

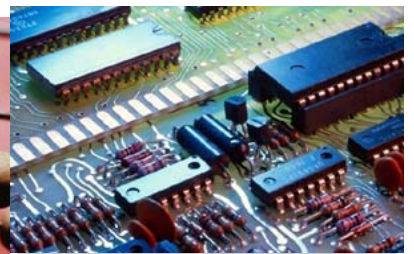
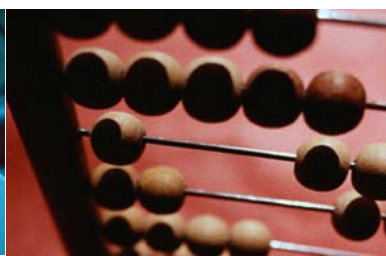


CADRE DR K-12 Resource Network

CADRE Fellows Survey

Cohort 2013-2014

Technical Report Submitted to CADRE at EDC, Inc.
July 2014



CADRE Fellows Survey

Cohort 2013–2014



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This report is prepared by the project evaluator for the Community for Advancing Discovery Research in Education (CADRE), the DR K–12 Learning Resource Network (NSF Award #0822241).

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Executive Summary

The Community for Advancing Discovery Research in Education (CADRE), the official name of the Discovery Research K–12 (DR K–12) network, is a collaborative effort of three organizations: Education Development Center, Inc. (EDC); Abt Associates Inc. (Abt); and Policy Studies Associates (PSA). Funded by the National Science Foundation in 2008, CADRE provides assistance for projects funded under the NSF/EHR/DRL DR K–12 program. The University of Massachusetts Donahue Institute’s Applied Research and Program Evaluation group provides evaluation services to the project. A comprehensive evaluation plan details the scope of the evaluation, which is designed to address the formative and summative information needs of CADRE partners and the NSF. This report presents the results of one research activity: a web-based survey of participants in the CADRE Fellowship program during the 2013–2014 year.

Begun in 2009, the CADRE Fellowship is a capacity-building experience for early-career researchers and developers. The program is designed to provide exposure to STEM education research and researchers working beyond the Fellow’s particular project and institution, as well as networking with colleagues from across the country. The program also gives Fellows an opportunity to gain insights into NSF, and what it takes to be successful and effective in STEM education research.

The survey, which was administered in June 2014, solicits participants’ feedback on the strengths of the program as well as recommended modifications. Ten out of ten possible respondents completed the survey, for a 100% response rate.

Key findings are discussed below.

Overview of Fellows’ Experiences

Overall, Fellows were highly satisfied with the CADRE Fellowship and experienced many benefits as a direct result of their participation in the program. Fellows appreciated the events and activities provided through the Fellowship, and especially valued the two in-person meetings and the opportunities for networking with other Fellows, PIs, and NSF program officers that these meetings provided. Most Fellows indicated that they had already established collegial relationships with the other Fellows and contacted or planned to contact PIs that they met through the Fellowship. Across all of the activities associated with the Fellowship, Fellows provided the most constructive feedback related to the Writing for Publication activities, with many noting that these activities fell during an especially busy time of the year.



Benefits of the CADRE Fellowship

Fellows anticipated that the CADRE Fellowship would offer the opportunity to grow professionally in a number of ways, including the opportunity to network with peers, to access professional development opportunities, and to make contact with senior researchers or professionals in the field. All Fellows indicated that their expectations were met to some degree.

Fellows derived many important benefits from participating in the program. For example, the majority of respondents reported that they better understood NSF funding mechanisms (90%), benefitted from professional contact with senior researchers or professionals (80%), and experienced increased confidence to participate in professional conversations (80%). Further, more than half of the Fellows acquired increased awareness of career opportunities in STEM education research (70%), a stronger CV (60%), and a better perspective of what it means to be a STEM researcher or professional (60%). One Fellow explained:

“Being a CADRE Fellow was an enriching experience for me, since it allowed me to exchange ideas with peers, expand my professional network, and learn more about NSF’s review process for proposals and funding.”

Fellows believe that the program will continue to have a beneficial effect on their careers moving forward. Notably, several reported that the connections they made during the Fellowship are likely to have an impact on their careers. Fellows additionally expressed that the information they learned and the resources they have access to will influence their careers. For example, some Fellows explained:

“I think it has already created a great impact in my career. I have been really happy with this program. I have met great people, I have found new opportunities, and I have access to great resources.”

“A better understanding of the NSF, of academic careers, and of the field in general will positively impact my ability to operate in the field. In addition, I will have long-term contacts at various institutions for collaboration and networking.”

Moreover, for two respondents, the Fellowship had already been acknowledged in their professional activities. As one Fellow described:

“My participation in the Fellows program was acknowledged in my university’s website through a news release. I have also included the CADRE Fellowship on my resume.”

Feedback on Activities and Events

As in past years, Fellowship events and activities included webinars, an introductory conference call, a listserv, and dedicated space on the CADRE website. Throughout the Fellowship five topic areas were explored: introductions and getting to know one another’s work, writing for publication, career pathways, learning about the NSF, and developing proposals.



Overall, Fellows appreciated the activities and events afforded through the program. Webinars and conference calls received positive feedback, with the large majority reporting all activities and events to be beneficial.

In addition, most Fellows found the writing activities somewhat useful. When asked to provide open-ended feedback on these activities, several emphasized that the activities occurred during an especially busy time of the year. As one Fellow noted:

“It was helpful but we were limited in how much we could contribute to each other’s projects. It came at a time when all of us were involved in other projects and it was difficult to spend a lot of time on this work.”

A couple of Fellows suggested that perhaps the writing activity groups could be advised or coached by experts in the field. As one Fellow explained:

“My suggestion is that teams be created according to the affinity of field / research topic, and not according to the writing phase where we find ourselves at that time. Moreover, an expert in the field should coach each group and provide input when necessary.”

Fellows were particularly enthusiastic about their experiences at the two in-person meetings. All respondents reported that they benefitted from the initial in-person meeting and the majority explained that they most appreciated the opportunity to get to know the other Fellows. Fellows explained, for example:

“I think it is extremely important to have the initial meeting in person. It helps to establish the community and it is easier to relate to members later on if you have had a face-to-face meeting initially.”

“Meeting everyone and getting to know the projects that are part of the program was hugely helpful in navigating the networking and later opportunities we were given. Getting to have conversations in person about people’s projects and positions and ideas set up the rest of the program in a way that wouldn’t have otherwise occurred easily.”

Similarly, the Fellows highly valued the in-person meeting at the NSF. All Fellows who attended the meeting reported that the experience was “very beneficial.” The Fellows were especially enthused about meeting with NSF program directors and the mock proposal review session. Illustrative comments include:

“It was very valuable. It gave me a sense of how to work on a proposal, how the proposals are reviewed, what the program directors look for, and how to get involved in the process. Again, this is something you don’t really learn in graduate school so I am thankful for the Fellowship because I have been able to learn so many things.”

“It was great getting insight into the NSF and just being inside this major icon of academia and to sort of peek behind the curtain. The insight into what they’re starting to look at in the future is also helpful, especially for those going to be looking for funding over the next few years.”

“Meeting program officers was fabulous as well, and I definitely met someone who I will follow up with in the future. This was a fantastic part of the program!”



Overall Program Reflections

Awareness, Recruitment, and Selection

Almost all Fellows (90%) became aware of the Fellows program through their PIs and all reported talking to their PIs about their experiences during the Fellowship. Respondents were asked how and where CADRE should recruit applicants for the program, announce new awardees, and acknowledge Fellows' completion of the program. Most commonly, Fellows said these achievements might be effectively communicated to the public through email listservs, websites, and during conferences of different organizations. In addition, some Fellows suggested that CADRE provide a prepared press release or summary that could be used by the Fellows' home institutions to publicize the Fellowship.

“Prepare press releases for awardees' institutions to use to effectively announce what the Fellowship means and its importance and prestige, or at least assist institutions with effective press releases.”

Interaction and Collaboration

Across the different activities provided during the Fellowship, the two in-person meetings were most strongly associated with a sense of community building for Fellows. Respondents were split between reporting that CADRE provided appropriate support to interaction and communication, and providing suggestions for how CADRE could provide additional support. Those who provided suggestions most often expressed a desire for more opportunities for interaction with each other. Illustrative comments include:

“We received a good deal of encouragement from CADRE to interact with other Fellows. This was done through activities, webinars, and meetings. However, deeper connections were made through affinity and mutual research interests. These connections were the ones that allowed some of us to get to know each other better.”

