



LET'S TALK!

**Expanding Dialogue in the Postdoctoral Community
Towards Broadening Participation in the
Social, Behavioral, and Economic (SBE) Sciences**

**WORKSHOP PROCEEDINGS:
The Postdoctoral Experience in the SBE Sciences**

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Let's Talk: Expanding Dialogue in the Postdoctoral Community towards Broadening Participation in the Social, Behavioral, and Economic (SBE) Sciences

Introduction

The purpose of “Let’s Talk,” a one-day workshop held on October 29, 2010, was to expand dialogue in the postdoctoral community towards broadening participation of underrepresented groups in the Social, Behavioral, and Economic (SBE) Sciences. Participants included National Science Foundation (NSF) SBE Minority Postdoctoral Research Fellows from 2009 and 2010, three of the fellows’ sponsoring scientists, and other parties (please see Appendix A for a list of participants). This paper reflects contributions made by all of the participants.

The workshop was hosted by the National Postdoctoral Association (NPA), which is called upon by Federal agencies and institutions across the country to provide a national voice for postdocs. It is crucial that the NPA learn more about the challenges faced by postdocs from underrepresented groups in the SBE Sciences in order to better represent them and to make informed recommendations for best practices to improve retention of these postdocs in academic research. The expected outcomes for this workshop were:

1. A written report of the proceedings of the workshop that will be widely disseminated to the postdoctoral community and others by the NPA.
2. That participants will leave with new information and knowledge that will further their own efforts to broaden participation of underrepresented groups in the SBE sciences at the postdoctoral level.
3. That lessons learned from this workshop will have a broader impact and provide insights for retaining scientists from underrepresented groups in other fields of research.

Intellectual Merit

There is little data/information available regarding the experiences of SBE sciences postdocs from underrepresented groups. Learning more about the SBE postdoctoral community is essential, as this population has been steadily increasing. In fact, the number of doctoral recipients in the social sciences who earned their degree in the United States and have held a postdoctoral position has steadily increased since 1972, from fewer than 20% to more than 30% by 2006. Furthermore, the postdoctoral training period remains a critical point at which underrepresented minorities in SBE sciences leave the academic pipeline.

The NPA leadership engages on a regular basis with the most recent scholarship on postdoctoral scholars' experiences, including those of postdoctoral researchers from underrepresented groups. Hosting this workshop was in line with one of the six strategic priorities of the NPA: To encourage and facilitate diversity within the postdoctoral community.

Broader Impacts

This report is being widely disseminated by the NPA, on its Web site, at its meetings, and through its contacts. The lessons learned from this workshop will have a broader impact and provide insights for the national postdoctoral community across the SBE sciences and other fields of research.

Process

In order to allow the agenda to be driven by participant need, the NPA invited all registrants to participate in a pre-workshop survey with five questions (please see Appendix B for the aggregate results). Fifteen registrants, or approximately 43% of the registrants, completed the survey. All responses were anonymous. A panel of consultants developed the agenda, based on the survey results and their own knowledge and expertise. The consultants were:

- Patrice L. Dickerson, Director of Diversity, Social and Behavioral Sciences, The Ohio State University in Columbus and co-PI for the institution's NSF Alliances for Graduate Education and the Professoriate (AGEP)-SBE program.
- Cathee Johnson Phillips, M.A., Executive Director of the National Postdoctoral Association (NPA) in Washington, DC, and PI of the association's NSF ADVANCE Partnerships for Adaptation, Implementation, and Dissemination (PAID) project.
- Paulette McRae, Ph.D., Diversity Officer for the NPA and most recently a postdoctoral fellow at the Children's Hospital of Philadelphia (CHOP); she worked with the Offices of Diversity at Yale University and Rutgers University during her respective tenure at both institutions.
- LaShauna Myers Connell, Diversity Officer for the NPA and Recruitment and Diversity Coordinator for the University of Pennsylvania Biomedical Postdoctoral Programs.
- Jean H. Shin, Ph.D., Director of the Minority Affairs Program at the American Sociological Association in Washington, DC.

