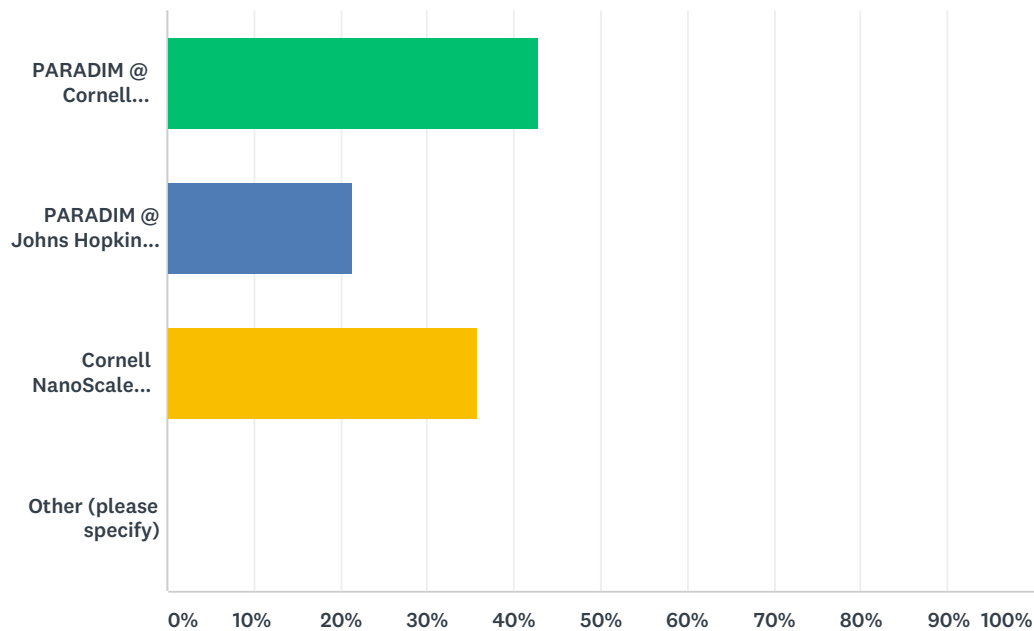


## Q1 Please indicate your REU:

Answered: 14 Skipped: 0

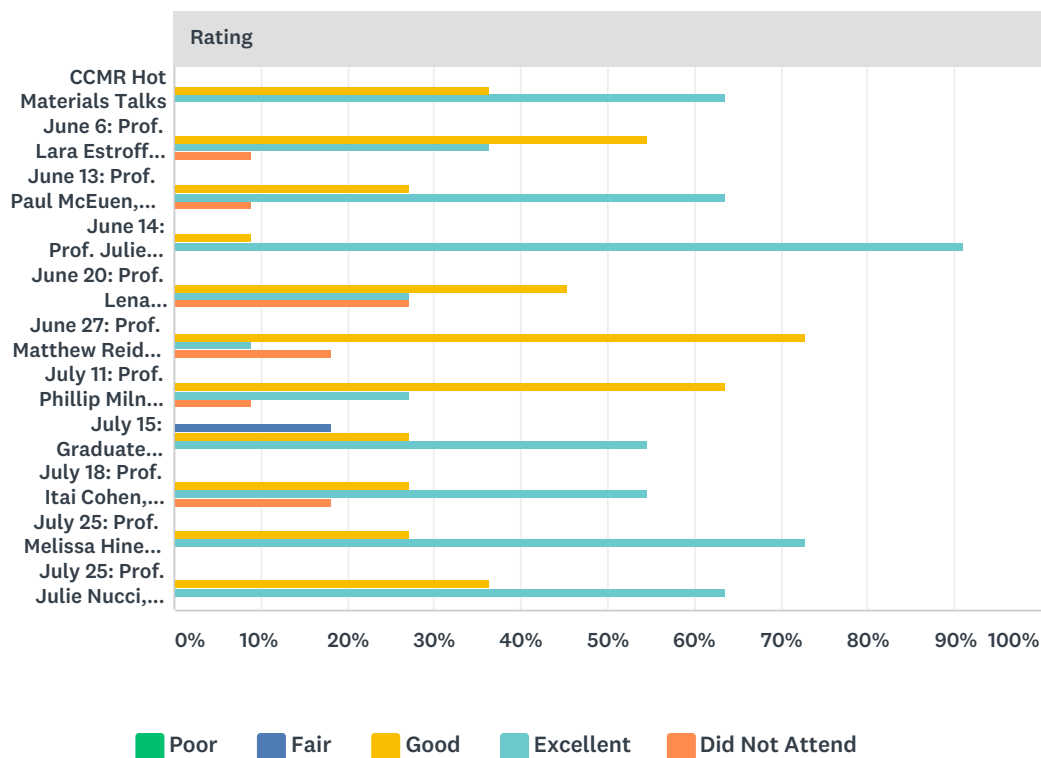


ANSWER CHOICES		RESPONSES	
PARADIM @ Cornell University		42.86%	6
PARADIM @ Johns Hopkins University		21.43%	3
Cornell NanoScale Science and Technology Facility (CNF) REU		35.71%	5
Other (please specify)		0.00%	0
TOTAL			14

