



**Science
Societies**

Building bridges with a strong foundation

By Elizabeth Gillispie

| February 14, 2022



Photo courtesy of Adobe Stock/3Dman.eu.

The Agronomic Science Foundation (ASF) is a non-profit 501c(3) organization that has received numerous and generous contributions from donors to fund student programs, scholarships, lectureships, conferences, awards, international travel, and other programs to enhance the Societies' member programs. These ASF programs benefit our members, students, and future contributors to our scientific community.

This article is the story of how ASF funded the ASA, CSSA, and SSSA 2021 Bridge Scholars Program with a brief overview of outcomes. We hope it can be used as an example and pilot for many more programs in the future!

Have a Goal

Recruiting students to pursue careers in agronomy, crops, and soils is essential for developing the next generation of scientific leaders. The landscape analysis used to inform the strategic plan of all three Societies lists "disconnect with agriculture" as the top challenge in extending our professional impact. For many suburban and urban students, there are stigmas associated with agricultural careers, which are perceived as less prestigious, low-paying, or for which a clear career path is not evident (Friesner et al., 2021). According to a 2020 National Science Foundation (2018) report, only 1.7% of doctorate recipients were in the Agricultural Sciences field of study. Furthermore, out of the 1.7%, 3.7% were Hispanic or Latino and 0.33% were American Indian or Alaska Native. ***Programs are needed that help students from underrepresented groups become aware of the possibilities in agricultural and environmental science advanced degrees and careers.***

For the 2021 Bridge Scholars Program, we decided to focus our proposal efforts toward the Chicanos/Hispanic & Native American community while providing:

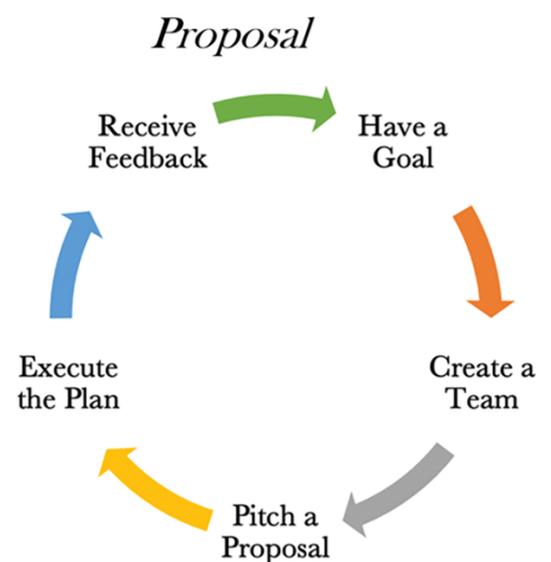
- **integration into agricultural and environmental communities,**

- exposure to new career options,
- development of strong mentors,
- cross-society collaborations,
- financial support, and
- professional development workshops.

Create a Team

The proposal was written by myself,¹ Karina Morales,² Vara Prasad,³ and Susan Chapman.⁴ Our team, however, also included:

- collaboration with the Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS),
- advisement from Gustavo Macintosh⁵ and Adán Colon-Carmona,⁶
- feedback from ASF Board of Directors members, and
- integration with the Societies' Diversity Committee



Creating a proposal is a continuous process when developing long-term programs. Start by having a goal, and use your experience to

Pitch a Proposal

strengthen your proposal for the next submission.

The purpose of the Bridge Scholar Program proposal was to promote the scientific and professional advancement of Hispanic and Native American students in advanced degrees and careers within agriculture and environmental sciences. It aimed to create a collaboration between SACNAS and the Societies to increase the networking and growth potential of underrepresented students and scientists through integration and inclusion while also encouraging diverse scientific collaborations. The funds from this proposal were used to:

- promote careers in agricultural and environmental sciences and aid in a professional development workshop at the 2021 SACNAS National Diversity Conference;
- provide financial aid to a select number of minority students to attend the ASA, CSSA, and SSSA Annual Meeting and become members;
- establish a mentoring program for incoming scholars in order to be integrated into the Annual Meeting; and
- incorporate scholars into Diversity Committee program activities at the Annual Meeting.