The panel determined that the workshop should have sessions addressing the following questions:

1. Mentoring: What works and what doesn't work?
2. How does the SBE postdoc experience differ from other postdocs?
3. What are the challenges faced by SBE postdocs from underrepresented groups?
4. What are some strategies/promising practices that might answer the challenges faced by SBE postdocs from underrepresented groups?

Each participant was provided a notebook with general background information on the postdoc experience and other resources¹ that might help to address these questions. The format for these sessions consisted of small groups with volunteer participants serving as facilitators and note-takers. Participants were free to move from one group to another and encouraged to do so.

This report summarizes the discussions surrounding these questions and is based primarily on the notes taken by the participants. This report is intended to provide insights into the postdoc experience in the SBE sciences, including the experience of postdocs from underrepresented groups in these fields. The opinions reflected herein may not necessarily reflect the opinions of the National Postdoctoral Association.

Author:

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¹ Resources included print-outs of the American Sociological Association (ASA) Research Brief, "Race and Ethnicity in the Sociology Pipeline" by Roberta Spalter-Roth and William Erskine (March 2007); the American Psychological Association (APA) "Special Section: Ethnic Minority Recruitment, Retention, & Training" (April 2010); the NPA Fact Sheet (September 2010 version); "The NPA Postdoctoral Core Competencies" (December 2009); The NPA Draft Summary: Resources and Promising Practices for Aiding Postdoctoral Women to Transition to the Professoriate" (March 2010 version); "Surviving the Tenure Track: The Myth of the Muse" by Kerry Ann Rockquemore (October 2010); and various data tables from the National Science Foundation Division of Science Resources Statistics. These resources are listed because they may have influenced the discussion.

Work Session I

Mentoring: What works and what doesn't work?

“Mentoring” was the number-one response to the pre-workshop survey question “Which THREE of the following discussion topics would be most useful as you work to broaden participation of underrepresented groups in the SBE sciences at the postdoctoral level?” “Mentoring” also ranked high in responses to the two other questions about discussion topics.

The discussion at the workshop expressed participants’ concerns (“Most mentors have not been postdocs themselves, and so they are not sure what to do with you”) but also their recognition of potential opportunities for a positive mentoring experience offered by the postdoc (“Underrepresented-group members who [were not] well mentored [during graduate school] have an opportunity to get more mentoring [during the postdoc].”)

The small group discussion on mentoring focused on four topics:

- What is/is not mentoring?
- Cultural identity;
- Best ways to find a mentor; and
- Maintaining the relationship.

What is/is not mentoring?: The Six Cs of Mentoring

Effective mentoring was described using the words collaborative; cooperative; confidential; confidence-building; collegial; and comforting.² In contrast, effective mentoring will not be “check-in-only,” judgmental, obligatory, suffocating, or punitive.

Collaborative/Collegial/Cooperative

Effective mentors will strike the right balance between giving autonomy and guidance, while not making assumptions about the knowledge base of the protégés. Striking that balance will be different for each protégé, depending upon their goals and needs. Making postdocs feel so independent so that they are isolated can be detrimental to all concerned. For some, weekly meetings may be needed; for others, monthly meetings may be sufficient.

Effective mentors will keep conflicting interests, e.g., those related to their own career paths, out of play in the mentor-protégé relationship. They will unselfishly offer wisdom about a particular career path or guide protégés to others who could advise them, provide the protégés connections for developing their own professional networks, and advocate for their careers.

For postdocs pursuing the academic tenure track, mentoring must also focus on the process of achieving tenure. The mentor should be able to talk about the “unwritten rules” and share personal experiences, making explicit what it actually means to become a faculty member.