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

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

Answered: 11 Skipped: 3



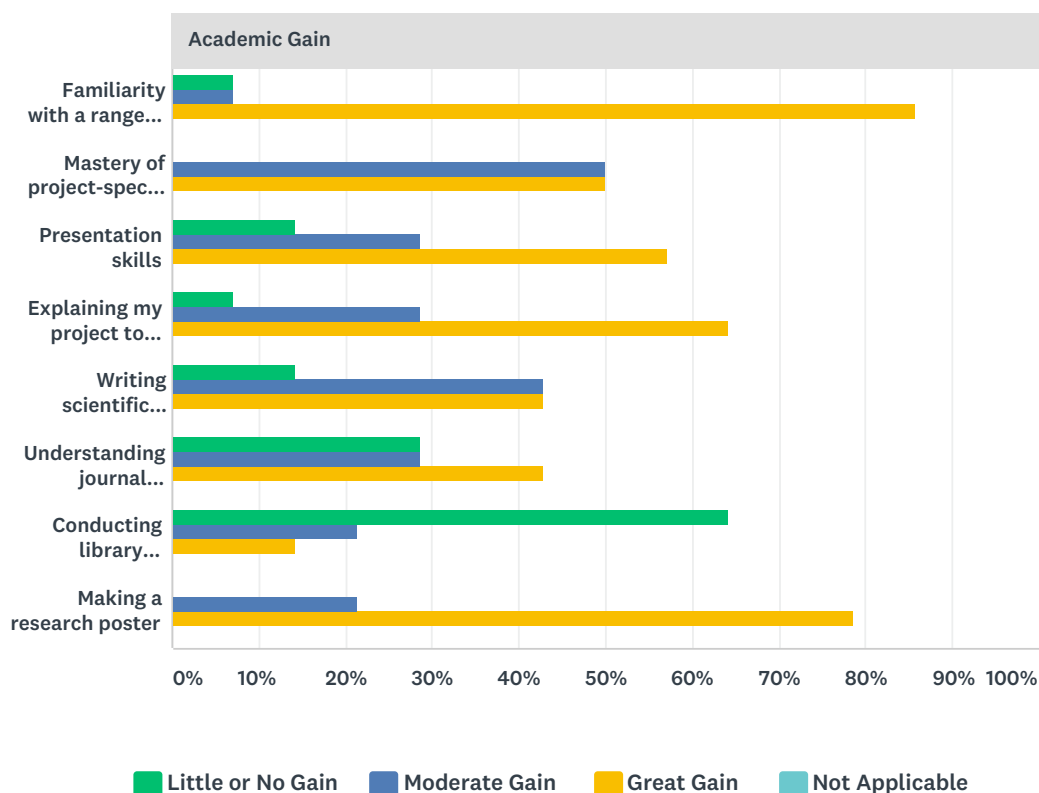
Rating	POOR	FAIR	GOOD	EXCELLENT	DID NOT ATTEND	TOTAL
CCMR Hot Materials Talks	0.00% 0	0.00% 0	36.36% 4	63.64% 7	0.00% 0	11
June 6: Prof. Lara Estroff Department of Materials Science and Engineering	0.00% 0	0.00% 0	54.55% 6	36.36% 4	9.09% 1	11
June 13: Prof. Paul McEuen, Ethics Presentation	0.00% 0	0.00% 0	27.27% 3	63.64% 7	9.09% 1	11
June 14: Prof. Julie Nucci, Presentation Skills	0.00% 0	0.00% 0	9.09% 1	90.91% 10	0.00% 0	11
June 20: Prof. Lena Kourkoutis, Department of Applied and Engineering Physics	0.00% 0	0.00% 0	45.45% 5	27.27% 3	27.27% 3	11
June 27: Prof. Matthew Reid, Department of Civil and Environmental Engineering	0.00% 0	0.00% 0	72.73% 8	9.09% 1	18.18% 2	11
July 11: Prof. Phillip Milner, Department of Chemistry and Chemical Biology	0.00% 0	0.00% 0	63.64% 7	27.27% 3	9.09% 1	11
July 15: Graduate School: A View from the Trenches	0.00% 0	18.18% 2	27.27% 3	54.55% 6	0.00% 0	11
July 18: Prof. Itai Cohen, Department of Physics	0.00% 0	0.00% 0	27.27% 3	54.55% 6	18.18% 2	11

2019 REU Survey: PARADIM @ Cornell and Johns Hopkins University Cornell NanoScale Science & Technology  
Facility (CNF)

July 25: Prof. Melissa Hines, Scientific Presentation Skills	0.00%	0.00%	27.27%	72.73%	0.00%	
	0	0	3	8	0	11
July 25: Prof. Julie Nucci, Poster Session	0.00%	0.00%	36.36%	63.64%	0.00%	
	0	0	4	7	0	11

