



Strategies for Effecting Gender Equity and Institutional Change

Strategic Intervention Brief #3 *Mentoring and Networking Activities*

Mentoring has been a popular strategy in many types of organizations to promote successful career advancement, especially for those in underrepresented groups. Interest in mentoring is also evident among ADVANCE institutions, with the great majority of institutions in Rounds 1 and 2 offering some form of mentoring, coaching, or networking. In this Brief we focus on the range of ways in which mentoring and networking programs have been conceptualized and organized, with emphasis on the ways in which mentoring fosters relationships that help faculty receive career-related advice and generate ideas for addressing problems.

Other Briefs are related in various ways. Brief 12 explains ways in which visiting scholars are sometimes asked explicitly to play a mentoring role with early-career scholars. Brief 1 focuses on faculty development, which may include events that bring together people across the institution and thus provide occasions for mentoring and networking. Brief 4 focuses on development of institutional leaders, which can sometimes include mentoring opportunities for women preparing for leadership roles.

Rationale

Mentoring and networking programs address a number of challenges in increasing the number of women in science and engineering. As Fox (2008) has explained, by the time they hold a faculty position, women who become faculty members in STEM fields are very accomplished and have already handled many challenges. Nevertheless, many women do not achieve the highest levels of success as scholars and leaders in the academy. As Fox and others have emphasized, the status of women in STEM fields is a function not only of the ability, background, and attitudes of individual women, but also of the nature of the work environment, including resources and patterns of exclusion (Fox, 1991; 2001; 2008; Fox & Mohapatra, 2007; Sturm, 2006).

The potential for multiple benefits is probably one of the most attractive features of mentoring and networking activities as a change strategy. Mentoring supports women scholars as they seek to advance in their careers within challenging contexts, ensuring that they have knowledge and problem-solving skills to negotiate paths to success. While doctoral education provides scholars with the skills and values to be excellent researchers, it typically does not focus explicitly on the full range of strategies and tools that faculty need for career success, and usually provides little preparation for institutional leadership roles (Austin & McDaniels, 2006). Furthermore, especially in fields dominated by male colleagues, women are often not included in the informal spaces where information is shared (Fox, 2001, 2008; Sturm, 2006). Thus, mentoring and networking opportunities provide avenues through which women can gain information and experience support as they develop the array of abilities and approaches to solution-finding needed for career success in academe and within their particular institutional contexts.

Mentoring and networking activities also address the isolation that women in STEM fields often experience, particularly if they are in fields heavily dominated by men. Specifically, mentoring and networking programs provide opportunities for collegial interactions that offer encouragement, guidance, and models to inform participants' career development. Such relationships also help faculty meet colleagues across disciplines and provide structures of support when women encounter difficult situations. Opportunities to discuss their

experiences can help women understand how their own challenges relate to the broader institutional culture and can lead to identifying strategies or solutions that fit well within the particular institutional context.

In addition to supporting women scholars as individuals, mentoring programs may contribute to change in organizational cultures by preparing women to enter leadership roles with the tools to tackle the impact of implicit bias and to promote policies and processes that nurture inclusive, supportive environments. Mentoring and networking activities also have symbolic as well as functional value. By investing in women colleagues in ways that help ensure their success as scholars and as institutional citizens and leaders, universities can highlight their commitment to the importance of having a diverse faculty.

Purpose

Mentoring and networking activities may serve several purposes simultaneously:

- *Support for career development.* A primary purpose, regardless of participants' career stage, is to support women scholars as they seek to develop productive, satisfying, and successful careers. Mentoring and networking activities often support this overall goal by providing opportunities for women to sharpen their leadership and career-related decision-making skills, envision career options, and interact with more senior women who can serve as role models.
- *Assistance in problem-solving.* Mentoring and networking opportunities sometimes are organized to help women find support in identifying appropriate steps or options for solving challenges that they may encounter (e.g., negotiating salaries, handling conflict, assuming new budgetary responsibilities).
- *Communities of support and collegial connections.* Typically, mentoring and networking activities provide occasions for women to develop relationships with peers or colleagues who are more advanced in their careers and who are willing to provide collegial support, interest, encouragement, and guidance. Mentoring support can help reduce anxiety, especially for early-career faculty unsure how to interpret or handle various situations they may face.

