Evaluation of the California Institute of Technology (Caltech)
Global Relay of Observatories Watching Transients Happen (GROWTH)
Partnership for International Research and Education (PIRE)
2020 Summer Undergraduate Research Fellowship (SURF) Survey

Funded by the National Science Foundation

September 2020

Prepared by
Leanne Tortez, PhD and Cindy Villavicencio, MA
www.themarkusa.com
PO Box 16995, Irvine, CA 92623

THE MARK

Response statistics

- 5 out of 6 participants completed the survey for an 83% response rate.
- All open-ended questions were required. Some questions were only shown based on response logic and they were noted in the report.

Please rate how useful the following services were during your GROWTH SURF internship on a scale from not at all useful to extremely useful.

	Not at all useful		Slightly useful		Somewhat useful		Very useful		Extremely useful		N/A		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
Support and assistance provided by the GROWTH/Caltech SURF staff during my internship.	0	%	0	%	0	%	2	40%	2	40%	1	20%	5
Responses to my questions, requests, and needs from my primary mentor.	0	%	0	%	0	%	2	40%	3	60%	0	%	5
Academic support provided by my primary mentor during my GROWTH SURF internship.	0	%	0	%	1	20%	1	20%	2	40%	1	20%	5

Note: Darker shades of blue indicate higher counts of respondents who selected that rating. This note applies to all similar tables in the report.

Is there any other information and/or assistance from your home institution mentor (secondary mentor) that proved to be useful or that would have been useful? Please explain.

Response
I was comfortable enough working with my primary mentors that I did not end up working with my home institution mentor during the summer.
Due to a family emergency, my primary mentor had to work from [country], so communication was difficult given the large time difference. My home mentor was extremely helpful in answering many coding and science questions that I had in regards to the project.
It was useful to know that I could contact him.
My home institution mentor connected me with a team, who went through a lot of the similar problems I went through thus accelerating my progress. My mentor also provided documentation for packages that may be helpful and laid out a guide of what i have to do which was very useful.
Both my primary and secondary mentors were located at [institution], but I worked more closely with my secondary mentor. My secondary mentor was very helpful with helping me handle day-to-day questions about my project.

Is there any other information and/or assistance from your primary mentor that proved to be useful or that would have been useful? Please explain.

Response
The resources he made me aware of were useful.
The regular meetings with my primary mentor were very useful for the project. My mentor has a large amount of knowledge about the project and was able to answer all of my questions and teach me a ton of useful information.
My primary mentor was my home institution mentor.
My primary mentor was willing to expand the project to include modelling, which I was more interested in.
I appreciated that my primary mentor helped me think critically about the big-picture aspects of my project, and about whether a given conclusion made sense. I only wish that I could have gotten to know both mentors a little better to get an idea of what all they do at Caltech.

Please rate your level of agreement with the following statements about SURF on a scale from strongly disagree to strongly agree.

	Strongly disagree		Disagree		Neither disagree/agree		Agree		Strongly agree		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
I felt my internship was an appropriate length of time.	0	%	0	%	0	%	4	80%	1	20%	5
I had the necessary skills to be successful during my internship.	0	%	0	%	2	40%	1	20%	2	40%	5
Despite a remote internship, my primary mentor made me feel part of their research community.	0	%	0	%	0	%	3	60%	2	40%	5
I was motivated and engaged with my assigned project throughout the summer.	0	%	0	%	0	%	2	40%	3	60%	5
I was intellectually challenged by the work/project I was assigned.	0	%	0	%	1	20%	1	20%	3	60%	5
I learned new skills.	0	%	0	%	0	%	3	60%	2	40%	5
The GROWTH SURF experience met my expectations.	0	%	0	%	0	%	2	40%	3	60%	5
I feel like my contributions were valuable.	0	%	1	20%	0	%	3	60%	1	20%	5

What was the most important skill you gained from participating in GROWTH SURF?

Response

I had never done a poster presentation before, so I learned how to make a poster and to describe my work and results in only 3 minutes.

More data analysis with computational methods

Apart from the technicalities of the porject, one important aspect that I learnt was the importance of efficient communication.

The ability to communicate and work with new people.

I think the most important skill that I learned was to have a research-based mindset. As an undergrad, I am used to finding the "right" answer to a problem, so it was challenging at first to approach a situation that didn't have an answer already. I learned to think more critically about the results that I was generating, especially what different plots told me about what was happening with the data. I was quite surprised by the subtleties that a single plot can show and how much information it can give you.

In what ways, if any, did having to participate in SURF remotely impact your overall internship experience?

Response

It made it more difficult to get to know the other interns on a personal level.

It was harder to communicate with the other GROWTH intern that I would have met.

Moving to a remote project completely altered my internship. I was originally accepted for an international internship in [city], [country] on a completely different project. However, despite the obvious disappointment of having to stay in my apartment all summer, I am extremely glad to have been able to participate in this internship. I do not feel that, aside from the locale, moving to a remote internship negatively impacted my experience. I felt very much a part of the research team and learned a great deal working with them.

I believe my mentor and the team I was working with collectively did their best to make the remote experience feel as inclusive and interactive as possible. I did not feel there were any drawbacks.

I was not able to network at my mentors' institution since there is an 8-hour time difference.

Please rate your level of agreement with the following statements about SURF on a scale from strongly disagree to strongly agree.

	Strongly disagree		Disagree		Neither disagree/agree		Agree		Strongly agree		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
My primary mentor provided me with adequate supervision and guidance, including feedback during my internship.	0	%	0	%	0	%	4	80%	1	20%	5
My primary mentor kept me engaged with the project throughout the internship.	0	%	0	%	0	%	3	60%	2	40%	5
The frequency of online meetings with my mentor was sufficient.	0	%	0	%	0	%	3	60%	2	40%	5

Do you plan to continue working with your mentor or other individuals with whom you worked during the GROWTH SURF internship program? Please explain why or why not.

Response
As of now, I do not plan to continue working on this project. I feel that I have achieved the main goal of the project and am at a good stopping point. I would enjoy continuing to work with this team, but I already have another research project lined up at my home institution.
Yes, there is a lot more potential to the project still unexplored. Given the supportive community I have to thrive, I would enjoy continuing.
I am not sure yet, as I do not know what that would look like, but I believe that I will not be working with them again. It might be too difficult to continue working with them since [institution] is not my home institution.
It would be harder to do research with my regular course load.
I will continue for about two weeks past my technical end date to wrap things up (but not working at full-time). After that we will not continue. This project will be complete and I will not have time to continue working on it once my academic year resumes.

Do you have any other comments about the experience of working with your mentor(s) remotely? Please explain.

| Response |
| --- |
| Once again, I don't feel going remote impacted the experience as a whole. |
| I had an amazing time this summer and I learned much more than I anticipated. Working on this project has deepened my interest in research and has provided me with valuable skills. |
| N/A |
| None |
| Both mentors were really wonderful to work with. They were easy to talk to and we had similar expectations throughout the project. |

Please rate the following items regarding your knowledge and abilities before/after your GROWTH SURF internship on a scale from minimal to extensive.

