Major Themes:
- Demographic
- Project Scientist Engagement
- STEM Superstars and Fellows
- Career and Education
- STEM Engagement
- Confidence
- Perseverance
- Social Connectedness

Question Type: Qualitative and quantitative

Number of Questions: Pre - 29, Post - 38

Evaluation Type: Pre/Post Survey

The Sample Size
- Pre - 46 usable responses
- Post - 19 usable responses

Scholars at a Glance

Fewer post survey respondents agreed that they had a parent/primary caregiver that has graduated from high school and college than in the pre survey. This information tells us about the difference in respondents and how it might impact the pre/post results.

Racial Identity
There are vast differences between the pre and post survey when look at racial identities by age. Some of the most notable are that Black or African American participants 14-year-olds increased from the pre to post survey (23% to 75%). Indigenous, Native American or Alaska Native participants went from only having 13-year-olds (3%) to 50% for both 14 and 15-year-olds. And Asian participants went from being both 13 (18%) and 14-year-olds (8%) to only 14-year-olds (100%).

This information tells us that the post-survey respondents are older than those in the pre-survey, and as such, may have impacted the results, for example, how questions were reflected on, answered, etc.

How might Project Scientist market the Scholars program so that it is attractive to a wide variety of ages and racial identities?
I understood everything the Project Scientists Scholars Program taught me.

88% of respondents enjoyed participating in the Scholars program.

100% of respondents felt like they could be themselves in the Scholars program.

60% of respondents met someone in a career they admire in the Scholars program.

100% of respondents felt like they could make mistakes in the Scholars program.

88% of respondents understood everything that was taught to them by the Scholars program.

What were you unsure about or what did you not understand?

- For the session specifically for the wand experience, the instructions were difficult to understand and I did not absorb much from the experience. But overall, I enjoyed and understood the process of a STEM Story.

How could we adapt the instructions so that you would have understood better and/or feel safe to ask questions when you do not understand?

- Different hours and days

88% of respondents understood everything that was taught to them by the Scholars program.

This indicates that the Scholars program created an environment where participants were provided with the tools and knowledge they needed to succeed regarding the lessons being taught.

For those that answered ‘No’ (8%) or ‘Unsure’ (4%), we provided 2 follow-up questions to get a better understanding of why some respondents did not understand and/or feel it was safe to ask questions. The response for those that were ‘Unsure,’ indicated difficulty understanding instructions from one of the sessions and the response for those that answered ‘No’ involved offering different times, assumably outside of the session, where they can ask questions.

*How could Project Scientist gain a better understanding of respondents learning styles and/or preferences to improve and maintain engagement?*
Most respondents found the BAND app (80%) and Tallo website (92%) easy to use and 84% used the Tallo website to earn badges within the Scholars program. However, most respondents (80%) did not use Tallo for purposes that were outside of the Scholars program. Also, just over half of respondents (52%) agreed that they used the BAND app to talk to other Scholars/Scientists within the Scholars program.

This shows that the program tools provided are effective, but are not being used to their full extent.

**How might Project Scientist highlight the uses of it’s program’s tools?**

**How might Project Scientist promote the different uses of the Tallo website in a way that would benefit program participants?**

**How could Project Scientist encourage program participants to communicate with fellow Scholars using the BAND app?**

I enjoyed taking part in _______ sessions.

```
<table>
<thead>
<tr>
<th>Options</th>
<th>Percentage of Post-Survey Respondents that Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Advising with Cindy McCormick</td>
<td>24%</td>
</tr>
<tr>
<td>STEM Story with Dr. Herrera Li Puma</td>
<td>8%</td>
</tr>
<tr>
<td>Cloud Computing &amp; Coding with AWS</td>
<td>20%</td>
</tr>
<tr>
<td>Theater skills with Outcast Theatre Collective</td>
<td>11%</td>
</tr>
<tr>
<td>Power and Reflections with CompuGirls</td>
<td>11%</td>
</tr>
<tr>
<td>Real World Problems &amp; Solutions with Trane</td>
<td>11%</td>
</tr>
<tr>
<td>Character development with Travis Manion Foundation</td>
<td>14%</td>
</tr>
</tbody>
</table>
```

Please tell us about your experiences.

