EXECUTIVE SUMMARY

Influences on the Career Transitions of Female Postdoctoral Scholars
NPA ADVANCE FOCUS GROUP FINDINGS

February 24, 2012

In September and October 2010, NPA ADVANCE staff held a series of focus groups with current and former postdoc women. The goal was to examine the factors influencing the career choices of female postdoctoral scholars (postdocs) in order to learn more about potential strategies that could help them continue an academic research career. The discussions focused on aspects of postdoctoral training that could be beneficial for their careers as well as other aspects of “life” as a postdoc, such as family and visa requirements, that are significant factors in their career decisions. Participants shared success stories, highlighting institutional and individual practices they felt were beneficial, as well as illustrated a number of challenges they face in continuing their academic careers, many of which follow from structural aspects of the postdoctoral position. Some of these challenges were specific to so-called international postdocs, non-citizens who did their postdoctoral work in the United States on temporary visas and have continued to comprise the majority of the U.S. postdoctoral workforce.

Four focus groups were conducted both in-person and remotely, via teleconference and Web forum, with a total of 54 women. These participants were selected to fall into one of three categories: (1) former postdoc women who were postdoctoral recipients of the National Science Foundation’s ADVANCE fellowship; (2) international, former postdoc women; and (3) current postdoc women in the social, behavioral and economic (SBE) sciences. Participants covered a range of disciplines, from anthropology to physics to neurology with the majority in the biomedical sciences, and included a range of current careers, from postdoc to tenured associate professor to science policy analyst. A majority of participants were partnered or married during their postdoctoral experience and approximately a third had children, roughly consistent with the general postdoctoral population.1

Key Findings
The primary themes that emerged from the ADVANCE Focus Groups were:

- **For most participants, family influenced their career decisions.** Family concerns loomed large for these women, primarily due to “dual-career” issues with their spouses or partners (herein, “partners” will be used to refer to both spouses and unmarried partners) and secondarily due to children. For most participants, their family situation influenced their career decisions. The most common concerns were geographic constraints on their careers, as participants felt they needed to find jobs within proximity to their partners’ jobs or to other family, thereby limiting their search to a certain region or institution.

- **International postdoc women have additional family-related career constraints.** Many of these women had more extreme geographical constraints on their career mobility compared with domestic postdocs, for example, wanting to be near family living in their home country. For those who wanted to stay in the U.S., they had additional challenges imposed by their visas, such as visa expiration time limits, visa processing time, dependent work restrictions and regional work restrictions.

- **Finances were a major source of secondary concern.** Family formation often created additional financial hardships for participants that were hard to manage on a postdoc salary. For some participants, their low postdoc salary made them feel that they had less influence or “say” in family decisions to relocate for the sake

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of their postdoc, thereby limiting their job mobility. Finances were also a particular concern for those with childcare costs.

- **Participants struggled with the “postdoc clock.”** Many participants expressed concern about the short-term nature of the postdoc, worrying about being a postdoc for “too long” or how to start a family during this short, undefined period. Some of the reasons noted for being a postdoc “too long” were: having children, visas, green card waiting periods, and finances.

- **Participants often felt a lack of status at their institutions.** A common concern for participants was the feeling of being in “limbo,” where postdocs fall in the ill-defined grey area between students and faculty. While this concern clearly has practical implications for institutional support structures, in many cases it also had more personal implications, such as fostering feelings of isolation, feeling undervalued, and lacking confidence. This situation was most acute for SBE postdocs, since the number of postdocs in these fields is small and both institutions and faculty can be unfamiliar with the role and needs of postdocs.

- **Mentoring and networking were among most beneficial aspects of postdoc training.** The top aspects of postdoctoral training that participants felt were beneficial were: enhanced scientific skills and knowledge, mentoring, networking, and other professional development, like grant writing skills and transitioning to independence.

- **Effort spent on professional development was seen as conflicting with effort on research.** The notion that academic researchers should spend all of their time on research continues to conflict with best practice ideas, like the importance of professional development and mentoring, even in the view of postdocs.

- **Postdoc supervisors, often called “PI”s, serve as postdocs’ primary mentors.** Supervisors are still largely regarded by postdocs as their main “mentor,” independent of how much mentoring occurs.

- **Lab or group culture was regarded as more important than institutional policy.** With respect to creating a family-friendly environment, participants emphasized the importance of culture over policy for postdocs, since postdocs often work according to more informal norms established at the lab or group level as opposed to the institutional level.

**Conclusions**

The participants in our focus groups had experienced a number of common concerns and challenges regarding balancing work and family that are similar for women at many career stages. However, many structural aspects specific to the postdoctoral position made these challenges more complicated for these women. These structural aspects, many of which are interrelated, included: the temporary nature of postdoctoral positions; the duration of postdoctoral training; the relative isolation and lack of status of postdocs who have closer ties to their research group or supervisor than to the institution at large; and the typically low salaries. Another distinct challenge for postdoc women is the fact that most are international and so face additional constraints on their work-family balance due to immigration issues.

Participants had already experienced a number of practices that had helped them advance their careers. These came from their institutions, professional societies, supervisors, mentors and colleagues. A continuing challenge will be encouraging participation in these promising practices, such as training-related programs and mentoring, that for many are still viewed as taking time away from core research activities.

As postdoctoral training becomes a more common career step in many disciplines, and the length of postdoctoral training increases, family formation and its inherent challenges will increasingly occur during the postdoc years. Therefore, all stakeholders in the postdoctoral community will need to address these challenges in order to retain these women in academia.