My understanding of the research process in astronomy/astrophysics.
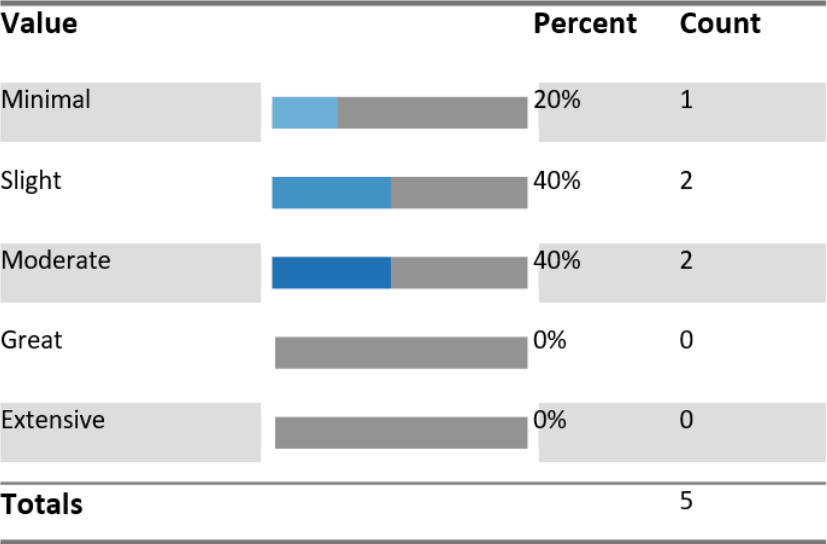
Before GROWTH SURF

Value		Percent	Count
Minimal		20%	1
Slight		40%	2
Moderate		40%	2
Great		0%	0
Extensive		0%	0
Totals			5

After GROWTH SURF

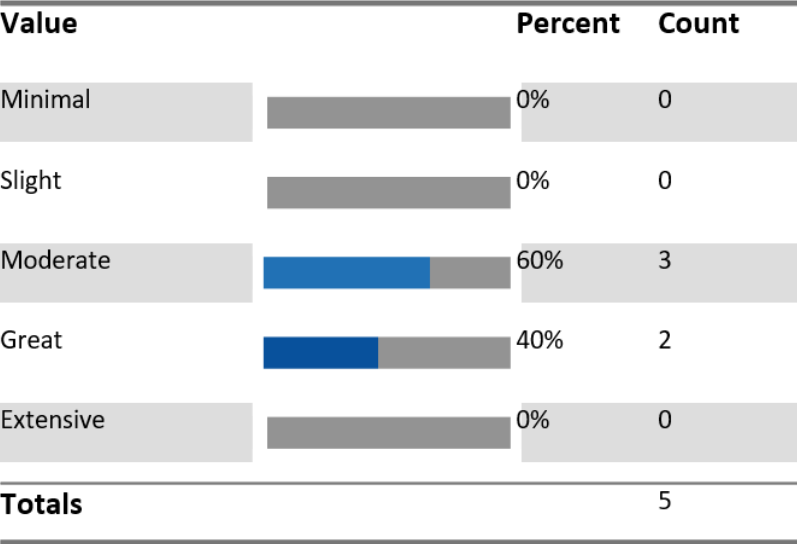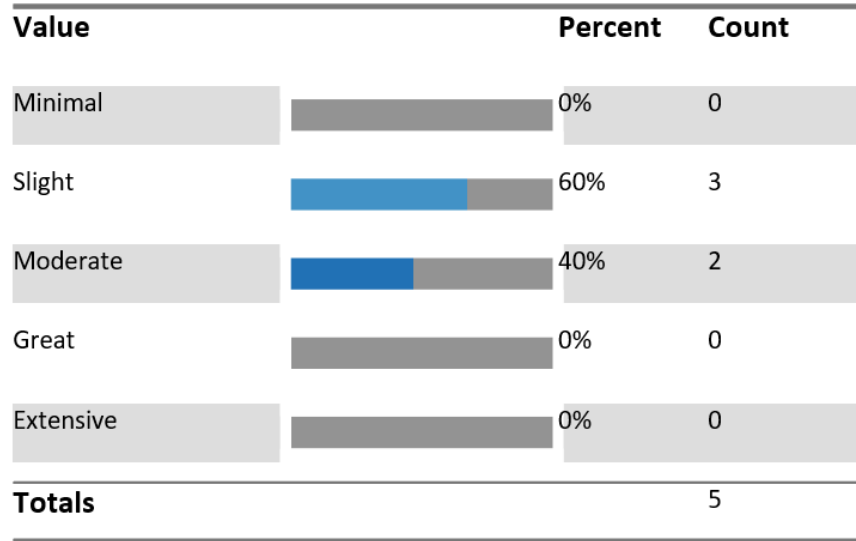| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		60%	3
Great		40%	2
Extensive		0%	0
Totals			5

Please rate the following items regarding your knowledge and abilities before/after your GROWTH SURF internship on a scale from minimal to extensive.

My ability to conduct astronomy/astrophysics research.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		60%	3
Moderate		40%	2
Great		0%	0
Extensive		0%	0
Totals			5

After GROWTH SURF

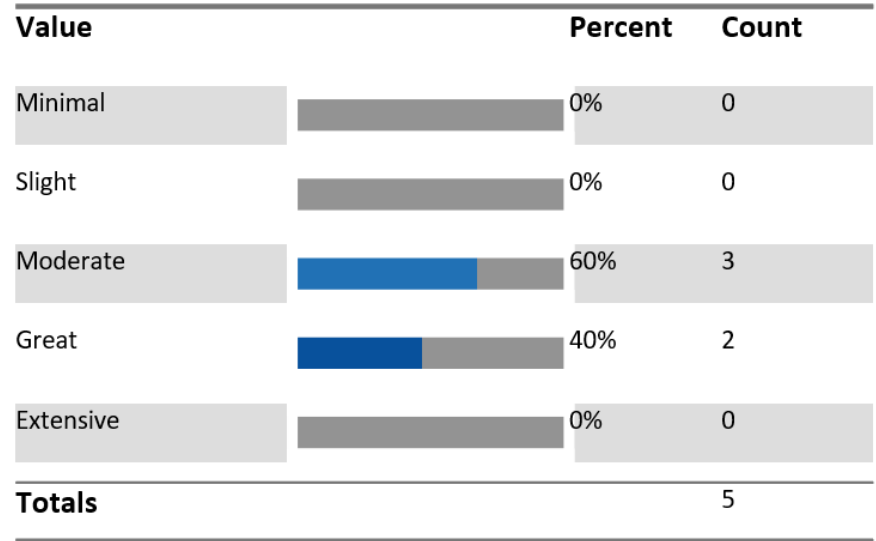| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		60%	3
Great		40%	2
Extensive		0%	0
Totals			5

Please rate the following items regarding your knowledge and abilities before/after your GROWTH SURF internship on a scale from minimal to extensive.

My knowledge of how to present scientific results in written reports.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		40%	2
Moderate		60%	3
Great		0%	0
Extensive		0%	0
Totals			5

After GROWTH SURF

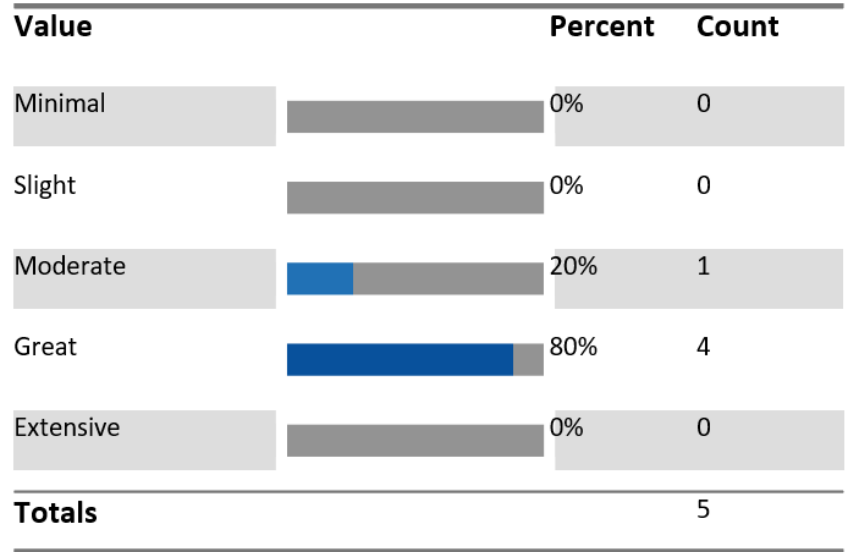| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		40%	2
Great		60%	3
Extensive		0%	0
Totals			5

Please rate the following items regarding your knowledge and abilities before/after your GROWTH SURF internship on a scale from minimal to extensive.