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

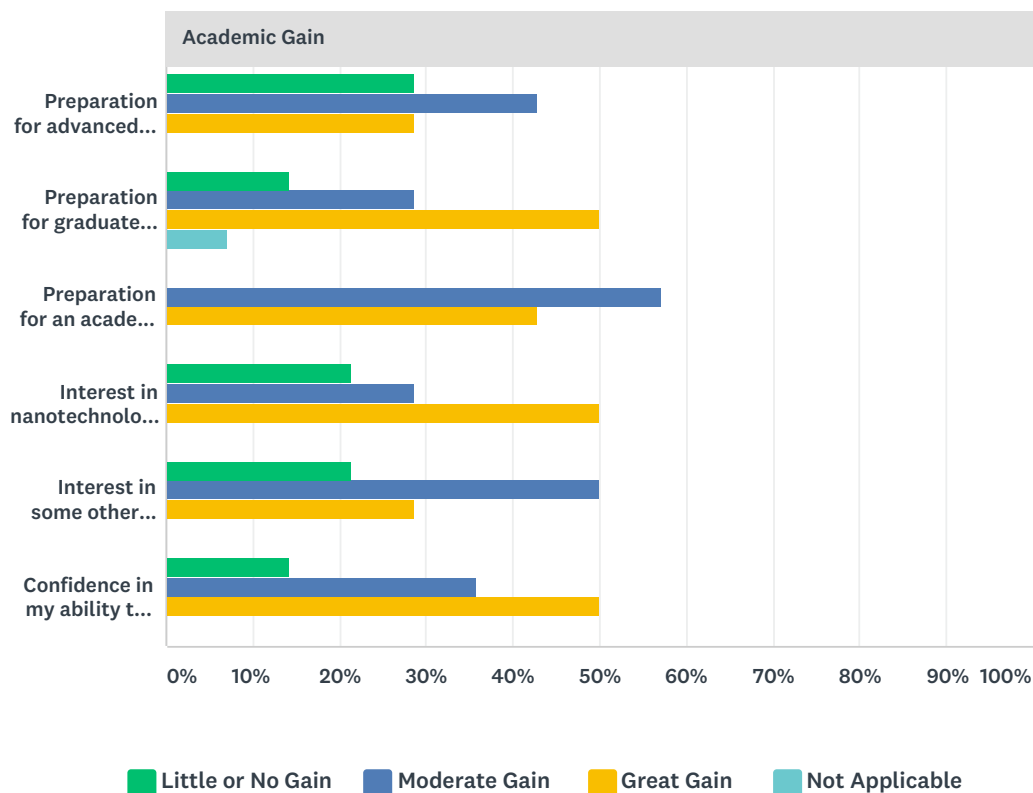
Answered: 14 Skipped: 0



Academic Gain					
	LITTLE OR NO GAIN	MODERATE GAIN	GREAT GAIN	NOT APPLICABLE	TOTAL
Familiarity with a range of research techniques	7.14% 1	7.14% 1	85.71% 12	0.00% 0	14
Mastery of project-specific research techniques	0.00% 0	50.00% 7	50.00% 7	0.00% 0	14
Presentation skills	14.29% 2	28.57% 4	57.14% 8	0.00% 0	14
Explaining my project to people outside my field	7.14% 1	28.57% 4	64.29% 9	0.00% 0	14
Writing scientific reports or papers	14.29% 2	42.86% 6	42.86% 6	0.00% 0	14
Understanding journal articles	28.57% 4	28.57% 4	42.86% 6	0.00% 0	14
Conducting library database searches	64.29% 9	21.43% 3	14.29% 2	0.00% 0	14
Making a research poster	0.00% 0	21.43% 3	78.57% 11	0.00% 0	14

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

Answered: 14 Skipped: 0



Academic Gain					
	LITTLE OR NO GAIN	MODERATE GAIN	GREAT GAIN	NOT APPLICABLE	TOTAL
Preparation for advanced course/thesis work	28.57% 4	42.86% 6	28.57% 4	0.00% 0	14
Preparation for graduate school	14.29% 2	28.57% 4	50.00% 7	7.14% 1	14
Preparation for an academic or industrial career	0.00% 0	57.14% 8	42.86% 6	0.00% 0	14
Interest in nanotechnology/materials science research	21.43% 3	28.57% 4	50.00% 7	0.00% 0	14
Interest in some other scientific research/career	21.43% 3	50.00% 7	28.57% 4	0.00% 0	14
Confidence in my ability to contribute to science	14.29% 2	35.71% 5	50.00% 7	0.00% 0	14

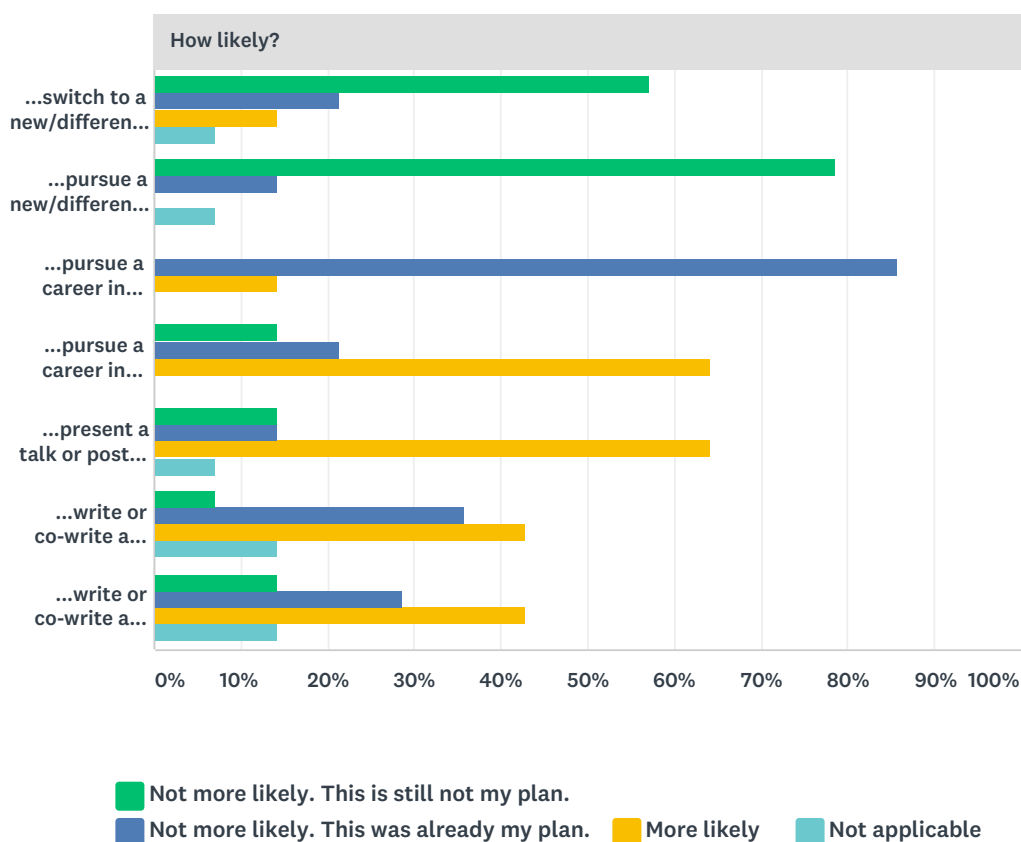
**Q5 Please provide further explanation of your responses, particularly any "little or no gain" responses. Also, did you make any other gains that we didn't mention?**

