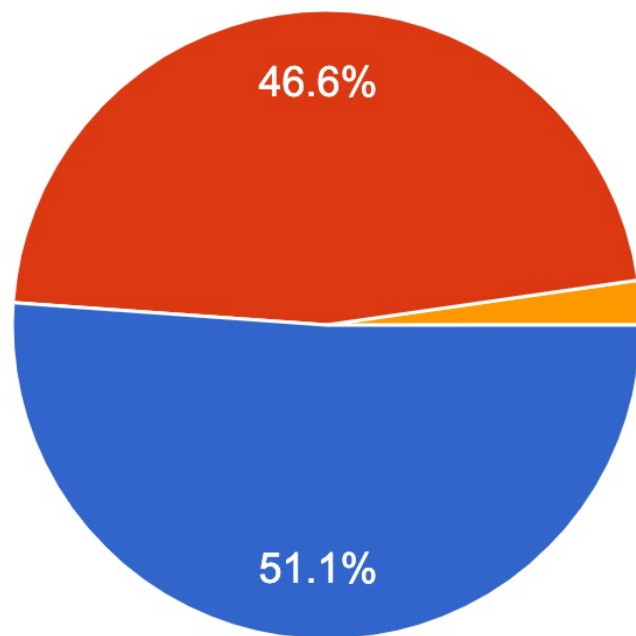
My curriculum/research track is:

88 responses



I am a _____ student.

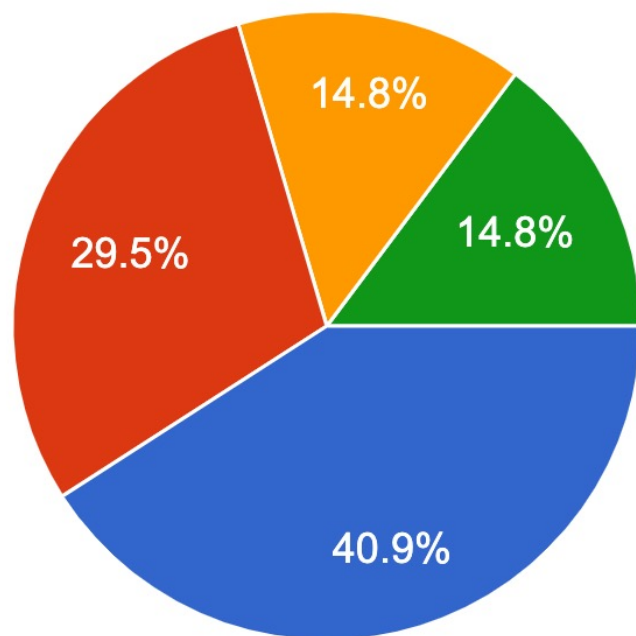
88 responses



- domestic
- international
- I do not wish to respond

My research is:

88 responses

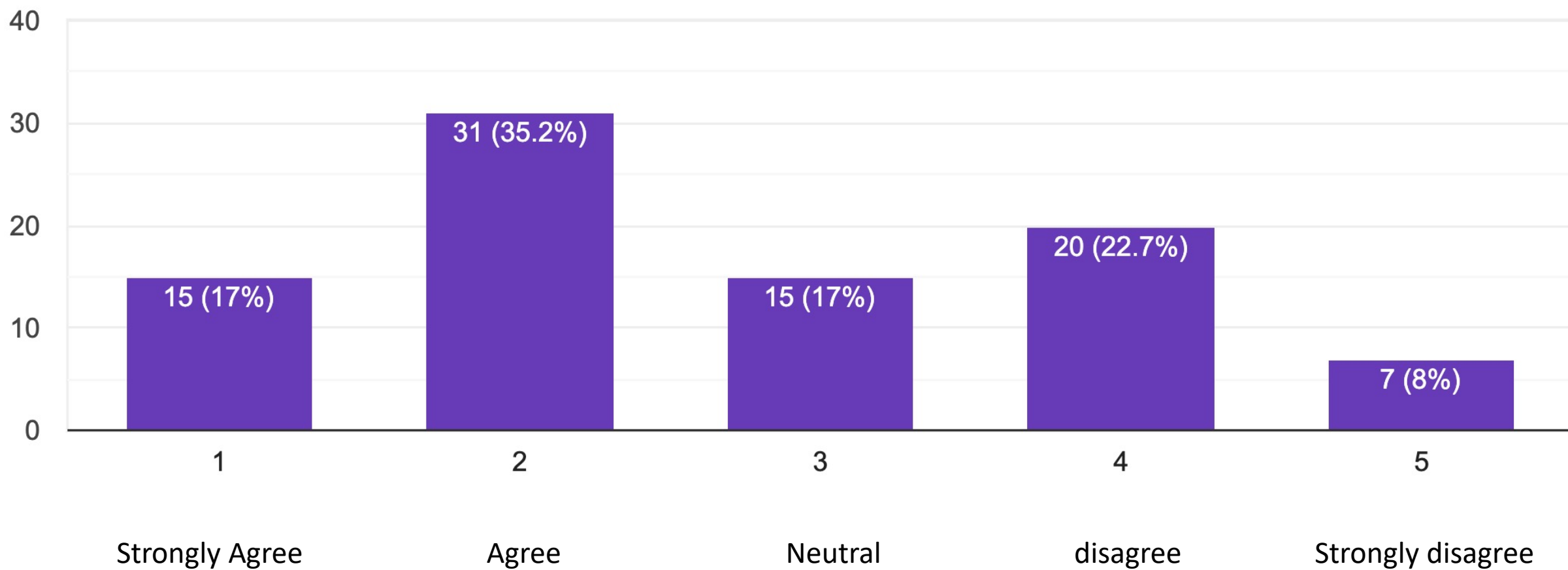


- experimental
- theoretical
- observational
- I do not wish to respond

Curriculum/Assessment

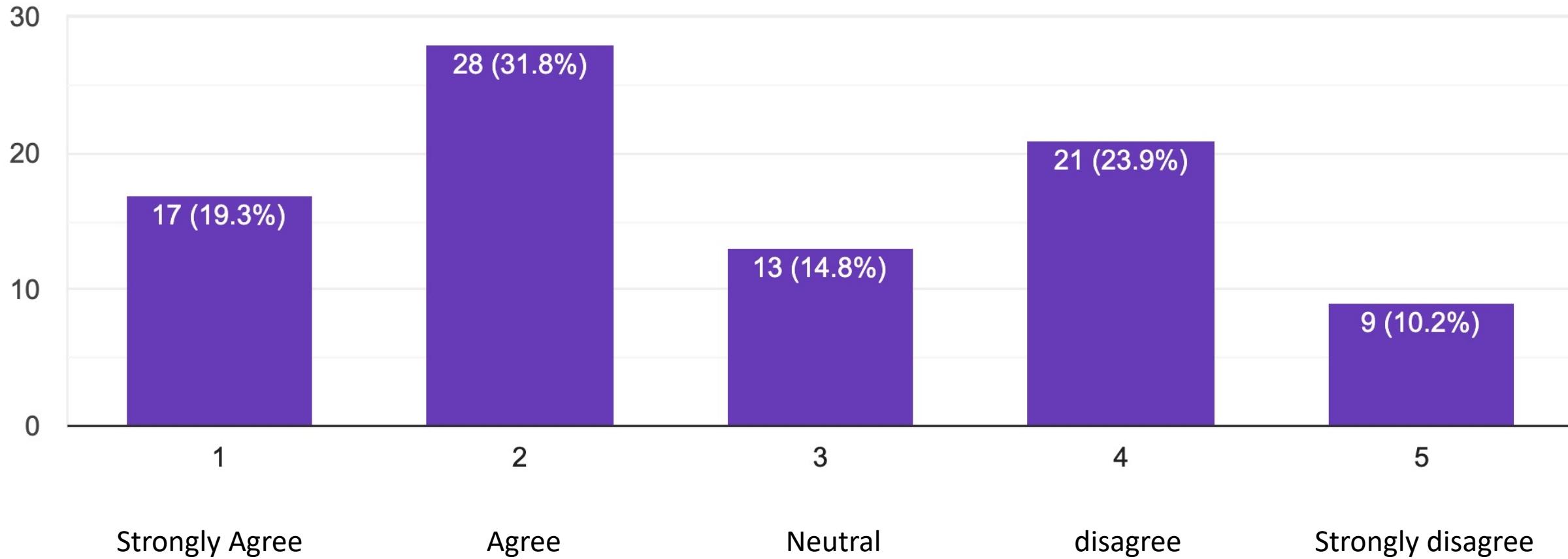
The required coursework provides a comprehensive education in the fundamentals of Physics and Astronomy.

88 responses



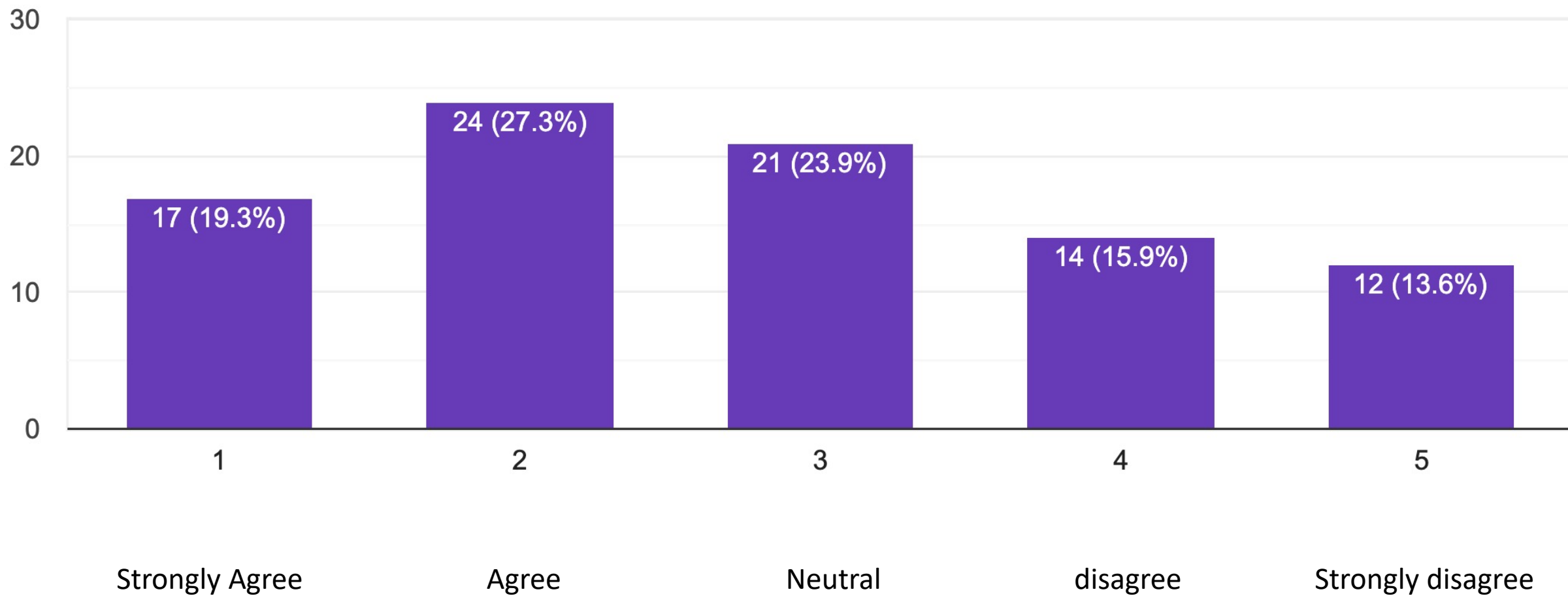
The workload for first year students is appropriate for completing the core curriculum in one year.