² Compare these words with the six Cs for success for multicultural research and development teams, as identified by Dr. Olivier Maugain in his book *The Six C's for Success of Multicultural R&D Teams: Insights from CERN Physicists*. Those have been described as: “the composition of multicultural teams; the connection between the individual group members; the balance between cooperation and competition (i.e. the level of co-opetition) within the team; conversation; captaining (in the sense of sensitive leadership); and the chemistry among the colleagues” (<http://www.largehadroncollider.net/the-six-cs-for-success1.html>).

Confidential/Confidence-building/Comforting

Effective mentors will recognize that, while mentoring involves academic life, the postdoc is not only an academic. Mentors of those from underrepresented groups and/or those who were first-generation college students should have an understanding of issues specific to these groups, which might include, among other issues, entering college already “behind” from a lack of writing skills and a lack of knowledge about the education process. Effective mentors will allow postdocs room to navigate their personal and social relationships and/or situations, especially situations frequently faced by those from underrepresented groups (e.g., poverty, family dysfunction) and provide thoughtful, considerate guidance as the protégés strive to bring their “whole self” to the academy.

To facilitate such “six-Cs” mentoring, effective mentors will need excellent listening/communication skills, as well as be able to provide guidance on varied topics in addition to the research project. Realistically, few mentors will be capable of providing all of the guidance that a protégé might need in today’s research environment and job market. Indeed, in practice, “sponsor” does not always equal “mentor.” For that reason, acquiring mentoring from multiple sources is helpful.

How does cultural identity impact mentoring?

Having an effective mentor of the same cultural identity is beneficial but there are at least two other factors to consider:

- A mentor of the same cultural identity may have little resources or power within an institution; if so, the postdoc should seek an additional mentor with those resources and power.
- A mentor who understands and respects a postdoc’s personal or social background and the ways in which that background informs the postdoc’s research is not always someone who shares the postdoc’s ethnic background.
 - For example, for a postdoc married and/or with children, it may be as beneficial to have a mentor who is married and/or with children (or who understands the challenges of balancing career and family needs) as having a mentor from the same ethnic background.

Such factors strengthen the case for building a network of multiple mentors.

What are the best ways to find a mentor?

Postdocs should be proactive about the process, first identifying their own needs in order to find mentors who speak to different aspects of their career and professional development.³ They should consider building their own mentoring “committees.” There are many steps postdocs can take to build effective mentoring networks:

³ The variety of career options available today demands a diverse array of skills, such as writing grant proposals and CVs or mastering the principles of effective resource management, that are often neglected during doctoral study and postdoctoral research. The postdoctoral experience will be more relevant to career and professional development if the scholar seeks or is offered opportunities to acquire, maintain, or improve such skills. According to the 2004-2005 Sigma Xi postdoc survey of U.S. postdoctoral scholars: “Postdocs who reported the highest levels of oversight and professional development [including training in many of the competencies noted herein] were more satisfied, gave their advisors higher ratings, reported fewer conflicts with their advisors, and were more productive than those reporting the lowest levels.” Citation: Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement).

The NPA has established six core competencies to offer guidance to individual postdoctoral scholars who must seek out relevant training experiences, in collaboration with mentors, institutions, and other advisors who provide this training. These competencies are meant to serve primarily as: (1) a basis for self-evaluation by postdoctoral scholars and (2) a basis for developing training opportunities that can be evaluated by mentors, institutions, and other advisors. Read more at: www.nationalpostdoc.org/competencies.

- Ask for assistance from their pre-doctoral mentors;
- Contact researchers who inform their current work and have overlapping interests (e.g., at conferences or through their Web pages or institutions, although a face-to-face conversation is usually best.);
- Look at other departments in their own institutions for potential mentors;
- Use existing networks, such as the professional association(s) for their fields of study;
- Look for peer mentors (ideally, two or more years ahead in their careers);
- Attend conferences and/or join programs and organizations dedicated to professional development and take advantage of the networking opportunities they provide.