“The website has potential to be a place where community can grow, but it's hard to use. Maybe set up a LinkedIn group for current Fellows to use and people will use it more frequently.”

The majority of Fellows (90%) established personal and/or professional relationships outside of the parameters of the Fellows program. Moreover, almost all of the respondents explained that they would like to and/or anticipate continuing to communicate with the other Fellows after the program concludes. Specifically, several mentioned that they are planning to stay in touch with the other Fellows and would like to collaborate with them in the future.

“I definitely anticipate communicating with other Fellows. Hopefully we can collaborate later on because we have some of the same interests.”

“I absolutely do, at least in keeping them in my networks. I will look to meet at conferences and will continue to seek them out as collaborators and connections.”

“Some of us are still communicating through Facebook and text messages.”

Several Fellows reported that they were already in touch with PIs that they met through the Fellowship and explained that they plan to maintain contact after the Fellowship ends. In addition, other Fellows have plans to contact PIs that they met through the Fellowship.

“Yes, I have contacted several PIs I met in the webinars. On another occasion, [CADRE] put me in contact with a PI whom I wanted to meet, but who did not participate in our webinars. Being able to have these conversations was one of the most important aspects of being a CADRE Fellow.”

“Yes, one of the PIs from the first meeting is someone whose work I follow is here in [name of city], so I will continue to look at her group’s work at conferences. I will also continue to keep connection with one of the program officers I met with at the NSF.”

Design of the Fellowship

Fellows were asked to comment on the workload associated with the Fellowship. All of those who commented indicated that the workload was manageable. With regard to the Fellowship resources, most respondents utilized the website. Four Fellows reported accessing the recordings of webinars and/or in-person sessions and only two reported utilizing the listserv. Most Fellows indicated that CADRE responded to their feedback throughout the Fellowship to a great extent, as one Fellow explained:

“They were very attentive to our needs and appeared to try very hard to meet them. They were also constantly asking for our feedback and input.”

Looking Forward

Many Fellows indicated that CADRE could have better supported their professional growth with meetings with PIs, additional community-building activities, and mentorship opportunities. Selected comments follow:

“Even though the in-person meetings did a good job of building community, I still felt somewhat isolated. If there were more opportunities for in-person or webinar with video, I think it would have built a stronger community.”

“I think the program was pretty good but additional opportunities to interact and work with Fellows and PIs would be great.”

Most respondents were interested in participating in activities for next year’s Fellows, including mentoring, the website, and conference calls.



I. Introduction

The Community for Advancing Discovery Research in Education (CADRE), the official name of the Discovery Research K–12 (DR K–12) network, is a collaborative effort comprised of three organizations: Education Development Center, Inc. (EDC); Abt Associates Inc. (Abt); and Policy Studies Associates (PSA). Funded by the National Science Foundation in 2008, CADRE provides assistance for projects funded under the NSF/EHR/DRL DR K–12 program. The overarching goals of CADRE are to support the improvement of research, evaluation, and development in STEM education and to support the NSF and its DR K–12 program.

The University of Massachusetts Donahue Institute’s Applied Research and Program Evaluation group provides evaluation services to the project. A comprehensive evaluation plan details the scope of the evaluation, which is designed to address the formative and summative information needs of CADRE partners and the NSF. This report presents the results of one research activity: a web-based survey of participants in the CADRE Fellowship program during the 2013–2014 year. A description of the Fellowship is adapted from CADRE materials as follows:

The CADRE Fellows, now in its fifth year, is a competitive fellowship designed to be a capacity-building experience for early career researchers and developers. Fellows will be exposed to DR K–12 research beyond their projects, gain insights into the NSF and what it takes to be successful and effective researchers and developers, and network with researchers and developers from across the country.

A. Overview of the 2013–2014 Fellowship

As in past years, Fellowship events and activities included webinars (5), an introductory conference call, a listserv, and dedicated space on the CADRE website. Throughout the Fellowship five topic areas were explored: introductions and getting to know one another’s work, writing for publication, learning about the NSF, career pathways, and developing proposals. An introductory in-person meeting was held at the beginning of the Fellowship in Waltham, MA, in November 2013. In addition, a second in-person meeting was held at the end of the Fellowship at the NSF in May 2014. The survey solicited participants’ feedback on the strengths of the program as well as recommended modifications.

B. Organization of the Report and Notes on Style

The Executive Summary provides a brief summary of Fellows' perspectives on the program, including illustrative comments. The Results section presents detailed participant feedback, incorporating scaled responses and open-ended responses, largely following the structure of the survey. Responses to closed questions are presented as tables, with the corresponding survey item text displayed in the heading. All responses to open-ended questions are presented in the report. Open-ended responses have been modified for grammar and spelling but are otherwise displayed verbatim, shown in blocks between quotation marks to make clear the changes in speakers. Response rates vary by question: in some cases this is because certain participants chose not to answer a question; in other cases, skip logic was employed, directing participants to questions based on their previous responses.

The text of the initial survey invitation that was sent by email is attached as Appendix A.

The survey instrument is attached as Appendix B.

II. Methodology

In order to maintain familiarity with the project and to keep abreast of emergent information needs, the evaluators have, from project start-up, participated in routine meetings and maintained ongoing communication with the Principal Investigator and the CADRE leadership team. Additionally, members of the evaluation team attended all conference calls, webinars, and in-person meetings. The survey of the 2013–2014 CADRE Fellows was developed through a collaborative process between the evaluation team and the CADRE team (included as Appendix B). The four previous cohorts (2009–2010, 2010–2011, 2011–2012, 2012–2013) also completed a feedback survey, and findings from these data collection activities informed the development of the current survey.

UMDI administered the survey through an online platform (Qualtrics). The survey consisted of scaled and open-ended items and was made available from June 4 through June 30, 2014. The survey was sent to the ten Fellows who participated in the 2013–2014 program and all ten respondents completed it, for a total response rate of 100%.

III. Results

A. Respondents

CADRE Fellows from the 2013–2014 cohort were invited to participate in the survey. Ten out of ten possible respondents completed the survey, for a response rate of 100%. Of the ten Fellows, seven identified as graduate students and three identified as researchers/ educators. The amount of time spent in graduate school varied widely among graduate students, ranging from one year to five years.

B. Overview of Fellows' Experiences

Fellows' Expectations

Fellows had high expectations of the program, including networking with peers, participating in activities for professional development, and contact with senior researchers (Table 1). Upon being awarded the CADRE Fellowship, all respondents expected the chance to network with their peers and have access to professional development opportunities. Eight expected the opportunity to make contact with senior researchers or mentors while five expected to gain recognition in the field as a result of the Fellowship.

	Frequency	Percent
Opportunity to network with peers	10	100%
Access to professional development opportunities (e.g., visit to NSF, webinars, panel discussions)	10	100%
Opportunity to make contact with senior researchers or professionals in the field	8	80%
Recognition in my field	5	50%
Other	2	20%

The two Fellows who had “other” expectations explained:

“Opportunity to hone my writing skills for publication and grant writing.”

“Connect with junior faculty.”

Respondents were asked to indicate how well the Fellowship had met their expectations for each of the choices they had selected. Results are indicated in the table below. Most respondents (n=9; 90%) reported that the Fellowship exceeded or completely met their expectations related to access to professional development. In addition, for eight respondents (63%) the Fellowship completely met their expectations in opportunities to network with peers while 88% of those who expected the opportunity to make contact with senior researchers or professionals in the field reported that the Fellowship completely met or exceeded their expectations. For the five respondents who had expected the Fellowship to provide recognition in their field, three (60%) felt that the Fellowship completely met expectations. See Table 2 for complete results.

Table 2. Extent Fellowship met Fellows' Expectations

	Not at all	Somewhat	Completely	Exceeded expectations	Total Responses
Access to professional development opportunities	0	1	7	2	10
Opportunity to network with peers	0	2	8	0	10
Opportunity to make contact with senior researchers or professionals in the field	0	1	6	1	8
Recognition in my field	0	2	3	0	5
Other	0	0	1	1	2

Fellowship Benefits

Fellows were asked to indicate what benefits they derived from the program experience, if any. As shown in the table on the following page, the majority of Fellows indicated that they had a better understanding of NSF funding mechanisms (90%), benefitted from professional contact with senior researchers or professionals in the DR K–12 community (80%), and experienced increased confidence to participate in professional conversations (80%). Other commonly selected benefits included increased awareness of career opportunities in STEM education research (70%), a stronger CV (60%), and better perspective of what it means to be a STEM researcher or professional (60%).