- I did not think the Outcast theater session was very helpful to me. I didn’t really get anything from it.
- I loved the acting tips I got.
- I enjoyed learning about how to solve problems in the real world with Trane Technologies, it was a positive experience.
- I enjoyed these programs because I got to learn about myself more about the type of person that I am and the type of person that I want to be. I also enjoyed these programs because I got to learn about the world around me and see it in a different light.
- I really enjoyed coding the wand because I did not know that I would be this interested in coding and this activity really showed me what coding is about and made me love it.
Please tell us about your experiences, con't.

- The Cloud and Computing session was confusing for me, who does not have much experience with code, but I also had problems with getting the wand to work. The instructions were confusing. The STEM Story session was organized but I felt it got a little long since we watched sections of the same video to breakdown her story and then wrote and shared our thoughts.
- I really enjoyed the coding experience, it was really cool to learn something new. My only thing against it would be that it was complicated, and the problems that I had did not show up on the Troubleshooting page. It took a long time to finally get through it. Other than that, I really enjoyed it.
- I loved the three programs I chose. They helped me to understand things that I wouldn’t otherwise look at. They opened my eyes and my mind to new possibilities and career options that I might also like.
- I liked finding out about colleges, but wished we continued with that a little more, so that I could have an idea of what college I might want to go to. I did not get to attend the Theatre class, but I imagine I would have really enjoyed it because that’s the career I said I admired in the question, and I love acting. I also loved finding out more about my personality, as I never know how to describe myself. I liked the Trane Technologies, but wish we did more with it, like hands on activities. That’s why I really enjoyed the computing sessions. I liked the STEM Stories, but it was really hard for me since mine has barely begun and I’m terrible at self reflecting. I wish we got to meet more female leaders in various fields like business, astrophysics, medical science, and just more entrepreneurship sessions. I also would have enjoyed more self-discovery sessions, since as most of us are teens, we don’t know ourselves that well.
- I enjoyed the college advising session because it got me started on thinking about college. I enjoyed the cloud computing session because I like coding. I enjoyed the theater skills with outcast theatre session because we did exercises with them, and it was fun. I enjoyed the real world problems and solutions session because it showed me ways to help solve problems in the world.
- I liked the activity with Outcast Theatre because it really just got me out of my comfort zone and I had fun with it. I also liked the Character development to show me what my strong points were, what I could probably improve on in different areas, and it showed me some things that I didn’t know about myself.
- I have trouble staying engaged throughout presentations and learn better through active participation.
- I liked the AWS one a lot because it was really interactive, so instead of just listening, we could also make something ourselves and really learn how to code. I also loved the CompuGirls one, probably because the meeting I was in was quite small (10 people), so it was more individualized and we all had a chance to talk. It felt more like a fun, interesting conversation than a lecture.
- I loved the activity where we coded with the wand! It felt a lot more realistic than other “learn how to code” programs, and really kept me interested with the storyline.
- I felt as though that these specific lessons were the best for me to understand what was going on and I feel as if these specific lessons were the most helpful for me in the long term.

Overall, participants enjoyed their experiences in these sessions. ‘College Advising’ was the most popular selection at 24%, then ‘Cloud Computing & Coding’ at 20%, and ‘Character development’ with 14%.

Of those that shared their experiences, most expressed that they enjoyed their experiences in the sessions. However, even though the ‘Cloud Computing & Coding’ session was the second most popular choice, some respondents did say that they found it to be confusing and/or complicated.

How might Project Scientist help respondents continue conversations and learning beyond a session? e.g., providing resources for respondents to continue looking into colleges, or extra information on a favorite subject.

How might Project Scientist share these feedbacks with session leaders so that they can alter their courses to be reflective of participants comments?
84% of respondents stated that they would be interested in participating in the Scholars program again.

If given the chance, I would participate in Project Scientists Scholars again.