Answered: 8   Skipped: 6

#	RESPONSES	DATE
1	Little to no gain on database searches and journal articles since i had a good understanding on how to read and search for them coming to this REU and i didn't feel like i had to look for any while here, all were given to me	8/16/2019 9:58 AM
2	I did not use any of the library databases. Papers that I referred to were mostly given to me by my mentor or recommended to me by staff members.	8/14/2019 11:24 AM
3	My explanations were not fill alot scientific logic therefore making my opinions weak before my mentor and industrial collaborators. Also meaning that my contribution was little compared to others working on the project.	8/13/2019 10:00 PM
4	Having the PI in Ithaca the entire summer might have boosted the gains of some of these activities.	8/13/2019 7:05 PM
5	My research did not include a large breadth of database searching. I mostly studied my PI's past work and worked off of a procedure that my mentor had started.	8/13/2019 7:21 AM
6	My project was never clear. I felt I was made to work independently without clear direction or guidance. What I thought I was going to learn or gain out of this REU was never met.	8/13/2019 6:20 AM
7	I didn't use any library databases for literature research.	8/13/2019 4:38 AM
8	Gained increased creativity when using software.	8/13/2019 4:08 AM

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

Answered: 14 Skipped: 0



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?	57.14% 8	21.43% 3	14.29% 2	7.14% 1	14
...pursue a new/different minor in college?	78.57% 11	14.29% 2	0.00% 0	7.14% 1	14
...pursue a career in science or engineering? (industry and/or academic)	0.00% 0	85.71% 12	14.29% 2	0.00% 0	14
...pursue a career in nanotechnology/materials science, specifically? (industry and/or academic)	14.29% 2	21.43% 3	64.29% 9	0.00% 0	14
...present a talk or poster at a conference?	14.29% 2	14.29% 2	64.29% 9	7.14% 1	14
...write or co-write a paper to be published in an academic journal?	7.14% 1	35.71% 5	42.86% 6	14.29% 2	14
...write or co-write a paper to be published in an undergraduate research journal?	14.29% 2	28.57% 4	42.86% 6	14.29% 2	14