Audience

Mentoring and networking activities in ADVANCE institutions have addressed several audiences. They often have focused on early- or mid-career women faculty, helping them to enhance career-related skills and deepen their knowledge of the institution and its culture. Others have focused on mid-career and senior women interested in gaining skills and knowledge to enable them to be competitive for and effective in institutional leadership roles. Still other programs have targeted both women and men holding institutional leadership roles, perhaps as deans and department chairs). A few ADVANCE institutions have aimed to widen the pipeline into academic positions by providing mentoring and networking opportunities for female graduate students who may be considering academic careers.

Models

A fairly wide literature addresses mentorship of various kinds; of note, however, is the general lack of clear definitions and systematic frameworks for analyzing or planning mentoring activities. Mentoring and networking took quite diverse forms across the ADVANCE institutions we studied and, in fact, often varied considerably over time within particular institutions. Many universities took a somewhat experimental approach, trying out particular forms of mentoring and then adjusting, discontinuing, replacing, or inventing new forms, depending on the responses of faculty and the assessment of campus needs.

In this Brief, we include coaching as part of the broad range of options that we label mentoring. Coaching sometimes denotes a relationship with a targeted goal of helping women develop specific skills, such as senior-level leadership skills. It can also imply relationships in which the coach is scaffolding the woman's

own decision-making (with less emphasis on the coach's views), compared to a relationship in which senior colleagues share their expertise, experiences, advice, and perspectives with less experienced colleagues.

A recent article by Dawson (2014), based on an extensive literature review, outlined 16 design elements that can be used to describe the diversity of mentoring options. These elements highlight choices to be considered in designing mentoring plans. Some important elements to consider are the following:

- ***The objectives of a mentoring model.*** What purposes is it intended to address? Some ADVANCE mentoring and networking activities have focused on helping new faculty members to understand expectations, policies, and institutional culture and to develop their career goals. Other programs have focused on introducing mid-career women to possibilities in leadership. Other objectives have included providing responses to whatever problems or challenges emerge for women scholars; ensuring that new faculty establish themselves as productive scholars; and easing the transition of new chairs by helping them gain the institutional knowledge and professional skills relevant to leading a unit.
- ***Roles.*** What roles and functions are to be played by the mentor and by the mentee? Some ADVANCE projects have expected mentors to provide specific knowledge (e.g., information about institutional policies or guidance about negotiation strategies). Others have urged a more fluid, organic approach in which mentors and mentees together determine their respective roles.
- ***Cardinality.*** How many people are to be involved in each role (e.g., one-to-one, one-to-many, or many-to-many mentoring)? One-to-one mentoring, with either matched mentor/mentee pairs or self-selected teams, was tried at several ADVANCE institutions; however, often this approach was replaced over time with networking models that brought together groups of peers or mixed junior and senior faculty.
- ***Seniority.*** What is the expertise, experience, and status level of each person in the relationship? ADVANCE institutions have offered activities to connect junior and senior faculty, in which senior colleagues share their perspectives based on their greater experience. Others crafted peer mentoring opportunities, in which colleagues at similar career levels serve as peer or “near-peer” mentors.
- ***Time.*** How are critical time issues handled, including the amount of time each person devotes to the relationship, the amount and regularity of interactions, and the duration of the relationship? In some cases, ADVANCE mentoring programs have extended across a semester or a year (or more), such as the *University of Texas El Paso's* regular meetings for pre-tenure faculty and their mentors, or *Hunter College's* Sponsorship Program for women scientists, which could extend to 3 years. At the other end of the continuum is *Case Western Reserve's* “hotline coaching” that offered immediate mentoring over the phone or in a few sessions to help women who have specific and immediate concerns. Between these two ends of the spectrum are examples such as occasional voluntary luncheons that provide mentoring conversations between junior faculty and experienced senior colleagues around such career issues as tenure and promotion, work-life issues, or grant-writing.
- ***Location of the Mentoring Program.*** One issue not included in Dawson's (2014) list is where to situate a mentoring program within the organizational structure. Some institutions have organized mentoring and networking activities at the institutional level in order to encourage faculty and administrators from different departments to meet and interact (e.g., over lunches or through workshops). Other projects have focused on helping colleges or departments to develop their own mentoring and networking plans, responsive to local needs.