Table 3. Fellowship Benefits		
	Frequency	Percent
Better understanding of NSF funding mechanisms	9	90%
Professional contact with senior researchers or professionals in the DR K–12 community	8	80%
Increased confidence to participate in professional conversations	8	80%
Increased awareness of career opportunities the STEM education field	7	70%
Stronger CV	6	60%
Better perspective on what it means to be a STEM education researcher or developer	6	60%
Increased knowledge related to publishing a journal article	4	40%
Name recognition as a result from having been a Fellow	3	30%
Learned about a job opportunity as a result of being a Fellow	1	10%

Three respondents elaborated on their expectations for the Fellowship and/or benefits they received. Two comments reflected enthusiasm for the program while the other provided feedback related to additional experiences that the respondent would have found beneficial.

“Being a CADRE Fellow was an enriching experience for me, since it allowed me to exchange ideas with peers, expand my professional network, and learn more about NSF’s review process for proposals and funding.”

“The Fellowship was a great experience for me. I believe that it also depends on how proactive you are as a Fellow. I tried to connect with others, especially junior faculty and I learned a lot from that experience. I was able to get some help on how to approach the job search, write teaching and research statements, etc. I think those are things you don’t really learn in graduate school and it is important to have a supportive network.”

“I was expecting a more actively involved fellowship. It was mainly focused around professional development / networking-type activities, which were fine but mainly were personal experiences and the like. I would have liked some more structured professional development by trainers experienced in teaching some of the pertinent skills, like networking, editing, researching journals, etc. Admittedly, I don’t know if these types of trainers exist in academia, but I have come across some effective ones for industry skills.”

C. Fellows' Perspectives on Program Activities and Processes

Respondents were asked to provide feedback on each of the events they attended over the course of the year. Fellows' perspectives on these events are presented below.

Conference Call and Webinars

Respondents were asked to rate how beneficial the initial conference call and five webinars provided during the Fellowship were. Across all of the events, the large majority of respondents found them to be somewhat or very beneficial (Table 4).

Table 4. Conference Call and Webinars

	Not at all beneficial	Somewhat beneficial	Very beneficial
Initial Conference Call (October 18)	1	3	6
Writing for Publication Webinars (December 9 and January 30)	0	6	4
University Career Pathways (February 19)	0	3	6
Non-profit Career Pathways (March 25)	1	4	5
Developing Proposals Webinar (April 30)	0	2	8

When asked to elaborate on their experiences with the conference call and webinars, six respondents provided feedback. Several respondents detailed the webinars that they found most relevant to them personally. Fellows commented:

“The latter webinars, particularly those about careers, seem of more value to me currently, but I think that the content of the initial publication-based webinars will have value that I end up seeing down the road as I get more invested in publication. The career ones just seemed to have all sorts of especially useful but frequently unstated (at least in the conversations I have had) content that I know will be of use in the near future.”

“I think that since I am more interested in academia pathways I feel that the February 19 webinar was one of the most helpful webinars. The last webinar was a little bit more difficult to engage in because the connection was terrible.”

“I enjoyed all of the webinars quite a bit, the differences in my ratings reflect the point that I was at in my career while taking part in them—some of them were more relevant to my immediate needs than others.”

“I do not think we had an initial conference call on October 18. All webinars were beneficial; however, the “Writing for Publications” webinar could have been more field specific. For example, I would have appreciated a discussion on mathematics education publications.”

“While I am interested in non-profit career pathways, I did not get personally relevant information from this session. I didn’t understand how to access those types of positions from the webinar.”

“I had some takeaways that were useful. They weren’t greatly structured sometimes though. I was also unable to actively participate in some due to scheduling and had to watch them later therefore was unable to actively participate.”

Respondents were then asked to comment on how, if at all, the webinars could be improved. They were asked to specifically consider any issues related to either logistics or the content of the webinars that could be improved. Most respondents used this opportunity to highlight that the webinars worked well. A few Fellows had small suggestions related to improvements that could be made to the logistics or the content of the webinars.

“I thought the webinars went well.”

“No, I think it went pretty well considering how many people were involved in the webinars.”

“The logistics in general worked quite well for my purposes. I’m still not sure why the audio and video needed to act as separate systems, but I had no problems adapting to this.”

“The webinars worked well logistics-wise. My only suggestion is that their content [should be] structured according to the Fellows’ research interests and fields.”

“It is difficult to coordinate with all the Fellows. I felt like the only time I got to talk to the Fellows was during these webinars. Maybe there needs to be something that enforces collaboration between Fellows. We will be in academia eventually and I think those connections are important. Video/audio connections are a little bit complicated. Sometimes the internet is not the best way to interact.”

“The webinar software was also a bit finicky and there were issues with some people having trouble signing on. It sometimes took away from the experience.”

In-person Meeting in Waltham, MA (November 7–8)

Fellows were asked to provide feedback about the in-person meeting held in Waltham, MA, on November 7 and 8, 2013. As shown in Table 5, most respondents (80%) felt that the initial in-person meeting was very beneficial. The remaining respondents reported that the meeting was somewhat beneficial.

Table 5. Benefit of Initial In-Person Meeting		
	Frequency	Percent
Very beneficial	8	80%
Somewhat beneficial	2	20%
Not at all beneficial	0	0%
Total	10	100%

Respondents explained that the meeting was beneficial because it allowed them to meet the other Fellows in person and provided opportunities for networking.

“Meeting everyone and getting to know the projects that were part of the program was hugely helpful in navigating the networking and later opportunities we were given. Getting to have conversations in person about people’s projects and positions and ideas set up the rest of the program in a way that wouldn’t have otherwise occurred easily.”

“Nothing beats meeting in person! I was able to connect personally with Fellows and the facilitators, which made the online sessions more comfortable.”

“It was great to meet everyone in person as we started the Fellowship experience.”

“This meeting was important because it allowed us to know more about our projects and common interests.”

“It was the first time everyone met in person. It was difficult to talk about what you were doing among others. Some of us were barely starting to work on our projects so we didn’t have a lot to talk about.”

“I got to learn more about the other Fellows, what they were researching, and if/how there was overlap with my personal research interests.”

“This particularly fulfilled the networking portion of my expectations from the program. It also provided me with an opportunity to learn more about how non-profit organizations operate outside of academia.”

“It was good to put a face to names and to be able to actively talk in real time.”

Respondents were asked to comment on how, if at all, an initial in-person meeting influenced their experience with the Fellowship. Respondents reported that the initial in-person meeting helped them to get to know the other Fellows, feel more connected, and learn about the program.

“I think it is extremely important to have the initial meeting in person. It helps to establish the community and it is easier to relate to members later online if you have had a face-to-face meeting initially.”

“It made it more ‘real.’ Otherwise, webinars would have felt like they were not as interactive.”

“It was helpful to have met other Fellows and the program staff in the beginning of the experience.”

“The initial in-person meeting gave me a good idea of the learning opportunities that the Fellowship would provide, and how to enhance these opportunities.”

“It helped me get to know the people who would later be faces on the webinar—without that, it would have felt like meeting with strangers whose projects I knew nothing about. It really helped set the tone and get to know everyone in a meaningful way.”

“Previously meeting with my peers helped me get quite a bit more out of the subsequent webinars.”

“It made me very optimistic of the experience.”

“I think it did.”

Finally, the respondents were asked to comment on ways that the initial in-person meeting could be improved. A few respondents indicated that they would have liked more time for conversations with the other Fellows, including networking conversations and conversations about the Fellowship. One Fellow suggested more time for the PI panel while another commented that the meeting worked well and did not have any suggestions for improvement.

“It would be helpful to start with more in-depth introductions of who the Fellows are. This could be done with an activity or more time for conversation.”

“No suggestions, I think it was the right mix of activities and time for networking.”

“Maybe we needed more time to interact with each other. It was a very quick thing.”

“I think it was pretty good. I guess we could have spent a little more time talking through the Fellowship and what we each hoped to get out of it / the plans for the year.”

“Keep in mind that flight delays are possible and plan accordingly.”

“Having a bit more time for the PI panel would have been nice, or some continued interaction with those PIs.”

“I would have liked some more table talks. It was nice to talk in small groups where the conversation was of a manageable size and in person.”

Writing Activities

During the Writing for Publication portion of the Fellowship, Fellows were divided into three groups: writing phase I, writing phase II, or peer editing. Three Fellows participated in writing phase I, three in writing phase II, and the remaining four were part of the peer editing group. Most Fellows (90%) found the writing activities to be somewhat beneficial. Tables 6 through 8 present their feedback by group.