88 responses



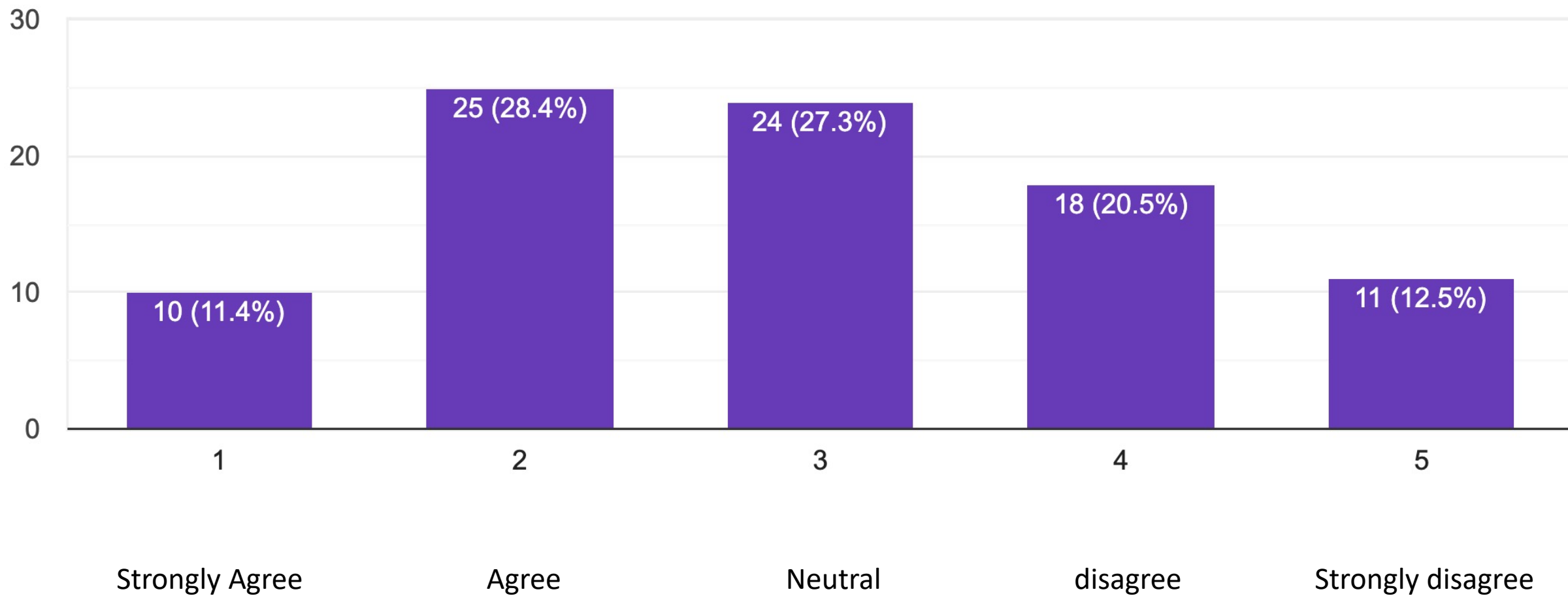
I felt adequately prepared to take the comprehensive exam.

88 responses



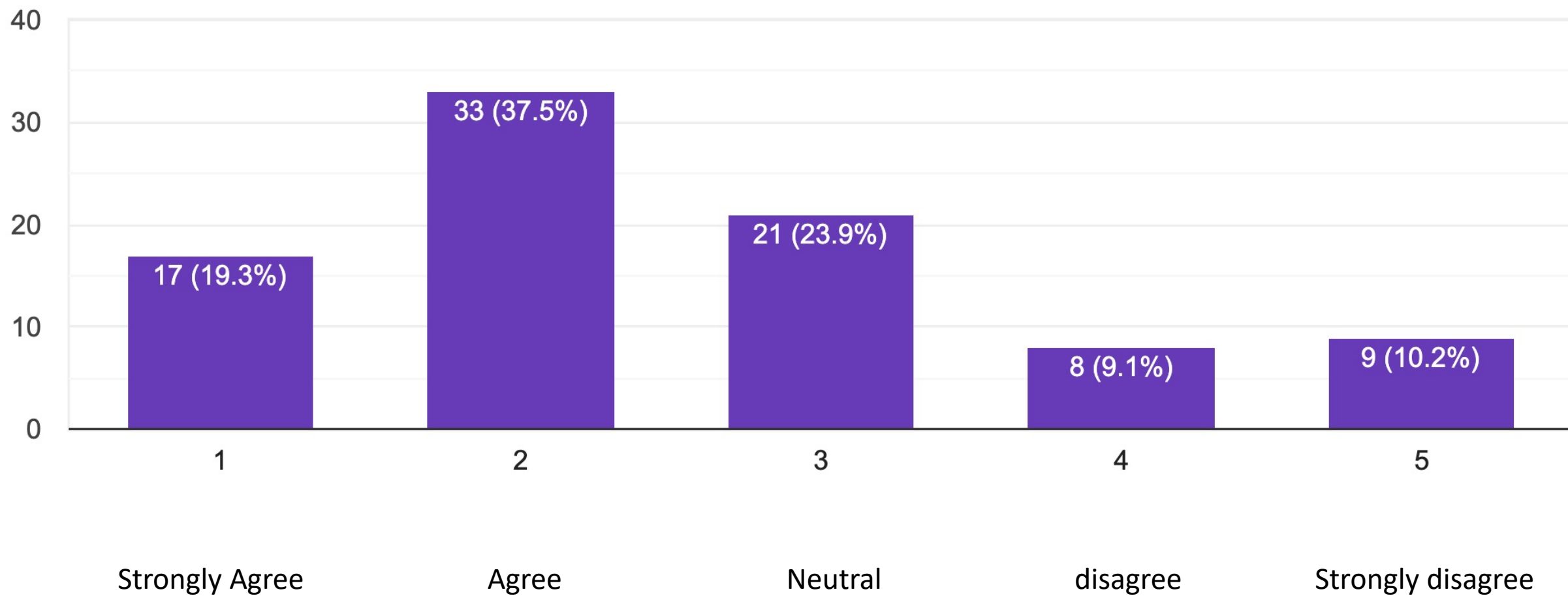
There are a sufficient breadth of elective courses for my specialization.

88 responses



I understand what is required of me for successful completion of a Physics Ph.D.

88 responses



Curriculum

35 total responses, 13 Astronomy, 6 Did not respond, 16 Physics

Comp Exam: The comments are of two types:

Requirement of the comp in its current form: A few commented on the exam not being a test of research ability or other skills such as grant writing or test for relevant skills in the job market, one commented on the timing being after the summer, and two felt that it was used as a weed-out tool.

Administration of the exam: 6 commented about the exam. The general sentiment is that the exam does not test comprehensive understanding, just need to know the right tricks or get lucky, game out how each faculty write the exam, not enough feedback before the exam, what passing means is not clear.

Coursework: There is a clear distinction between the comments from the Astro track to the Physics track. E&M was mentioned but also that the curriculum did not align with other departments or the need for the degree. This was particularly mentioned by the Astro students.

A few comments mentioned the need for more electives (experimental, coding, statistics, from other departments)

Four commented on the faculty teaching being disinterested and uninspiring

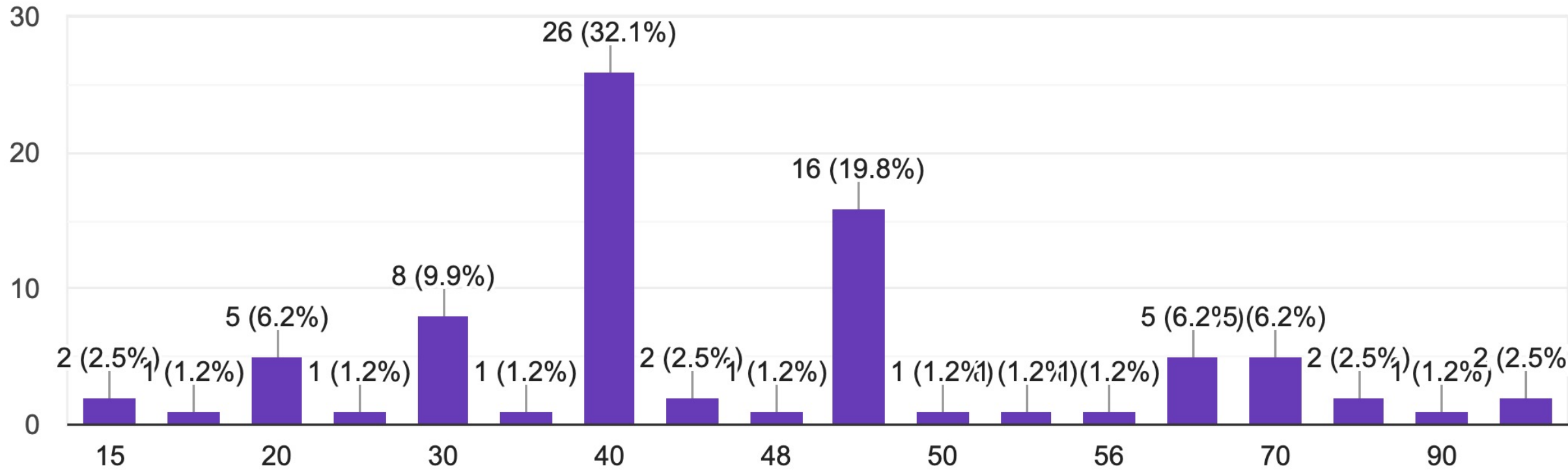
A few comments on workload discussed more in the next section. Some required courses (E&M came up again) took way too much time.