There are also steps that postdocs can take specifically to establish connections with “cultural mentors,” whether in an official or unofficial role:

- Find professional societies or cross-disciplinary communities that focus on minority populations and participate in their activities (e.g., <http://community.sciencecareers.org/myscinet/>) and
- When there isn’t a cultural connection available, speak up and help to start one; the institution’s administration may not recognize that this need exists.

As the postdoc interacts with potential mentors, clear communication will be critical. The postdoc should begin each conversation with an open mind and consider the ways in which the relationship might benefit the mentor. If possible, the postdoc should also talk to the potential mentors’ former or current protégés about their experiences. At the appropriate time, the postdoc should talk frankly about her or his needs and expectations for the relationship; for example, explaining her or his working style, level of independence, authorship concerns and needs, and the bi-directional nature of the research collaboration.

For a postdoc with limited time, it is important and difficult to establish these relationships. Investing the time in getting to know potential mentors is necessary, however, because, in the end, the correct choice may come down to one question: Is this a person with whom I can establish a trusting relationship? A potential mentor also needs to ask the same question, and each needs to consider the ways in which the relationship might benefit both of them.⁴

How can one maintain an effective mentoring relationship?

The most important factor is that both parties recognize and accept that an effective mentoring relationship is a “two-way street,” that both parties share responsibility for its success, and that clear, consistent, and open communication is essential. Postdocs and mentors often have different views of the factors that contribute to a successful postdoc experience, as exemplified by the postdoc/PI surveys done by *Science Careers*.⁵ The postdoc must continue to be straightforward about her or his needs and to be proactive about scheduling meetings. The mentor must take time to be available to the postdoc, understand the postdoc’s situation and goals, and encourage the postdoc to seek other mentors as needed. By carefully communicating and sharing responsibility, the mentoring relationship can be gratifying to both mentor and protégé.

⁴ The NPA provides general guidelines for developing a mentoring plan: see <http://www.nationalpostdoc.org/publications/mentoring-plans/mentoring-plan>.

⁵ Bonetta, L. (2010, August 27). “The postdoc experience: Taking a long term view.” *Science Career Magazine*. Available at http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2010_08_27/science.opms.r1000093.

Work Session II

How does the postdoc experience in the SBE sciences differ from the postdoc experience in other fields? What are the challenges faced by SBE postdocs from underrepresented groups?

The pre-workshop survey asked the question, “In your opinion, which of the following factors has significant impact on retaining postdocs from underrepresented groups in Social, Behavioral, and Economics scientific research?” Respondents were asked to select all that applied. The factor most often selected was “Isolation.” Four factors, including “Availability of Mentors,” “Institutional Support of Postdocs,” “Opportunities for Grant Writing,” and “Opportunities for Networking,” were the second most selected responses.

The small group discussion, however, primarily addressed isolation and institutional support and dealt much more fully with the first question about the differences in the experience rather than the second question regarding the challenges faced by postdocs from underrepresented groups. The small group discussion focused on these areas:

- Numbers;
- Institutional support; and
- Structure of the postdoc and related issues.

How many are there?

The NSF 2010 *Science and Engineering Indicators* offer some data on the number of postdocs in the SBE sciences as compared with other fields. Based on the results of the Survey of Earned Doctorates conducted in the fall of 2005, nearly half of postdocs were in the life sciences (the field with the most postdocs); a little over 11 percent in psychology; and only 4.2 percent in other social sciences. Additionally, the number of Ph.D. recipients in the social sciences who earned their degree in the United States and held a postdoctoral position has steadily increased since 1972, from fewer than 20% to more than 30% by 2006.

What support do institutions offer to postdocs in the SBE sciences?

Institutional programs for postdocs, where offered, are most likely designed for postdocs in the life sciences, which usually constitute the largest postdoc population at an institution. Many of these programs, including postdoctoral offices, depend upon the indirect costs supported by grants from the National Institutes of Health (NIH) for their existence. There are few incentives and resources that would encourage institutions to support such externally-funded postdocs as the NSF SBE Sciences Minority Postdoctoral Research Fellows. The temporary, short-timeframe of the postdoc fellowship (two to three years) also makes it less likely that institutions will dedicate resources to support of these fellows.