Table 6. Benefit of Writing Phase I

	Frequency	Percent
Very beneficial	0	0%
Somewhat beneficial	3	100%
Not at all beneficial	0	0%
Total	3	100%

Table 7. Benefit of Writing Phase II

	Frequency	Percent
Very beneficial	0	0%
Somewhat beneficial	3	100%
Not at all beneficial	0	0%
Total	3	100%

Table 8. Benefit of Peer Editing

	Frequency	Percent
Very beneficial	1	25%
Somewhat beneficial	3	75%
Not at all beneficial	0	0%
Total	4	100%

Fellows were asked to comment specifically on whether they benefitted from the paired and small group activities during the Writing for Publication phase of the program. Most respondents explained that while the paired and small group activities were somewhat useful, they also could be further improved upon. Most often, Fellows explained that these activities occurred during an especially busy time of the year and therefore it was difficult to devote the necessary time to the activities.

“This was somewhat helpful, but it was a very busy part of the time of the year. While my partner had a solid topic and idea, I work such that I’m not really guiding my own research so much as participating in a larger group flow of research, so it was sort of just taking something we were already thinking about and writing this up a tad. I’m not sure this was that helpful overall.”

“It was helpful but we were limited in how much we could contribute to each other’s projects. It came at a time when all of us were involved in other projects and it was difficult to spend a lot of time on this work.”

“Even though I obtained valuable input from my teammate, his work is in a different field, and that prevented our collaboration from being more fruitful. Additionally, our busy schedules made the exchange of ideas a bit difficult and rushed.”

“This was helpful for me in terms of moving along a writing product I was working on for another project.”

“Our conversation was more of a conversation about what writing activities we are involved in currently or future ideas. It was not focused enough for me. Because of the lack of focus, it was not as beneficial as I would have liked.”

“Not working with the other members face-to-face is always difficult (coordinating schedules, etc.). However, I think we made it work, we already had some work done and it was good to hear comments from others.”

“There wasn’t very much cross-talk but we did try to get together and figure out what needed to be included in a cover paper for submission.”

“It was good to see others struggling in the same ways I have and to get some external opinions on my work and where it may fit. It’s helped me to plan more analysis going into a data source rather than afterwards, once I know what data I have.”

Next, the respondents were asked to comment on the Writing for Publication activities themselves and whether the activities addressed their needs regarding writing. Most commented that the activities did address their needs in some ways, while also explaining how the activities could have been more useful. A couple of Fellows noted that it was difficult when their partner’s work was in a different field.

“Somewhat. I think we needed more time to accomplish what we wanted to do (peer review). Also, we were not experts on the subjects of our peers, so it was a little bit complicated to provide feedback.”

“It was interesting to have someone read my work and to read someone else’s. However, because our fields of interest are not related, I didn’t feel competent to speak to their conceptual argument.”

“Again, we were limited in the amount of time that we were able to give to this. That said, it was helpful to get feedback from my peers.”

“This was the weakest part of the program in my opinion. I wanted to learn more about writing for publication and I am not sure I did. It would be great to have something similar to the NSF mock review where participants could interact with editors or reviewers for education journals—not just someone who has gotten something published.”

“The activity in which I participated addressed some of my needs regarding writing, but not all of them. Working with peers made me realize that some of the problems I was encountering while writing research articles were, in fact, very common. But some other issues were very specific to my field and my topic, so I was not able to receive the input I needed on those issues.”

“I did get to see sample letters and figure out what needed to be included in a cover letter for submission.”

“It somewhat did so. I got external opinions and some help but I would have been interested in more guidance where to publish some of my preliminary work.”

Fellows were asked to provide any feedback they had on how the Writing for Publication portion of the program could be improved. Half of those who responded did not have any suggestions. A couple of those who did provide feedback on how this portion of the program could be improved suggested that experts could advise and coach the groups.

“My suggestion is that teams be created according to the affinity of field / research topic, and not according to the writing phase where we find ourselves at that time. Moreover, an expert in the field should coach each group and provide input when necessary.”

“I’m not really sure—this seems like it might have just been an issue with where I was at. It could be advised by someone external to this group, with some of the insight on what which publishers are looking for.”

“I maybe should have joined a group that was looking at something else?”

“More focus for the small groups—maybe more input from the participants about what group they should go in. Additional suggestions in the previous comments.”

“I have no suggestions.”

“I’m not sure.”

In-person Meeting at the National Science Foundation (May 18–19)

Fellows attended an in-person meeting at the National Science Foundation from May 18 through 19, 2013 and were asked provide feedback on their experiences. During the first session of this in-person meeting, Fellows shared their work and provided updates, progress and challenges; solicited critical feedback; and shared future research ideas. Eight Fellows participated in this session; of these, most found the various aspects of the session to be very beneficial. Of note, all but one respondent reported that it was very beneficial to hear about the other Fellows' work. Full results appear by session aspect below in Tables 9, 10, and 11.

Table 9. Benefit of Sharing Your Work		
	Frequency	Percent
Very beneficial	6	75%
Somewhat beneficial	2	25%
Not at all beneficial	0	0%
Total	8	100%

Table 10. Benefit of Soliciting Critical Feedback		
	Frequency	Percent
Very beneficial	5	63%
Somewhat beneficial	3	37%
Not at all beneficial	0	0%
Total	8	100%

Table 11. Benefit of Hearing About Other Fellows' Work		
	Frequency	Percent
Very beneficial	7	88%
Somewhat beneficial	1	12%
Not at all beneficial	0	0%
Total	8	100%

Next Fellows were asked if they would like to comment on Day 1 of the meeting at the NSF. Three Fellows commented:

“Getting feedback from the Fellows was extremely important. I heard great suggestions and it is always good to hear suggestions that help you improve your work. It was interesting to see how we have grown academically in only a few months.”

“This was very beneficial to share outside of my school.”

“No—just a great opportunity to catch up and hear about people's progress while providing some feedback.”

For the second day of the meeting at the NSF, respondents were asked to provide feedback on each of the sessions. First, they were asked to report on the NSF Future Directions, a session which was led by Joan Ferrini-Mundy and Sarah Kay MacDonald (Table 12). Most Fellows (80%) reported that this session was very beneficial.

Table 12. Benefit of NSF Future Directions		
	Frequency	Percent
Very beneficial	8	80%
Somewhat beneficial	2	20%
Not at all beneficial	0	0%
Total	10	100%

Similarly, of those who attended the Panel Review Orientation (nine Fellows), most (89%) found the session to be very beneficial (Table 13).

Table 13. Benefit of Panel Review Orientation		
Answer	Frequency	Percent
Very beneficial	8	89%
Somewhat beneficial	1	11%
Not at all beneficial	0	0%
Total	9	100%

Most respondents (90%) found the Mock Proposal Review (Part I and Part II) to be very beneficial (Table 14).

Table 14. Benefit of Mock Proposal Review		
	Frequency	Percent
Very beneficial	9	90%
Somewhat beneficial	1	10%
Not at all beneficial	0	0%
Total	10	100%

Eight respondents met with an NSF program director and, of these, all found the experience to be very beneficial as shown in Table 15.

Table 15. Benefit of Meeting with a Program Director		
	Frequency	Percent
Very beneficial	8	100%
Somewhat beneficial	0	0%
Not at all beneficial	0	0%
Total	8	100%

Nine Fellows attended the Common Guidelines for Education Research and Development with Edith Gummer. Of these, two-thirds found the session to be very beneficial (Table 16).

Table 16. Benefit of Common Guidelines for Education Research and Development		
	Frequency	Percent
Very beneficial	6	67%
Somewhat beneficial	3	33%
Not at all beneficial	0	0%
Total	9	100%

All Fellows who responded to the question reported that, overall, the in-person meeting at the NSF was very beneficial (Table 17).

	Frequency	Percent
Very beneficial	9	100%
Somewhat beneficial	0	0%
Not at all beneficial	0	0%
Total	9	100%

The Fellows were asked to comment on whether they thought the in-person meeting at the NSF was a valuable part of the program. All respondents explained that they found the meeting to be valuable and provided examples of how the meeting was beneficial, with many explaining that it was invaluable to meet with program officers and learn about the NSF. Moreover, three of the respondents explained that they felt the meeting at the NSF was the most valuable part of the entire Fellows program.

“Yes it was very valuable. It gave me a sense of how to work on a proposal, how the proposals are reviewed, what the program directors look for, and how to get involved in the process. Again, this is something you don't really learn in graduate school so I am thankful for the Fellowship because I have been able to learn so many things.”