## Q7 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:

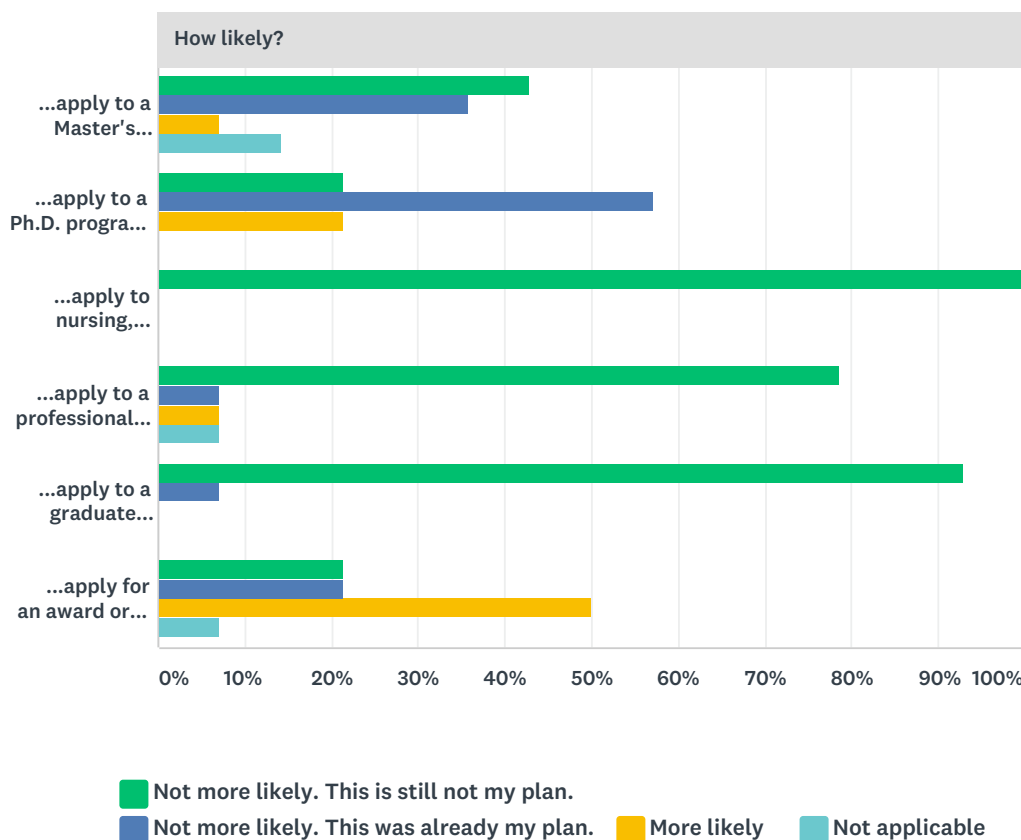
Answered: 14 Skipped: 0

#	RESPONSES	DATE
1	I would like to use my experience/paper as a gate way into more fellowships	8/16/2019 10:14 AM
2	I now have a valuable research project that I feel confident about presenting to others.	8/14/2019 11:43 AM
3	I'm likely to apply for the NSF Grad student funding	8/14/2019 6:39 AM
4	Share my experience amongst classmates.	8/13/2019 10:09 PM
5	I will try to apply for undergraduate conferences and grants.	8/13/2019 7:08 PM
6	I intend to leverage my experience at this REU and the last experience I have had at my current PI Minkyu Kim to publish at the Kim lab. I also would like to apply for more REUs in the future.	8/13/2019 7:26 AM
7	N/A	8/13/2019 6:36 AM
8	I feel more confident in my ability to present research in a clear manner in poster, presentation, and a written paper format	8/13/2019 6:25 AM
9	After learning more about awards I will apply for some.	8/13/2019 6:24 AM
10	-	8/13/2019 6:23 AM
11	I plan to use this experience to apply for Grad School	8/13/2019 6:21 AM
12	Not applicable.	8/13/2019 6:05 AM
13	The work I've done have become part of my thesis and I will be publishing a paper on my research shortly.	8/13/2019 4:45 AM
14	The work I did this summer has not been looked at in quite some time and there is a lot of novel theory in my work. Once we can get a computer model and experimental verification it would be publishable work.	8/13/2019 4:11 AM



## Q8 As a result of this REU research experience, how likely you are to:

Answered: 14 Skipped: 0



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?	42.86% 6	35.71% 5	7.14% 1	14.29% 2	14
...apply to a Ph.D. program in science, math, or engineering?	21.43% 3	57.14% 8	21.43% 3	0.00% 0	14
...apply to nursing, medical, dental, pharmaceutical, or veterinary school?	100.00% 14	0.00% 0	0.00% 0	0.00% 0	14
...apply to a professional program not already mentioned? (e.g., law, library science, business, social work, journalism, etc.)	78.57% 11	7.14% 1	7.14% 1	7.14% 1	14
...apply to a graduate program in a non-STEM field? (e.g., social science, humanities, fine arts, etc.)	92.86% 13	7.14% 1	0.00% 0	0.00% 0	14
...apply for an award or scholarship based on your research?	21.43% 3	21.43% 3	50.00% 7	7.14% 1	14

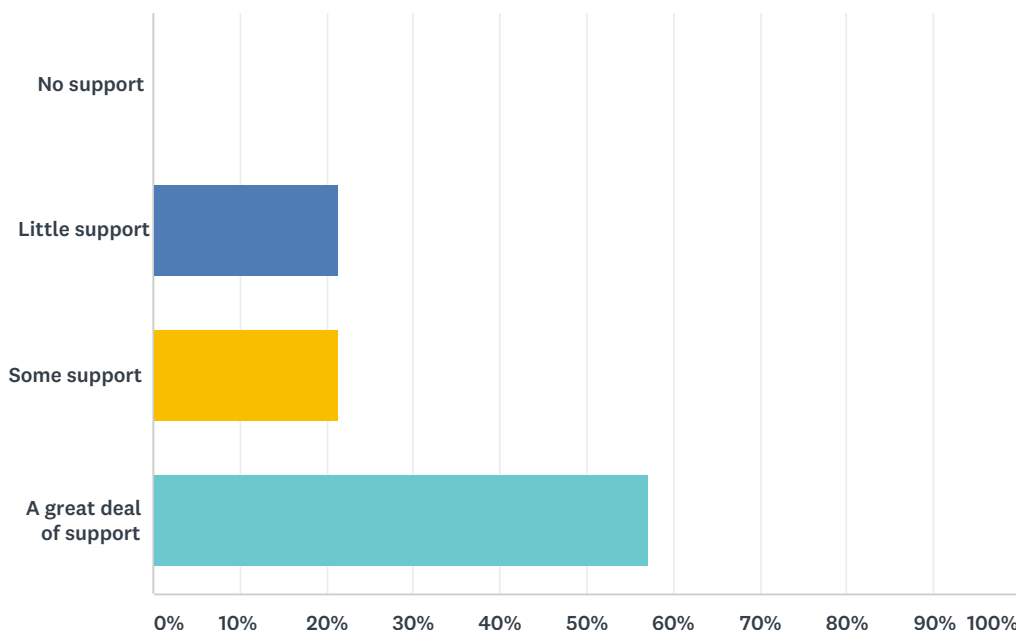
## Q9 In your own words, how did your REU experience influence your thinking about future career and graduate school plans (or not)? Please explain.

