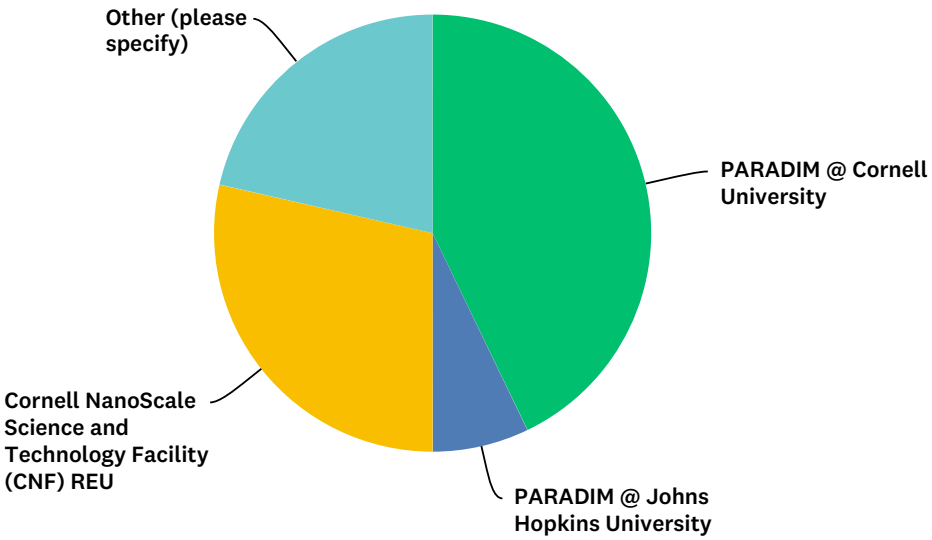
Q1 Please indicate your REU:

Answered: 14 Skipped: 1

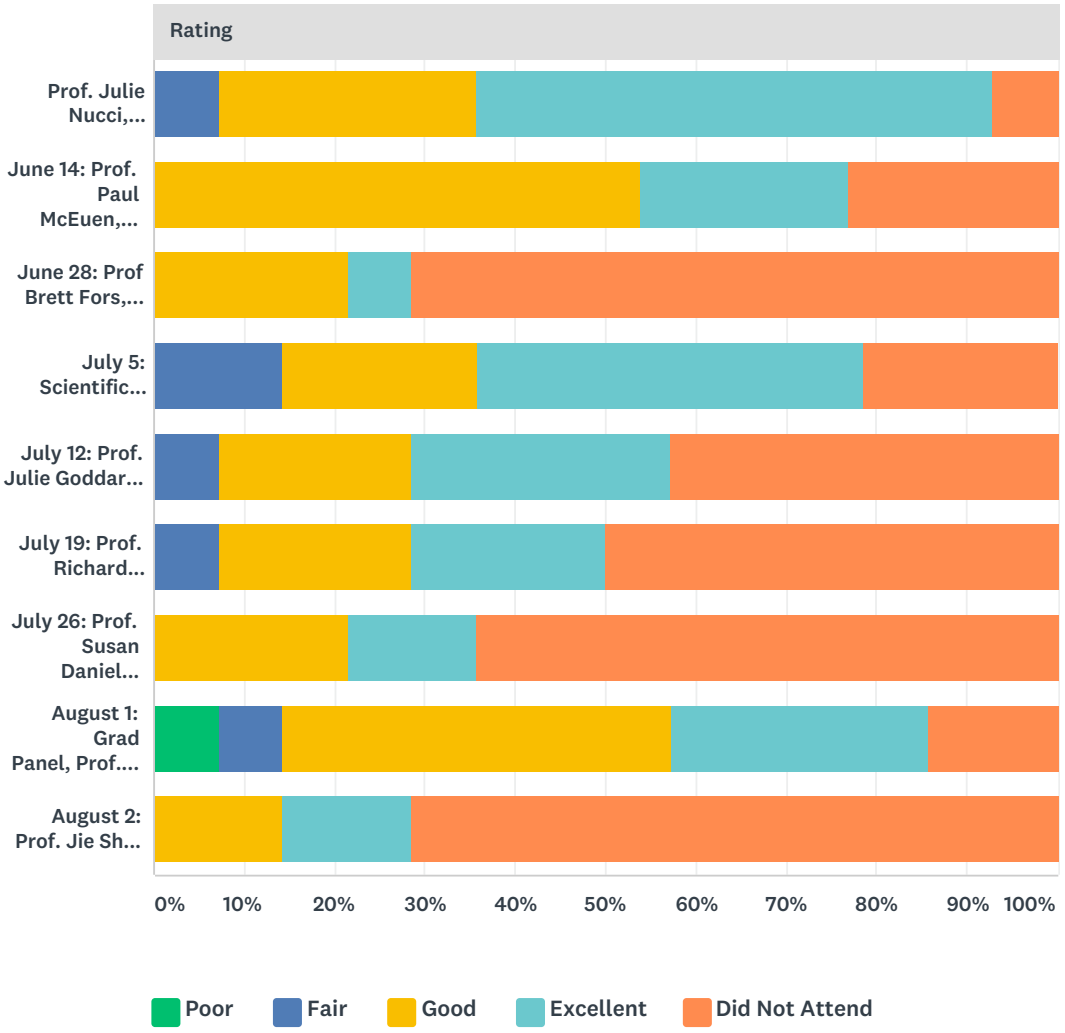


ANSWER CHOICES	RESPONSES	
PARADIM @ Cornell University	42.86%	6
PARADIM @ Johns Hopkins University	7.14%	1
Cornell NanoScale Science and Technology Facility (CNF) REU	28.57%	4
Other (please specify)	21.43%	3
TOTAL		14

#	OTHER (PLEASE SPECIFY)	DATE
1	Keeping Ezra's Promise (KEP) REU	8/9/2018 7:13 PM
2	KEP Reu	8/9/2018 6:31 PM
3	KEP REU	8/8/2018 6:00 PM

Q2 Please rate the following lecture, training session, and activities, as well as your overall REU experience:

Answered: 14 Skipped: 1

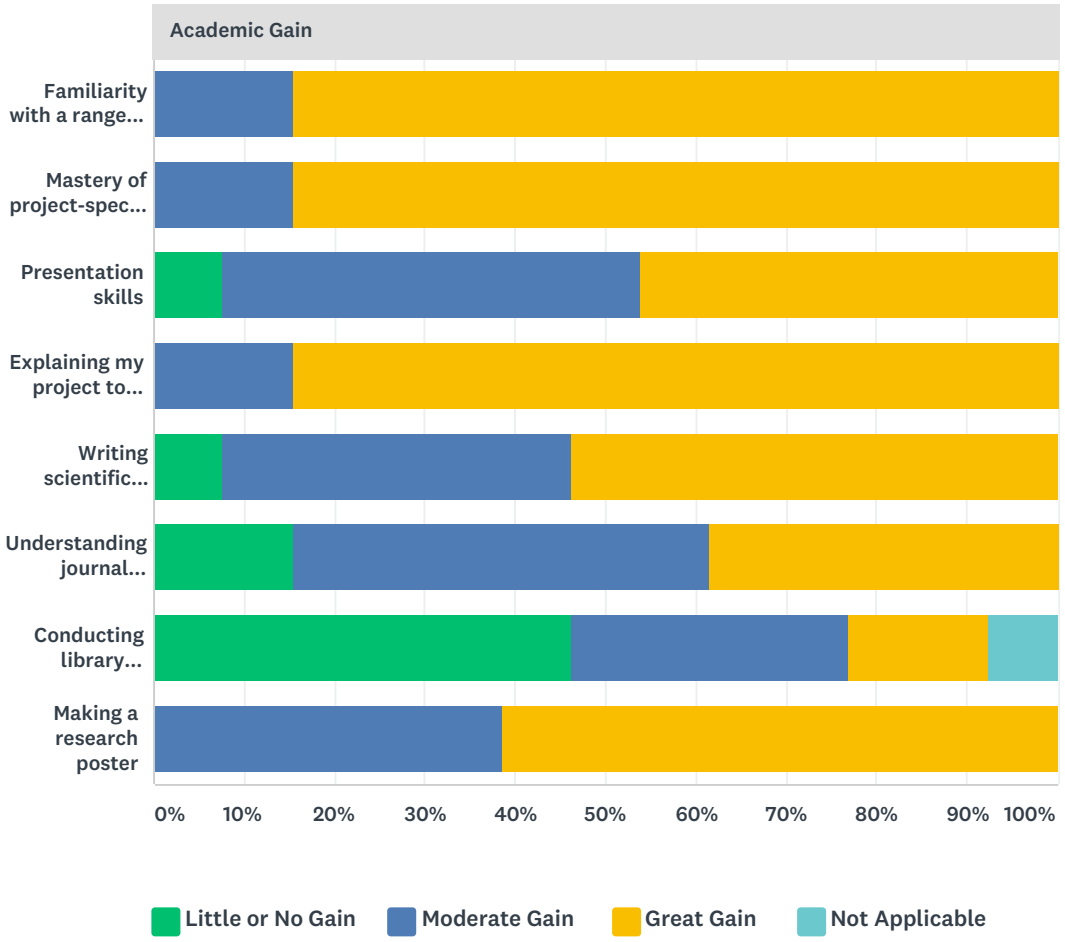


Rating	POOR	FAIR	GOOD	EXCELLENT	DID NOT ATTEND	TOTAL
Prof. Julie Nucci, Presentation Skills	0.00% 0	7.14% 1	28.57% 4	57.14% 8	7.14% 1	14
June 14: Prof. Paul McEuen, John A Newman Professor of Physical Science	0.00% 0	0.00% 0	53.85% 7	23.08% 3	23.08% 3	13
June 28: Prof Brett Fors, Chemistry and Chemical Biology	0.00% 0	0.00% 0	21.43% 3	7.14% 1	71.43% 10	14
July 5: Scientific Presentation, Prof. Melissa Hines	0.00% 0	14.29% 2	21.43% 3	42.86% 6	21.43% 3	14
July 12: Prof. Julie Goddard, Food Science	0.00% 0	7.14% 1	21.43% 3	28.57% 4	42.86% 6	14
July 19: Prof. Richard Robinson, Materials Science	0.00% 0	7.14% 1	21.43% 3	21.43% 3	50.00% 7	14