The 2021 Bridge Scholars at the ASA, CSSA, and SSSA Annual Meeting in Salt Lake City, UT. Left to Right: Paul Martinez (UC-Davis), Rinske Tacoma-Fogal (Cornell University), Dr. Vara Prasad (organizer and 2021 CSSA president, Kansas State University), Kenzo Emiliano Esquivel (UC-Berkeley), Karina Morales (organizer, Texas A&M/USDA), Dr. Liz Gillispie (organizer), Courtney Nicole Scott (University of Georgia–Athens), and Derrick Eugene Platero (University of Georgia–Athens).

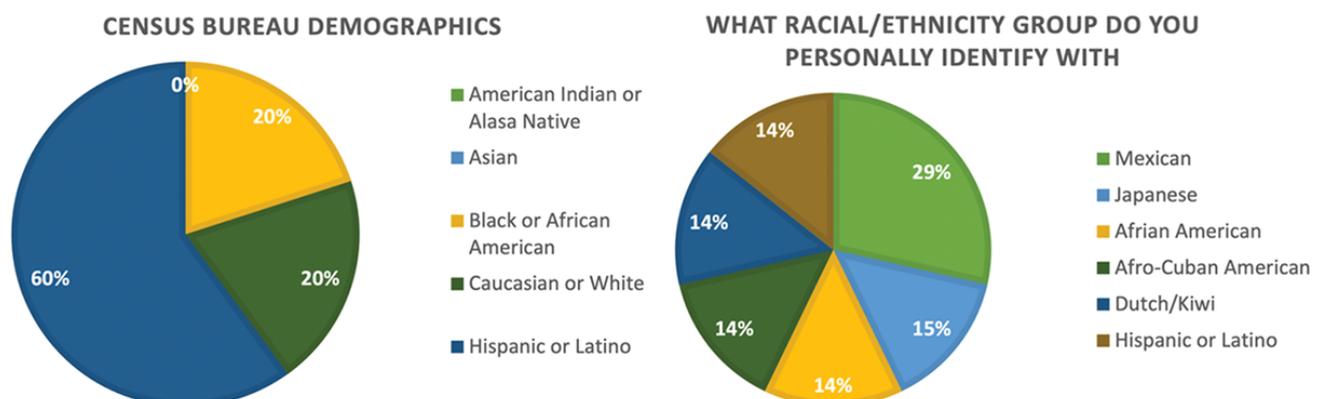
What Should Your Proposal Entail?

Break your proposal up into easily digestible sections. First, provide a short “Overview” section, listing who are the participants, the potential funding concept, and your core objective. Next, define your “Scope.” In this section, be sure to concisely discuss the purpose of the proposal, the background of why it’s important, what funds you are proposing, and a brief description of how those will be allocated (a more detailed outline can come later). Once you have outlined your background, define the objectives of your proposal. Providing this in a numbered list format is completely acceptable and often easier to read!

After you've set up your overview and background, now you can create a section "Proposal Funding Request" that really dives deep into what you are asking, how these funds are specifically facilitated for each aspect of your proposal, who is involved, and who is organizing certain parts of your proposal. This is a great space to get organized and specific; use it to work with ASF members on your ideas. ***The ASF board members are there to help you with feedback, so don't feel that you need to wait until your proposal is being reviewed to hear from them!*** Lastly, don't forget any supporting information you feel is necessary, especially that "Budget Summary!" This summary is just a quick table that breaks out the itemized budget you are proposing.

Execute the Plan

Way to go! You've submitted a proposal to ASF, and the board is reviewing it in its next meeting. Don't worry if you aren't approved the first time. Work with ASF on understanding how to improve your proposal. Sometimes this means changing your scope, and other times this could be collaborating with other groups to strengthen the proposal. Once the proposal is approved, now you need to make it happen! Be sure to meet early with your group, advertise on social media if you are looking for attendees or applications, and talk about your efforts with colleagues, students, or in other related organizations.