Answered: 14 Skipped: 0

#	RESPONSES	DATE
1	The REU influenced me into applying for more scholarships and fellowships but also taught me how to apply/look for good graduate programs	8/16/2019 10:14 AM
2	I have participated in various research projects in the past. However, my REU mentor this year was the first to give me a project and have me think critically about what course of action was needed. By the end of the summer, I was rather independent. I feel that through this experience, I am better prepared for taking on research projects in graduate school.	8/14/2019 11:43 AM
3	This experience was very informative on determining where my passions are in topics of research in materials chemistry	8/14/2019 6:39 AM
4	I want to continue working in the nano field.	8/13/2019 10:09 PM
5	It made me think about the rigors of graduate school and prepared me to work more independently.	8/13/2019 7:08 PM
6	My research at University of Arizona is more based in proteins and genetic modification, so the nanotechnology work I did at Cornell opened me up to an entire new career that I hadn't considered. I know that University of Arizona has a strong optics program, so I have considered adding a major in Optics and focusing on the nanotechnology part of that.	8/13/2019 7:26 AM
7	It made me more confident that I want to pursue a STEM field but I believe I would like to pursue a management position.	8/13/2019 6:36 AM
8	The program gave me a deeper insight of what graduate school and more specifically a PhD program entails and looks appealing to me	8/13/2019 6:25 AM
9	Helped me narrow down what field of science and type of research I want to pursue.	8/13/2019 6:24 AM
10	It influenced it in a way that made me rethink my career plan. I was interested in learning more about research and graduate school life and realized this may not be for me.	8/13/2019 6:23 AM
11	It make me more confident when applying to grad school. Also having a better feel about how grad school operates and the different types of careers associated with nanoscience	8/13/2019 6:21 AM
12	This REU experience reinforced my desire to go into the industry as a mechanical engineer.	8/13/2019 6:05 AM
13	This experience has exposed me to new areas of study and universities that could help me impact my field of interest which is cancer related drug delivery systems and diagnostic techniques.	8/13/2019 4:45 AM
14	This reu helped me chose to pursue an MSE PhD rather than a Chemical Engineering PhD.	8/13/2019 4:11 AM

## Q10 Please indicate the degree of support you received from your PI/Grad mentor in the preparation of your final presentation:

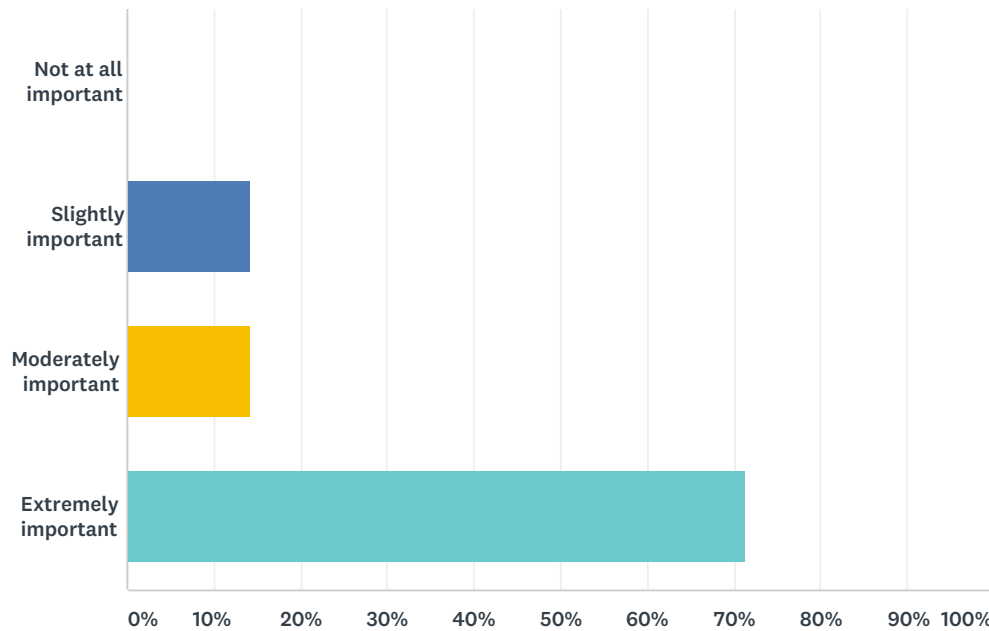
Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
No support	0.00%	0
Little support	21.43%	3
Some support	21.43%	3
A great deal of support	57.14%	8
TOTAL		14