July 26: Prof. Susan Daniels, Chemistry and Chemical Biology	0.00% 0	0.00% 0	21.43% 3	14.29% 2	64.29% 9	14
August 1: Grad Panel, Prof. Frank Wise, Applied & Engineering Physics	7.14% 1	7.14% 1	42.86% 6	28.57% 4	14.29% 2	14
August 2: Prof. Jie Shan, Applied and Engineering Physics	0.00% 0	0.00% 0	14.29% 2	14.29% 2	71.43% 10	14

Q3 How much did you gain in the following areas as a result of this REU research experience?

Answered: 13 Skipped: 2

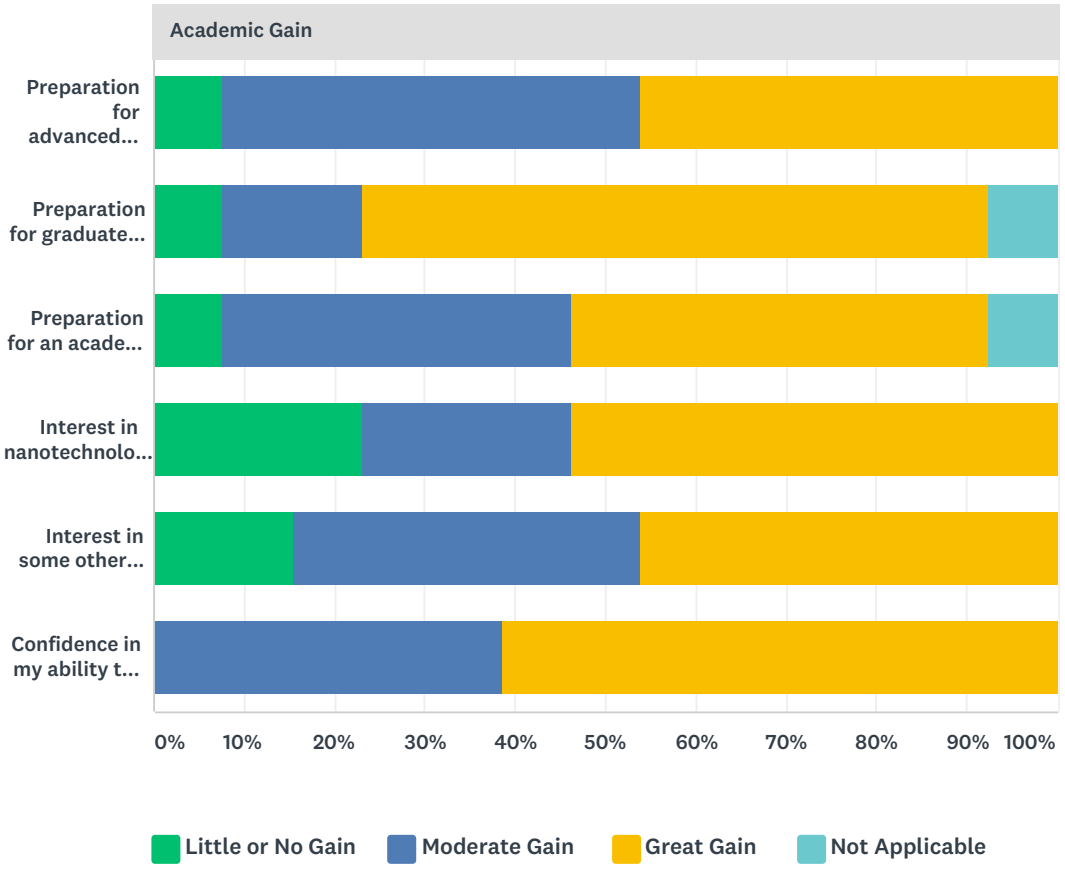


Academic Gain	LITTLE OR NO GAIN	MODERATE GAIN	GREAT GAIN	NOT APPLICABLE	TOTAL
Familiarity with a range of research techniques	0.00% 0	15.38% 2	84.62% 11	0.00% 0	13
Mastery of project-specific research techniques	0.00% 0	15.38% 2	84.62% 11	0.00% 0	13
Presentation skills	7.69% 1	46.15% 6	46.15% 6	0.00% 0	13
Explaining my project to people outside my field	0.00% 0	15.38% 2	84.62% 11	0.00% 0	13
Writing scientific reports or papers	7.69% 1	38.46% 5	53.85% 7	0.00% 0	13
Understanding journal articles	15.38% 2	46.15% 6	38.46% 5	0.00% 0	13
Conducting library database searches	46.15% 6	30.77% 4	15.38% 2	7.69% 1	13

Making a research poster	0.00% 0	38.46% 5	61.54% 8	0.00% 0	13

Q4 How much did you GAIN in the following areas as a result of this REU research experience?