Dawson (2014) mentioned other issues, including how mentors and mentees are selected and become connected, how participants are trained or guided for the mentoring process, and the resources, such as space and technology, available to support mentoring relationships.

Examples

Most institutions with mentoring or networking activities as interventions in their change portfolios used several different forms of mentoring—and often these forms changed over time. We highlight several institutions below to illustrate the range of possibilities.

Case Western Reserve University. This program illustrates a comprehensive approach to mentoring, with long- and short-term options, opportunities for faculty and administrative leaders, and institution-situated as well as college-located mentoring options.

- ***Mentoring committees and mentoring lunches.*** ADVANCE leaders initially planned to establish mentoring committees for women and minority faculty consisting of three experienced colleagues: one within the department, one outside it, and one outside the university). However, response was not strong, and some resistance was expressed to the formality of this model. The committees were replaced with Junior Faculty Mentoring Lunches that emphasized mentoring through networking among early-career faculty, senior faculty, and administrators on a wide variety of topics.
- ***Executive coaching for deans, chairs, and individual faculty women.*** Coaching focused on helping people achieve personal and professional goals through targeted guidance from experienced leaders and supporting them in leading change within the institution.
- ***Hotline mentoring.*** This innovative approach to mentoring provided the opportunity for women scholars and leaders to have a telephone conversation with an experienced colleague to brainstorm approaches to immediate and serious situations (e.g., salary negotiations, work-life concerns, or questions about promotion and tenure processes, budget management, or interpersonal matters).
- ***Speed mentoring.*** Speed mentoring events of 90 minutes each were open to all faculty members, postdoctoral fellows, and graduate students. These short, focused interactions with mentors focused on such issues as CV design and career-building strategies.

University of Texas at El Paso (UTEP). UTEP offered an institution-wide, formal one-to-one mentoring approach, combined with networking opportunities.

- ***The Faculty Mentoring Program for Women*** targeted all pre-tenure women faculty to help them become acculturated to the university and “increase their effectiveness and visibility” by having access to information and resources. All new women faculty members were matched with mentors for guidance on handling teaching, research, and service responsibilities, managing family issues, and setting priorities.
- ***Group activities.*** Early-career faculty participated in informal monthly luncheons to discuss such topics as promotion and tenure processes and departmental and university-level service; they also attended a mid-year workshop organized to help mentor-mentee pairs assess and adjust their relationships. Formative evaluation across several years showed that the faculty participants assessed the mentoring relationships to be very useful.

Hunter College. The Sponsorship Program at Hunter is an example of a carefully designed mentoring arrangement specifically addressing the challenges women may face as researchers and organized to foster increased research success.

- ***Eight to 12 Associates*** at any rank were selected each year to receive funding for up to 3 years, not necessarily contiguous. Each Associate was matched with a successful senior scholar (male or female) in the same field, but not the same department, for bi-weekly communication to support research accomplishments. Associates each received up to \$10,000 per year for research-related support, while

sponsors received up to \$2,500 per semester to compensate for the time they spent supporting the associate.

- *Monthly workshops* focused on career development, writing and publishing, mentoring processes, and work-personal balance. These were infused with information about gender schemas and the role of accumulated disadvantage in women's careers. This program was well-received, with quantitative assessments showing that participants increased their research productivity; interview data provided descriptions of the positive impact on participants' knowledge, confidence, and contributions to their departments.