Three mentioned the criterion for passing orals and thesis defense are arbitrary.

WorkLoad

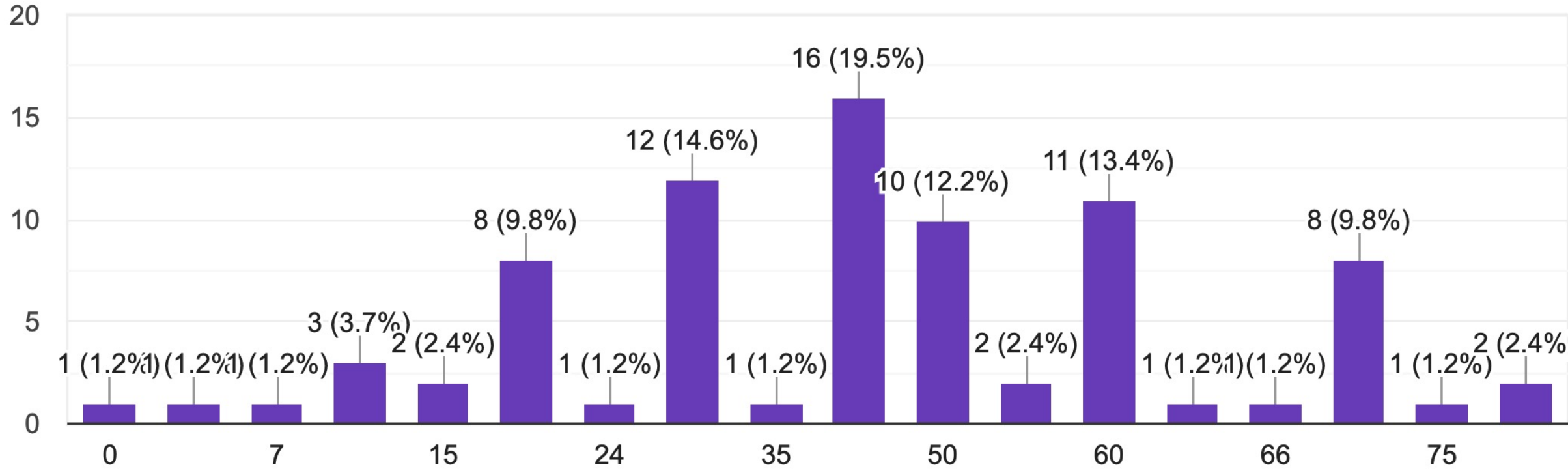
For the Spring '21 quarter, how many hours per week did you spend on your coursework, TA duties and research?

81 responses



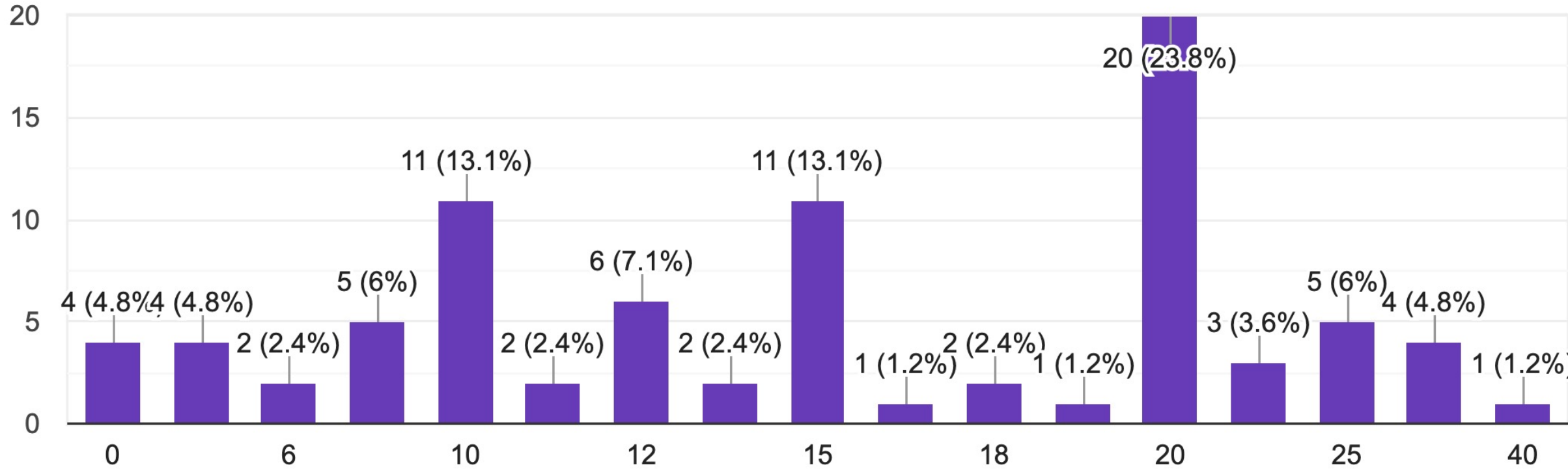
How many hours per week did you spend on your coursework during your first year?

82 responses



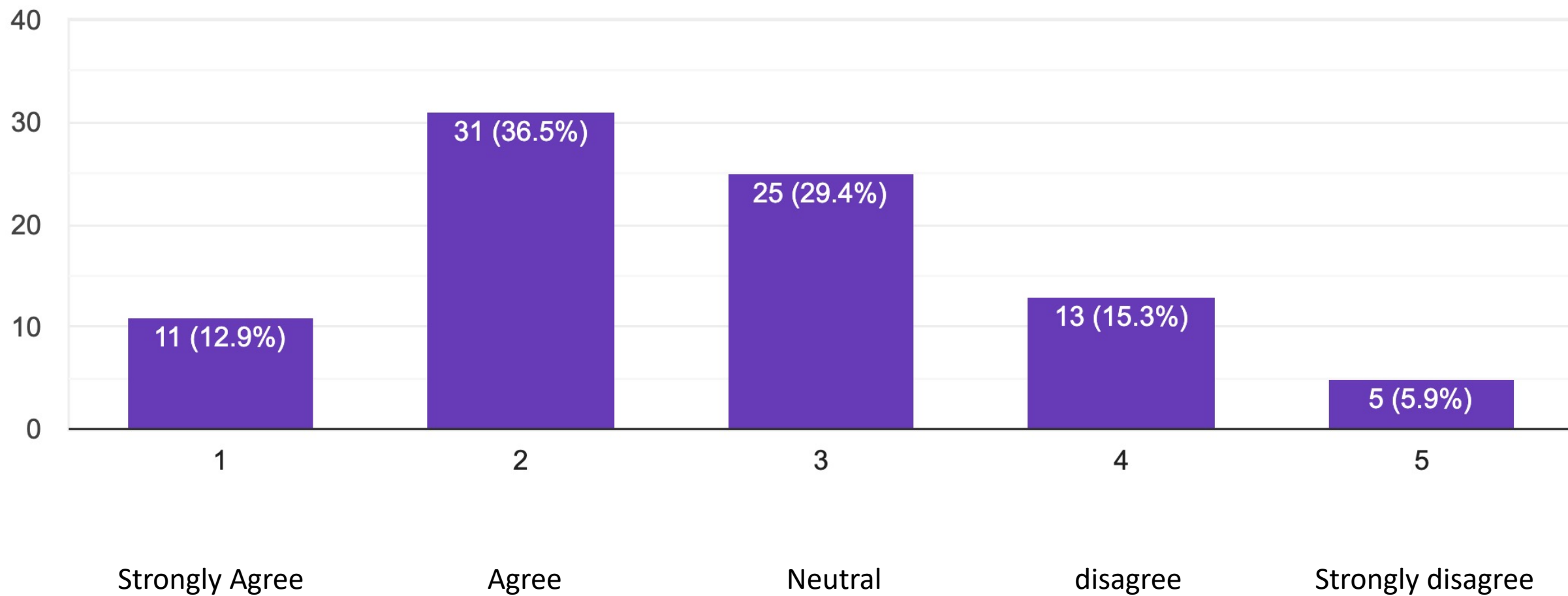
How many hours per week did you spend on your TA duties when you were last a TA?

84 responses



This workload is appropriate for obtaining a Ph.D. degree.

85 responses



Workload.

37 total responses, 24 domestic, 2 did not respond, 11 international

1st year workload.

In the first year, the students spend 0-80 hours per week on courses -- the distribution has a Gaussian-like envelope with a maximum at 40 hours.

One third of the students find the first-year workload inappropriate, two thirds find it appropriate; the distribution is clearly bi-modal.

Heavy workload for international students (Some combination of courses, TAing, language tests, new environment mentioned).

A few students find the first-year workload exceedingly high.

Overall workload.

The distribution of TA hours per week is highly inhomogeneous. The students overwhelmingly criticize the high workload of lab TAing.

The distribution of total workload per week ranges from 15 to 100 hours with a maximum around 44 and a small focus around 60.

Overall, the students find the workload appropriate for obtaining a PhD degree.

A few students criticize/question the distribution of TA positions within the department. A few state that the workload is unreasonably high.