- I really enjoyed the college course. If that could be a class on its own that would be really cool.
- I enjoyed meeting different people in various fields because it gave me an opportunity to see potential career paths ahead of me. I also enjoyed the coding exercise.
- Because it’s diverse and open to everyone. I met all type of people
- I would participate in scholars again because it help me learn more about opportunities in stem and it showed me empowering women in stem as well
- Very fun and interactive all of the people on the program I feel like I can relate to.
- I love how i can more myself
- Project Scientists makes me feel safe and I see multiple people that I can look up to and learn from. Especially when others share their experiences and I can relate to them.
- I enjoyed this program since I learned new things and felt like I was in a welcome community.
- It’s a good experience, I’ve learned a lot and I have learned a lot about myself. It also helped me speak out loud and be more open.
- I would participate in the Project Scientist Scholars Program again because I have attended the Project scientist camps and always learned something new every day it is exciting and I would love to continue/ They keep the promise of new knowledge all the way through to the scholar’s program and I would be eager to learn more.
- I would want to participate in this program again because it is a rare opportunity. I also like how they teach us something different each week and some things that were even different from when I was there at the main Project Scientist in USC when I was younger. I loved the conversations that we had and how open we could be with our mentors. It was homey.
- It was a very inclusive community and I didn’t feel bad for making mistakes. I was also able to think more and everything from the sessions stuck with me. I loved learning in these sessions and everyone was so nice and kind.
- I thought it was a very fun program every time I attended. I learned something new every time, and I feel if I went back year after year, I would still learn something new. The teachers, volunteers, and presenters were all knowledgeable and all fantastic role models
- It was interesting and fun, and I got to meet people outside of school/family
- I learned a lot, and it really exposed me to areas of STEM that I had never seen before, which I don’t necessarily have the easiest access to at home. Also, it sort of forced me to participate in areas of STEM that I didn’t want to do, and it helped me realize that I actually may like it.
- This program has actually helped me learn more about myself, and I would love to continue it. It was a lot of fun to talk with other students who have the same values as I do!

Please tell us why you **would** participate in the Scholars program again.

Please tell us why you **wouldn’t** participate in the Scholars program again.

- wasn’t for me
Please tell us why you are unsure whether you would participate in the Scholars program again.

- Because I’m not sure if I would want to do the program again.
- I didn’t enjoy every part the scholars program but there were also some aspects that I liked so next time I don’t know what to expect the next time.

84% of respondents stated that they would be interested in participating in the Scholars program again, while 8% answered ‘No’ and another 8% answered ‘Unsure.’ The comments made by those that would participate in the Scholars program again show that participants are being provided with opportunities for new learning, skill advancement, and empowerment through educated STEM Superstars and Fellows.

With most respondents stating that they would participate in the Scholars program again, this indicates an interest and a need for this type of programming and is particularly relevant given that all post survey respondents are racialized minorities.

How could Project Scientist enhance the experience of all participants, even those that feel that it may not be right for them?

Other Programming Topics/Activities that are of Interest

If there are any other topics or activities you would like to see the Scholars Program provide or if you have other topics or activities suggestions, please describe them here.

- more aviation
- A problem solving and decoding class
- Incorporating the arts in stem
- I would have liked to see something more on the biology and medical side, mostly because that is the field I am looking into most currently, but overall, I think Project Scientist covered such a wide range of topics and was a great source for me to learn more and be more sure about what I want to pursue/my back-up options.
- I think a animation or art related session would be cool. I believe STEM should include art making it STEAM.
- Maybe something in Chemistry/biology? In my opinion, I find those very exciting. I also enjoyed the games and answering questions on a survey.
- I would like them to cover more about Engineering and building structures. I think these sessions mostly focused on technology and general learning.
- Some topics I would like to see included: - Astrophysics (it’s not something a lot of people know about) - Medical Science (doctors are super cool and I think a lot of people want to be them) - Business (meeting a strong, female business leader would be so inspiring) - Art topics (singing, drawing, etc.) (I think it would really inspire us to pursue our dreams) - Behavioral Science and Psychology (I just think it’s super interesting)
- Maybe make a presentation about what degrees could be used for different jobs. For people who don’t know what they want to do, I feel as if it could be helpful. On multiple occasions I have wondered what jobs I could get based off of what I was interested, so maybe having a presentation based off of that would be a good resource
- Astronomy - maybe an intro to Astrophysics/theoretical physics/quantum physics t is or even just basics of what is beyond earth Climate change - its extremely relevant to modern times, and likely what we are going to have to face in the future, so It would be cool to expose us to this kind of science Epidemiology/disease - just an intro to it especially because its relevant w/ COVID
- One topic that would be nice is mental health, as it is a pretty big topic especially for teenagers.