My overall knowledge of astronomy/astrophysics.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		40%	2
Moderate		40%	2
Great		20%	1
Extensive		0%	0
Totals			5

After GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		20%	1
Great		80%	4
Extensive		0%	0
Totals			5
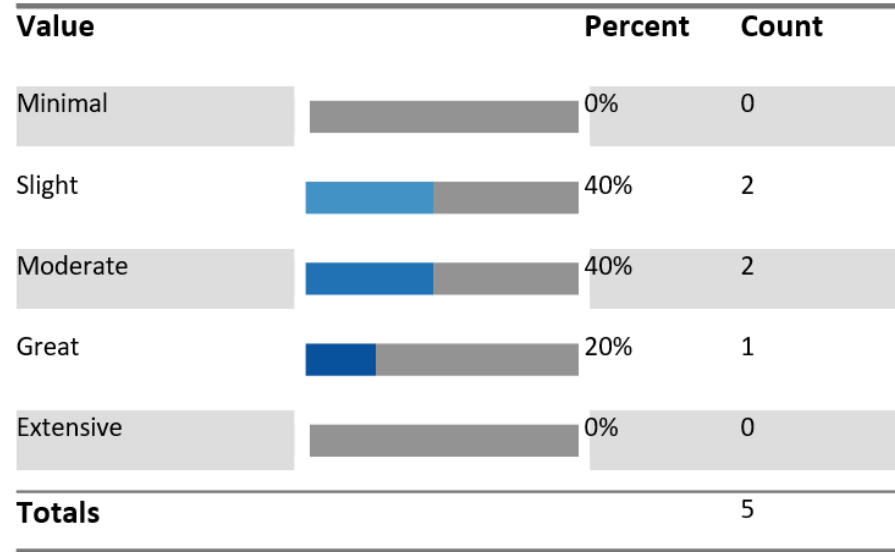
Do you believe that participating in the GROWTH SURF program has improved your skills as a researcher?

Value		Percent	Count
Yes		100%	5
No		0%	0
Totals			5

Please explain:

| Response |
|----------|
| Scientific Communication was one of the more valuable skills I gained through the experience that I couldn't have gained on my own. I also participated in many talks which served as my primary exposure to how research is presented and spread. |
| While I don't feel I've made any massive improvements, I am now more skilled in my use of Python as a research tool, and I have a better understanding of how survey telescopes function. |
| I have participated in research prior to this project, but I found this one to be much more intellectually challenging. I had to conduct my own learning on many of the astronomical processes involved in the project, so I learned a great deal of useful information. In addition, the coding involved in this project was at a much higher level than I am used to, so this stretched my ability to code. I believe that I am a much better coder after this project. I also have a much deeper understanding of what it means to be a researcher and the skills that are required. I am more eager than ever to participate in research and learn more about our universe! |
| My project was primarily writing code. I learned background astrophysics knowledge to inform that code, but it was not the focus, so I see the ability I gained as limited. |
| I read a lot of literature and learned more about the methods used in those papers and how to use those tools for my own research. |

Please rate the following statements about your interest before/after your GROWTH SURF internship on a scale from minimal to extensive.

My interest in conducting astronomy/ astrophysics research.
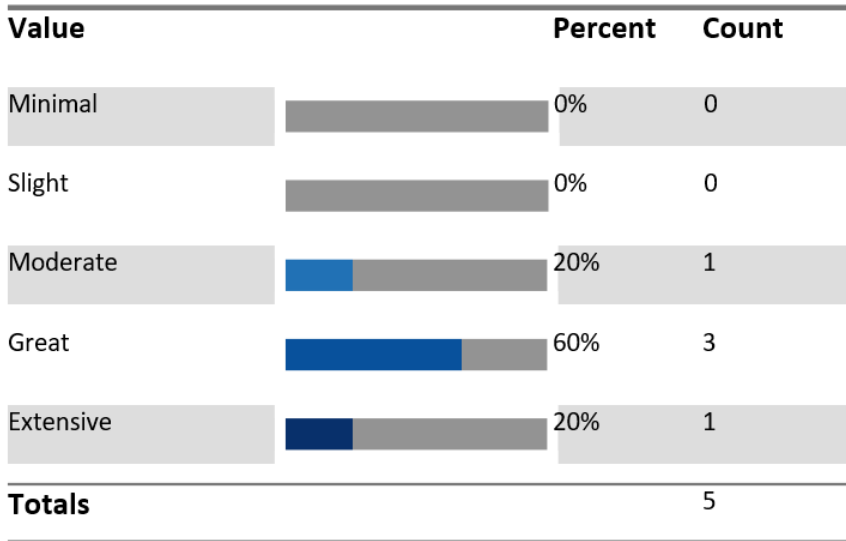
Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		20%	1
Great		60%	3
Extensive		20%	1
Totals			5

After GROWTH SURF

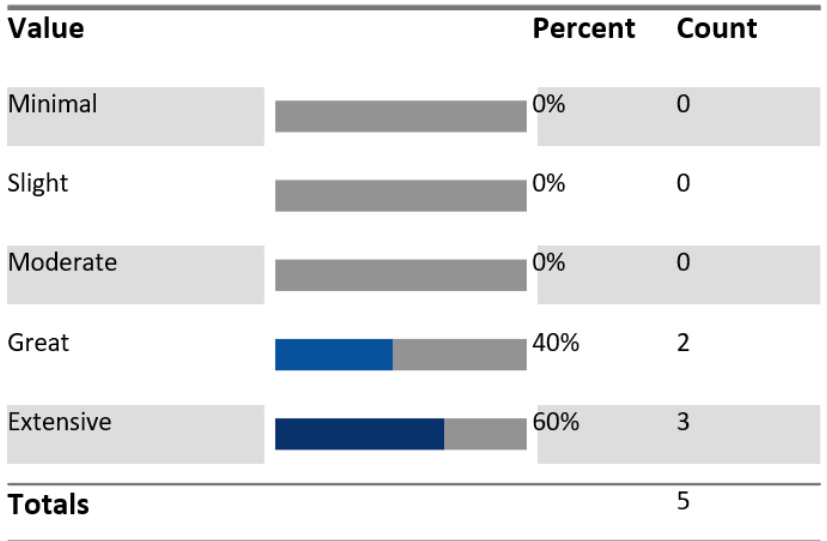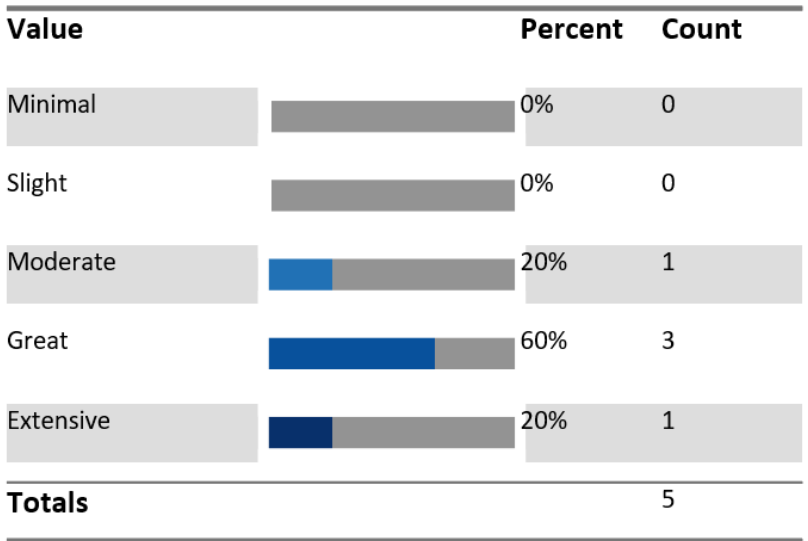| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		0%	0
Great		40%	2
Extensive		60%	3
Totals			5

Please rate the following statements about your interest before/after your GROWTH SURF internship on a scale from minimal to extensive.