“Meeting two program directors and being able to talk about my research to them was the highlight of Day 2. They were genuinely interested and provided valuable input.”

“Extremely valuable part of the program—I'd say the most valuable. I felt like I learned a lot of information about how the NSF operates that I'll put to my own use and that I was able to share with others who work on my project.”

“This was the most valuable part of CADRE in my opinion. In my current position, it is extremely important to understand the NSF funding structure and review process. This was a great way to do that—thanks!”

“It was great getting insight to the NSF and just being inside this major icon of academia and to sort of peak behind the curtain. The insight into what they're starting to look at in the future is also helpful, especially for those [who are] going to be looking for funding over the next few years.”

“Absolutely—at the very least, it brought me from feeling like the NSF is a monolith to something that I understand and can interact with. I also appreciated the opportunity to get a good sense of what the funding process looks like in the various stages and how NSF interacts with the field as a whole. Meeting program officers was fabulous as well, and I definitely met someone whom I will follow up with in the future. This was a fantastic part of the program!”

“Although this is not affecting me right now, it will in the near future. Putting a face to NSF was extremely beneficial and I will be likely to contact them when I am looking to write proposals. I don’t think I would have done that otherwise.”

“I liked learning how open and accessible the people working there are.”

“I wasn’t able to attend this in-person meeting because of other work obligations. I know the CADRE program tried to plan this in-person spring meeting earlier in the year, but wasn’t able to. It would have been helpful to plan this earlier in the year for me so I could have attended the meeting. I was sorry to miss it! I appreciated being able to join virtually for part of it.”

All Fellows were asked to comment on how, if at all, the meeting could be improved. Only three of the Fellows provided comments, with one providing only positive feedback. The two respondents who did provide suggestions for how the meeting could be further improved both indicated that the meeting would have been improved if there were more time available to meet with NSF personnel.

“It was great and should be a mandatory part of the program.”

“What about including an opportunity to meet with an NSF program officer in small groups to discuss possible proposal ideas?”

“I would have liked to hear more from the other people who work at NSF, but otherwise, the mock proposal review made the whole trip highly informative and worthwhile.”

D. Overall Program Reflections

Fellowship Program: Awareness, Recruitment, and Selection

Most Fellows (90%) became aware of the Fellows program through their PIs. One Fellow learned about the program through a colleague (Table 18).

Table 18. Awareness of Fellows Program		
	Frequency	Percent
My PI brought it to my attention.	9	90%
A colleague brought it to my attention.	1	10%
A former Fellow brought it to my attention.	0	0%
I saw an announcement in a CADRE newsletter.	0	0%
I saw it advertised on the CADRE website.	0	0%
Other	0	0%

When asked how and where CADRE should publicize the program and recruit applications, several respondents did not have any suggestions and others suggested that CADRE utilize listservs, websites, and conferences to publicize the program.

“Other STEM research organizations’ listservs.”

“Newsletters, Facebook, on the CADRE website, emails to PIs.”

“Conferences/websites (e.g. AERA).”

“Professional email lists.”

“With PIs and other investigators.”

“I think you are doing this well.”

“Not sure—I’m just not enough of a part of the field yet to know where this would be best.”

“I do not know what recruitment programs they use, so I don’t think I can suggest anything in this regard.”

Some respondents indicated that CADRE could use the same avenues to announce new awardees to the Fellows program and acknowledge Fellows’ completion of the program. In addition, some Fellows suggested that CADRE provide a prepared press release or summary that could be used by the Fellows’ home institutions to publicize the Fellowship.

“For [announcing new awardees] and for [acknowledging Fellows’ completion of the program] you could send out a ‘news release’ to the awardee/Fellow’s current employer so that they could publish it in their local newsletter or on their website. You could include the same sort of information as you put on your website.”

“Prepare press releases for awardees' institutions to use to effectively announce what the Fellowship means and its importance and prestige, or at least assist institutions with effective press releases.”

“Letters to PIs is a great thing (I know you do that) and perhaps your website, Facebook, and LinkedIn connections? Maybe some kind of ‘badge’ on our personal LinkedIn pages?”

“A final summary or report would be nice. I am sure my PI and my institution would appreciate it.”

“With a certificate or plaque.”

“Conference bulletins.”

“Newsletters, Facebook, on the CADRE website, emails to PIs.”

“Conferences/websites (e.g. AERA).”

“Everywhere you can! I know my organization publicized it highly, but perhaps in other newsletters you do?”

“Through NSF’s site and announcements to all PIs.”

“Another good question, and one I don't know the answer to—it feels like something sort of ongoing, at least the network of people, so maybe this isn't very necessary.”

All Fellows indicated that they had talked to their PIs at their home institutions about their experiences during the Fellowship. Some Fellows felt that specific requirements designed to make PIs of participating Fellows more aware of the program would be beneficial, while others indicated that such requirements were unnecessary.

“Absolutely—I did this, but simply because I and my PI have a good habit of doing this. If this isn't happening for people, something like this would be very helpful.”

“If the PIs are willing to do this, it would be useful.”

“It is a good idea to involve the Fellow's PIs on some of the Fellowship activities. For example, they could be invited to webinars so they share their expertise on topics of interest, such as career paths or writing/publishing.”

“It is difficult because every Fellow has a different PI with a different personality or work approach. I believe it is important that the PIs know exactly what we are doing so we can also receive some support from them.”

“I don't know about require... but my PI is very available to me anyway.”

“I think this does not need to be a requirement. I think sending a letter and/or a follow-up phone call with the PI is sufficient.”

“No I don't think that is necessary but it would have been nice to attend something with our PIs as CADRE Fellows.”

“I think it was helpful to meet with the few PIs we had access to. I'm not sure how helpful that would be to expand it to all PIs. It may become too large a ratio of PIs to Fellows.”

Respondents were reminded of the criteria CADRE uses to select Fellows and were asked to suggest different or additional criteria. Most respondents indicated that the current criteria were appropriate and/or that they did not have any suggestions. Two Fellows explained that the criteria could be modified to further emphasize that the Fellowship is also open to those outside of academia.

“That's good criteria. I appreciated how the program also allowed non-PhD-track researchers like myself to participate.”

“[Criteria 4 (Be a graduate student, research assistant, post-doctoral researcher, or the equivalent. This program is not appropriate for co-PIs or faculty members)] seems to limit [the Fellowship] to those in academia. I am not, but work at a non-profit. If I had not been encouraged to apply and had not looked at past Fellows, I would not have thought this applied to me. I would suggest rewording #4 so that it is clear. The 'or equivalent' is something that I didn't understand—what does that mean? I guess that is what I am but at the time, that was not clear.”

“No! Those still seem like useful criteria. I might push for the diversity criteria to also highlight non-profits in NSF grants as another source of potential Fellows.”

“No.”

“Nope. I think the current criteria is good”

“No suggestions.”

Interaction and Collaboration

Respondents were asked to rate how well different Fellowship opportunities for interaction and/or collaboration contributed to an increased sense of community for them. Across the different activities, the two in-person meetings were most strongly associated with a sense of community building for Fellows. See Table 19 for complete results.

Table 19. Extent that Program Opportunities Contributed to a Sense of Community

	Not at all	To some extent	To a great extent	I did not participate in this opportunity	Total
The first conference call	1	7	2	0	10
The webinars	1	5	4	0	10
The website	3	6	1	0	10
The listserv	3	6	1	0	10
The first in-person meeting	0	0	10	0	10
Small groups or pairs for assignments	0	5	5	0	10
The second in-person meeting	0	0	9	1	10

Respondents were asked to comment on CADRE's overall support to interaction and communication between Fellows. Some reported that CADRE provided appropriate support to interaction while others provided suggestions for how CADRE could provide additional support to interaction and communication.

“I think CADRE supported us to build community especially among those of us with common research interests. Maybe encouraging Fellows to link up at other scholarly events (e.g., conferences) would also help with this.”

“We received a good deal of encouragement from CADRE to interact with other Fellows. This was done through activities, webinars, and meetings. However, deeper connections were made through affinity and mutual research interests. These connections were the ones that allowed some of us to get to know each other better.”

“The website has potential to be a place where community can grow, but it’s hard to use. Maybe set up a LinkedIn group for current Fellows to use and people will use it more frequently.”

“I did not communicate much with other Fellows and thus did not gain any knowledge or insights from their work.”

“I think there could have been a greater sense of community between us. I think the in-person activities did a great job. Perhaps a shared conference publication among some, a topic review, or a shared position paper among those with similar interests.”