## Q11 From your perspective, how important is the mentor to the success of the REU experience?

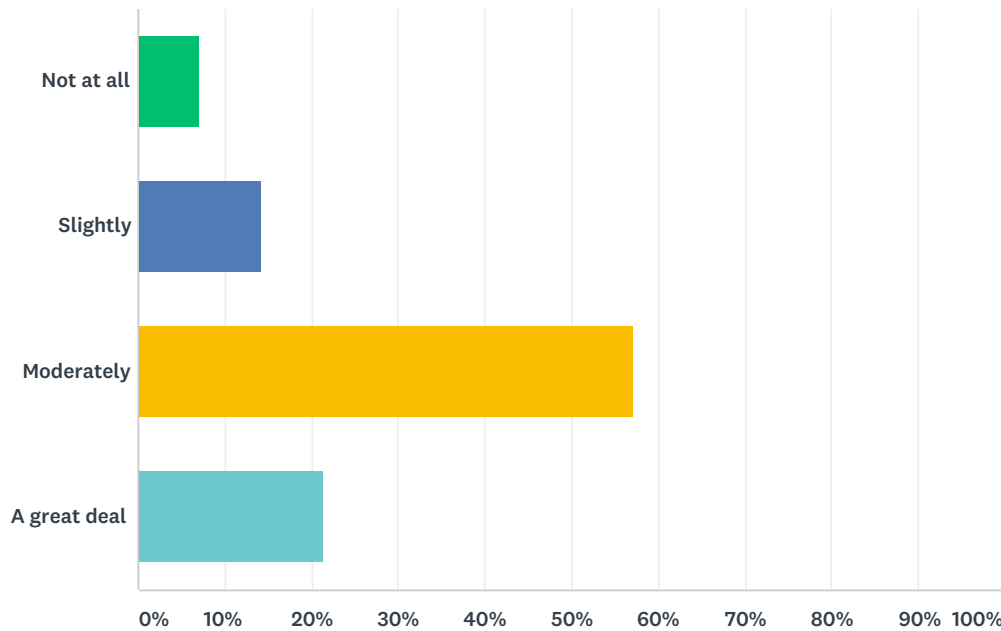
Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Not at all important	0.00%	0
Slightly important	14.29%	2
Moderately important	14.29%	2
Extremely important	71.43%	10
TOTAL		14

## Q12 From your perspective, to what degree did your mentor influence your future plans?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Not at all	7.14%	1
Slightly	14.29%	2
Moderately	57.14%	8
A great deal	21.43%	3
TOTAL		14

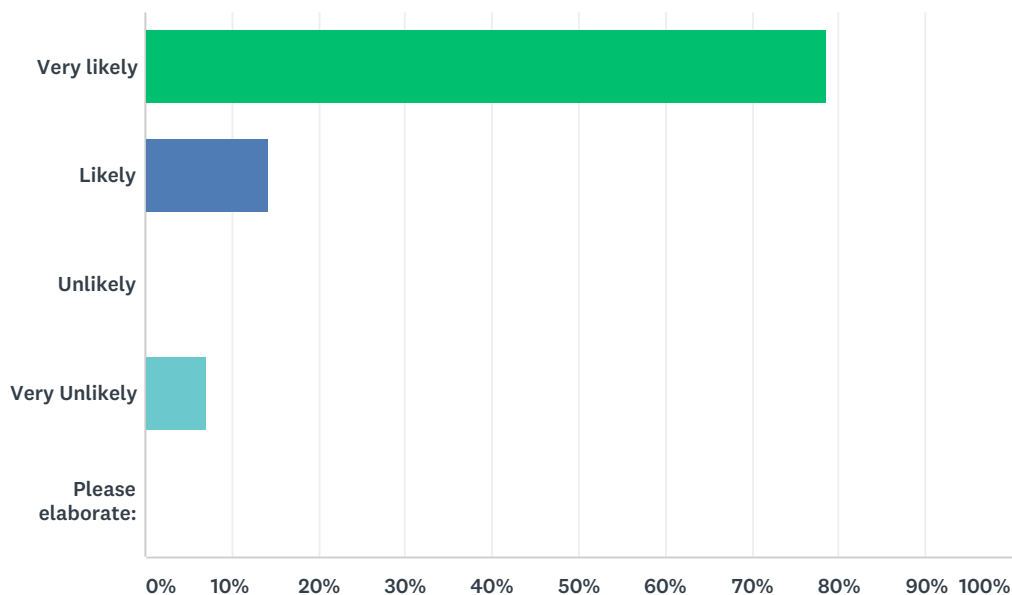
## Q13 Please elaborate on your mentor experience:

Answered: 14 Skipped: 0

#	RESPONSES	DATE
1	My mentor did a great job of giving me attention so that i would know what to do on a weekly basis but also help me outside the lab on how to apply for graduate programs	8/16/2019 10:15 AM
2	My mentor has been very supportive this summer. He taught me not only the fundamentals of my research ,but ensured I learned how to plan and execute a research project successfully.	8/14/2019 11:46 AM
3	My mentors were very helpful in assisting the direction of my projects and supportive of my desicions on how to move forward with projects.	8/14/2019 6:40 AM
4	I was tested to see If I was knowledgeable and considered as a novice in all things concerning the STEM. I think the building of trust was at play.	8/13/2019 10:14 PM
5	It was kind of a ball drop feeling. After 2 weeks of training on tools he expected me to remember to use a tool I learned over 2 weeks ago, not having used it since learning. But as the program get going on, it was clear to me that this was my project and that the mentor was only there to guide me. It was very good in my opinion, but I'd be good to emphasize that to future interns to prepare to work independently.	8/13/2019 7:13 PM
6	My mentor Matthew Henriques was very attentive and patient, and encouraged me to be enthusiastic about my work. He was sometimes a little too positive about feedback, and so I had to go to someone else to get more criticism, but Matthew was the rare combination of knowledgeable and easy to communicate with.	8/13/2019 7:29 AM
7	My mentor took a slightly hands off approach, but was always prepared to answer any questions. That was helpful for my learning style because I will not always learn if I am just told what to do. He allowed us to make mistakes and learn without micromanaging.	8/13/2019 6:39 AM
8	My mentor was very involved and gave a wonderful amount of support and guidance throughout the whole experience. She worked with me during each step of the process but also allowed me a good amount independence when I felt comfortable enough and let me learn through doing. She provided a great deal of wisdom not only related to research and graduate school but also balancing work and life appropriately	8/13/2019 6:31 AM
9	I had a grad student mentor who was very helpful in helping me learn the necessary skills for this project and was always willing to answer questions.	8/13/2019 6:27 AM
10	My PI/Mentor were the same person for me. Her post-doc was the one that I felt gave me the most direction he could and provided me with guidance. My mentor did not have a clear direction for my project and seemed to not have time to mentor me.	8/13/2019 6:25 AM
11	My mentor was very involved! He helped not only with research but helped guide me along with presentations! He was very supportive and actually cared for my future towards grad school!	8/13/2019 6:22 AM
12	I had a wonderful experience with my mentor, but I do believe I was in a unique position.	8/13/2019 6:07 AM
13	My mentor provided me with a great deal of knowledge and support in all my endeavors over the summer. He both helped learn a great deal of techniques while also giving me space to learn and fail from my own experiments.	8/13/2019 4:48 AM
14	My work was outside the scope of their expertise because I deviated from the original project they wanted me to work on. That being said, they did what they could to assist me and when I asked for help they were always willing.	8/13/2019 4:13 AM