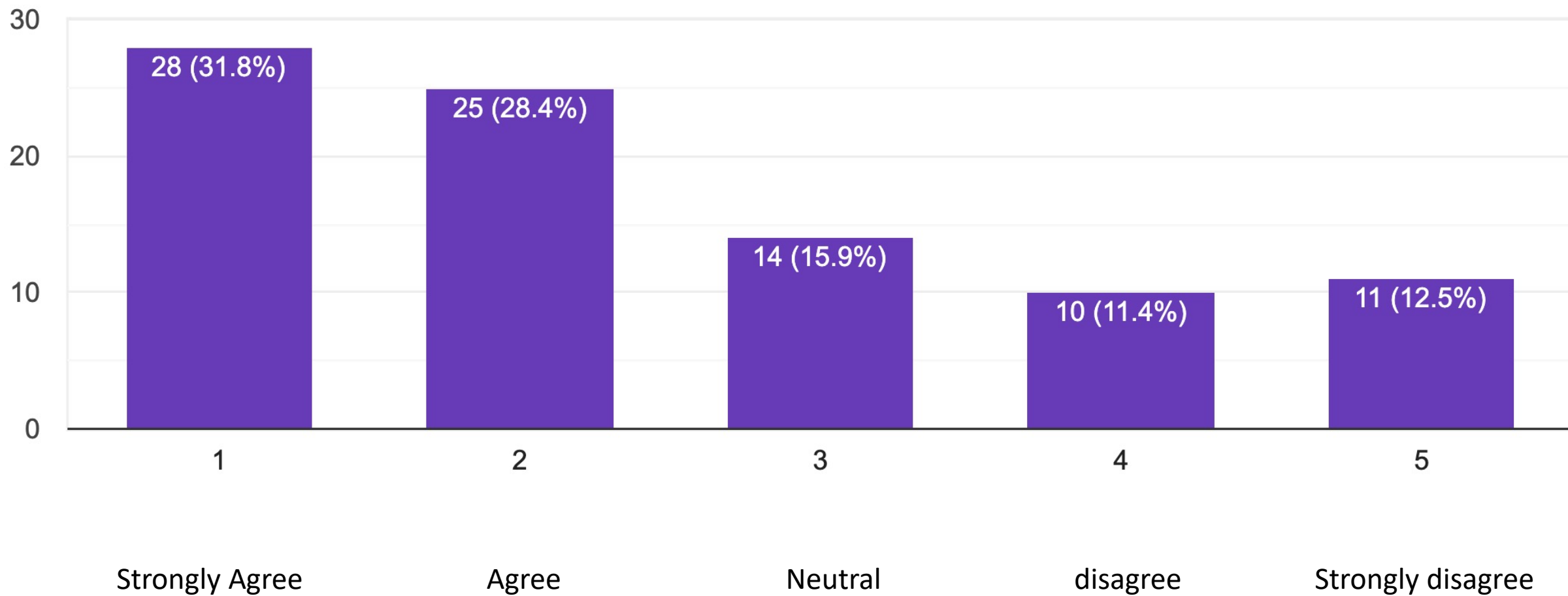
75% of students generally find that the PI communicates their workload expectations clearly. A few students speak about PI-to-PI workload variations.

Some students would welcome workload management help/instruments/structures/guidelines.

Research Advisor

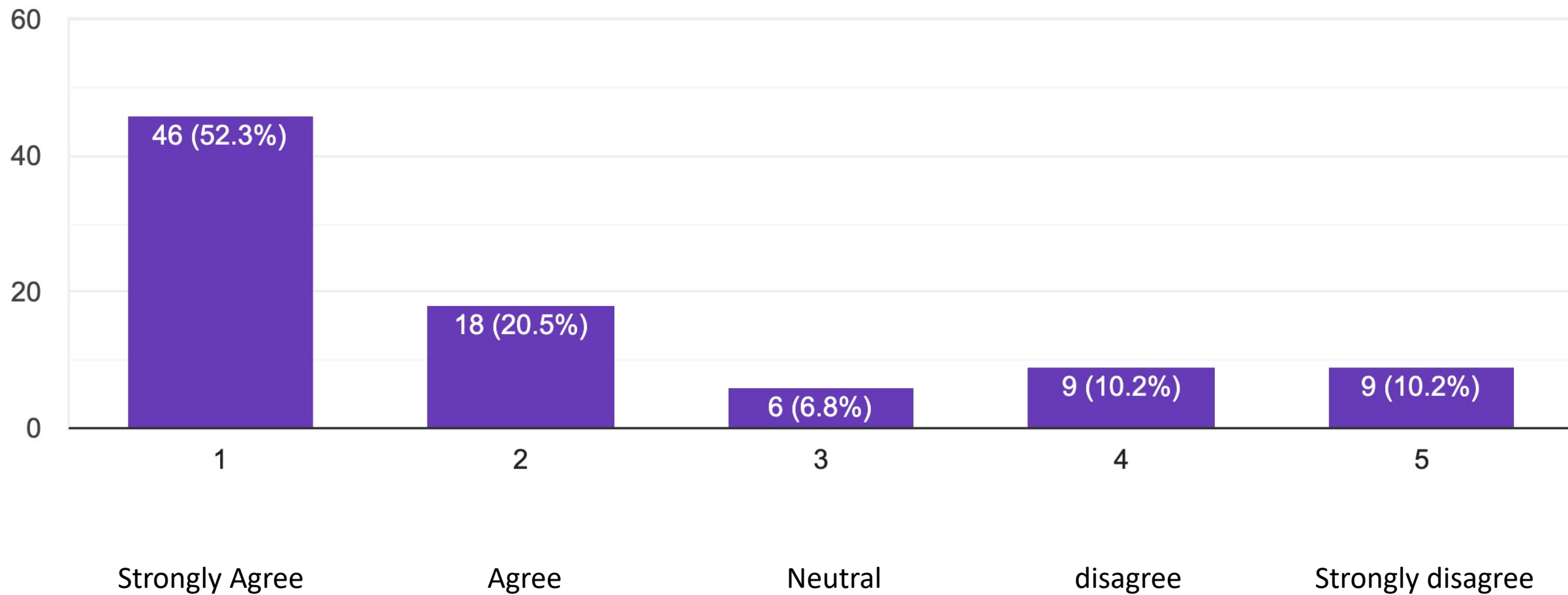
My research advisor clearly communicates their workload expectations.

88 responses



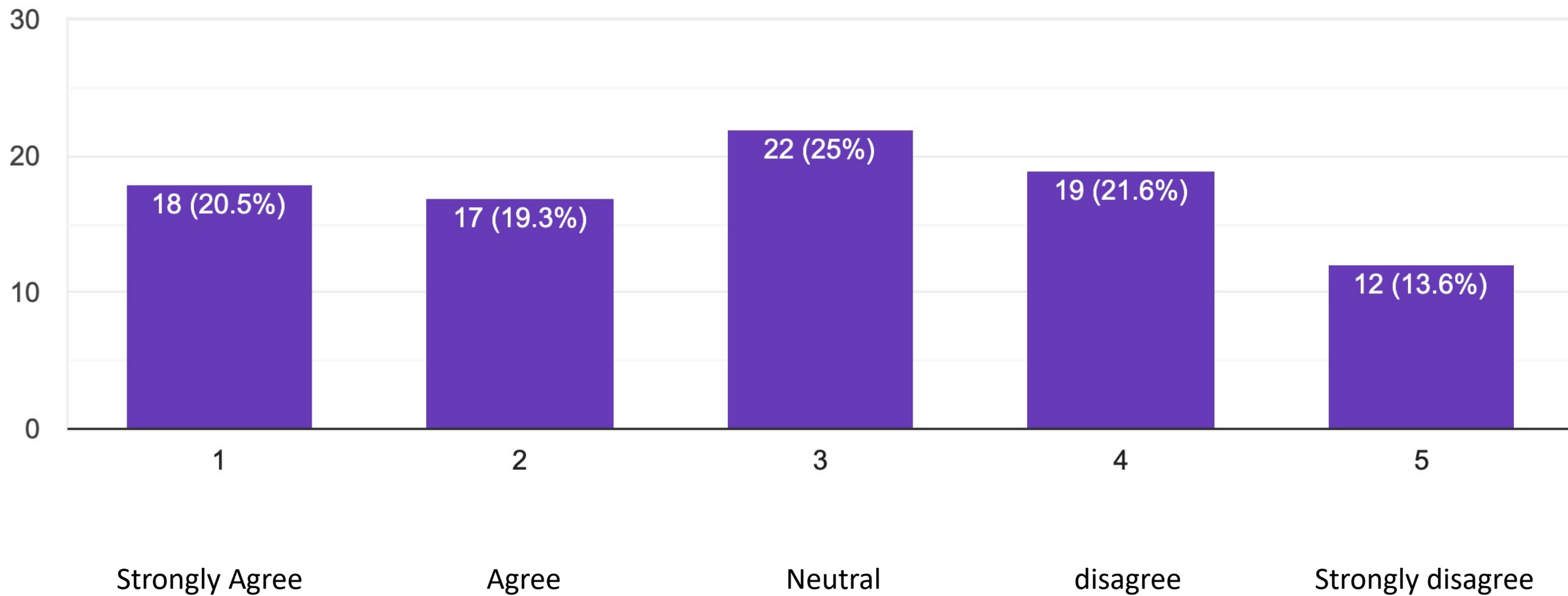
My research advisor is sufficiently available for guidance / meetings.

88 responses



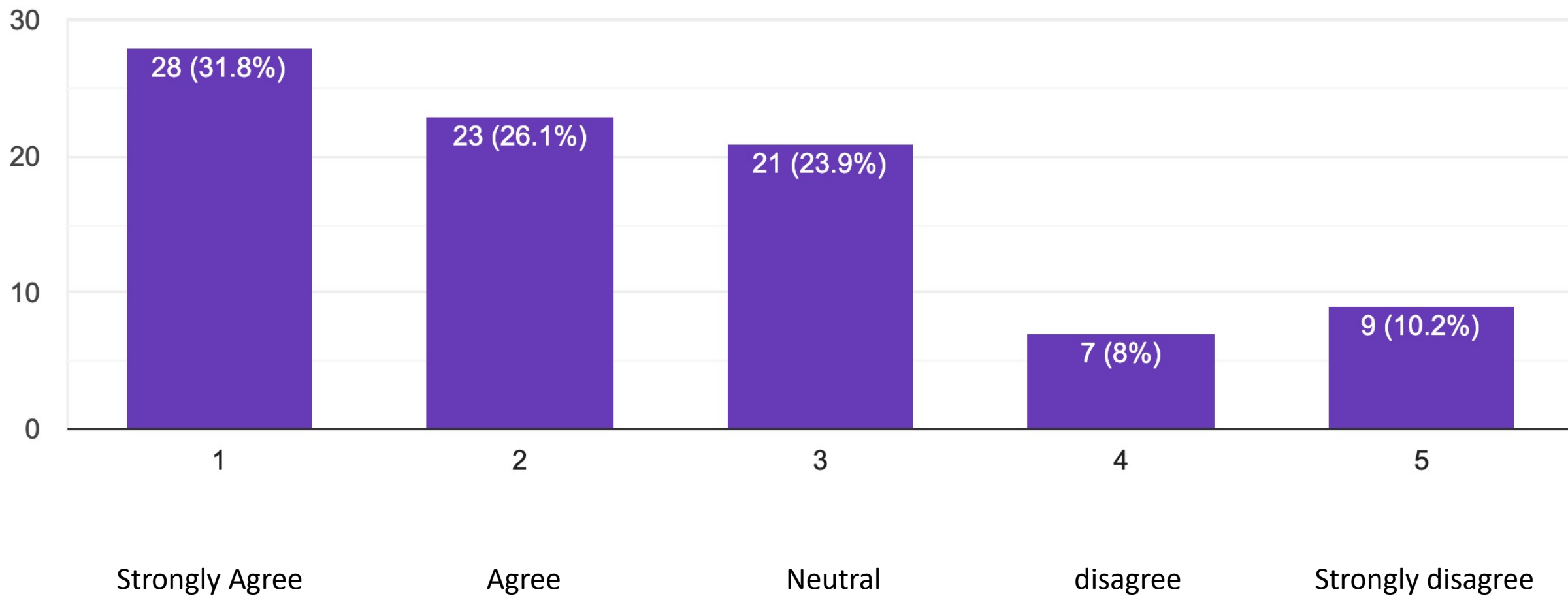
There are other faculty I can go to for help beyond my research advisor.