Answered: 13 Skipped: 2



Academic Gain

	LITTLE OR NO GAIN	MODERATE GAIN	GREAT GAIN	NOT APPLICABLE	TOTAL
Preparation for advanced course/thesis work	7.69% 1	46.15% 6	46.15% 6	0.00% 0	13
Preparation for graduate school	7.69% 1	15.38% 2	69.23% 9	7.69% 1	13
Preparation for an academic or industrial career	7.69% 1	38.46% 5	46.15% 6	7.69% 1	13
Interest in nanotechnology/materials science research	23.08% 3	23.08% 3	53.85% 7	0.00% 0	13
Interest in some other scientific research/career	15.38% 2	38.46% 5	46.15% 6	0.00% 0	13
Confidence in my ability to contribute to science	0.00% 0	38.46% 5	61.54% 8	0.00% 0	13

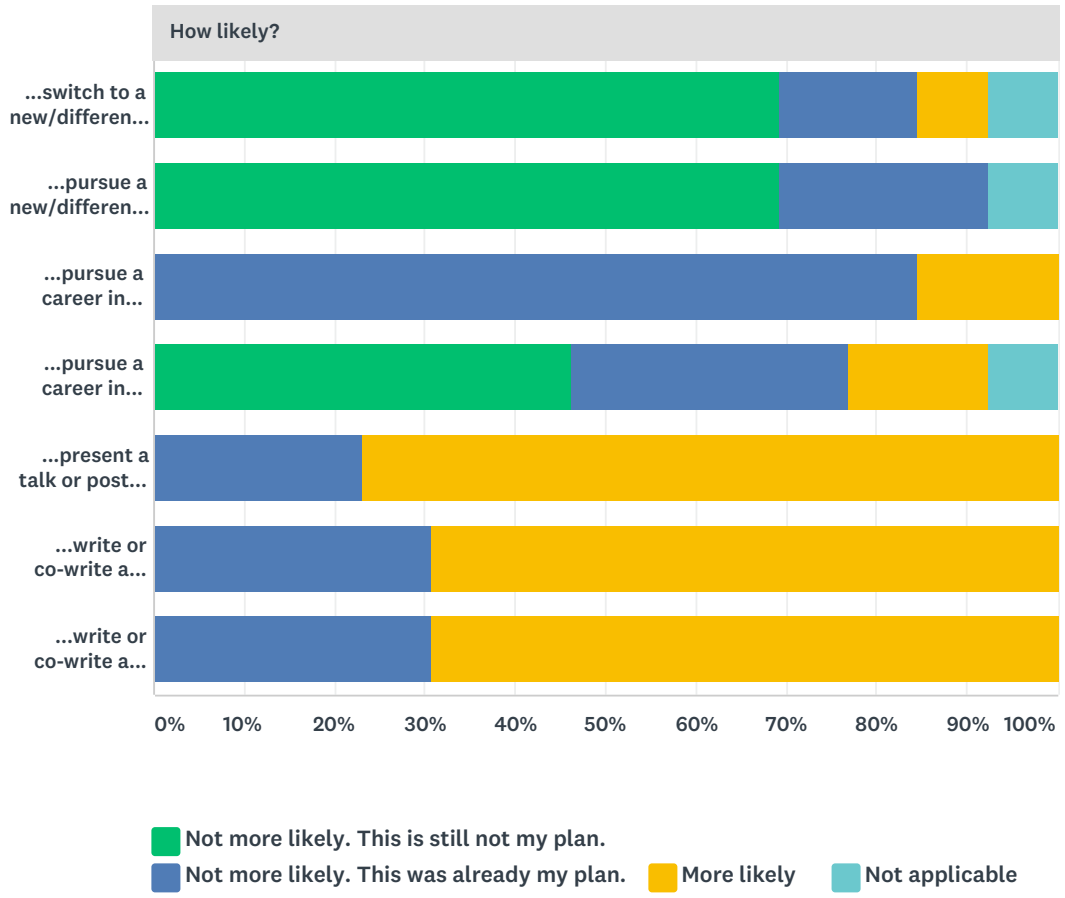
Q5 Please provide further explanation of your responses, particularly any "little or no gain" responses. Also, did you make any other gains that we didn't mention?

Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	I knew how to use a library database beforehand. Although, I did have access to more here.	8/9/2018 7:16 PM
2	Some things just didn’t apply to me during this time or weren’t thouroughly discussed	8/9/2018 6:33 PM
3	It was nice to have the experience of doing research as an everyday job rather than an extracurricular activity. This gave me a good idea of what life would be like in graduate school. I also really enjoyed working in the cleanroom and getting that experience as an undergraduate; this experience really helped supplement what I had learned in a more abstract way in my Intro to Nanotechnology course at Penn State. I would say I still have a long way to go in terms of having an academic career and contributing to science--this takes a lot of talent and creativity that I think will require me having more research experience to master.	8/9/2018 5:48 PM
4	Over the course of this REU I have learned new research techniques and, of equal importance, communication skills. This internship affirmed my interest in materials science.	8/8/2018 6:46 PM
5	With the "little or no gain" responses, I most likely didn't have that portion apply to my research. Also, with presenting skills lectures (Nucci and Hines) they provided conflicting information, which I found mostly to be personal preference anyway. Some of the information I found helpful (not a lot of text, etc.), but I already knew it. The "new" information (don't use red font, etc.) was mostly conflicted between the presenters or seemed to be based in personal opinion.	8/8/2018 6:04 PM
6	It was a good summer overall. The biggest impact I had was the exposure to a grad school environment.	8/8/2018 5:45 PM
7	Some of those lectures I'm not sure are part itbwas part of our REU.	8/8/2018 5:14 PM

Q6 As a result of this REU research experience, how likely you are to:

Answered: 13 Skipped: 2

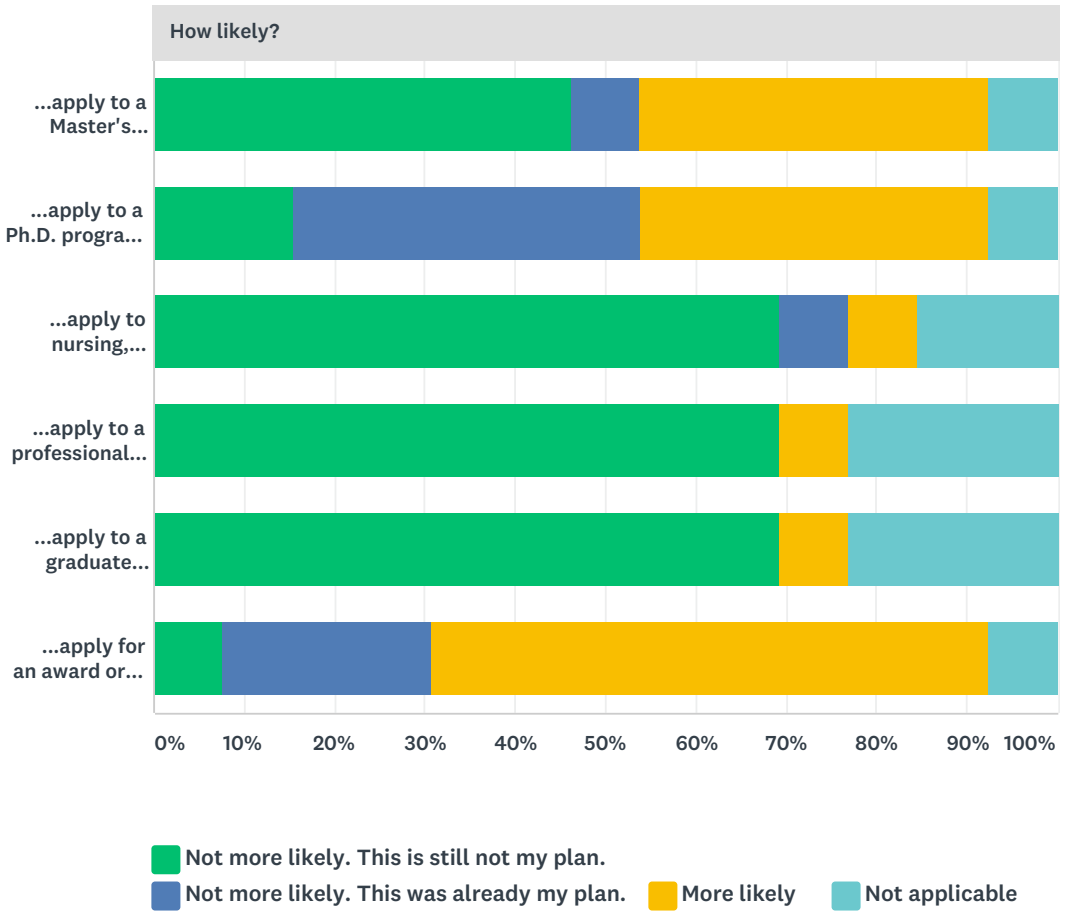


How likely?