Further compounding the issue, on many campuses, a divide exists between STEM programs and the SBE sciences, whether political, historical, hierarchical, or physical (in terms of location on campus). This divide is often deeply imbedded in the institutional culture. As a result, postdocs in the SBE sciences may not be invited to participate or included in STEM programs and activities that support postdocs.

These factors combined keep the work of postdocs in the SBE sciences virtually unrecognized at the institutional level. Another contributing factor is that institutions may not have established a way to identify and track postdocs in the SBE sciences, although this lack probably extends to any and all postdocs at many institutions, regardless of their fields of study. Finally, in the case of the NSF fellows,

the institutions do not seem to fully appreciate the value of having the fellows on campus and that their presence can be a resource in terms of demonstrating diversity to students.

How is the postdoc experience in the SBE sciences structured and what are the issues related to this structure?

Isolation and lack of consistent support

Even when postdocs in the SBE sciences have been recognized and programs supporting them established, providing consistent experiences is challenging for institutions. These postdocs may work in even more isolated work environments (e.g., working alone in an office for weeks at a time) than their life science counterparts (who are most likely part of a lab team), which leads to a great deal of variability in the experiences of postdocs in the SBE sciences and in how they are treated. Their experience is generally much less structured and hierarchical than that of a life science postdoc. This lack of structure while seen as desirable by some postdocs also means that the postdoc will have less guidance as they deal with the pressure of fulfilling varied responsibilities (e.g., research, teaching, and writing papers or grants).

The pervading sense of isolation may contribute, or vice versa, to a lack of self-confidence on the postdoc's part, which further contributes to the sense of isolation, and so on. The issue, however, may not be a lack of self-confidence as much as it is a lack of a "map" or guidance for the postdoc in terms of institutional protocol, the research project, and professional and/or career development.

Teaching, research, and evaluation

Postdocs in the SBE Sciences may have to do more teaching than postdocs in the life sciences (some fellows have reported teaching two or even three classes a semester, while others reported no teaching responsibilities). Due to differences in funding, they are more likely than postdocs in the life sciences and chemistry to be engaged in research activities that they proposed rather than conducting research on behalf of their faculty sponsor/principal investigator (the majority of life scientists and chemists are funded by their principal investigators' grants rather than through a fellowship that supports their own research). Additionally, the research conducted by these postdocs is more likely to be interdisciplinary, and they must figure out how to bridge the gaps between multiple disciplines. Finally, guidelines for performance evaluation are either non-existent, more appropriate for the life sciences than the SBE sciences, or not appropriate for the career stage (using the faculty evaluation or student evaluation process instead of developing one for the postdoc).

Overcoming bias

Established SBE scientists may view the postdoc negatively, because they did not complete postdoctoral study and have little understanding of the reasons for doing so. Accordingly, at institutions where postdocs in the SBE sciences are a relatively new development, faculty sponsors may adopt the attitude that the postdoc must not have been ready for the job environment and treat them more as graduate students than as colleagues. These postdocs have to go to extensive lengths to prove their competence, even taking classes required by the sponsor. Postdocs from underrepresented groups in the SBE sciences may have to overcome even greater bias from their sponsors, who may assume (consciously or unconsciously) that the postdoc did not fully earn the fellowship but that it was awarded at least in part based on the postdoc's status as a member of an underrepresented group.

What issues faced by postdocs in the SBE sciences are common to the postdoc experience?

Unfortunately, many of the issues faced by postdocs in the SBE sciences are common to the postdoc experience regardless of field of study. Such issues include:

- A sense of disenfranchisement, including isolation and a perception of lack of status on campus, is pervasive in the postdoc community, due in part to a lack of institutional recognition and

support, even in such simple matters as including postdocs on the employee listserv or providing them with a library card.