My interest in pursuing a graduate degree in astronomy/astrophysics.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		20%	1
Great		60%	3
Extensive		20%	1
Totals			5

After GROWTH SURF

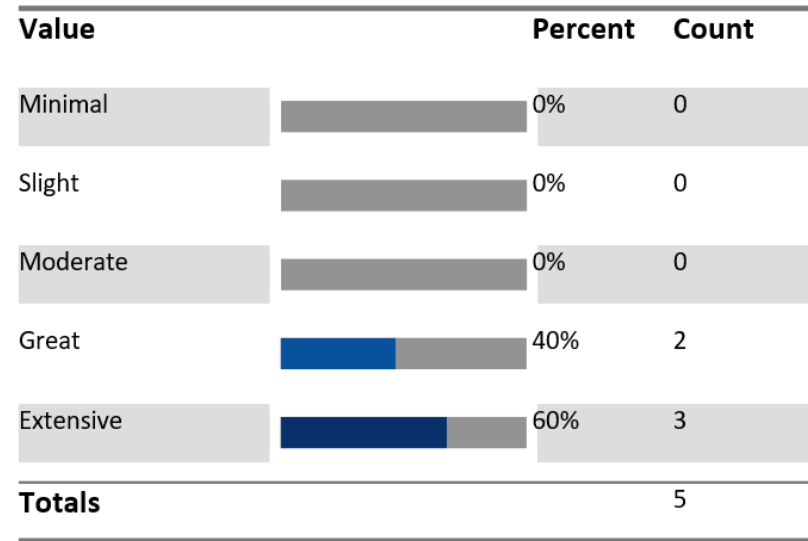| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		0%	0
Great		40%	2
Extensive		60%	3
Totals			5

Please rate the following statements about your interest before/after your GROWTH SURF internship on a scale from minimal to extensive.

My interest in pursuing a career in astronomy/ astrophysics.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		0%	0
Great		60%	3
Extensive		40%	2
Totals			5

After GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		0%	0
Great		40%	2
Extensive		60%	3
Totals			5

Please describe how participating in the GROWTH SURF program has helped to prepare you for graduate school and/or a career in astronomy/astrophysics.

Response
By working with a graduate student, I was able to get a better view of what graduate school is actually like. It seems to be a mystery for most undergrads so I am glad to have worked with a grad student! I also developed skills in research that are directly applicable to graduate school and research beyond my formal education.
This program has solidified my interest in asteroid research, particularly in near-Earth asteroids.
It connected me with a community much like the one I would have in graduate school or at my potential workplace. And I don't feel it just limited to the data sciences.
This was only my second ever research project, so now I feel like I have a better idea of the expectations and process for research. Working on research full-time, with only a few meetings with my mentor's per week, also prepared me for graduate school better.
It has given me more exposure to research and tools that I will continue to use through graduate school and my future career.

If you are interested in participating further in astronomy/astrophysics research projects, please explain why. If not, please explain why not.

Response
Once again, I am interested in pursuing and potential avenues I have the oppurtunity for. Astronomy fascinates me, and I want to keep doing things that have that effect.
I am interested in doing more astronomy research projects. I really enjoy the process and collaboration and I am always astounded that this could be a career. I would like to make that happen.
I am very interested in pursuing further research projects. I have always loved astronomy, and have grown to love research as well! I think the most important take away I have from this project is that I am capable of conducting real research. As an undergrad, it can be difficult to believe that you could be in the place of the grad students, postdocs, and professors you work under as they are often seemingly unobtianably smart. But, after conducting this internship, I am much more confident in my own abilities as a researcher and am looking forward to continuing my life-long educational journey!
It is a fascinating field and continuing research means that I can continue learning.
I would love to participate in more astronomy research because I would like to contribute to the advancement our understanding of solar system formation and dynamics, as well as insuring human safety from impact events.

Please rate the following statements about your understanding and ability before/after your GROWTH SURF internship on a scale for minimal to extensive.

My understanding of how different cultural backgrounds influence individuals' research perspectives.

Before GROWTH SURF

Value		Percent	Count
Minimal		20%	1
Slight		60%	3
Moderate		0%	0
Great		20%	1
Extensive		0%	0
Totals			5

After GROWTH SURF

Value		Percent	Count
Minimal		20%	1
Slight		40%	2
Moderate		20%	1
Great		20%	1
Extensive		0%	0
Totals			5

Please rate the following statements about your understanding and ability before/after your GROWTH SURF internship on a scale for minimal to extensive.

My understanding of how different cultural backgrounds influence communication.

Before GROWTH SURF
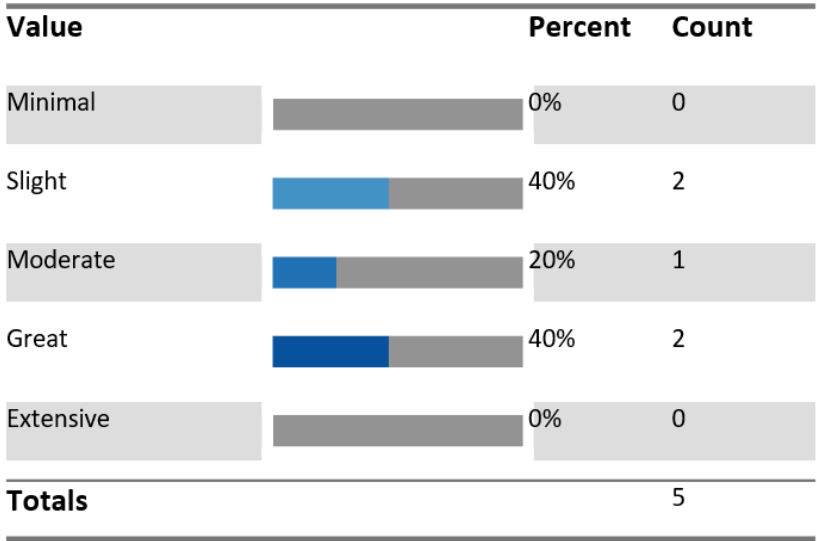
Value		Percent	Count
Minimal		0%	0
Slight		40%	2
Moderate		20%	1
Great		40%	2
Extensive		0%	0
Totals			5

After GROWTH SURF

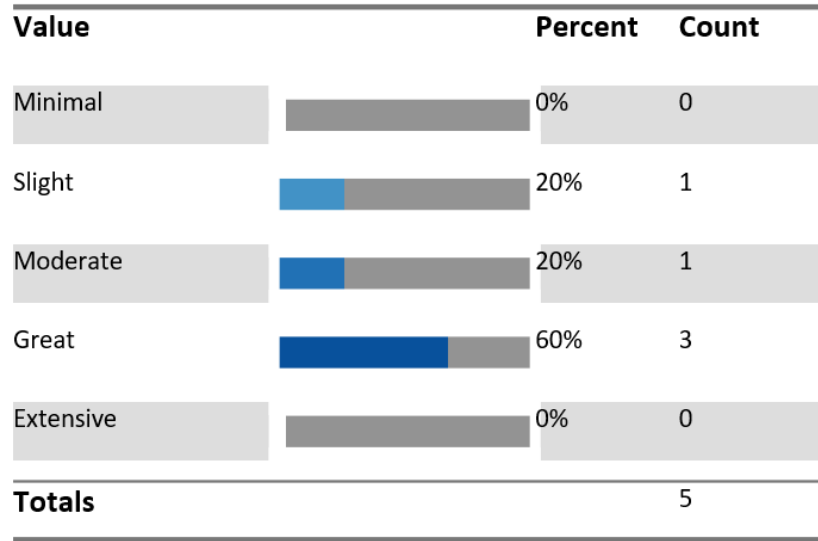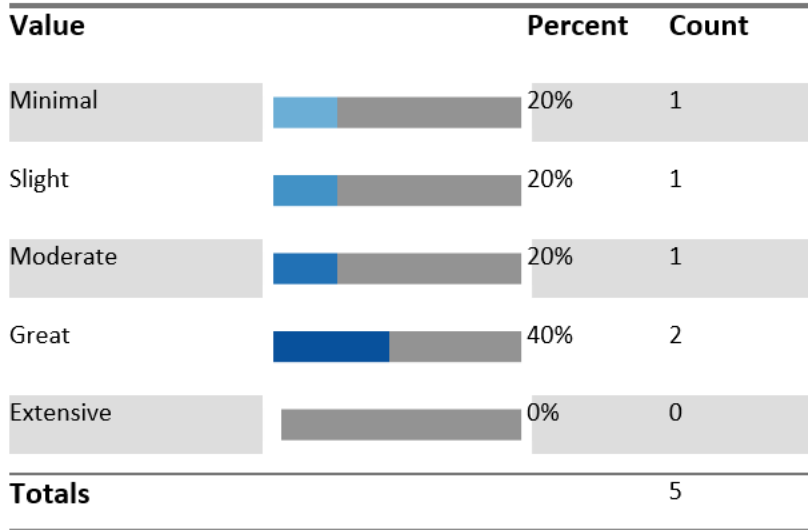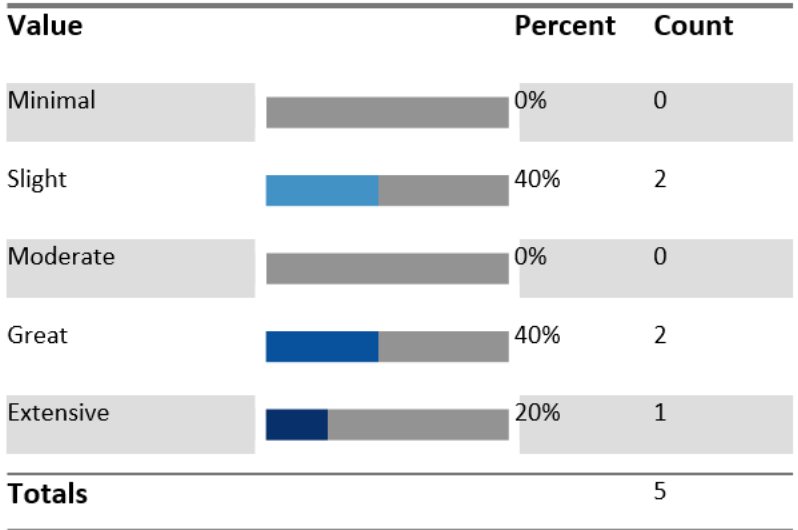| Value		Percent	Count
Minimal		0%	0
Slight		20%	1
Moderate		20%	1
Great		60%	3
Extensive		0%	0
Totals			5