	NOT MORE LIKELY. THIS IS STILL NOT MY PLAN.	NOT MORE LIKELY. THIS WAS ALREADY MY PLAN.	MORE LIKELY	NOT APPLICABLE	TOTAL
...switch to a new/different major in college?	69.23% 9	15.38% 2	7.69% 1	7.69% 1	13
...pursue a new/different minor in college?	69.23% 9	23.08% 3	0.00% 0	7.69% 1	13
...pursue a career in science or engineering? (industry and/or academic)	0.00% 0	84.62% 11	15.38% 2	0.00% 0	13
...pursue a career in nanotechnology/materials science, specifically? (industry and/or academic)	46.15% 6	30.77% 4	15.38% 2	7.69% 1	13
...present a talk or poster at a conference?	0.00% 0	23.08% 3	76.92% 10	0.00% 0	13
...write or co-write a paper to be published in an academic journal?	0.00% 0	30.77% 4	69.23% 9	0.00% 0	13
...write or co-write a paper to be published in an undergraduate research journal?	0.00% 0	30.77% 4	69.23% 9	0.00% 0	13

Q7 As a result of this REU research experience, how likely you are to:

Answered: 13 Skipped: 2

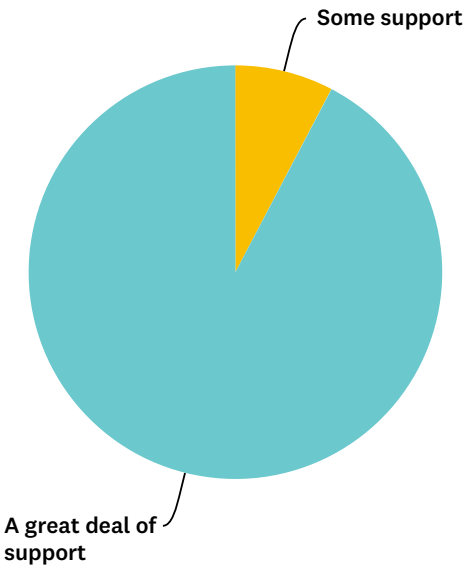


How likely?

	NOT MORE LIKELY. THIS IS STILL NOT MY PLAN.	NOT MORE LIKELY. THIS WAS ALREADY MY PLAN.	MORE LIKELY	NOT APPLICABLE	TOTAL
...apply to a Master's program in science, math, or engineering?	46.15% 6	7.69% 1	38.46% 5	7.69% 1	13
...apply to a Ph.D. program in science, math, or engineering?	15.38% 2	38.46% 5	38.46% 5	7.69% 1	13
...apply to nursing, medical, dental, pharmaceutical, or veterinary school?	69.23% 9	7.69% 1	7.69% 1	15.38% 2	13
...apply to a professional program not already mentioned? (e.g., law, library science, business, social work, journalism, etc.)	69.23% 9	0.00% 0	7.69% 1	23.08% 3	13
...apply to a graduate program in a non-STEM field? (e.g., social science, humanities, fine arts, etc.)	69.23% 9	0.00% 0	7.69% 1	23.08% 3	13
...apply for an award or scholarship based on your research?	7.69% 1	23.08% 3	61.54% 8	7.69% 1	13

Q8 Please indicate the degree of support you received from your PI/Grad mentor in the preparation of your final presentation:

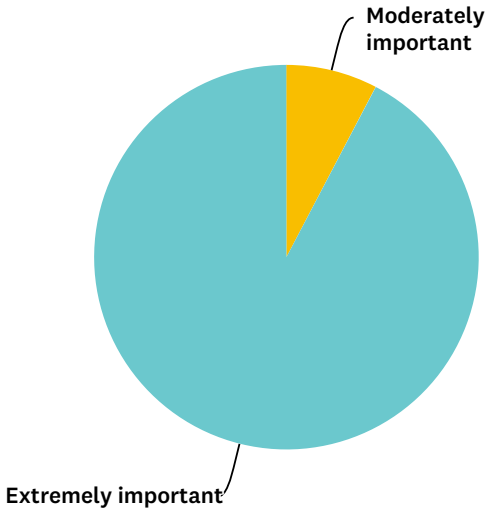
Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
No support	0.00%	0
Little support	0.00%	0
Some support	7.69%	1
A great deal of support	92.31%	12
TOTAL		13

Q9 From your perspective, how important is the mentor to the success of the REU experience?