University of Colorado Boulder. Responding to campus interest, the LEAP project at CU Boulder shifted from one mentoring model to another during its grant period.

- Initially, LEAP offered a coaching model, in which early-career faculty were matched with senior faculty serving as coaches. While evaluation data showed benefits to both coaches and their junior partners, after two years the project leaders decided to move toward activities that emphasized networking. Among the reasons was the modest level of interest in coaching expressed by early-career faculty, possibly because of perceptions that an interest in coaching might unintentionally imply that the faculty member was struggling.
- This shift toward networking was viewed as successful at Colorado. Networking activities included lunches, book groups, and workshops; they targeted early-career faculty, associate professors, senior faculty, and department chairs. Informed by a philosophy that "a rising tide raises all ships," the networking events were open to all women faculty, STEM and non-STEM.

University of Washington. UW's approach illustrates the ways in which faculty development or leadership development topics can be used to attract academics to attend events that foster networking. (Brief 1 includes additional ideas for approaches to faculty development.)

- *Mentoring-for-Leadership Lunches* were designed to encourage women in STEM fields to consider career paths involving leadership roles. The lunches featured discussion of a 20-minute presentation by a woman in a positional or non-positional leadership role who discussed her personal history, challenges, and success strategies. Quarterly formative evaluations and summative evaluation indicated participants felt less isolated and expressed more likelihood to pursue leadership opportunities.
- *Quarterly Professional Development Workshops* for all pre-tenure faculty in ADVANCE departments addressed career-related topics (e.g., time management, negotiating the tenure process, advising graduate students, and balancing multiple roles). Evaluation results showed that applicants gained a greater sense of being part of a community; they also learned enhanced strategies for balancing teaching, research, and service.

University of Rhode Island. URI's approach to mentoring illustrates ways to situate mentoring within the contexts of individual colleges. ADVANCE leaders met with college deans to review overall institutional mentoring goals and to support each college in developing a mentoring policy tailored for their faculty. They also developed a web tutorial, handbook, and training workshop on mentoring.

Evaluation

Mentoring and networking activities were assessed in a variety of ways. Extent of participation was an easy measure that could be tracked over time. Often, general observations of enrollment and interest were used to determine whether activities were meeting perceived needs and responding to interests of women faculty.

Some programs used interviews or written surveys of mentees and mentors to gather data on satisfaction, impact, areas of interest of participants, and preferred topics for mentoring workshops.

Affordances and Limitations

Overall, mentoring and networking activities provide opportunities for individual faculty members or administrative leaders to enhance their professional skills and knowledge, gain deeper understanding of institutional resources and culture, and cultivate professional connections that can support, inform, and assist them in handling professional and personal responsibilities and challenges. The greatest limitation is the time required for participation. Usually, tangible costs are modest, for food and services for mentoring gatherings. Specific forms of mentoring and networking activities vary in their particular benefits and limitations, as noted below.

Individual one-to-one mentoring

- **Affordances.** Individual mentees can develop personal relationships over time with a more senior person who focuses on the specific circumstances of the mentee.
- **Limitations.** Early-career faculty members may be concerned that expressions of interest in being mentored could be perceived as signals of weakness, uncertainty, or problems in performance. One way to address this issue is by requiring all new faculty to have a mentor. Early-career faculty also may be concerned about revealing questions, challenges, or issues to a colleague within the same department, for fear that the more senior colleague may be in an evaluative role at a later time and the shared information could compromise the assessment of the early-career colleague's strengths. One solution is to seek a mentor from outside the department, although there is some risk that the mentor may not fully understand the specific issues confronting the early-career faculty member. Some senior colleagues who volunteer as mentors may not have the personal qualities needed to be effective.