Please rate the following statements about your understanding and ability before/after your GROWTH SURF internship on a scale for minimal to extensive.

My ability to modify my communication style to fit a culturally diverse audience.

Before GROWTH SURF

Value		Percent	Count
Minimal		20%	1
Slight		20%	1
Moderate		20%	1
Great		40%	2
Extensive		0%	0
Totals			5

After GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		40%	2
Moderate		0%	0
Great		40%	2
Extensive		20%	1
Totals			5

Please rate your level of agreement or disagreement with the following statement on a scale from strongly disagree to strongly agree:

	Strongly disagree		Disagree		Neither disagree/ agree		Agree		Strongly agree		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
My GROWTH SURF internship helped me develop skills to work with diverse and global scientific teams.	0	%	0	%	2	40%	1	20%	2	40%	5

Please rate the following collaboration statements before your GROWTH SURF internship on a scale from minimal to extensive.

My understanding of how to collaborate on a project with researchers from other countries.

Before GROWTH SURF

Value		Percent	Count
Minimal		40%	2
Slight		0%	0
Moderate		60%	3
Great		0%	0
Extensive		0%	0
Totals			5

After GROWTH SURF

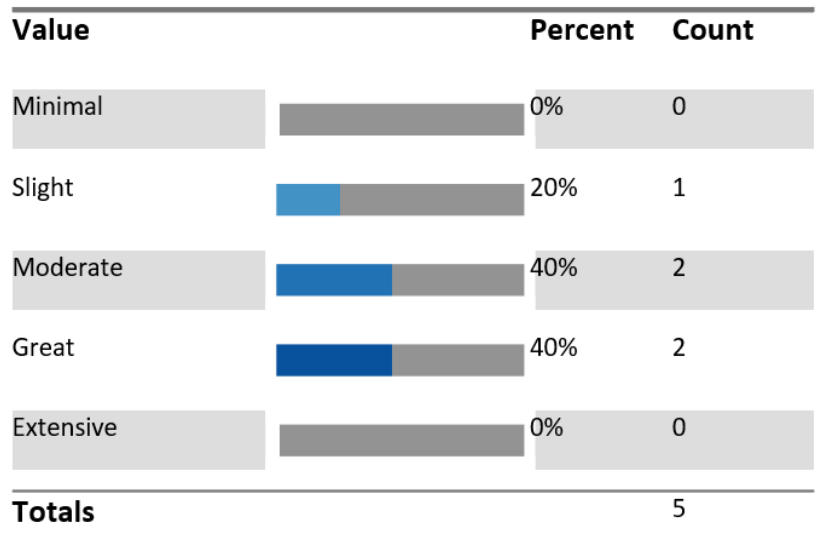| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		60%	3
Great		40%	2
Extensive		0%	0
Totals			5

Please rate the following collaboration statements before your GROWTH SURF internship on a scale from minimal to extensive.

My understanding of how to form or be a part of international scientific collaborations.

Before GROWTH SURF
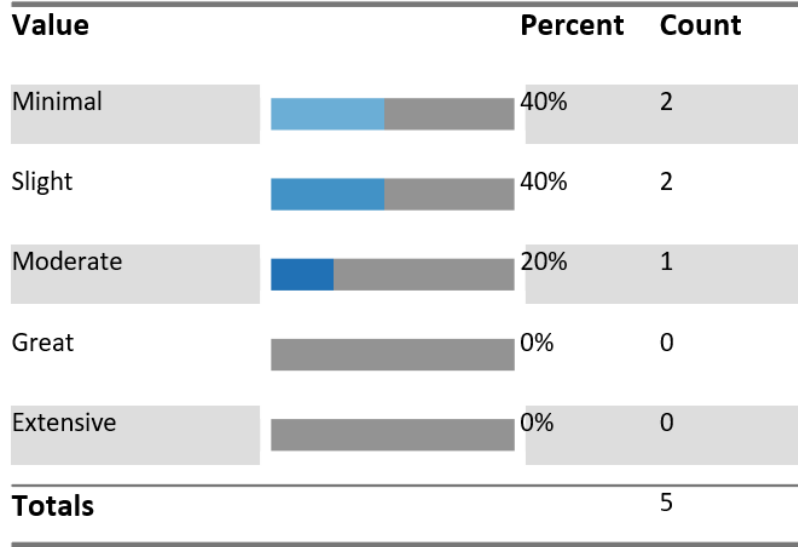
Value		Percent	Count
Minimal		40%	2
Slight		40%	2
Moderate		20%	1
Great		0%	0
Extensive		0%	0
Totals			5

After GROWTH SURF

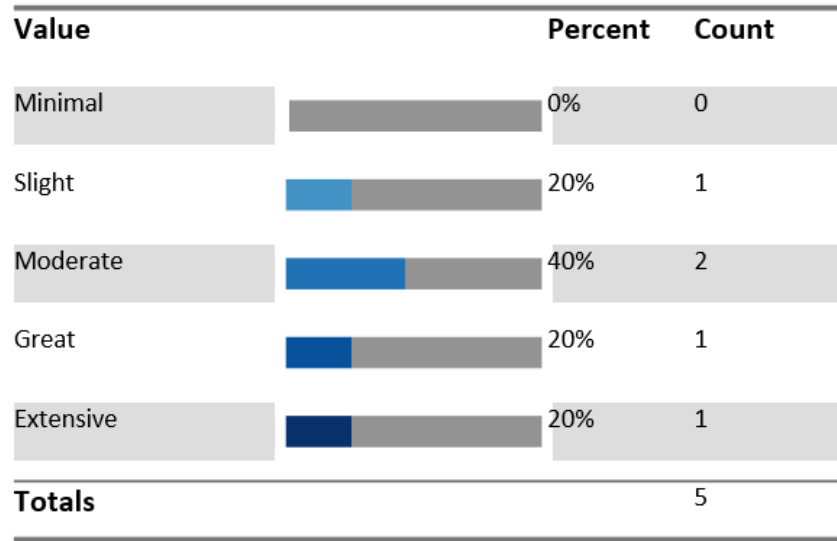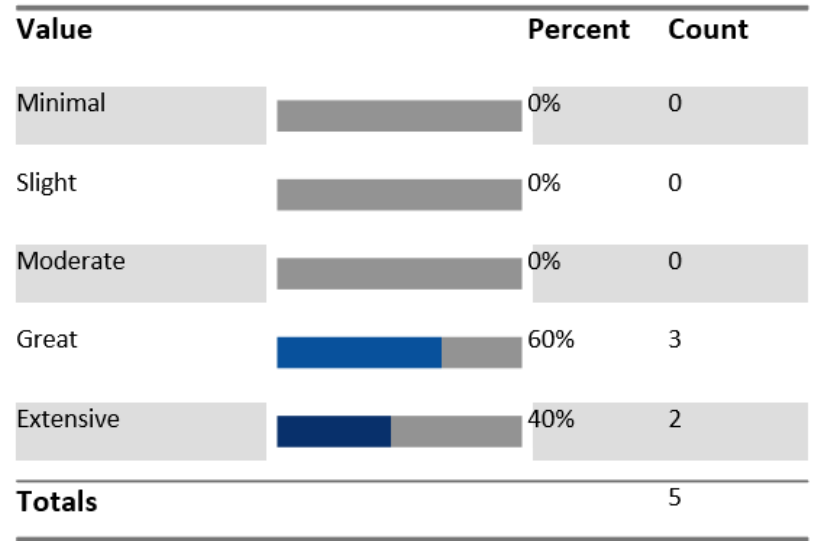| Value		Percent	Count
Minimal		0%	0
Slight		20%	1
Moderate		40%	2
Great		40%	2
Extensive		0%	0
Totals			5