Respondents were asked if there were any other topics or activities that they would like to see the Scholars program provide. Of those that answered, multiple requests were made for, ways of incorporating arts into STEM, medical sciences, such as biology and chemistry, and astrophysics.

This highlights that although Project Scientist does offer needed STEM programing, that there are still areas that can be explored and offered.

How could Project Scientist expand their current offerings to align with respondents’ interests?
How might Project Scientist include or provide resources for other topics/activities that are of interest?
Experience at Project Scientist Scholars Program

How would you describe your experience at Project Scientist Scholars?

- It was really fun and educational.
- Aight
- I enjoyed it but I wished there were more sessions geared towards more than just technology. For example, medicine or math.
- A very awesome experience
- My experience was very good. I feel like this program was very beneficial to me.
- I would describe my experience as positive and welcoming. I never felt alone while joining a zoom call and I always felt like I could connect in some way to the activities or others.
- AWSOME VERY FUN WPULD 100% XO IT AGAIN!
- I would describe my experience at Project Scientist as very fruitful and fun. It certainly was a good use of my time and I looked forward to every meet because I knew I would love what we were doing and I knew I could be myself and ask questions without being judged.
- I think it was okay, I enjoyed sharing and participating in the sessions.
- It was a lot of fun. I got to learn about the people around me, about myself, and learn about new things.
- I would describe it as really good. I enjoyed myself and I’m pretty sure the other girls and boys did by the way we smiled and laughed.
- I would describe it as full of learning and fun
- I really liked the program and it was something I looked forward to. Everyone was kind and it was very welcoming. It was a warm atmosphere and it brought me joy.
- I think it was fun every session that we had. I learned something new every time, and it helped with the self discovery process
- It was a chance to learn new things
- It was a lot of fun. I learned a lot in a fun way. It was stress-free and nice thing to do on my weekend.
- If I would use three words to describe my experience, I would say enlightening, informational, empowering.
- I would describe it as a fun experience with different things happening every session.

Respondents were also asked to describe their overall experience with the Scholars program. The responses indicate that their time in the Scholars program was a positive experience, in that they were given opportunities to learn new things, and that the space was welcoming and inclusive. These experiences are important as they highlight the need of STEM programming that is geared towards girls/women and people that are a gender minority.

Stem Superstars and Fellows | 3.78 score out of 5 | ↑ from 3.02

100% Of respondents enjoyed hearing from the STEM Superstars.
92% Of respondents learned new things about STEM from the STEM Superstars and Fellows.
88% Of respondents would like to be a STEM Superstar or Fellow one day.

What did you like most about hearing from the STEM Superstars?

- Their life story and how they got to their present day career.
- idk
- I liked hearing about their interests and the career choices that they have made.
- Their experiences
- I like hearing about their experiences and jobs the most
- Their experiences and stories that they would share.
- There life stories and how they got to where they are now.
- I really enjoyed seeing how far they’ve come in their careers and how they have used everything we have learned here in their job.
- I enjoyed listening to their STEM stories and stories they had in their career. It was inspiring and made me believe in life changing moments and made me look for those moments in my life.
- Mostly their stories and upbringings.
What did you like most about hearing from the STEM Superstars? con’t.

- I got to hear about other people’s journeys that could directly tie into mine when I’m old enough to make decisions for myself. I was able to relate to some of the things the Superstars covered like background and how they pursued their dreams.
- I liked hearing about their experiences in STEM.
- I liked hearing about the coding and how it’s okay to make mistakes and that you just have to persevere.
- I liked to hear about their past experiences and how that helped land them to where they are now.
- People older than yourself always have knowledge where you might not.
- They were really well-versed in their work, and they showed us what actual people do in their profession.
- I loved hearing about some of their STEM stories, it was kind of like looking into the future of what I could become.
- I enjoyed listening to their experiences on how they chose to be part of STEM.

Respondents were asked to share what they liked most about hearing from the STEM Superstars and most responded that they enjoyed learning about the STEM Superstars life experiences and how they got where they are today. 0% of scholars responded when asked if there was anything they didn’t like about hearing from the Stem Superstars.

Are there other ways that Project Scientist could highlight the lives of their STEM Superstars?