Mentoring committees with colleagues from within and outside the mentee's department

- **Affordances.** In addition to the affordances of one-to-one mentoring, mentees receive the guidance and perspectives of multiple advisors.
- **Limitations.** Arranging times for regularly scheduled meetings can be challenging with more people involved. Unless mentoring is required, faculty may still worry that requesting a mentoring committee could undermine how they are viewed by others.

Networking activities with peers or with mixed groups

- **Affordances.** Compared to individual mentoring, networking provides a more informal environment in which a range of perspectives and experiences can be shared. Mentees may learn about a variety of strategies or approaches to consider, without the pressure of feeling that they should follow the advice of a specific person, and may make multiple connections simultaneously. Peer mentoring enables exchange of ideas with others having similar experiences, thus avoiding the risk of sharing uncertainties with more senior colleagues. All forms of networking create connections across a campus that enhance the overall capacity and knowledge of faculty and administrators, which can influence the campus culture.
- **Limitations.** Networking activities may not focus on the specific needs of an individual faculty member. Individuals may need to identify those within the mentoring network who can be most helpful in regard to specific questions or issues.

References Cited

- Austin, A. E., & McDaniels, M. (2006). Preparing the professoriate of the future: Graduate student socialization for faculty roles. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research*, Vol. 21 (pp. 397-456). Netherlands: Springer.
- Dawson, P. (March, 2014). Beyond a definition: Toward a framework for designing and specifying mentoring models. *Educational Researcher*, 43, 137-145.
- Fox, M. F. (1991). Gender, environmental, milieu, and productivity in science. In H. Zuckerman, J. Cole, and J. Bruer (Eds.), *The outer circle: Women in the scientific community* (pp. 188-204). New York: W.W. Norton.
- Fox, M. F. (2001). Women, science, and academia: Graduate education and careers. *Gender and Society*, 15, 654-666.
- Fox, M.F. (2008). Institutional transformation and the advancement of women faculty: The case of academic science and engineering. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research*, Vol. 23 (pp. 73-103). London: Springer.
- Fox, M. F., & Mohapatra, S. (2007). Social-organizational characteristics of work and publication productivity among academic scientists in doctoral-granting departments. *Journal of Higher Education*, 78, 542-571.
- Sturm, S. (2006). The architecture of inclusion: Advancing workplace equity in higher education. *Harvard Journal of Law and Gender*, 29, 247-334.

For Further Reading

- Kram, K. E. (1983). Phases of the mentor relationship. *Academic of Management Journal*, 26 (4), 608-625.
- Rabinowitz, V. C., & Valian, V. (2007). Beyond mentoring: A sponsorship program to improve women's success. In A. J. Stewart, J. E. Malley, & D. LaVaque-Manty, (Eds.), *Transforming science and engineering: Advancing academic women* (pp. 96-115). Ann Arbor, MI: University of Michigan Press.
- Yen, J. W., Quinn, K., Carrigan, C., Litzler, E., & Riskin, E. (2007). The ADVANCE Mentoring-for-Leadership Lunch Series for women faculty in STEM at the University of Washington. *Journal of Women and Minorities in Science and Engineering*, 13 (3), 191-206.
- Zellers, D. F., Howard, V. M., & Barcic, M. A. (2008). Faculty mentoring programs: Reenvisioning rather than reinventing the wheel. *Review of Educational Research*, 78(3), 552-588.

To cite this document:

Austin, A. E., & Laursen, S. L. (2014). Strategic Intervention Brief #3. Mentoring and Networking Activities. In Laursen, S. L., & Austin, A. E., *StratEGIC Toolkit: Strategies for Effecting Gender Equity and Institutional Change*. Boulder, CO, and East Lansing, MI. www.strategic toolkit.org

This research study and development of the StratEGIC Toolkit and other products have been supported by the National Science Foundation through ADVANCE PAID grant #HRD-0930097. Any opinions, findings, conclusions, or recommendations are those of the researchers and do not necessarily represent the official views, opinions, or policy of the National Science Foundation.