Results from the 2021 Bridge Scholar demographic survey. Scholars were asked to fill out their racial/ethnicity classification based on the group they personally identify with. When

not constrained to using Census data, the Bridge Scholars reflected more diversity. Additionally, some participants didn't identify with their previous Census Bureau selection. These results highlight the limitations that come with classifying diversity demographics and how the complexity of the individual needs to be better captured in demographic data.

Receive Feedback

Whether your proposal was for a one-time need or something you wanted to establish long term, it's important to receive feedback on your program or event. You can gather feedback through surveys, follow-up webinars, or by asking for it during the event itself. Write the feedback down, and really take time to assess what went well, how it could be improved, and what members are asking for. Sometimes programs can be integrated into others or expanded to have a broader impact, and it just takes a pilot program with feedback to figure that out. Currently, the 2021 Bridge Scholars Program is assessing demographic data and post-program survey feedback to assess how to better expand this program to include more diversity and collaboration with other organizations.

Learning from the 2021 Bridge Scholars Program

Most of us can agree by now that diversifying our scientific research and collaborations better equips us for addressing global challenges due to increases in innovation and funding opportunities. One way to approach this is by ensuring agronomic, soil, and crop sciences are represented by scientists, students, and practitioners from a broad spectrum of demographics and backgrounds. There is much to learn from the 2021 Bridge Scholar Program and much to expand, but some quick takeaway messages are:

- ***Diversity can often be hidden in how it's represented.*** For example, when using Census Bureau demographics for our Bridge Scholars, 60% identified as Hispanic or Latino while 20% said Caucasian or White and Black or African American. However, when we asked them what they personally identify with, we see a completely different representation!

- ***There is diversity within our sciences.***

Although all of the Bridge Scholars were a member of the same Society (though they selected other Society affiliations as well), their scientific fields of study were highly diverse. There's a huge variety in our sciences within the Societies!

- ***Integrate diversity, don't put it on its own pedestal.*** Over 60% of Bridge Scholars and mentors that participated in the post-program survey chose "activities during the Annual Meeting" as one of their top three most liked activities provided by the Bridge Scholar Program. This program really ensured that activities worked on integrating students into Annual Meeting activities rather than creating only program-specific workshops.

- ***Mentoring is for everyone.*** Students want it, new members need it, and established scientists are actually eager to participate in it—mentoring! This comes in various forms, time commitments, and yes, sometimes can fall through. But the consensus for this program was that an increase in mentoring connections before and during the Annual Meeting is important for both mentors and the scholars.



Photos courtesy of: Adobe Stock/Gorodenkoff (left panel), Wikimedia Commons/Society for Advancement of Chicanos/Hispanics & Native Americans in Science (top center), Robert Nichols/USDA (top right), and Adobe Stock/AYAimages (bottom).

Overall, investing in educational/training programs and improving our members' skills as mentors will be crucial for increasing the diversity of our Societies. ***We hope this proposal can be a template for further, long-term integration and inclusion of students from all diverse backgrounds in the Societies.***

Interesting in knowing more or getting involved? Contact Susan Chapman ([Send Message](#)) or me, Liz Gillispie ([Send Message](#)).

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the USDA.

Dig deeper

Friesner, J., Colón-Carmona, A., Schnoes, A.M., Stepanova, A., Mason, G.A., Macintosh, G.C., ... & Dinneny, J.R. (2021). Broadening the impact of plant science through innovative, integrative, and inclusive outreach. *Plant Direct*, **5**(4), e00316.

National Science Foundation National Center for Science and Engineering Statistics. (2018). *Doctorate recipients from U.S. universities: 2017* (Special Report NSF 19–301). <https://nces.nsf.gov/pubs/nsf19301/>.

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