Most Fellows (90%) established personal and/or professional relationships outside of the parameters of the Fellows program and reported talking to, emailing, or meeting other Fellows on their own initiative (Table 20).

Table 20. Fellows Connections Outside of the Structured Fellows Program		
	Frequency	Percent
Yes	9	90%
No	1	10%
Total	10	100%

Almost all of the Fellows explained that they would like to and/or anticipate continuing to communicate with the other Fellows after the program concludes. Several specifically mentioned that they are planning to stay in touch with the other Fellows and would like to collaborate with them in the future.

“Yes, there are some Fellows that I think would be great to collaborate with in the future.”

“I definitely anticipate communicating with other Fellows. Hopefully we can collaborate later on because we have some of the same interests.”

“Yes, I have connected with Fellows through social media and have even checked to see who, if any, of the Fellows would be presenting at conferences that I attended this past year.”

“Some of us are still communicating through Facebook and text messages. This is the way we have chosen to stay in touch.”

“I absolutely do, at least in keeping them in my networks. I will look to meet at conferences and will continue to seek them out as collaborators and connections.”

“I anticipate staying in touch with those Fellows who are also in the mathematics education field. I’m very interested in their project and enjoy having professional connections outside of my home institution.”

“Perhaps—I know what resources other Fellows can offer and I wouldn’t hesitate to reach out to them.”

“I don’t at the moment. I have some ideas on why I would contact some people for comments or assistance on future projects, though. I also expect to run into some people at certain conferences and other events.”

Several Fellows reported that they were already in touch with PIs they met through the Fellowship and explained that they plan to maintain contact after the Fellowship ends. In addition, other Fellows have future plans to contact PIs that they met through the Fellowship.

“Yes. The person I contacted was not a participant in the webinars but she was assigned as my mentor. I plan on meeting her in person during a conference this summer. First of all, I want to thank her for her help and I want to continue communicating with her because I believe I can learn a lot from her.”

“Yes, I have contacted several PIs I met in the webinars. On another occasion, [CADRE] put me in contact with a PI that I wanted to meet, but that did not participate in our webinars. Being able to have these conversations was one of most important aspects of being a CADRE Fellow.”

“Yes, his name escapes as I fill this out but he was interested in Big Data that I met at the Waltham meeting. My dissertation work will involve some Big Data analysis so he will be someone I contact in the future.”

“Yes—one of the PIs from the first meeting is someone whose work I follow and is here in [name of city], so I will continue to look at her group’s work at conferences. I will also continue to keep connection with one of the program officers I met with at the NSF.”

“Maybe—if it comes up that they would be a good resource for something I’m working on.”

“Though I do not plan on contacting any PIs, I do plan on taking advantage of the accessibility to the NSF office and program directors.”

“Not necessarily. I didn’t feel like I made any connections that were close enough to warrant follow-up.”

Fellows were asked if CADRE could have done anything more to facilitate their connections with the PIs. Only four respondents provided suggestions and, of these, one used the opportunity to praise CADRE’s work in this area.

“In my opinion, CADRE did very well in this aspect.”

“I’m not really sure. Perhaps some other forum in which there was more of an opportunity to have one-on-one interactions.”

“I think a database with keywords would be helpful. A Fellow could have selected a few keywords associated with their research interest and that could connect them to an appropriate PI to look up.”

“Again, it would have been nice if we could have attended an event with our PIs (e.g., NSF PI meeting) so that we could have another rich opportunity to interact with the Fellows and their PIs.”

Design of the Fellowship

Most respondents utilized the website (90%). Two respondents reported utilizing the listserv while four accessed recordings of webinars and/or in-person sessions. See Table 21 on the following page.

Table 21. Utilization of Resources		
	Frequency	Percent
The website	9	90%
Recordings of webinars and/or in-person sessions	4	40%
The listserv	2	20%

Several Fellows explained how they used the website and two detailed their experiences utilizing recordings of webinars:

“We will post information about our project on the website.”

“I used the website to find other PIs, learn more about other projects.”

“The website was the place where all of the documents and information for upcoming events were kept.”

“I used the website to read the biographies of webinar presenters and information on in-person meetings. I also posted a few comments on the listserv.”

“I downloaded necessary bios and literature from the website.”

“I missed two webinars and had to watch them to catch up. The website was helpful for logistics as well.”

“I missed a webinar and so watched it later.”

Most Fellows (60%) indicated that CADRE responded to a great extent to their feedback throughout the program and used their input to guide the program. The remaining 40% reported that CADRE responded to some extent (see Table 22).

Table 22. Extent of CADRE’s responsiveness to Fellows’ Feedback		
	Frequency	Percent
To a great extent	6	60%
To some extent	4	40%
Not at all	0	0%
Total	10	100%

Four Fellows provided positive feedback related to CADRE’s responsiveness to their feedback.

“I provided some feedback at the beginning of the experience, and I appreciated a thoughtful response.”

“They were very attentive to our needs and appeared to try very hard to meet them. They were also constantly asking for our feedback and input.”

“I made several suggestions, but budget restraints made it impossible to implement them. They wanted our input on aspects of the in-person meetings and on webinar content.”

“I didn’t have much feedback for them, but they were very conscientious about soliciting feedback.”

Fellows were asked to comment on the workload associated with the Fellowship and all of those who commented indicated that the workload was manageable.

“Very manageable.”

“It was about right. This was an unusually busy time for me but I was able to complete the tasks and learn from them.”

“I think the workload was reasonable (i.e., enough for us to get something out of our time together, but not so much that it felt like another cumbersome thing that needed to get done).”

“It was very doable—there were really no instances in which the workload felt stressful. It seemed appropriate for the program.”

“There was very little work involved. Especially compared to what I think I gained (which was a lot).”

“It was manageable.”

“The workload was not heavy.”

“I think it was about as much as I expected but I was also expecting more writing/reviewing requirements though.”

Suggestions for Improvement

Most respondents indicated that CADRE could have better supported their professional growth through meetings with PIs (80%) and additional community-building activities (70%). In addition, 60% of Fellows reported that access to mentorship opportunities would have supported their professional growth (see Table 23 for complete results).

Table 23. Ways CADRE Could Better Support Fellows		
	Frequency	Percent
Meetings with PIs	8	80%
Additional community-building activities for Fellows	7	70%
Mentorship opportunities	6	60%
More publicity surrounding Fellowship	3	30%
Assignments better tailored to individual needs	3	30%
Additional webinars	1	10%
Additional conference calls	0	0%

Fellows explained:

“As I said I think the program was pretty good but additional opportunities to interact and work with Fellows and PIs would be great. Additionally it would be awesome if CADRE could help Fellows reach out to and link up with mentors (outside of the advisors/PIs we already work with... for instance people at the NSF office).”

“Additional activities with Fellows would be beneficial. Mentorship opportunities are great! I learned a lot from my mentor and I felt supported.”

“Even though the in-person meetings did a good job of building community, I still felt somewhat isolated. If there were more opportunities for in-person or webinar with video, I think it would have built a stronger community.”

“I am outside the norm within the DR K—12 group it seemed. I would have appreciated more individualized support.”

Respondents were asked to reflect on changes that they would recommend for next year's Fellows program. First, they were asked if any new assignments, activities, or processes (including mentoring) should be added to the Fellows program. Several Fellows indicated that access to additional opportunities for mentorship might be beneficial.

"I think adding a mentoring component and giving the PIs of Fellows a more purposeful role would be great."

"Perhaps, but only if [mentoring] felt organic. Forcing a mentorship can be really unhelpful, so perhaps having some previous Fellows (if those are to be the mentors) at that first meeting, or if PIs were to be the mentors, having them attend that to get to know potential mentees. Mentoring could be a helpful addition if it was relatively unstructured—i.e., just facilitating a couple of one-on-one meetings."

"Give a list of people by field / research topic that are willing to mentor and facilitate the initial communication between Fellows and mentors."

"I don't think I took advantage of the mentoring that was already offered... so maybe advertise that more?"

"Maybe a social activity during the first meeting. It would help Fellows in the future."

"I think some webinars should be either dropped or make it more of an 'attend 4 out of 6' type of thing instead of all, even those that don't interest you. Connect the Fellows with previous Fellows or PIs for more one-on-one conversations."

"I'm quite interested in the topic of communication of research. I think this is a very valuable skill that future Fellows may be interested in. I'm happy to present on this topic if needed!"

"I think you have focused on timely and important topics that will work in future Fellows programs."