88 responses



My research advisor discusses my career goals with me and provides useful advice.

88 responses



Research/Advisor

23 Comments; 9 Astro, 3 did not respond, 11 Physics

A third of them had positive comments: advisor is great, and very understanding, easily the best thing about my entire experience with UCR; very helpful in all aspects of my graduate career; Most of the things that the department forgot to teach me, my PI taught me.

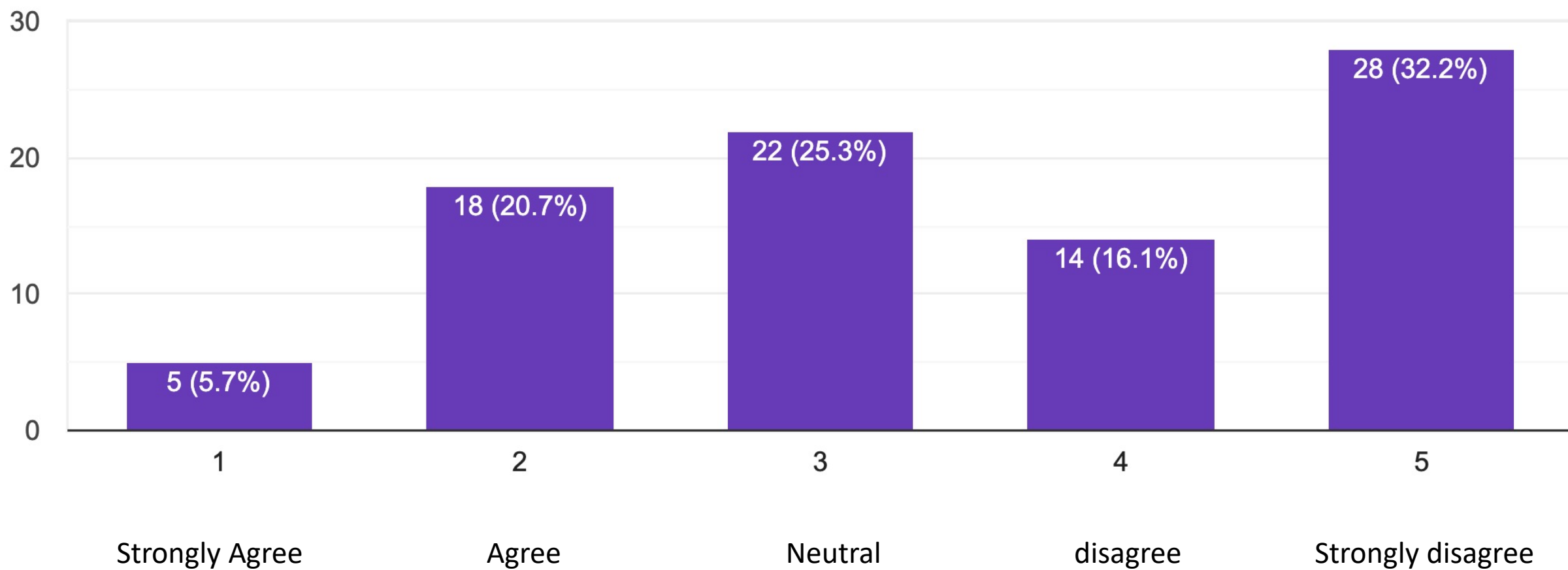
A third them had negative comments: very ill-prepared, no lab/group structure, poor to very little communication, worried if even on track towards a PhD

A quarter if the students mentioned the benefits of having a secondary advisor or some structure to get feedback from somebody other than the advisor. Some worried this might be seen as undercutting their PI.

Department Structure

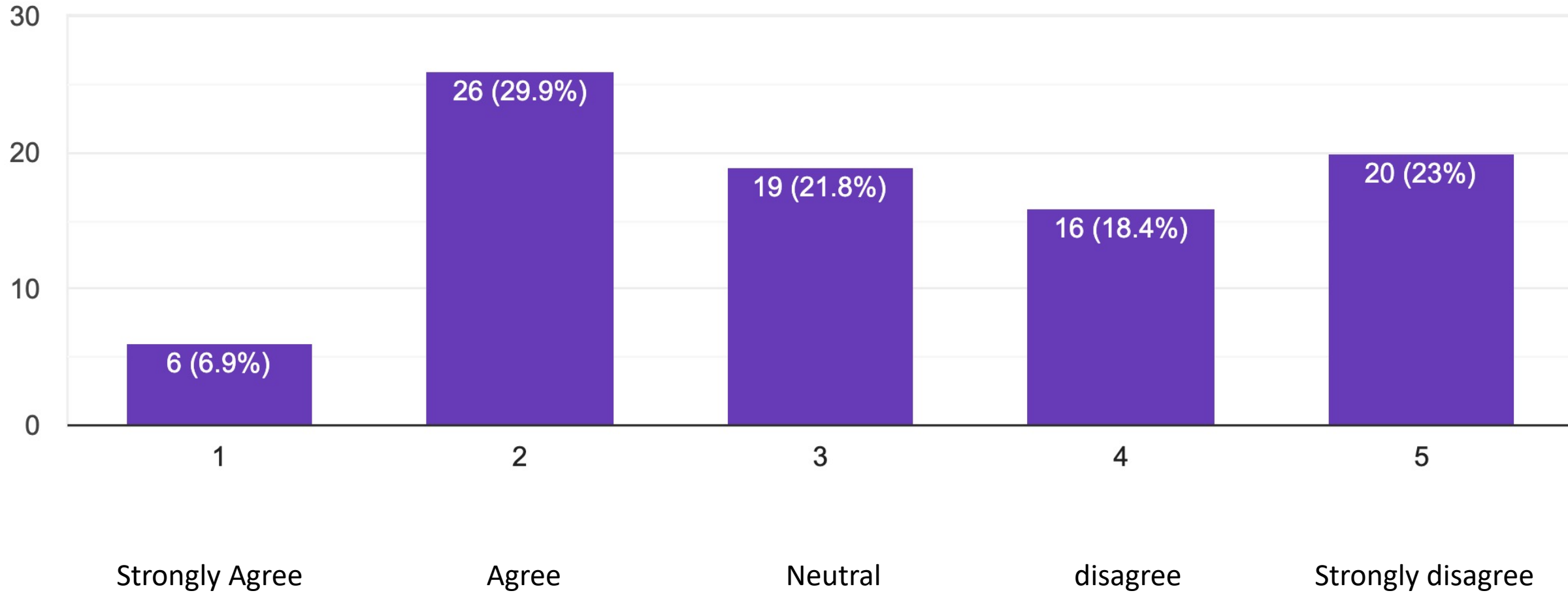
The Physics and Astronomy Department is open about how decisions affecting graduate students are made.

87 responses



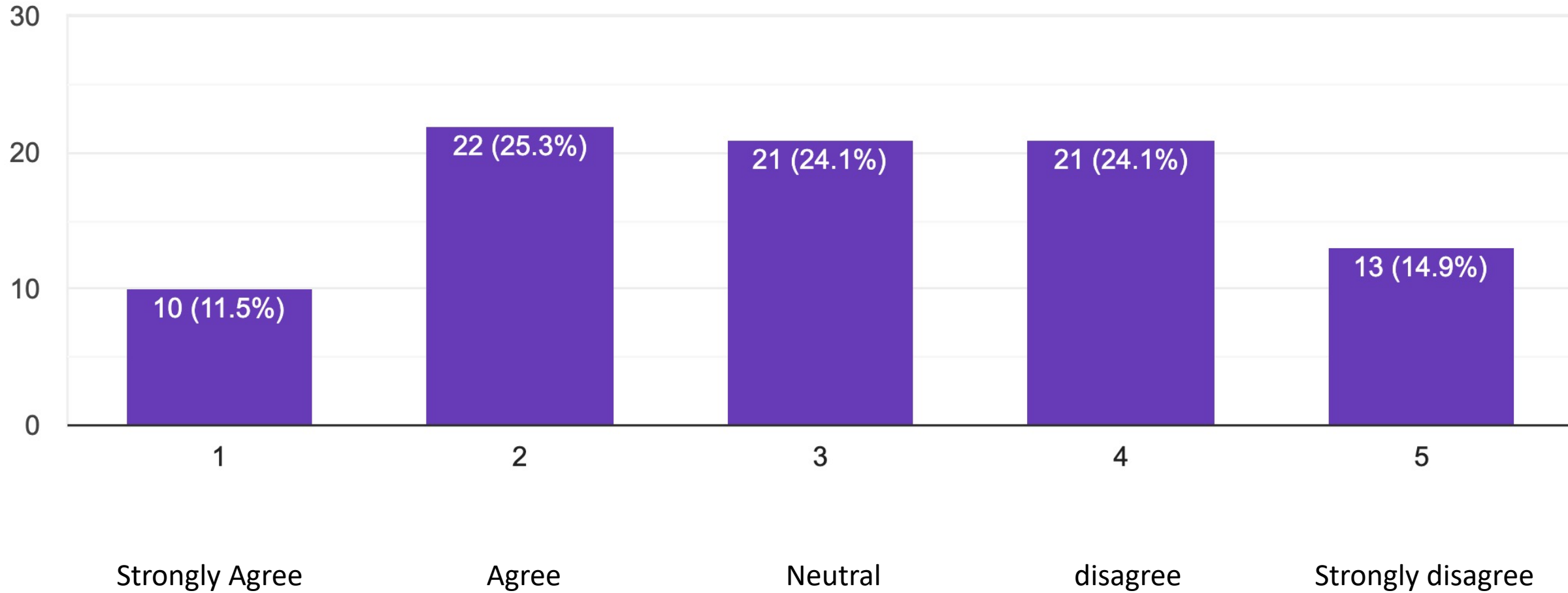
The Department regularly communicates decisions concerning the graduate program.