Please rate the following collaboration statements before your GROWTH SURF internship on a scale from minimal to extensive.

My understanding of how collaborating with researchers from another discipline and/or country is beneficial for me.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		20%	1
Moderate		40%	2
Great		20%	1
Extensive		20%	1
Totals			5

After GROWTH SURF

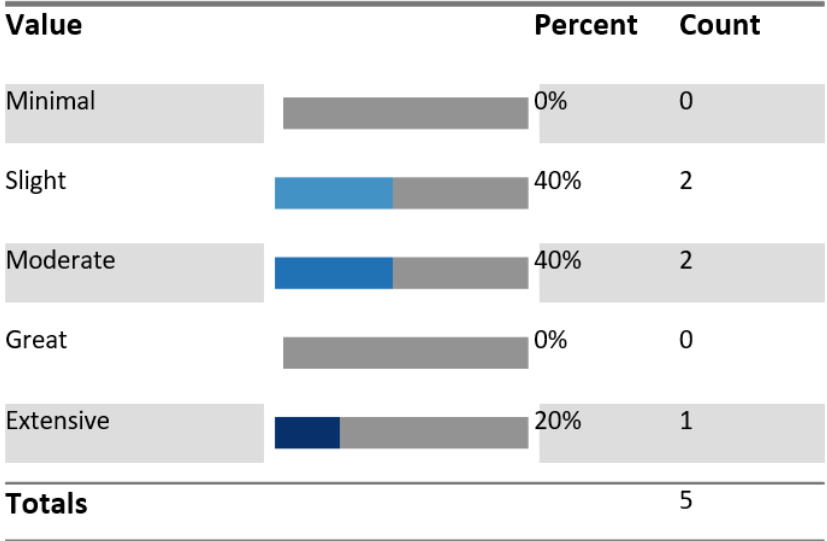| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		0%	0
Great		60%	3
Extensive		40%	2
Totals			5

Please rate the following collaboration statements before your GROWTH SURF internship on a scale from minimal to extensive.

My motivation to collaborate on scientific projects with researchers from other countries.

Before GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		40%	2
Moderate		40%	2
Great		0%	0
Extensive		20%	1
Totals			5

After GROWTH SURF

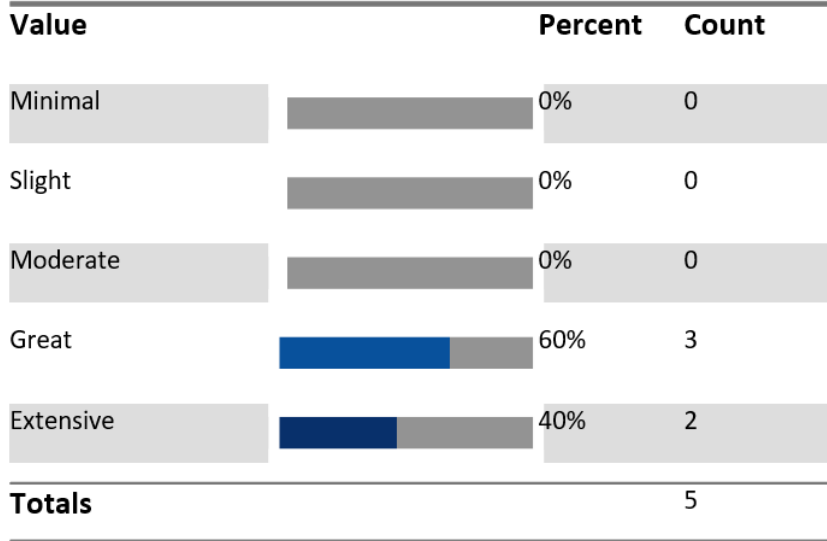| Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		0%	0
Great		60%	3
Extensive		40%	2
Totals			5

Please rate the following collaboration statements before your GROWTH SURF internship on a scale from minimal to extensive.

My ability to collaborate remotely.

Before GROWTH SURF

Value		Percent	Count
Minimal		20%	1
Slight		80%	4
Moderate		0%	0
Great		0%	0
Extensive		0%	0
Totals			5

After GROWTH SURF

Value		Percent	Count
Minimal		0%	0
Slight		0%	0
Moderate		20%	1
Great		60%	3
Extensive		20%	1
Totals			5

Did participating in GROWTH SURF enhance your knowledge about the GROWTH project?

Value		Percent	Count
Yes		80%	4
No		20%	1
Totals			5
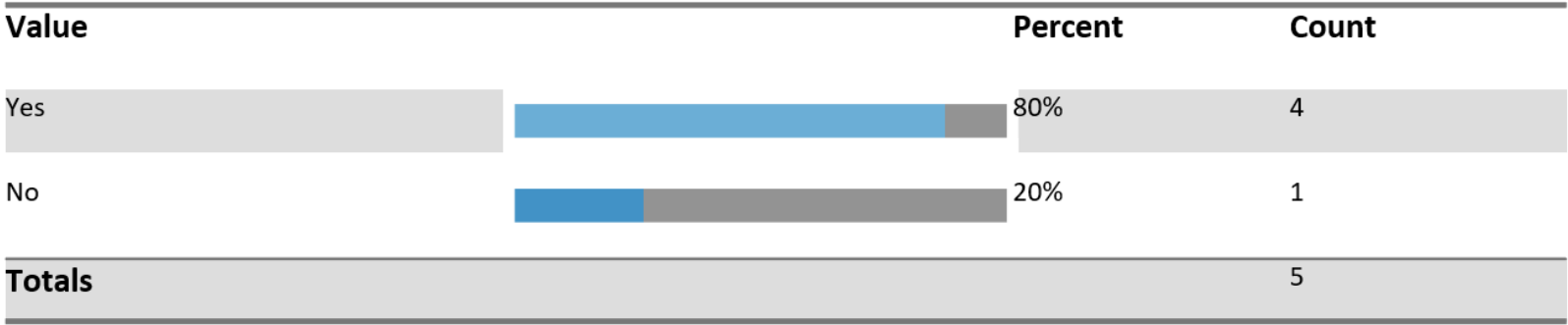
Did you learn how your research connects to GROWTH?
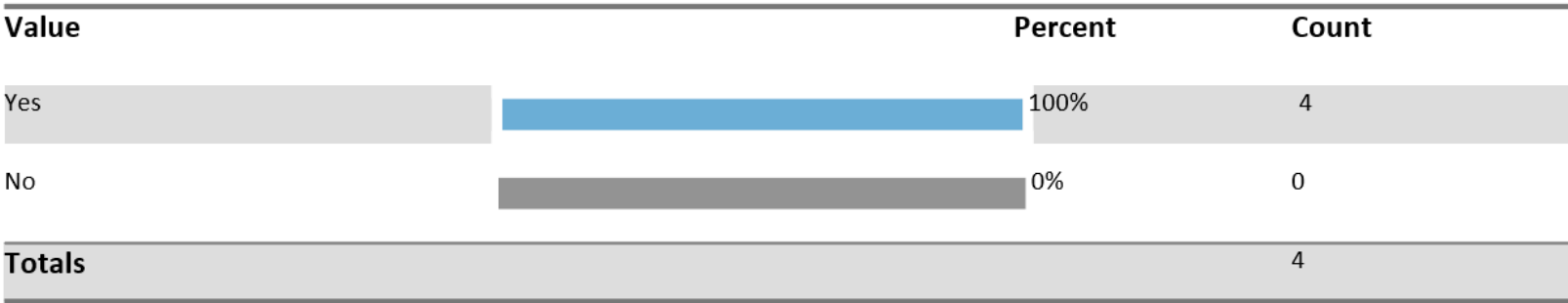
Value		Percent	Count
Yes		100%	4
No		0%	0
Totals			4

Note: Respondents were shown this question if they answered Yes to Did participating in GROWTH SURF enhance your knowledge about the GROWTH project?