Support and Role Models

Statements

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre Survey</th>
<th>Post Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have access to people of any gender that I can go to for professional support</td>
<td>71%</td>
<td>92%</td>
</tr>
<tr>
<td>I know of women in STEM that I look up to.</td>
<td>71%</td>
<td>72%</td>
</tr>
<tr>
<td>I find it easy to discover older and knowledgeable women to learn from.</td>
<td>63%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Statements #1 and #2 had the highest percentage of agrees in the above graph for both the pre and post-survey. Statement #1 “I have access to people of any gender that I can go to for professional support,” increased by 21% (71% vs 92%) and #2, “I know of women in STEM that I look up to,” increased from 71% to 72%. Although they may not have met or encountered these people in the Scholars program, respondents are gaining access to individuals that they can aspire to be like or go to for support.

Statement #3, “I find it easy to discover older and knowledgeable women to learn from,” which also had the lowest percentage of agrees in the pre-survey, decreased from 63% to 52%. Statement #3 also had the highest percentage of those that selected ‘Neutral’ in both the pre (30%) and post (32%) survey. Of those that selected ‘Neutral,’ 75% are Black or African American and 25% are Asian, which is an over representations for their groups.

Being able to connect and learn from older and knowledgeable people is important as it provides different perspectives and can enhance individual growth. Which is why statement #3 is of particular interest when you relate it to the responses from the question “What did you like most about hearing from the STEM Superstars?” as most commented on how they enjoyed hearing about the STEM Superstars life experiences.

Beyond STEM Superstars and Fellow, are there ways that Project Scientist could help respondents find older and knowledgeable women to learn from?
I have access to people of any gender that I can go to for professional support, by Racial Identity.

We broke down Statements #1, “I have access to people of any gender that I can go to for professional support,” from the graph on the previous page by racial identity.

Agreement to this statement increased from pre to post for all identities except Asian, which drops from 23% to 15%. 100% of respondents who selected ‘Neutral’ are Asian, versus 25% from the pre-survey.

How might Project Scientist provide tools and/or knowledge of how respondents might be able to find older and knowledgeable women in STEM that they can learn from?

We broke down Statements #1, “I have access to people of any gender that I can go to for professional support,” from the graph on the previous page by racial identity.

Agreement to this statement increased from pre to post for all identities except Asian, which drops from 23% to 15%. 100% of respondents who selected ‘Neutral’ are Asian, versus 25% from the pre-survey.

How might Project Scientist provide tools and/or knowledge of how respondents might be able to find older and knowledgeable women in STEM that they can learn from?

People to Look Up to in STEM

Even though 76% of respondents agreed that there are older people in STEM careers that they look up to, 24% chose ‘Neutral.’ Of those that chose ‘Neutral,’ 67% are Black or African American and 33% are Indian, which is an over-representations for their identity groups. 68% of respondents agreed that they know of someone working in STEM that looks like them, 28% chose ‘Neutral.’ Of those that chose ‘Neutral,’ 29% are Asian and 29% are Indian. This is also an over-representations for their identity groups. Only 32% of respondents agreed that they know of someone in STEM that identifies as a gender minority, 28% chose ‘Neutral,’ and 40% selected ‘Disagree.’

Similar to statement #1, “There are older people in STEM careers that I look up to today,” where 67% of Black or African American respondents selected ‘Neutral,’ statement #3 on the previous page, “I find it easy to discover older and knowledgeable women to learn from,” had 75% of Black or African American respondents selecting ‘Neutral.’

This information highlights a need to provide more representation towards STEM Superstars that belong to racial and/or gender minorities.

How could Project Scientist help those that selected ‘Neutral’ or ‘Disagree’ to know that there are people out there working in STEM that are knowledgeable and that look and identify like them?
Are there ways in which Project Scientist can showcase not only women-identified STEM Superstars, but also those that are a gender minority?
Do you plan on studying STEM while in college?