Fellows were asked to comment on any conference call or webinar topics that might be useful in future years. They responded:

"I think it is dependent on the group of Fellows. I liked that you asked us for our input."

"I think the ones included this year were spot on."

"A webinar with a journal editor or reviewer would be a good topic."

"Academia pathways and non-profit. I think the writing webinars were very helpful too. Maybe a workshop for the Fellows regarding academic job searches and how to make great teaching and research statements, etc."

“Some webinars more focused on emerging trends in the educational research field, or simply things that would be useful to have. Even if people are from different fields, focusing on one that you know less about (like mathematics, or engineering) would be great.”

“More specific research topics—qualitative methods, quantitative methods, qualitative versus quantitative, data collection methods, product/curriculum effectiveness, etc.—and allow people to pick and choose which conversation to join based on their needs.”

Finally, respondents were asked if there were any assignments, activities, processes, conference calls, or webinar topics that they thought should be eliminated in future years. Four Fellows provided comments; however three of these explained that there were no components of the Fellowship that should be eliminated.

“No, I think the activities we engaged in this year were helpful.”

“None.”

“No.”

“The activities around writing for publication were the least effective for me. I would suggest considering restructuring these assignments and tasks. The small group work was too unstructured and it would be good to have choices of what group or topic to participate in. I am not sure what suggestions I have for restructuring, I just know that the writing for publication did not meet my needs as much as other activities did.”

Impact of Fellowship and Looking Forward

Fellows believe that the Fellowship will impact their careers in a variety of ways. Several specifically noted that the connections they made during the Fellowship were likely to have a positive influence on their careers. Fellows additionally thought that the information and resources they gained through the program would have an impact on their careers.

“I think it has helped me make connections outside my school. I will likely see some people in the future at conferences and such. I hope to collaborate with a few Fellows. I think the job search and funding opportunities for a new faculty will be very handy in a few years.”

“A better understanding of the NSF, of academic careers, and of the field in general will positively impact my ability to operate in the field. In addition, I will have long-term contacts at various institutions for collaboration and networking.”

“The major impact of the Fellowship experience on my career is through the expansion of my professional network.”

“I think it has already created a great impact in my career. I have been really happy with this program. I have met great people, I have found new opportunities, and I have access to great resources.”

“I think it has been a very positive experience both in terms of the connections that I made to the other Fellows and the knowledge that I gained about the NSF.”

“As someone who is wrapping up my dissertation work and who is thinking through next steps, the work we did around grant writing will be most helpful (the webinar, the in-person meetings at NSF, etc.).”

“It’s broadened my thinking about types of research and career pathways.”

“I feel that my participation strengthened my confidence and knowledge.”

“I think it will help me make some better decisions and has provided me with some useful contacts.”

Two respondents had the Fellows program acknowledged in their professional activities at the time that they completed the survey. One Fellow explained that the Fellowship may have contributed to successfully securing a job. For others, it had not yet been acknowledged.

“Yes, job searches, on-campus interviews, collaborations with others.”

“My participation in the Fellows program was acknowledged in my university’s website through a news release. I have also included my CADRE Fellowship on my resume.”

“It was on my CV when I carried out a successful job search this last winter. I’m not sure whether that contributed or not.”

“No, not really but I have added it to my CV.”

“Not yet--I haven't had any of these so far, but I will be sure to report it.”

“Not yet.”

“Not yet.”

“No.”

Most respondents were interested in participating in activities for next year’s Fellows: 80% were interested in participating in mentoring, 60% were interested in participating with the website, and 50% were interested in participating in conference calls (Table 24).

Table 24. Interest in Participation with Activities Next Year

	Frequency	Percent
Mentoring	8	80%
Website	6	60%
Conference calls	5	50%
Listserv	3	30%

Finally, respondents were asked if they had any other suggestions or comments on how CADRE could improve the Fellowship experience. Only one respondent provided a comment and rather than provide a suggestion, the Fellow emphasized how positive the experience was.

“Overall, it was great! I think I’ve suggested everything above.”

Appendix A: Initial Email

Dear \${m://FirstName},

You are receiving this survey because you participated in the CADRE Fellowship. The survey gathers feedback from the 2013-2014 Fellows and is being conducted by the University of Massachusetts Donahue Institute, the external evaluator to the Community for Advancing Discovery Research in Education (CADRE) project.

Analysis of survey results will contribute to the CADRE team's understanding of the quality, relevance, and usefulness of CADRE's Fellowship activities and events. Survey results will inform the CADRE leadership team's planning of future Fellowship opportunities.

This survey is estimated to take approximately 20 minutes. It addresses questions relating to:

- Your perspectives on Fellowship activities and support
- Possible improvements to the Fellowship offerings

Please click here to complete the survey:

Follow this link to the Survey:

[\\${l://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${l://SurveyURL}](#)

We understand the many demands on your time and that you may have completed a brief survey for PSA in addition to providing feedback during a discussion at the NSF. This survey serves a different purpose in that it allows the University of Massachusetts Donahue Institute to more fully explore your perspectives for the program evaluation of the Fellowship.

The survey comprises closed questions and optional open-ended response items. Please feel free to write as much or as little as you like. We know that your time is limited and we appreciate whatever you can do.

Survey responses are confidential and submitted directly to the University of Massachusetts Donahue Institute. Results will be reported in the aggregate so that individual responses are non-identifiable.

The survey will be available until June 18th, 2014.

Please feel free to contact Hadley Moore at the University of Massachusetts Donahue Institute at hmoore@donahue.umassp.edu or 774-455-7361 with any questions or concerns.

Thank you in advance for your time and attention.

Sincerely,

Hadley Moore

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Appendix B: Survey Instrument

2013 -2014 CADRE Fellows Survey

This survey is being conducted by the University of Massachusetts Donahue Institute, the external evaluator to the Community for Advancing Discovery Research in Education (CADRE) project.

This survey gathers feedback from the 2013-2014 Fellows. Analysis of survey results will contribute to the CADRE team's understanding of the quality, relevance, and usefulness of CADRE's Fellowship activities and events. Survey results will inform the CADRE leadership team's planning of future Fellowship opportunities.

This survey is estimated to take approximately 15 minutes. It addresses questions relating to:

- Your perspectives on Fellowship activities and support
- Possible improvements to the Fellowship offerings

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Thank you in advance for your time and attention.

I. Overview of Your Experience

1. What were your expectations after being awarded a CADRE Fellowship? Please check all that apply.
 - Recognition in my field
 - Opportunity to network with peers
 - Opportunity to make contact with senior researchers or professionals in the field
 - Access to professional development opportunities (e.g., visit to NSF, webinars, panel discussions)

Other (please describe)

(**Skip Logic here, only those expectations selected in Q1 will appear in the matrix in Q2)

2. To what extent did the Fellowship meet your expectations in the areas above?

	Not at all	Somewhat	Completely	Exceeded expectations
Recognition in my field				
Opportunity to network with peers				
Opportunity to make contact with senior researchers or professionals in the field				
Access to professional development opportunities (e.g., visit to NSF, webinars, panel discussions)				
Other (please describe)				

3. What benefits did you receive from being a CADRE Fellow, if any? Please select all that apply.

- Stronger CV
- Name recognition as a result of having been a Fellow
- Increased confidence to participate in professional conversations
- Better perspective on what it means to be a STEM Education researcher or developer
- Professional contact with senior researchers or developers in the DR K-12 community
- Better understanding of NSF funding mechanisms
- Increased knowledge related to publishing a journal article
- Increased awareness of career opportunities in the STEM education field
- Learned about a job opportunity as a result of being a Fellow
- Other (please describe)

4. Please elaborate on your expectations for the Fellowship as well as any benefits you received (optional).

II. Your Perspectives on the Fellows Program Activities and Processes

CADRE is interested in shaping the Fellows program so that the activities and processes are as beneficial as possible to the new Fellows. Please comment on the following activities and events.

A. Conference Call and Webinars

A1. Please rate how beneficial the following conference call and webinars were.