Do you want to continue to participate in research activities within the GROWTH collaboration?

Value		Percent	Count
Yes		100%	4
No		0%	0
Totals			4

Note: Respondents were shown this question if they answered Yes to Did participating in GROWTH SURF enhance your knowledge about the GROWTH project?

We try to provide students with tools to remain connected to the GROWTH research community in the future. In addition to direct communication with your mentor(s), we have a Facebook group for students, our newsletter, and mailing lists. Do you think these resources are useful?

Value		Percent	Count
Yes		100%	5
No		0%	0
Totals			5

Do you plan to utilize one or more of these resources to stay connected to the GROWTH research community beyond your SURF experience? Please explain why or why not.

Response

Yes, the progress of the research is definitely something I would enjoy continuing to learn about.

Yes, I will keep an eye on the newsletter and mailing lists for future opportunities to do more international collaboration.

I would since I required a lot of help in adjusting to the process since I was an international with no place to stay in the [country]. I want to stay connected to help guide others who fall within the same demographic.

I plan to stay in touch with my mentors and to read newsletters and mailing lists. I also am looking forward to visitng [institution] and meeting my mentors in person.

I did not know about the newsletter or mailing list, but I believe that joining the mailing list could be useful for receiving updates.

In addition to your final reports, do you plan to present your GROWTH SURF research results in the form of oral or poster presentation within the next academic year?

Value		Percent	Count
Yes		80%	4
No		20%	1
Totals			5

Where do you plan to present? (Please list the event and type of presentation)

Response
I will virtually present to the LJMU Astrophysics Research Institute and also to my home institution's astronomy department at the end of September.
I plan to present at the October symposium. I will do a poster.
Caltech symposium, virtual poster presentation
I would like to present, but I would not be able to in the near future.

Note: Respondents were shown this question if they answered Yes to In addition to your final reports, do you plan to present your GROWTH SURF research results in the form of oral or poster presentation within the next academic year?

Please explain why.

Response
I was not sure whether this was expected of me or even possible for me, but it is something I will discuss with my mentors.

Note: Respondents were shown this question if they answered No to In addition to your final reports, do you plan to present your GROWTH SURF research results in the form of oral or poster presentation within the next academic year?

How do you think your GROWTH SURF internship could have been improved?

Response
I think, obviously, that it would have been improved if it were in person. I would have also liked it to be longer. I think 8-10 weeks is a very short period to do research.
Being able to work closer to others would have decreased the sense of isolation.
I really wish there had been more opportunity to meet and connect with researchers and students at my mentor's institution.
It might have been nice to have some kind of Zoom program on Saturdays to get to know the other SURF interns a bit better.
I believe research papers should not be the only source of information. I am not saying they aren't valuable. It is a good skill to have. For a beginner like me, it was hard to navigate at first. I needed a lot of help from my mentor and team to understand parts of papers. It would be beneficial if there were more background resources, perhaps those that a little more interactive.

Overall, how would you rate your remote internship experience?

Value		Percent	Count
Very good		60%	3
Good		40%	2
Acceptable		0%	0
Poor		0%	0
Very poor		0%	0
Totals			5

Please explain your above rating.

Response
The things I learned are applicable to my future research.
Considering all of the challenges associated with doing an internship fully remotely, I felt that it went surprisingly smoothly.
As mentioned before, I did not feel my experience was limited in any way due to it being remote.
My mentors were awesome. My project was good, though I wasn't the most interested in the product I was creating. Overall, I think I learned quite a bit and slightly improved my coding abilities.
The only complaint I have about the remote internship was the difficulty in contacting my primary mentor due to the time difference. However, I had options to talk to either my home mentor or other members of the research team.

What additional support would have been helpful for remaining engaged during your remote SURF internship?

Response
N/A
I think the amount of support I had was adequate.
It may have been good to more events for meeting and interacting with the other interns.
Access to a library would have been helpful.
N/A

During your time in GROWTH SURF, did you feel comfortable contacting your mentor or the GROWTH/Caltech SURF coordinator when you needed help or support with personal issues? Please explain why or why not.

Response
Yes, my mentor was always available and easy to communicate with.
Somewhat. I contacted my mentor if I needed to reschedule meetings for personal issues, but nothing beyond that.
Yes, my mentor was very receptive to requests for support.
No, I kept my conversation with my mentor and team strictly professional. If something came up that affected my ability to perform only then did I discuss it.
Yes, I always felt comfortable reaching out to my mentors or to other SURF staff since it was encouraged to ask questions.

During your GROWTH SURF internship, did you feel supported socially even though your internship was remote? Please explain why or why not.

Response
Yes, people were still available to contact from a distance.
I felt that the Wednesday seminars had the most like a social event, but I didn't feel that the experience of the internship was quite as social as it would have been in person.
I had my mentor and my team, I got to know them better throughout the Summer, thus I think I felt socially supported. Also, I physically made friends around me which helped.
No. The social support was all through the [institution] Student-Faculty Programs activities, but I did not find it appealing or possible to connect with other students virtually.
Yes, I was surprised that I felt as welcome as I did within the research team. Initially, it was intimidating and I felt underqualified, but everyone was very helpful and welcoming.

If you felt stressed or anxious about your internship experience, what helped you reduce these feelings? What support would have helped reduce feelings of stress or anxiety?

Response
Talking to others helped.
I did feel stress at points. Reasoning with my mind helped peace it out.
It would have been nice if I could have had more clear instructions from my mentors about what to work on during the first week of my internship, as I felt a bit lost.
I did not feel much anxiety during my internship. When I did, it was right before meetings or in the last few weeks when I was worried about finishing on time. In both cases I was reassured by my interactions with my mentors that it would be fine, and it was.
I felt underqualified initially, but the support from the research team and the work I did over the course of the project helped alleviate my concerns.