- Yes, software engineering or computer science with a minor in creative writing.
- Yes I think I want to be pre-med.
- Maybe
- Yes computer science and maybe law
- Yes because stem, is fun and needed to be a vet
- Yes, I plan on studying medicine or some type of biology. If not, my backup is coding. So all my plans involve STEM :)
- Yes, I plan to studying engineering, space sciences, and maybe chemistry and art.
- Yes. Probably something in Paleontology or Zoology.
- Yes. I plan to major in architecture / engineering. I find it amazing and calming to build and create new things.
- Yea. I’m very set on that fact that I want to study science, or math in college, maybe even both. I don’t know what field of science, or what I could do with a math degree, but I do plan on studying STEM
- Im not really sure. I have a huge passion for all sorts of STEM and other stuff like Law and Politics. I feel like I would love to do STEM, but im not sure I’d be completely satisfied in life only studying one subject. I hope that I can find one subject that I have a huge passion for and be satisfied with it.
- Yes. I plan to major in aerospace engineering.

Confidence and Support

Statement #1, “I have the confidence needed to pursue any educational or career path I choose,” saw the smallest increase from 66% in the pre survey to 68% in the post survey. Statement #2, “I communicate with my peers about our different career goals and dreams,” saw the largest increase, from 62% in the pre survey to 100% in the post survey.

However, there was a decrease from the pre to post survey for statement #3, “I have the support needed to pursue any career I choose,” (89% to 84%) and statement #4, “I feel prepared for my next year of school,” (64% to 60%) did decrease from the pre to post survey.

These show that even though 100% of respondents plan on going to college, they are apprehensive about the future.

What could Project Scientist offer that would help support respondents feel supported and prepared as they move into new school year? How could Project Scientist offer support in regards to pursuing or finding their educational or career path?
Respondents’ confidence in pursuing any educational or career path increased for all identity groups, except for Asian respondents, who went from 41% to 27%. The number of Asian respondents that chose ‘Neutral,’ also increased, from 6% in the pre survey to 40% in the post-survey, as did Black or African American respondents who chose ‘Neutral,’ from 35% in the pre survey to 60% in the post-survey. Black or African American respondents that chose ‘Disagree’ decreased from 50% in the pre survey to 33% in the post survey, however, Indian respondent that chose ‘Disagree’ increased from 0% in the pre survey to 67% in the post survey.

Seeing how individual identity groups view their confidence levels can be helpful when looking at program development, particularly when a goal is to encourage growth of confidence.

*How might Project Scientist continue to support and encourage Scholars growth?*

68% of post survey respondents agreed that they had the confidence to pursue any educational or career path they chose.  
↑ from 66% in the pre survey.

84% of post survey respondents agreed that they have the support they need in order to pursue their career.  
↓ from 89% in pre survey.
Agreement to the statement, “I feel prepared for my next year of school,” increased across all identity groups. The largest increases from the pre survey to the post survey were for Indigenous, Native American or Alaska Native respondents who went from 0% to 22% and Black or African American respondents from 47% to 66%.

However, 71% of Black or African American respondents also chose ‘Neutral’ for this statement, which is an over representation as they represent 44% of total respondents. Similarly, 67% of Hispanic/Latina respondents chose ‘Neutral’ for this statement, but represent only 15% of total respondents.

How might Project Scientist help respondents feel more prepared for the next school year?

How might Project Scientist gain a better understanding of why some identity groups are feeling less prepared than others?

Select the option(s) below that you feel you have the adequate support to achieve.
Select the option(s) below that you feel you have the adequate support to achieve, by Racial Identity.

Pre Survey

Post Survey

Pre and post survey responses for the statement “Select the option(s) below that you feel you have the adequate support to achieve,” remained virtually the same. However, when we break down the response by identity group, we can see that all percentages increase for most identity groups, except Indian and Asian respondents.

In the pre-survey, Indigenous, Native American or Alaska Native respondents had no response for options 3, 6, and 7; all of which involve having someone to discuss aspects of what a future career may look like. In the post survey, they responded with 6%, 7%, and 7% respectively, which could indicate that they gained connections through the program.
Indian respondents saw a decrease in options 3, 4, and 6 and Asian respondents saw a decrease in options 2, 3, 5, 6, and 7. Options 3 and 6 (‘Connect with adults in careers I am interested in’ and ‘Discuss fears I have about my future career’) both involve producing connections with other people, be it adults or other youths. The decrease in these categories is consistent with other responses where Indian and Asian respondents chose ‘Neutral.’ For example, the statement “I have access to people of any gender that I can go to for professional support,” Asian respondents represented 100% of those that chose ‘Neutral,’ and the statement “I have the support needed to pursue any career I choose” Indian respondents represented 50% of those that chose ‘Neutral.’