	Not at all beneficial	Somewhat beneficial	Very beneficial	I did not attend
Initial Conference Call (October 18th) <i>(Topics: “Meet” one another and CADRE staff, overview of Fellows program)</i>				
Writing for Publication Webinar, Part I and II (December 9th and January 30th) <i>(Topics: Common publication questions, finalizing manuscript ideas, selecting a journal)</i>				
University Career Pathways (February 19th) <i>(Topics: Finding a post-doc or faculty position at a university)</i>				
Non-Profit Career Pathways Webinar (March 25th) <i>(Topics: Career options in non-profit settings)</i>				
Developing Proposals Webinar (April 30th) <i>(Topics: Discussion with PIs about their experiences developing a proposal)</i>				

A2. Please explain [open]

A3. How, if at all, could the webinars be improved? In particular, were there any issues related to either the logistics (video and audio, scheduling, etc.) or any issues related to the content of the webinars that could be improved? [open]

B. In-person meeting in Waltham, MA (November 7th - 8th)

B1. In-person meeting in Waltham, MA (November 7-8)
(Topics: Orientation to program, CADRE, and the NSF; building a community of Fellows)

The meeting had the following sessions:

- Overview of the DR K-12 Portfolio
- Principal Investigator Panel
- Table Talks (by STEM discipline and cross-cutting areas of interest)
- Fellows Exhibit Walks
- Networking

B2. Overall, how beneficial was this in-person meeting?

- Not at all beneficial Somewhat beneficial Very beneficial

B3. Please explain [open].

B5. In retrospect, how, if at all, did an initial in-person meeting influence your experience with the Fellowship? [open]

B6. How, if at all, could the first in-person meeting be improved? [open]

C. Writing Activities (December- January)

C1. During the Writing for Publication portion of the Fellowship, Fellows were divided into groups focused on the following topics: Writing phase I, Writing phase II, or Peer Editing. Which group were you in? (Select all that apply)

- Writing Phase I Writing Phase II Peer Editing

C2. [Those in writing phase I only] Writing phase I
(Activities: Narrowing down a larger study into a focused topic for an article)

How beneficial was this activity?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not participate in this activity

C3. [Those in writing phase II only] Writing phase II
(Activities: Creating an outline for a paper and/or abstract)

How beneficial was this activity?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not participate in this activity

C4. [Those in peer editing group only] Peer Editing
(Activities: Working in pairs providing peer review to written work)

How beneficial was the peer review activity?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not participate in this activity

C5. Please comment on the paired or small group activities you completed during the Writing for Publication phase of the program. How beneficial was the opportunity to conduct your work with others? How was your learning influenced through working with others? [open]

C6. Please comment on the Writing for Publication activities themselves. Did the activity you participated in address your needs regarding writing? [open]

C7. How, if at all, could the Writing for Publication activities be improved? [open]

D. In-person meeting at the NSF in Arlington, VA (May 18th- 19th)

D1. In-person meeting at the National Science Foundation Meeting, Arlington VA (May 18-19)
(Topics: Non-University Career Pathways, Introduction to NSF, Mock Proposal Review, CADRE developed compendia)

Please consider sessions that you attended in person or remotely. If you did not attend a certain meeting session, please select “I did not attend this session.”

Day 1 (May 18)

D2. Sharing of Fellow’s Work
(Topics: Updates, Progress, and Challenges; Solicit Critical Feedback; Share Future Research Ideas)

How beneficial was it to share your work? [Select only one response.]

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

How beneficial was it to solicit critical feedback on your work?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

How beneficial was it to hear about the other Fellows’ work? [Select only one response.]

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

Would you like to comment on Day 1? [open]

Day 2 (May 19)

D3. NSF Future Directions (Joan Ferrini-Mundy and Sarah Kay MacDonald)

How beneficial was this session?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

D4. Introduction to the NSF (Elizabeth Vander Putten)

How beneficial was this session?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

D5. Panel Review Orientation (Maria Oliver-Hoyo)

How beneficial was this session?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

D6. Mock Proposal Review; Part I and Part II

How beneficial were these sessions?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

D7. Meet a Program Director
(Topics: *Fellows meet with two program directors*)

How beneficial were these meetings?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend these meetings

D8. Common Guidelines for Education Research and Development (Edith Gummer)

How beneficial was this session?

- Not at all beneficial Somewhat beneficial Very beneficial
 I did not attend this session

D9. Overall, how beneficial was the in-person meeting at the NSF?

- Not at all beneficial Somewhat beneficial Very beneficial

D10. Was an in-person meeting at the NSF a valuable part of the program? If so, in what ways was the meeting valuable? [open]

D11. How, if at all, could the in-person meeting at the NSF be improved? [open]

III. Concluding Reflections

Fellowship Program: Awareness, Recruitment, and Selection

1. How did you first become aware of the Fellows program?

- My PI brought it to my attention.
- A former Fellow brought it to my attention.
- A colleague brought it to my attention.
- I saw an announcement in a CADRE newsletter.
- I saw it advertised on the CADRE website.
- Other (please describe) _____

2. From your perspective, how and where should CADRE...

2.apublicize the program and recruit applicants for the program? [open]

2.b...announce new awardees? [open]

2.c ... acknowledge Fellows' completion of the program? [open]

3. Have you talked to your PI at your home institution about your experiences during the Fellowship?

- Yes
- No

Should the program be revised to include specific requirements designed to make PIs of participating Fellows more aware of the Fellowship? If so, do you have any suggestions? [open]

4. Currently CADRE uses the following criteria to select candidates for the Fellows program:

1. Exhibit evidence of leadership and academic success.
2. Demonstrate the desire and potential to advance STEM education in meaningful ways.
3. Be a current member of the project team for an active DR K-12 grant.
4. Be a graduate student, research assistant, post-doctoral researcher, or the equivalent. This program is not appropriate for co-PIs or faculty members.
5. Priority will be given to accepting a diverse group of Fellows and nominations from projects/PIs who have not had a Fellow in the past.

Do you have any suggestions for different or additional criteria CADRE could use to identify the best candidates for the Fellows program?

Interaction and Collaboration: The next questions are about your experience interacting and collaborating with other Fellows, including structured collaboration (such as small groups for assignments) as well as any informal collaboration that you participated in with other Fellows, including those opportunities that arose during in-person meetings.

5. CADRE is interested in building a sense of community among the Fellows. Please rate how well the following opportunities for interaction and/or collaboration contributed to an increased sense of community for you.

	Not at all	To Some Extent	To a Great Extent	I did not participate in this opportunity
The first conference call				
The webinars				
The website				
The listserv				
The first in-person meeting				
Small groups or pairs for assignments				
The second in-person meeting at the NSF				

6. Please comment on CADRE’s overall support to interaction and communication between Fellows. Consider how much you learned about other Fellows’ work and other knowledge or insights you might have gained. [open]

7. Outside of the structured Fellows program, did you talk to, email, or meet other Fellows on your own initiative?

- Yes
- No

Comment [optional]_____

If yes, please comment further including whether you anticipate continuing to communicate with the other Fellows now that the Fellows program has ended. [open]

8. Have you contacted, or do you plan to contact, any of the PIs you met through the Fellowship (e.g., PIs who participated in webinars, panels, and/or others that you met through CADRE)? If yes, please elaborate. If no, why not? [open]

9. Could CADRE have done anything more to facilitate connections with the PIs? If yes, please elaborate. [open]

Design of the Fellowship



10. Did you utilize any of the following resources during the Fellowship? (Please select all that apply.)

- The listserv
- The website
- Recordings of webinars and/or in-person sessions

Please explain. [open]

11. How well do you think that CADRE responded to your feedback throughout the Fellows program and used your input to guide the program?

- Not at all
- To some extent
- To a great extent

Please explain.

12. Overall, what did you think of the workload associated with the Fellowship? [open]

Suggestions for Improvement

13. In what ways could CADRE have better supported your professional growth, if at all? Please check all that apply.

- More publicity surrounding Fellowship
- Additional community-building activities for Fellows
- Assignments better tailored to your individual needs
- Additional conference calls
- Additional webinars
- Meetings with PIs
- Mentorship opportunities
- Other (please describe)

Please explain.

14. Thinking about next year's Fellows program...

14.a What new assignments, activities, or processes, if any, do you think would be interesting or effective to add to the program? In particular, should mentoring be added? If so, what would it look like? [open]

14.b What conference calls or webinar topics might be useful for Fellows in future years? [open]

14.c. Are there any assignments, activities, processes, conference calls, or webinar topics that you think should be eliminated in future years? [open]

Impact of the Fellowship and Looking Forward

15. At this point, how do you think your Fellowship experience will impact your career? [open]

16. Has your participation in the Fellows program been acknowledged in any of your professional activities to date (e.g., job searches, publications processes)? Please describe. [open]

17. If opportunities were made available, would you be interested in participating in any of the following offerings next year? (Please select all that apply.)

- Website
- Listserv
- Conference Calls
- Mentoring new Fellows

17. Do you have any other suggestions or comments on how CADRE can improve the Fellowship experience? [open]

Thank you for your time and feedback!