87 responses



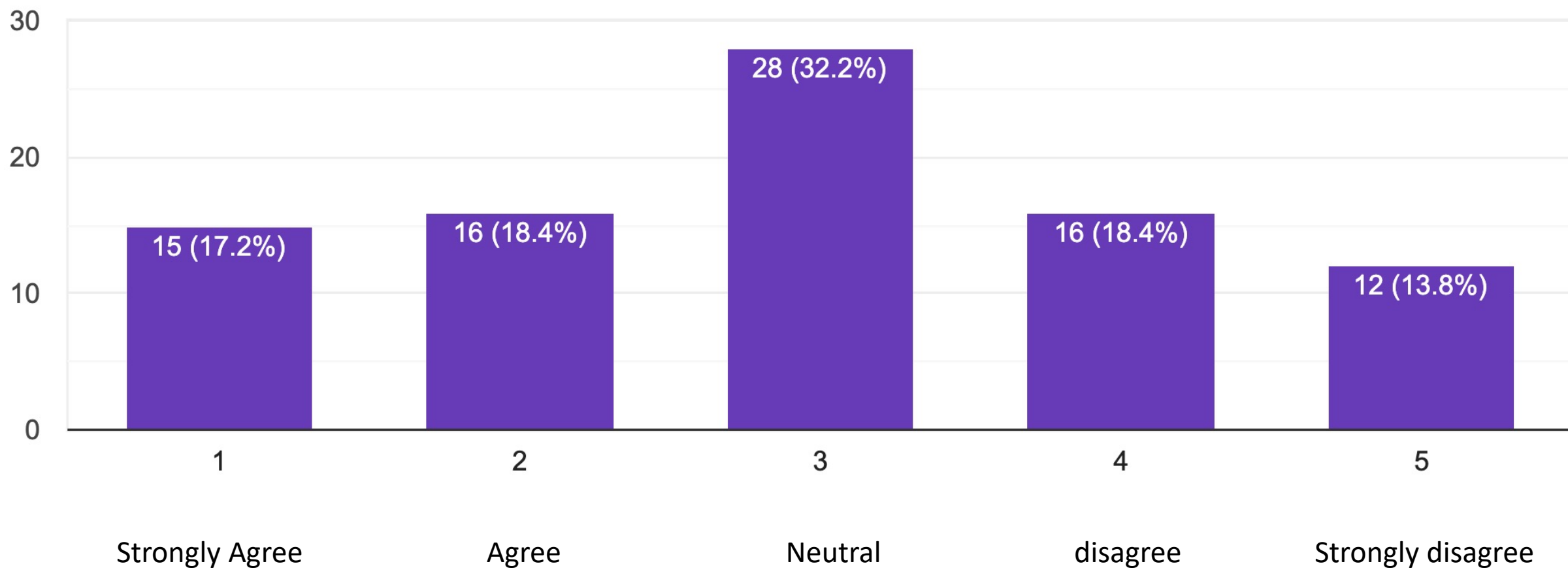
I know whom to contact regarding any particular issue.

87 responses



If I have an incident/challenge, I believe that the Department will handle it in a fair and responsible manner.

87 responses



Department / Structures written answer analysis

There were 23 written comments, from the total of 88 responses to multiple choice questions.

Many of the comments are about a lack of transparency and communication.

There were complaints that we are not open to change, we wish to maintain the status quo, and we refuse to pay attention to suggestions made by students.

A large majority of the comments complained that we do not inform students about decisions concerning them and how they are made. Multiple writers want to have students attend relevant committee meetings and all faculty meetings and complained that we would not allow this.

Many students believe that we operate in a clandestine mode behind closed doors and purposely don't want any input from students, nor do we want to let the students know what is going on.

There were complaints about when they don't know what to do about a particular problem, then they have to ask Derek what to do. They want to be provided a full list of committees, staff and their roles, etc., so that they will know who to contact and they should not have to ask Derek about things that he is not personally responsible for.

Department / Structures written answer analysis

There is a general consensus that the town halls are helpful and should continue. Some students said that the town halls were the first time they had learned about how we make decisions. There were a few suggestions about improving them.

There were complaints that they are not updated when a staff member leaves or a new one is hired, and what each of the staff do.

A couple of students complained about their not understanding how the departmental awards were decided.

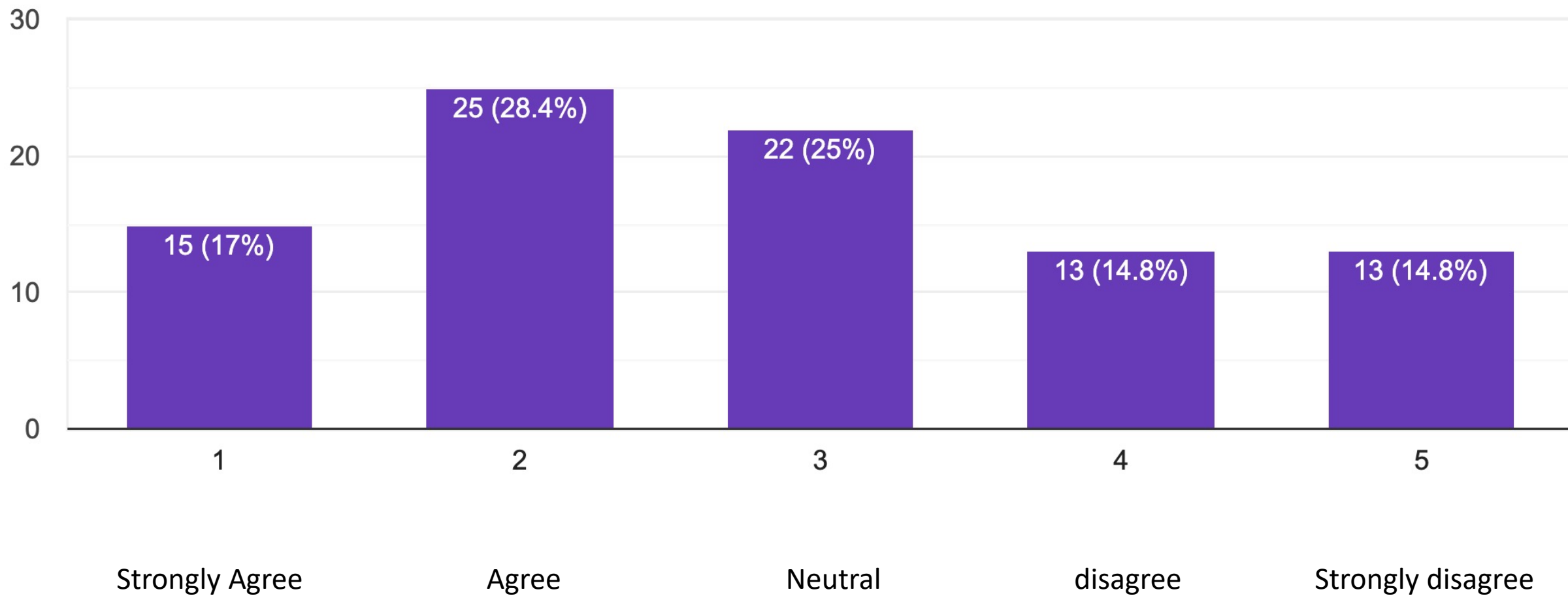
There are several comments about the department being misogynistic and ignoring instances of sexual harassment that have occurred, and not contacting the Title IX office.

There were almost no positive comments, and the few that were positive said that they themselves have been treated well but they know that other students were not treated well.

Belonging

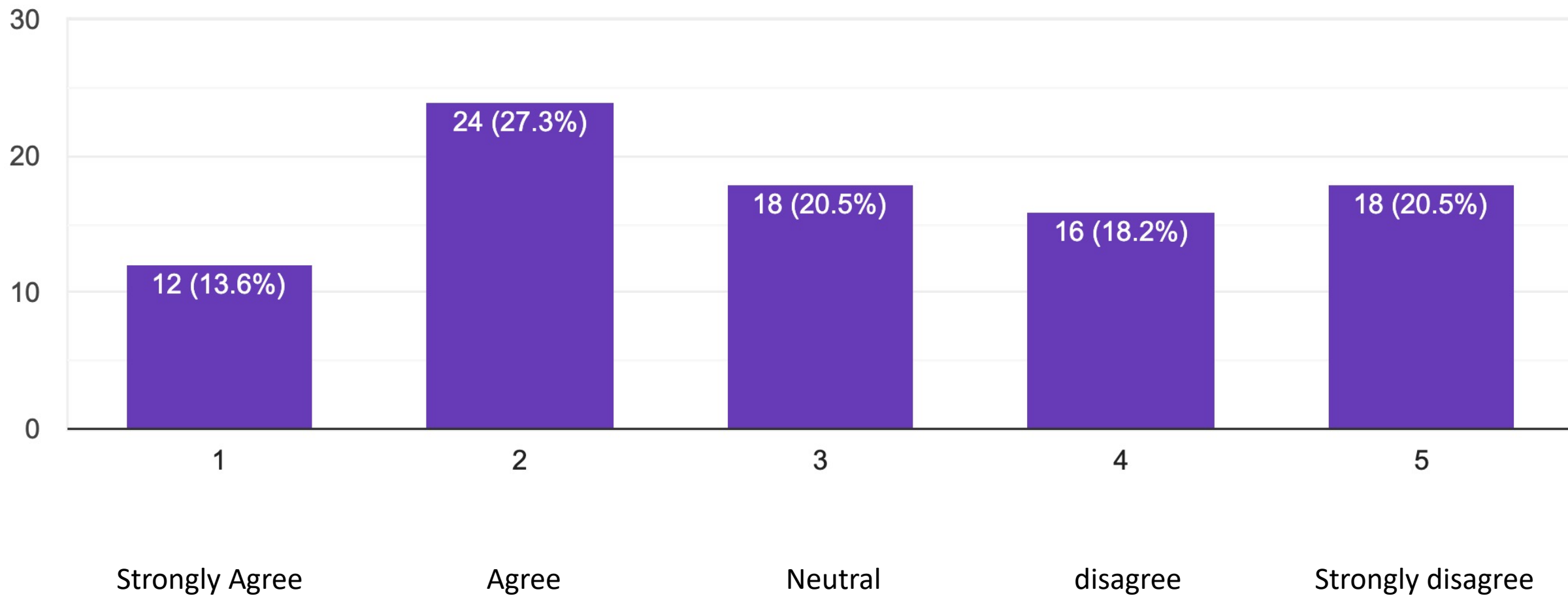
The Department values its graduate students.