## Q14 How likely are you to recommend this REU program to your peers?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very likely	78.57%	11
Likely	14.29%	2
Unlikely	0.00%	0
Very Unlikely	7.14%	1
Please elaborate:	0.00%	0
TOTAL		14

#	PLEASE ELABORATE:	DATE
	There are no responses.	

## Q15 What were the best aspects of the REU program? What aspects are most need of improvement? Please take time to reflect and elaborate

Answered: 14 Skipped: 0

#	RESPONSES	DATE
1	The best aspects of the REU was meeting all of the people (like PI and Mentors) and being able to talk to them on multiple different levels. Getting to know them personally and showing them how well i can work for future recommendations was the most important for me. I wouldn't know what more they need to improve on.	8/16/2019 10:18 AM
2	My amazing mentor and PI were certainly the best aspects of the program for me. In the first week of the program, all CNF participants were required to take a short course. While I thoroughly enjoyed the class and found it helpful to my work, I know others did not find it relevant to their research.	8/14/2019 11:51 AM
3	Everything about the program was phenomenal. Assisting with the week long summer class was probably my favorite aspect, and the only thing I think could use some improvement is communication skills. We were informed last minute about things like presentation details, flight plans, filling out paperwork, ect due to lack of communication or assumption of knowledge between students and coordinators, between cornell coordinators and jhu coordinators as well as between jhu coordinators and jhu.	8/14/2019 6:43 AM
4	The exposure to different testing equipments was good and my research group that showed expertise in their work which help to explain concepts in the field.	8/13/2019 10:23 PM
5	The best are the interaction with staff members. They're friendly and very passionate about intern success by guiding them instead of doing things. Weekly check-ins was good. It kept us interns on track. The field trips and CNF picnic were very fun. It have us some time to relax and decompress from research. The rooming with interns and interacting with them was the best part. They provided support and people to talk with during stressful times during the summer.	8/13/2019 7:17 PM
6	The REU gave a me a generous suite of new skills to add to my resume and some great new connections. Traveling to lthaca for the summer was a fantastic experience; the town is beautiful, and I am now seriously considering applying to Cornell for graduate school, especially with my side focus on business. Some of my peers who have had a poor experience with REUs were all mostly the result of a poor pairing with a mentor and PI.	8/13/2019 7:33 AM
7	The large amount of resources available for use by the interns (ie cleanroom) was a great experience and the cnf staff were very willing to help. I feel that the mentor is a crucial part of the REU (a good mentor will result in a good experience regardless of the research). One criticism I have is that there was too much time spent on training in the beginning. Although the training is important, I feel that the general introductory material could be cut shorter or some could be done online before arriving at the site in order to allow for more research time.	8/13/2019 6:48 AM
8	This REU has an excellent addititude when it comes to having fun and keeping people from drowning themselves in lab work.	8/13/2019 6:46 AM
9	My favorite part of the program was meeting and getting to know the other REUs. I would have liked if there were more optional events, like the hot materials talks, throughout each week.	8/13/2019 6:32 AM
10	I know my peers had an amazing experience. Because of this, I would recommend this REU to others. I highly enjoyed the insight of the skills for presenting, communicating, and poster development.	8/13/2019 6:27 AM
11	The best aspects of the REU was the "home-feeling". Everyone was very friendly and excited to help out with whatever was needed.	8/13/2019 6:23 AM
12	One of the best aspects was the independence given during my project	8/13/2019 6:08 AM
13	The best part of the program is the exposure to all the different areas of study even within your own institution.	8/13/2019 4:51 AM
14	This reu experience gave me the freedom to research a topic I am interested in and gave me a better understanding of my personal best practices to conduct research.	8/13/2019 4:14 AM



## Q16 Please use the space below for any further comments you would like to add:

Answered: 2   Skipped: 12

#	RESPONSES	DATE
1	none	8/16/2019 10:18 AM
2	Force the interns to go to tech meetings. It forces the interns to present their proposed experiment and gets the staff together to evaluate an approach and let the intern know if he/she might want to take another approach. It's a good way to try to teach the intern about communication and collaboration.	8/13/2019 7:17 PM