- Many institutions do not have systems in place for recognizing, tracking, or supporting postdocs, although that situation has improved in the life sciences over the past decade.
- It is difficult to find a balance between intellectual freedom and doing something closely associated with the advisor.
- The postdoc is used as a “holding pattern,” a place for a researcher to wait for that ideal job, rather than as a carefully planned career step.
- Institutions have difficulty providing equitable benefits, such as health insurance and childcare benefits, to postdoc fellows, who are paid directly from the funder, because they cannot classify them as employees; institutions may also not have the resources to fund benefits for these postdocs without support for indirect costs. Institutional allowances are usually not large enough to provide adequate benefits to the fellows.

In many respects, postdocs in the SBE sciences face similar challenges as postdocs from other fields, although the intensity of some issues (e.g., isolation) seems greater. Institutional support, however, is lagging far behind that for postdocs in the life sciences.

Work Session III

What are some strategies/promising practices that might answer the challenges faced by SBE postdocs from underrepresented groups?

The small group discussion focused on these areas:

- General strategies for the Minority Postdoctoral Research Fellows;
- Institutional efforts;
- NPA efforts; and
- NSF efforts.

What are some general strategies for the Minority Postdoctoral Research Fellows that can help them to succeed?

The fellows and potential fellows should take an active role in their mentoring relationships and not be afraid to seek mentors other than their sponsors. They should also take the time to get to know the program officers, who can provide valuable advice on funding and other issues. They should find peer mentors, sharing funded proposals and advice with each other. The fellows should be proactive about seeking support at their institutions; for example, seeking out the postdoc office or association if established and seeking invitations to programs and activities, even if these events are geared to life scientists. If there is not a postdoc office or association, the fellow could be instrumental in starting one. Finally, they should also turn to professional societies and associations for support and professional development.

What can institutions do to support postdocs in the SBE sciences?

Institutions can take many low-cost or no-cost steps to support these postdocs. Postdoc offices and associations can help to connect the postdocs with those from other fields of study and include them in their programs and activities. Human resource offices can begin to track these postdocs and establish orientations for them and work to ensure that they have access to as many university resources as are applicable.

The institution should provide resources and training for faculty mentors. For example, faculty should be made aware of the funding mechanisms for ethnic minority postdocs and of the challenges that they may face during the postdoc experience.

What can the National Postdoctoral Association do to support postdocs in the SBE sciences?

The NPA should develop webinars or workshops designed to provide professional development for the postdocs and/or to provide training for those institutions that receive these postdocs. The NPA should develop a white paper regarding the benefits that come with a fellowship, for both the postdocs (e.g., prestige, protected time to research) and for the institution (e.g. contributing to the institution's research "bottom line," the value of having the fellows on campus and that their presence can be a resource in terms of demonstrating diversity to students). Along those lines, the NPA should conduct an audit of existing postdoctoral offices and associations to learn about their level of support of postdocs in the SBE sciences.

Other recommendations were that the NPA develop an SBE sciences arm and/or special interest groups for ethnic minority affairs. It was also suggested that the NPA provide a list of institutions that have

postdoc offices or associations so that the postdocs can be better informed. In fact, the NPA has developed an institutional policy database⁶ that provides such a list.

What can the National Science Foundation do to support postdocs in the SBE sciences?

This discussion centered on raising the profile of the SBE sciences programs and providing funding for institutional overhead and more three-year fellowships.

Raising the profile

The NSF should take steps to educate more graduate students and faculty on the opportunities for post-doctorate work in the SBE sciences, perhaps through a white paper and/or letter to the institution's leadership. The NSF should emphasize the prestige of the award as well as the training aspect of the fellowship and make it abundantly clear to the home institutions that supporting such fellowships should be part of their training and teaching mission, not only their research mission. Another suggestion was to consider renaming the fellow to Visiting Scholar to increase prestige.