Please rate the frequency with which each of the following statements occurred for you while participating in GROWTH SURF.
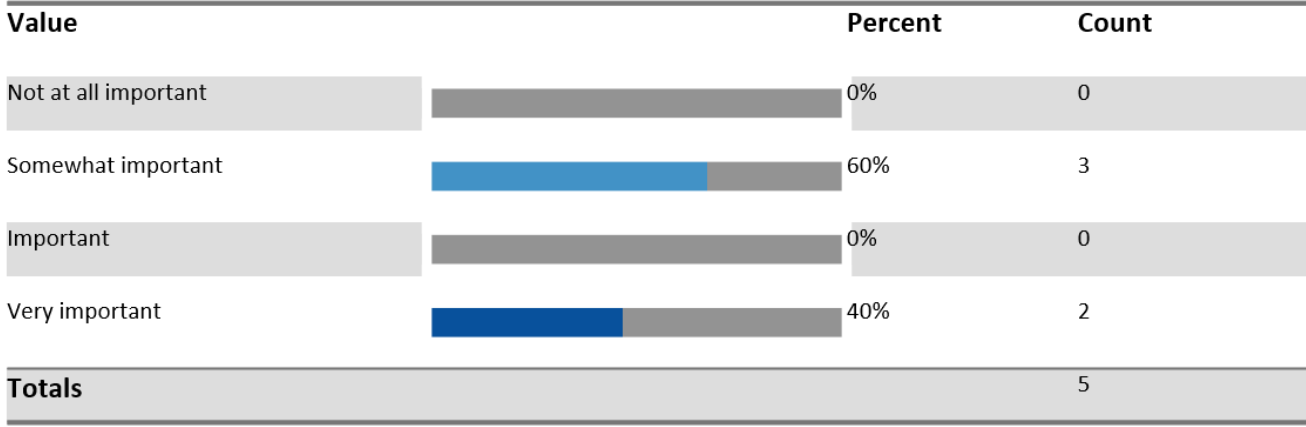During my remote GROWTH SURF internship, I…

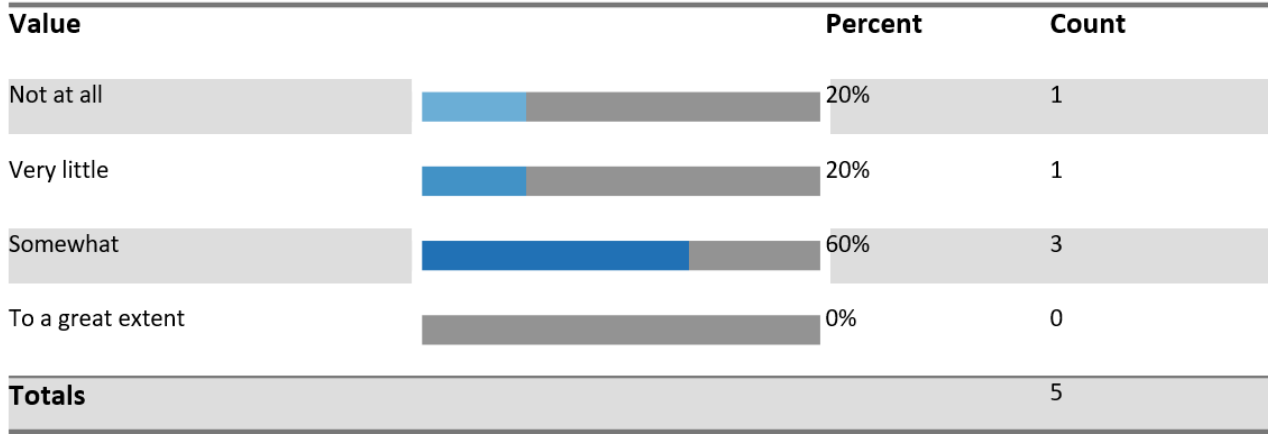|	Never		Rarely		Sometimes		Often		Always		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
Received opportunities for interactive learning provided by my mentor.	0	%	0	%	2	40%	1	20%	2	40%	5
Felt isolated from other students.	0	%	2	40%	1	20%	1	20%	1	20%	5
Missed the direct, in-person interactions with my mentor and other students.	0	%	1	20%	0	%	2	40%	2	40%	5
Struggled to communicate with my mentor online.	1	20%	1	20%	3	60%	0	%	0	%	5
Struggled to express my ideas or ask my mentor questions.	2	40%	2	40%	1	20%	0	%	0	%	5

Please rate the extent to which you agree with each of the following statements about your GROWTH SURF internship experience.

	Strongly disagree		Disagree		Neither disagree/ agree		Agree		Strongly agree		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
The online set-up used for communicating with my mentor was effective.	0	%	0	%	0	%	5	100%	0	%	5
I would have preferred a different online set-up for communicating with my mentor.	3	60%	2	40%	0	%	0	%	0	%	5

How important was the travel component of the internship for you when you joined the program?

Value		Percent	Count
Not at all important		0%	0
Somewhat important		60%	3
Important		0%	0
Very important		40%	2
Totals			5

To what extent did not being able to travel to your host institution negatively impact your overall research experience?

Value		Percent	Count
Not at all		20%	1
Very little		20%	1
Somewhat		60%	3
To a great extent		0%	0
Totals			5

Please describe what you liked most about your remote internship.

Response
I learned a lot of useful things that will continue to be helpful.
I liked the people that I was working with the most. They were all eager to help me learn and to be successful in the project. I also loved the oppertunity to work on a project that was doing groundbreaking science.
I liked the community I became a part of and the learning experience it brought.
I liked getting to learn more about how ZTF works and getting to contribute to the improvement of its ZStreak pipeline.
I really enjoyed working with my two remote mentors.

Please describe what you liked least about your remote internship.

| Response |
| --- |
| The actual project was not that interesting to me, though I was very interested in the background information I had to learn. |
| I disliked how little I interacted with the other interns, as I would have liked to make some new friends. |
| Sometimes the technical aspects of the research got tedious, but I felt no drawbacks from it being remote. |
| The inability to connect with other student researchers. |
| I did not like working alone in my appartment and thinking that I could be in [country] right now! But I still am happy to have participated in the project. It exceeded my expectations for a remote project by far. |

How many internships or summer research programs have you participated in, including this one you just completed? Count all internships/programs inside and outside of GROWTH.

Value		Percent	Count
1		40%	2
2		60%	3
3		0%	0
4		0%	0
5+		0%	0
Totals			5

With which gender do you most closely identify as?
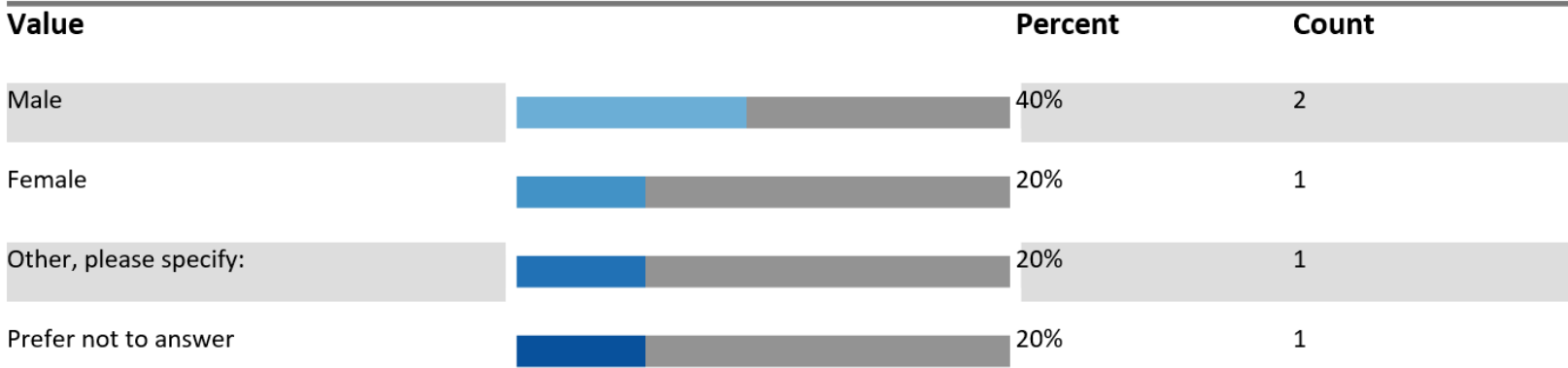
Value		Percent	Count
Male		40%	2
Female		20%	1
Other, please specify:		20%	1
Prefer not to answer		20%	1
Totals			5

Other, please specify:	Count
Genderqueer	1
Totals	1

With which racial/ethnic backgrounds do you most identify as? (select all that apply)

Value		Percent	Count
Asian		20%	1
American Indian/Alaska Native		0%	0
Black/African American		0%	0
Hispanic/Latino		0%	0
Native Hawaiian/Pacific Islander		0%	0
White		60%	3
Other, please specify:		0%	0
Prefer not to answer		20%	1

What is your current grade level?

Value		Percent	Count
Freshman		0%	0
Sophomore		20%	1
Junior		0%	0
Senior		80%	4
Totals			5

Are you a first-generation college student?

Value		Percent	Count
Yes		20%	1
No		60%	3
I am not sure		0%	0
Prefer not to answer		20%	1
Totals			5