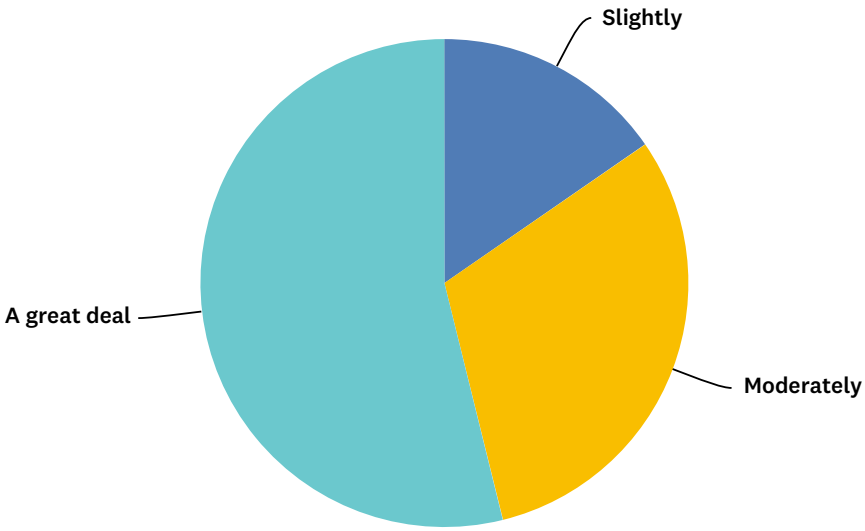
Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
Not at all important	0.00%	0
Slightly important	0.00%	0
Moderately important	7.69%	1
Extremely important	92.31%	12
TOTAL		13

Q10 From your perspective, to what degree did your mentor influence your future plans?

Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
Not at all	0.00%	0
Slightly	15.38%	2
Moderately	30.77%	4
A great deal	53.85%	7
TOTAL		13

Q11 Please elaborate on your mentor experience:

Answered: 13 Skipped: 2

#	RESPONSES	DATE
1	She helped through out the process, whenever i needed help I could go to her.	8/10/2018 12:28 PM
2	I wish Jessica Silva could be everybody's mentor. She is an adept researcher and an amazing person. Would not have been the same without her.	8/9/2018 7:20 PM
3	I had a great mentor. She was only going into her second year, which meant she wasn't super familiar with some things herself, but other than that she was very helpful	8/9/2018 6:35 PM
4	Steven and Max were very patient, helpful, and communicative mentors. Steven, in particular, spent a lot of time with me in the cleanroom, training me to do the fabrication of our metasurfaces. I felt very comfortable approaching both Steven and Max with questions. I was particularly grateful for the time they took to help me understand the theory behind our research--so that I wasnt just a lab monkey. Because of this, I really learned and gained a lot from this internship.	8/9/2018 5:58 PM
5	My mentor was great	8/9/2018 5:20 PM
6	My mentor was readily available for questions and very helpful throughout the research experience. He taught me a great deal about the field and I feel as though I have a much broader skill set and knowledge base now.	8/9/2018 8:22 AM
7	My mentor provided a great amount of support and Advisement, while still allowing me to make my own attempts and giving me independence on the project.	8/9/2018 1:47 AM
8	My mentor was very present - explaining the material, showing how all the equipment worked, answering my many questions, and had an overall helpful and calm attitude.	8/8/2018 10:29 PM
9	Both my PI and graduate mentor played a significant role in my success this summer, as they made my understanding of the project a priority.	8/8/2018 7:44 PM
10	She is great in all aspects. I can't thank her enough for being pascient while teaching me new research techniques.	8/8/2018 7:14 PM
11	My mentors were extremely helpful, both with research and with plans for future works. I am very grateful to my mentors for the degree of their support during the summer.	8/8/2018 6:49 PM
12	My mentor, Josh Walker, was amazing. He took time to explain the project to me so that I understood, but also allowed me to be moderately independent in my study. He helped me gain confidence in my scientific ability, and made me want to continue my career in science.	8/8/2018 6:06 PM
13	Absolutely amazing. Sheri's indeed a teacher Scholar and professional. She has a natural ability to teach this material. And also, surveillance be able to teach any material she studies.amazing experience.	8/8/2018 5:19 PM

Q12 Please use the space below for any further comments you would like to add:

Answered: 4 Skipped: 11

#	RESPONSES	DATE
1	Please send more concise emails	8/9/2018 6:35 PM
2	None really, this was a really fun internship. Special thanks to Ms. Melanie-Claire Mallison for all her hard work in coordinating the program!	8/9/2018 5:58 PM
3	I feel my mentors went far beyond their required duties in terms of ensuring I understood what I was doing and why we were looking at the issue.	8/8/2018 7:44 PM
4	I enjoyed this prestigious opportunity and I will always speak highly of the staff and program.~Anthony Coleman	8/8/2018 5:19 PM

Q13 If you indicated that you are likely to present, publish, or apply for an award/scholarship based on your research this summer, please tell us more:

Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	Perhaps not exactly on my research topic, but I plan on applying for a NSF and GEM fellowship and will definitely talk about my research this summer for it.	8/9/2018 8:22 PM
2	I believe my research project will be continued to completion and published.	8/9/2018 8:27 AM
3	I plan to publish on my work at my current undergraduate institution. I plan to apply for an NFS scholarship for graduate school funding.	8/9/2018 1:51 AM
4	With the added experience in research I acquired this summer, I will be applying to present at more research events and scholarships.	8/8/2018 8:12 PM
5	n/a	8/8/2018 6:55 PM
6	The project that we worked on, Site-Specific Modification of Native Antibodies via Microbial Transglutaminase, seemed to show promising results. After I leave, and a few more tests are performed by my mentor, it is likely we will publish.	8/8/2018 6:08 PM
7	I'll be Going to Grad school so all that was mentioned are planned.	8/8/2018 5:22 PM