The NSF should also provide resources for the sponsoring scientists or other faculty mentors in regard to mentoring and professional and career development for the fellows; for example, a symposium about career issues or a venue for research presentations.

Increase funding

The NSF should seek increased funding for the SBE sciences programs, specifically in regard to providing training opportunities, support of indirect costs for institutions, and offering three-year fellowships. No overhead at an institution that emphasizes acquiring grants with overhead impacts the willingness of such institutions to provide support for the fellows. Allowing indirect costs in the fellowship grants would provide incentive for institutions to do so. At the minimum, increasing the institutional allowance and adding language regarding using the allowance for providing professional development would be helpful.

There was considerable discussion on the advantages of offering three-year fellowships instead of two-year. The greater consensus among the participants was that completing the research project in two years is very difficult, in light of teaching responsibilities, lack of support, and the need to engage in a job search in the second year.

⁶ <http://database.nationalpostdoc.org/pddb> (go to "Search Institutions" and select "Postdoc office" and/or "Postdoc association" underneath institutional characteristics)

Afterword

This workshop provided initial insights into the postdoc experience for underrepresented groups in the SBE sciences and some specific recommendations. Overall, the workshop discussion suggested that the experience is much the same as in other fields, although postdocs in the SBE sciences are likely to have much less institutional support and an even greater sense of isolation. Mentoring was of utmost concern. The impact of being a postdoc from an underrepresented group was not always clear; the discussions focused more heavily on participants' experiences as SBE scientists versus postdoc experiences in other fields and on their experiences as NSF fellows or sponsoring scientists.

What would we have done differently?

Asking how the postdoc experience in the SBE sciences differed from that of other fields may have been an unfortunate choice of wording, in that it directed participants to compare rather than describe their experiences in a more straight-forward manner. Also, the validity of the responses depended upon the participants' knowledge of other postdoc experiences (although it should be noted that the participants seemed well versed in the postdoc experience in the life sciences). We will most likely word this question and related questions differently for future endeavors. On the other hand, talking about differences provided a starting point for the NPA in regard to expanding its knowledge base beyond postdocs in the life sciences.

Asking two questions in one session (regarding the postdoc experience in general and the challenges faced by postdocs from underrepresented groups) also may have been an unfortunate choice. In hindsight, it was difficult to determine which comments were answering which question. Again, on the other hand, it might have been impossible for participants to differentiate the factors in this manner.

Finally, including a few postdocs from disciplines outside of the SBE sciences and representatives from other professional societies and groups worked out well. The input and participation of these postdocs allowed for valuable cross-discipline conversations and comparisons, while the presence of the societies and groups allowed them to gain understanding and to share information about the resources they offer.

What are the next steps for the NPA?

The NPA will widely disseminate these proceedings and continue to seek opportunities to host such workshops, with a greater emphasis on providing professional development for the participants. The NPA will also seek funding to develop the resources requested by the participants.

What were/are the outcomes of the workshop for the participants?

Based on the responses to the workshop evaluation survey, participants benefited from the workshop in terms of increasing their knowledge base of postdocs in general and their awareness of the challenges faced by postdocs from underrepresented groups in the SBE sciences. Some comments were:

- I greatly enjoyed being able to network with other postdoctoral scholars and share ideas about how to improve the postdoctoral experience (from an SBE perspective).
- I think that the workshop should be mandatory for first-year postdocs. I am a second year postdoc and I could have used the information that I gained last year. Although it's not too late, the information would have been more advantageous to me last year.
- This should be an annual event for new incoming underrepresented postdocs. I received information that would have useful for me the first year of my postdoc. This was also an opportunity to meet and network with other underrepresented postdocs in SBE.

The dissemination of these proceedings will hopefully result in institutions and professional societies evaluating their support of postdocs in the SBE sciences to identify gaps and best practices in that

support. Hopefully, this paper will be found valuable by the NSF directorates and offices and inform their efforts to support postdoctoral fellows.