88 responses



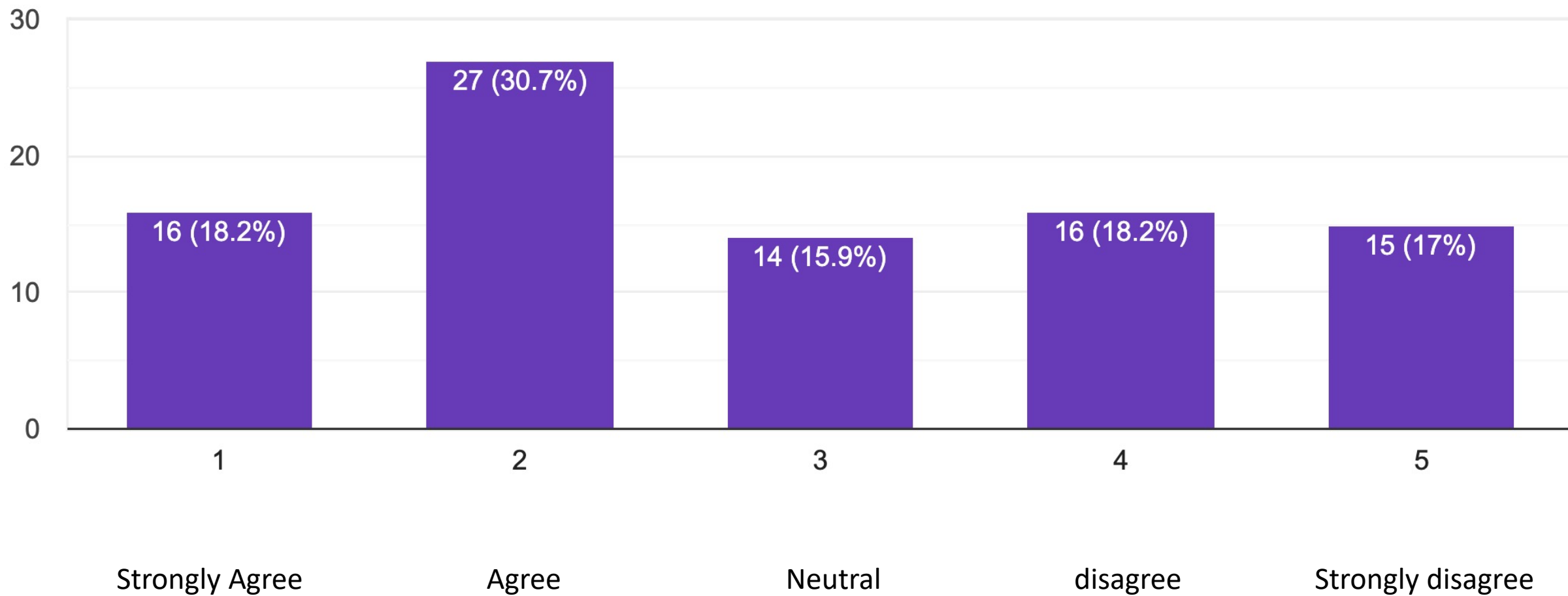
The Department fosters a sense of community for first year students.

88 responses



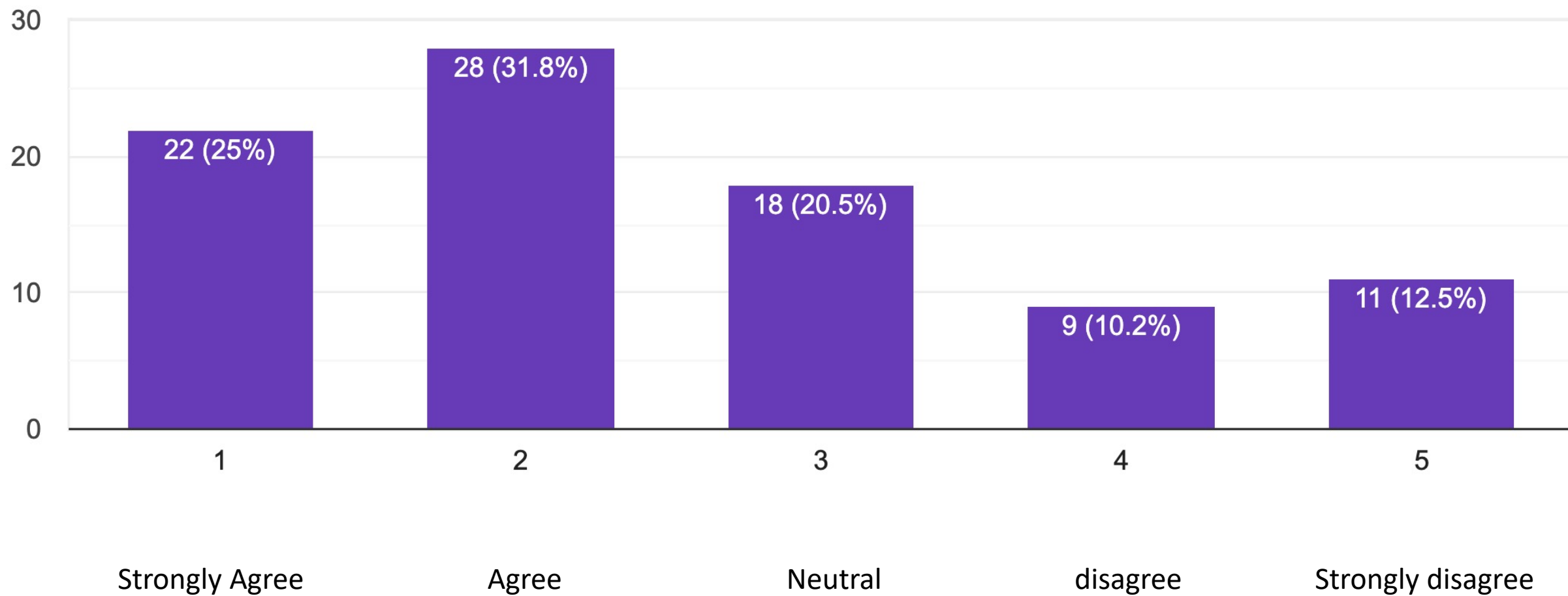
There is a strong sense of graduate student community and peer support in the Department.

88 responses



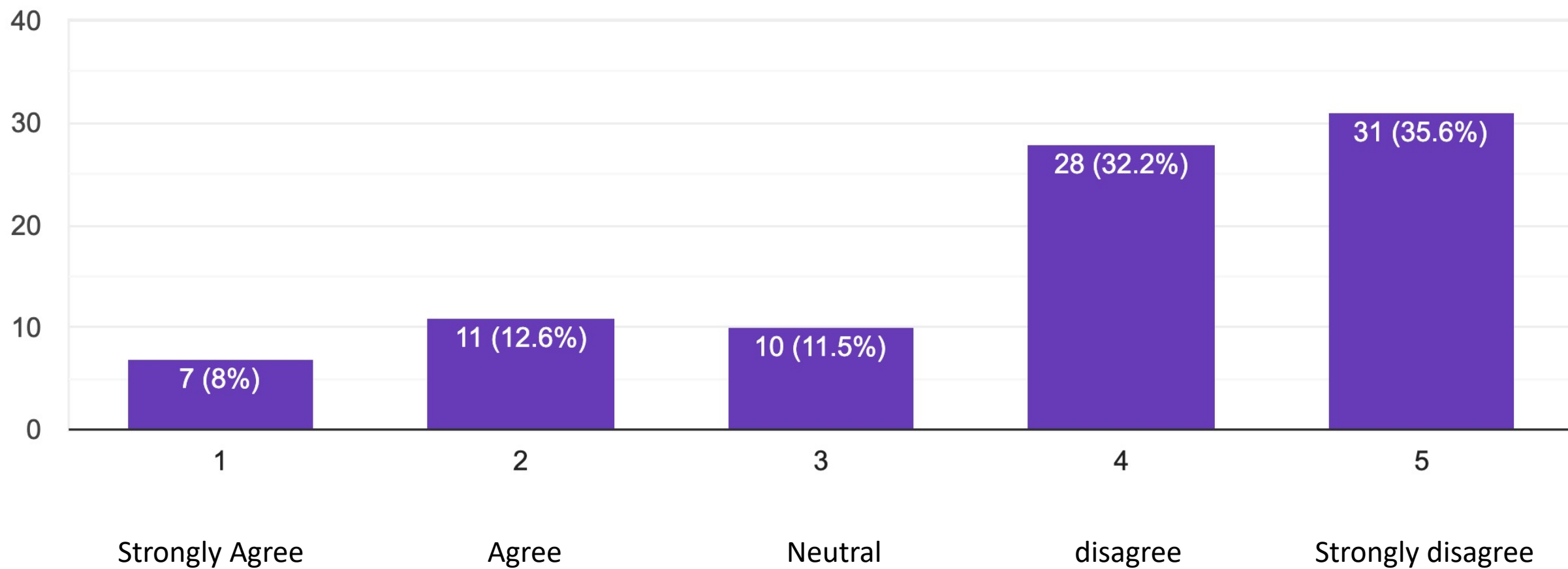
There are other students or postdocs that I can go to for academic or professional help.

88 responses



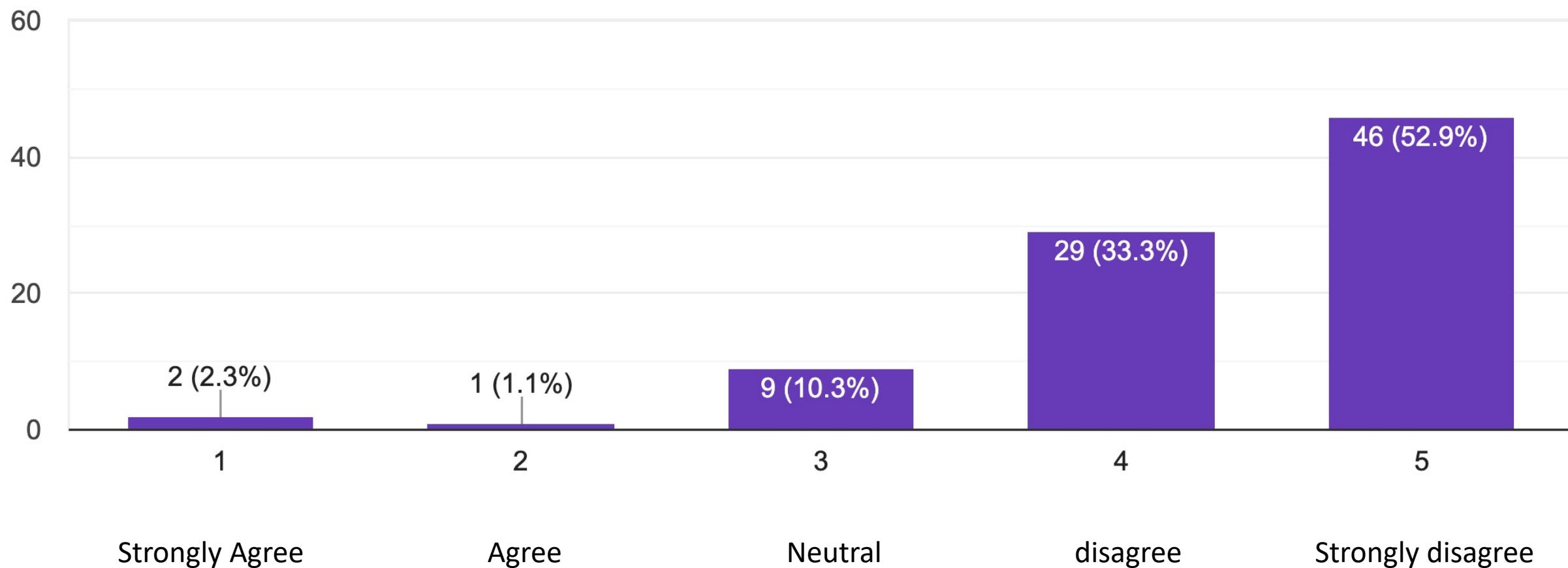
Behavior by faculty has made me feel unwelcome or prevented me from fully participating in the graduate program.