Q14 In your own words, how did your REU experience influence your thinking about future career and graduate school plans (or not)? Please explain. Finally, please share any additional thoughts you might have:

Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	It made me believe that I could actually do a PhD or at least be just as viable as anyone else. The connections I made with my PI and other professors will definitely go a long way in the future, I can feel it.	8/9/2018 8:22 PM
2	It made me more aware of possibilities after undergrad that i didn't know about before, however i have not yet made any decisions about pursuing these possibilities	8/9/2018 6:38 PM
3	My experience taught me about a field of science that I had very little experience in and helped me narrow my interests so I know what I would like to pursue in grad school and afterwards.	8/9/2018 8:27 AM
4	This REU just encouraged me to attend Cornell because of the incredible facilities. I was already planning on attending graduate school	8/9/2018 1:51 AM
5	The REU experience only reinforced my current plans of attending graduate school to obtain a PhD in engineering. The experience re-affirmed my interest in pursuing research and obtaining a professional degree.	8/8/2018 8:12 PM
6	This REU experience consolidated my plans to apply for a graduate program in materials science instead of chemistry. I look forward to applying to Cornell for my graduate studies this winter.	8/8/2018 6:55 PM
7	It open my eyes to a world of material science I never knew. This science is indeed the ground work for other fields of science to be successful.	8/8/2018 5:22 PM

Q15 Your REU was located in a “facility.” Others are held in “labs.”Compared to a lab location, what advantages/benefits do you see in a facility-based REU? Compared to a lab location, what limitations do you see in a facility-based REU?

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	N/A, I was not in a facility.	8/9/2018 8:22 PM
2	I enjoyed being in A lab location because it’s smaller and you get to know the people you’re around. I didn’t work in a facility	8/9/2018 6:38 PM
3	It was nice to meet new people in the facility as they visited and learn about the variety of research being conducted in the field. The facility allows for less flexibility of research, however, and has less equipment.	8/9/2018 8:27 AM
4	A facility based REU allows for a greater/easier access to multiple tools and faculty to help with any questions/concerns. It limits the exposure to the rest of the campus, you're caged in one area for work.	8/9/2018 1:51 AM
5	Benefits to a facility-based REU include seeing how projects similar to mine are implemented in the real world by company users, the availability of staff to assist with tools, and regular trainings/review meetings to assist with project changes/input. Limitations include busy tool scheduling.	8/8/2018 8:12 PM
6	The main advantage of a facility-based REU in my opinion was the access to multiple different instruments.	8/8/2018 6:55 PM
7	I only worked in a lab, not a facility.	8/8/2018 6:08 PM
8	No limitations, perfect .	8/8/2018 5:22 PM

Q16 What were the best aspects of the REU program? What aspects are most need of improvement? Please take time to reflect and elaborate

Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	Mentor, PI, and the research was awesome! It was fun living with the other interns. The rooms were hot, but I think everyone managed!	8/9/2018 8:22 PM
2	The poster school was not helpful. As someone who had never made a poster before, I came out of that session, and I didn't really know where to start. In all honesty, I think an talk with a presentation would have been more helpful.. The hot materials talks were great and a good way to open up our minds to other fields of study	8/9/2018 6:38 PM
3	The best aspects were the hands-on experience and realistic research lifestyle. The program needs to be slightly more organized and have better communication however. I was unaware of the final paper until two days before it was due.	8/9/2018 8:27 AM
4	The research itself was amazing. There were a good deal of mandatory events, it took time to prepare which retracted from doing research	8/9/2018 1:51 AM
5	The best aspects of the REU program included the support system of mentors and staff to assist with project approach, having a group of fellow interns working on projects along side each other, and establishing a set of expected outcomes/deliverables. Having a general tool training, presentation slide review dates, and additional poster training are some things that I believe are in need of improvement, as some users did not use some tools training was provided for in general training, the dates for slide review sessions were too early for some users that did not have data collected, and this REU poster was the first some students made (meaning they needed additional assistance from other students/sources).	8/8/2018 8:12 PM
6	The best aspects of the REU program were the incredible facilities and the focus on communication in science. I feel that communication especially is an underdeveloped part of undergraduate studies. If anything could be improved in my opinion, it would be the length and figure limit on the report. It is very difficult in my case to consolidate two projects, even though they were linked, into 1000 words and 4 figures without losing quality.	8/8/2018 6:55 PM
7	I would change a thing. Everything from the yours to the poster school all help perfect.	8/8/2018 5:22 PM