In conclusion, although this workshop was just a starting point, the discussions were invaluable in providing insights to the postdoc experience in the SBE sciences for postdocs from underrepresented groups. The NPA would like to thank the participants for their contributions and the NSF for making the workshop possible. It is hoped that other organizations will also find the discussions represented herein enlightening.

APPENDIX A
List of Participants/Contributors
in alphabetical order by last name

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Alberto Roca, Diversity Consultant, MinorityPostdoc.org
Ben Sakovich, Staff, Cross Disciplinary Activities, National Science Foundation
Jean Shin, Director, Minority Affairs Program, American Sociological Association
Cynthia Simpson, Director, Programs & External Relations, AWIS
Ermitte St. Jacques, NSF-SBE Minority Postdoctoral Research Fellow, University of Pennsylvania
Bryan Sykes, NSF-SBE Minority Postdoctoral Research Fellow, University of Washington
Nicole Walden, NSF-SBE Minority Postdoctoral Research Fellow, National Science Foundation

Cynthia Wei, AAAS Fellow, Division of Undergraduate Education (EHR/DUE), National Science Foundation

Kenneth Young, Professor and Chair, NSF SBE Minority Postdoctoral Research Fellowship Program Sponsoring Scientist, University of Texas at Austin

The keynote speaker also participated:

Jabbar Bennett, Assistant Dean, Recruiting and Professional Development, Brown University.

The following persons gave welcoming remarks:

Rachel Croson, Division Director, Division of Social and Economic Sciences (SBE/SES);

Myron Gutmann, Assistant Director, Directorate for Social, Behavioral & Economic Sciences (SBE/OAD);

Judith Sunley, Interim Division Director, Division of Human Resource Management (OIRM/HRM); formerly Deputy Assistant Director, SBE; and

Mark L. Weiss, Division Director, Division of Behavioral and Cognitive Sciences (SBE/BCS).

APPENDIX B
Summary of Pre-Workshop Survey Results
(used to develop agenda)

Thirteen (13) registrants responded.

TOP FACTORS THAT IMPACT SBE POSTDOCS

- Availability of Mentors
- Institutional Support of Postdocs
- Isolation
- Opportunities for Grant Writing
- Opportunities for Networking

TOP 3 DISCUSSION TOPICS FOR WORKING TO BROADENING PARTICIPATION

1. Availability of Mentors
2. Opportunities for Networking
3. Self-Confidence

TOP 3 DISCUSSION TOPICS FOR PERSONAL PROFESSIONAL/CAREER DEVELOPMENT

1. Other, which included:
 - Strategies for building diversity
 - Tenure track versus non-for-profit versus clinical position
 - Tips on finding an academic job
 - Tips on getting published
2. Self-Confidence
3. Availability of Mentors

SUGGESTIONS FOR MAKING THE WORKSHOP MORE VALUABLE

- How to obtain an academic job in this competitive environment
- How postdocs are valued and treated at a variety of institutions and how policies/resources for graduate students can be adapted for postdocs
- Staying true to the realities of being a person of color in the academic world

COMMENTS: HOW THE SBE POSTDOC COMMUNITY MAY DIFFER FROM OTHER POSTDOC COMMUNITIES

- The fellows are engaged in research that they propose, whereas other postdocs are limited in doing their own research.
- More able to focus on research and publication; more flexibility in what they do.
- Two years is a short time for research and publication; maybe in other fields research moves more quickly.
- Some SBE postdocs do not teach at all; others teach more than postdocs in other fields.
- Proving themselves and that their work on marginalized populations is valid and meaningful; overcoming the “affirmative action token” attitude from others.
- Little tradition of postdocs in some SBE fields; not seen as a career trajectory for SBE scientists.
- SBE postdocs may be more isolated because there isn’t a lab or a home for them at the institutions.
- No critical mass for peer-to-peer support or attention to SBE needs.