87 responses



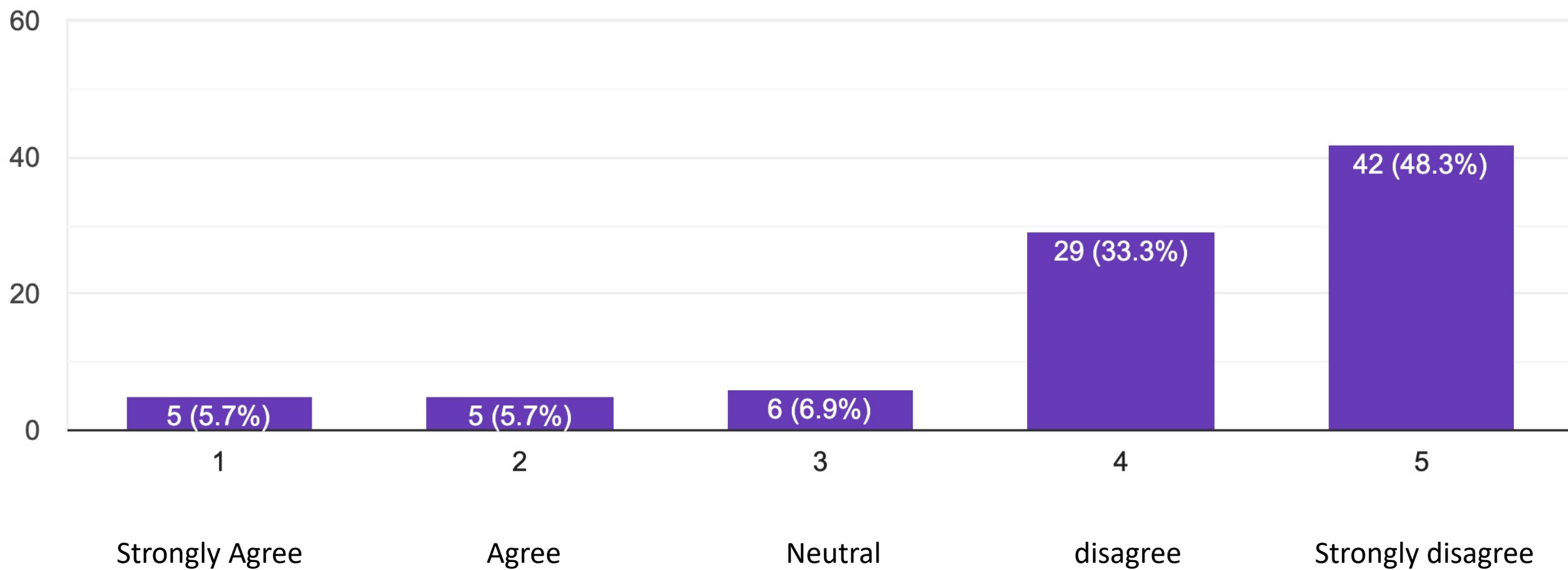
Behavior by staff has made me feel unwelcome or prevented me from fully participating in the graduate program.

87 responses



Behavior by other students has made me feel unwelcome or prevented me from fully participating in the graduate program.

87 responses



Belonging

There were 29 additional comments for the “belonging” section of the climate survey(13 Physics, 11 Astronomy, and 5 do not wish to respond; 22 domestic, 6 international, 1 do not wish to respond).

A common theme in the comments (explicitly mentioned in half of them) is that the department does very little or nothing to foster community and make students feel valued. While the department does a relatively good job welcoming the first years and providing a common space for them, there is no formal structure to foster community after the first year. In addition, there is a perceived division between domestic and international students, and the department is partly at fault for this because of the various ways in which it deals with international vs. domestic students (e.g., the way TA positions are distributed the first year). The Astronomy group is seen as being significantly better at creating community, thanks in part to events such as astro coffee, astro beer, and participation in outreach activities.

In general, there is a perception that students have an excellent community, culture of mutual support, and peer mentoring despite the department’s lack of efforts, although there are a few reports of hostility amongst students, including significant bullying by senior students in a specific research area, mistreatment of students by other students, and one notoriously inappropriate grad TA.

Belonging

Several comments mention that faculty are hostile too. The comments range from most faculty being slightly hostile all the time to a few faculty being very hostile. Somewhat specific examples are given about yelling, gaslighting, supporting microaggressions, and snapping during class.

The responses indicate that the most significant contribution to negative feelings is the lack of accountability. There are several reports of students mistreating other students, and faculty not doing anything about it even when the situation was reported. In a similar way, faculty don't do anything when other faculty behave inappropriately. As one comment mentions, "There seems to be a culture of letting bad behavior slide in this department that's really unfortunate."

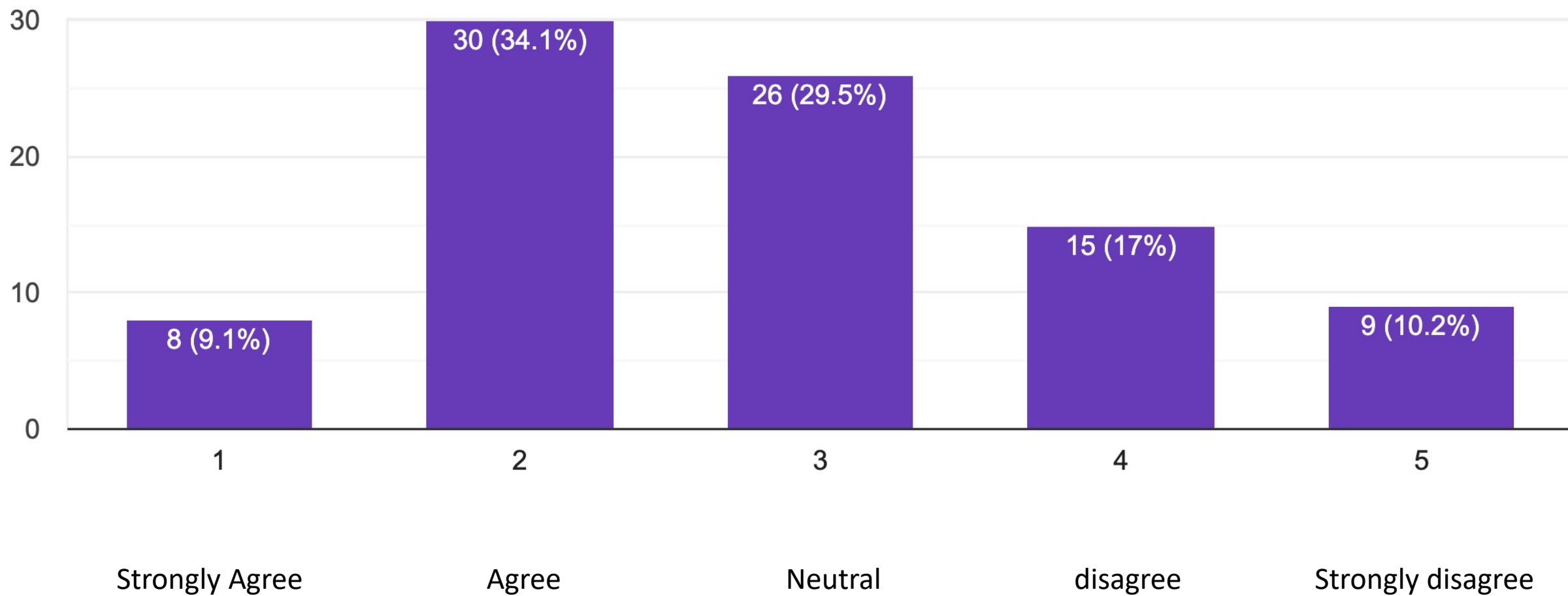
Some of the things that make students feel NOT valued were mentioned: students overhearing faculty speak poorly of them; faculty not replying to emails; poor communication; not getting timely help from staff (like reimbursements).

Finally, there was one comment that presumed that there is a fixed number of positions available for grad students that is smaller than the number of students admitted, therefore making students expendable.

Concluding Questions

The Department is adequately preparing me for my career goals in Physics or Astronomy.

88 responses



Concerns

Total of 49 comments, 13 Astronomy, 6 Did not wish to answer, 30 Physics. A lot of them were summaries of what was already mentioned in other sections.

Community: No sense of community, lack of mentorship, a feeling of being left out and on ones own.

Communication: No means to interact beyond own research group, decisions regarding graduate students not transparent, not much done in way of career development, no help in networking

Comps: A few comments on the need and purpose of the comp, more on the actual exam itself addressed elsewhere.

Resistance to change: A general sentiment that nothing will change, suggestions and opinions will be ignored, some worried that a few belligerent and disrespectful responses will dominate and drown out the rest.

Research Advisor concerns: Two mentioned the need for somebody other than the supervisor being included in mentorship.

Enjoyed Most About the Department

Total of 50 comments, 13 Astronomy, 5 Did not wish to answer, 32 Physics.

A lot of them appreciated their advisor and their group.

Their own research work

Quite a few mentioned the faculty they have interacted with in the department beyond just their advisor have been great

Other graduate students and all the friends they made.

About 10 mentioned sense of community. Many more mentioned friendliness of faculty and staff.