This can indicate that there may be some identity related barriers to achieving their full potential.

How might Project Scientist address the areas where respondents reported having the least support? How can Project Scientist better understand the needs of Scholars based on unique identity markers?

Leadership

88% Of respondents look for leadership opportunities in their school and community.

What types of leadership opportunities have you taken part in?

- ASB
- rotc
- I have taken a leadership position in clubs and plan to continue doing so.
- An event planning committee and being leader on projects
- I have participated in Black Student Union and am a member of AOIT
- DECA- President and Vp of career development TTA(Top Teens Of America)- Financial secretary, TTA Liason partnered with NCNW
- I am on the planning committee for builders club at my school. I also plan on leading my own food drives
- I have started a community project and that is my main leadership opportunity currently.
- I am currently part of student government in my school. I am the high school ambassador.
- I volunteer at a place that’s similar to a petting zoo, where I communicate all day with people.
- I have a few things that I have been in. Either minor or major roles. I volunteer at my church to help the younger kids during choir and look after them sometimes during the church service. I work sometimes at my mom’s school to help kids when they need to calm down and I also do simple computer work there as well.
- Not many leadership positions, since I’m still in middle school and even for teams and clubs we don’t have any, but I do often volunteer to take charge in situations.
- I don’t really know what counts as leadership, and how big of opportunities we are talking about, but I do take on leadership roles in groups, but as a bigger thing like a whole grade, or community, not so much
- Student Leadership Club, Eagle Scout Program, Head of German Club, Helping in German Summer Camps, etc.
- I have been the leader of the Teens Leading Change project, and have also volunteered to help be a teachers assistant in my favorite science program.

Why not?

- Because I don’t think I’m that good of a leader.
- I get anxious/nervous around others and may not know how to act
- I am not a leader type, and I am not the one to tell people were to go or do something, but I also like to think that I am not a follower because following instructions is something I have never been good at.

There was some confusion as to what was meant by “leadership opportunities,” which indicates a need for more thorough definitions and/or examples provided when asking this kind of question.

Is there opportunity for Project Scientist to provide a clearer definition or meaning behind what “leadership opportunities” look like? How might Project Scientist provide leadership opportunities to those that are seeking them?
Has your dream job changed since taking part in Project Scientist Scholars?

Most respondents (52%) said that their dream job had not changed, 40% said that it had changed, and 8% were unsure.

In the post survey, respondents were much more specific about what their dream job is in comparison to the pre survey. This could be because respondents in the post survey are a bit older than those in the pre survey, but it can also be speculated that their time in the Scholars program helped them better articulate future aspirations.

How might Project Scientist further help Scholars to identify their dream career?
41% of respondents indicated that they felt their identity would be a barrier towards getting their dream job, in particular they indicated issues of racism (46%), sexism (38%), having a disability (8%) or being a part of the 2SLGBTQ+ community (8%). 41% also indicated ‘Yes, Other,’ and stated that barriers may include: financial, staying motivated, time management skills, lack of opportunities, and not sure what their passion is.

This shows that participants in the Scholars program have an understanding of potential obstacles they may face, and is particularly important for marginalized individuals who may not have access to resources that can help them surmount these barriers.

How might Project Scientist help support respondents to fight against potential barriers to their dream job?
96% Of respondents enjoy learning about STEM.

92% Of respondents want to pursue a career in STEM | ↑ from 85% in the pre survey.

80% Of respondents learned more about what it would be like to work in STEM.

I want to pursue a career in STEM.

Compared to the pre-survey, more post survey respondents indicated that they want to pursue a career in STEM (92% vs 85%). This could indicate that exposure to STEM through the Scholars program helped participants understand what they want to do as a career.

Participation in Other STEM Programs

76% Of respondents participate in other STEM programs.

What other STEM activities do you participate in?

- I participate in the medical club at my school and Science Olympiad.
- Girl Power
- Academy of Information Technology, Adobe Certifications
- AOHS (academy of health sciences) at school
- Stem woman’s club
- I take a coding class.
- I participate in summer camps like space camp in Alabama and biology camps.
- I do some other programs like Teenshop and NSBE that also target girls to teach and help guide them so that they will one day enroll into college.
- Science clubs and technology classes at school.
- Some clubs I participate in: - Mathcounts - Math Club (Math Madness and other math competitions) - Math Olympiad - Science Olympiad - Future Problem Solvers - Academic Games
- Coding camps, quantum physics (and other physics) classes, math counts, eCYBERMISSION, etc.
- I take an extracurricular astrobiology course, and am part of the astronomy club at my school.
- Robotics Kiwiko
Are there any programs you would like to participate in?

- Possibly something in biology or science.
- I would like to be a part of some STEM programs. The current school doesn’t have very many STEM activities outside of the curriculum, but it does have a very strong grip on the arts, because it is an arts school. I would like to participate in math activities, and probably try to find any specific areas of science I would like to go into.
- not sure

76% of respondents participate in other STEM programs. When asked what they were, those that responded indicated that they participate in programs involving coding and technology, medical sciences, astronomy, robotics, and other women’s STEM clubs.

Having an understanding of other STEM activities that are available can help with the development of new programming for Project Scientist that can help expand their membership.

Math Circle

40% Of respondents would be interested in taking part in “Math Circles.”
12% Of respondents are not interested in taking part in “Math Circles.”
48% Of respondents are unsure if they are interested in taking part in “Math Circles.”

Confidence | 4.10 score out of 5 | ↑ from 3.76

96% Of respondents believe they are smart enough for my dream career.
100% Of respondents believe they are smart enough to pursue a career in STEM.
100% Of respondents believe that if they make a mistake, they will be able to fix it.
100% Of respondents are more confident studying STEM after Project Scientist Scholars.

![Confidence Chart]

Pre Survey Post Survey

Questions

I feel confident in my ability to overcome any hardships and obstacles that I may face.
I find it easy to continue working on projects, even if they do not go my way.
I find it easy to ask for help when I need it.
I would not change the way I do things to please someone else.
I am not afraid to share my opinion, even if others might disagree with me.
I believe I can do anything I set my mind to.
Respondents confidence grew for all statements, with the largest improvements being statement #3, ‘I find it easy to ask for help when I need it,’ which went from 43% to 80% and statement #1, ‘I feel confident in my ability to overcome any hardships and obstacles that I may face in life,’ which went from 70% to 92%.

However, when statement #1 was broken down into individual identity groups, we found that even though overall percentages went up, individual percentages went down in all but 1 identity group, Indigenous, Native American or Alaska Native respondents, which went from 0% in the pre survey to 8% in the post survey, which is consistent with all other scores from this group in the post survey.

The group with the largest discrepancy were Asian respondents, who went from 33% in the pre survey to 16% in the post survey. This is also consistent with the rest of the post survey scores for this identity group, who saw either a decrease in percentage of ‘Agrees’ or an increase in the selection of ‘Neutral.’

How can Project Scientist continue to grow Scholars’ confidence overall, while also paying particular attention to certain identity groups that may be struggling?
Social Connectedness | 4.41 score out of 5

- 100% Of respondents have friends I can be themselves around.
- 92% Of respondents tell their friends if they hurt their feelings.
- 100% Of respondents are friends with people they feel accepted and included by.
- 100% Of respondents are connected to people they feel comfortable sharing their thoughts and ideas with.

Social connectedness was also not asked in the pre survey, but the results from the post survey show that the Scholars programs has created a space for respondents to connect with others with similar passions and provided participants with opportunities to engage in healthy friendships.

How might Project Scientist continue to encourage the importance of strong friendships?

Is there anything else you'd like to share?

- Thank you to everyone who ran this program! I am so grateful to have an opportunity like this.
- I think Tallo was a little hard to use at first, since I had never used it before but after a while I figured out how to request for badges.
- I got so comfortable once with the story-telling popcorn activity that I almost spoke out loud without being asked. (That hasn’t happened in a long time!)
- I am grateful for this program and what it has taught me.
- Not really, except that I think this program should continue so I can join next year.
- I really liked all of the self discovery based presentations as well as the STEM ones. I think that they should include both next year.
- I really enjoyed it, and if I could do it again that would be awesome!