AC 2011-912: A TRIAD FACULTY MENTORING PROGRAM

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Jan Rinehart is Executive Director of the National Science Foundation funded ADVANCE Program at Rice University. The goals of the ADVANCE program are to increase the number of women faculty in science, engineering, and mathematics at all levels of leadership, and change the institutional climate. She has over twenty years in higher education with most of her work focused on diversity in STEM fields. Prior to assuming the ADVANCE position, she served as the Deputy Director of the Space Engineering Institute for two years and the Director of Engineering Student Programs at Texas A&M University. She initiated the Women in Engineering program in 1994 and served as WEPAN (Women in Engineering Programs and Advocates Network) President from 2002-2003. She received her M.S. in Higher Education Administration from Texas A&M University and a B.S. in secondary education from Abilene Christian University.

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Dr. Eden King joined the faculty of the Industrial-Organizational Psychology program at George Mason University after earning her Ph.D. from Rice University in 2006. Dr. King is pursuing a program of research that seeks to guide the equitable and effective management of diverse organizations. Her research, which has appeared in outlets such as the Journal of Applied Psychology, Human Resource Management, Perspectives of IO Psychology, and Group and Organization Management, integrates organizational and social psychological theories in conceptualizing social stigma and the work-life interface. This research addresses three primary themes: 1) current manifestations of discrimination and barriers to work-life balance in organizations, 2) consequences of such challenges for its targets and their workplaces, and 3) individual and organizational strategies for reducing discrimination and increasing support for families. In addition to her academic positions, Dr. King has consulted on applied projects related to climate initiatives, selection systems, and diversity training programs, and has worked as a trial consultant. She is currently on the editorial boards of the Academy of Management Journal, the Journal of Management and the Journal of Business and Psychology.

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A Triad Faculty Mentoring Program
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Abstract

The National Science Foundation funded an ADVANCE Institutional Transformation (IT) Program in fall 2006 on the Rice University campus in Houston, Texas. In light of findings from the 2003 Rice Tenured/Tenure-Track Faculty Climate Study that pointed to mentoring as an area in need of improvement, the Rice ADVANCE leadership group proposed a female faculty mentoring program. The purpose of the mentoring program was to improve the institutional climate for women and provide support for women faculty in the Schools of Natural Sciences and Engineering.

The Rice ADVANCE leadership team developed a female Triad Mentor Program. Through a qualitative evaluation and annual program surveys, we know the program has positively impacted the junior female faculty by giving them a stronger sense of belonging to their individual schools and the University, and by creating a belief that their success matters to the University. The senior faculty mentors also report that participating as mentors is a valuable experience for them because they learn about institutional processes outside their own experience and department, and that the program makes them feel like they are making a difference in improving the experiences of junior female faculty. The university considers the Triad Mentor Program a success in changing the climate for women faculty in the sciences and engineering. In this paper, we share information about the administration of the program, mentor and protégé support materials, results from an on-line survey, results from faculty focus groups, and future institutionalization plans.

There are forty-three women faculty at Rice in the Schools of Natural Sciences and Engineering. To date, all of the junior female faculty (18) have participated at least one year in the Triad Mentor Program and fifteen (60%) senior women have served as mentors. Of the five junior women who have gone up for promotion and tenure, 60% have been successful.

Introduction

Past research on mentoring reveals that women tend to have fewer mentors and have a more difficult time finding mentors. There are several reasons for this historical lack of mentoring for women. Most mentors are more senior and more experienced people in an organization. Since women are underrepresented in organizations in the higher ranks, there are fewer available to mentor the incoming women. For women, especially young women, there are stereotypical fears that inhibit those who aggressively pursue older men to ask them to serve as mentors\(^1\). Their actions may be perceived as sexually aggressive. Also if older men decide to mentor a younger woman, the attention they show a young woman in the initial stages of relationship building may be perceived as sexually motivated. Between these stereotypes and the lack of female mentors of equal experience, young women have a more difficult time finding mentors.
Research on the value of mentoring reports those who have mentors often have more job satisfaction, career satisfaction, promotion, better compensation, and are awarded more grants than those who are not mentored. Mentoring can particularly buffer women from the setbacks to them personally and to their career from the negative effects of gender bias. People who have been protégés find it easier to find mentoring relationships than those people who have never been a protégé. These mentored individuals recognize the value of mentoring and have the skills to initiate and maintain mentoring relationships. They proactively look for future mentors. Ragins and Cotton found that both women and men reported barriers to finding mentors, but women perceived more barriers than actually existed and both genders were equally likely to find mentors.

Based on the overall research, we believe it is imperative for universities to initiate mentoring relationships for all junior faculty, but especially women since there remains gender biases that differentially impact their career successes.

Why Mentor Female Faculty at Rice?

In the 2003 Rice Faculty Climate Study, women consistently reported a significantly less positive experience than did men across a number of domains. In particular, the study showed women perceived significantly less organizational support (3.0 on a 5.0 Likert scale), a less friendly atmosphere (3.1), and a less tolerant atmosphere (3.1) than men (3.4, 3.6, and 4.0 respectively). Women also reported significantly more scholarly isolation (2.7) than did men (2.5). The ADVANCE leadership team proposed mentoring to help address these differential experiences reported by women.

In addition to data from the 2003 climate study, Dr. Michelle Hebl, ADVANCE Co-PI and Professor of Industrial/Organizational Psychology, conducted a Faculty Leave Study in 2008-09. She contacted each Rice faculty member who had left Rice in the past ten years, thereby inviting 163 former faculty members of Rice University to participate in the survey by mail and/or e-mail. Ninety-one former faculty members returned their surveys; however, eight of these responses were unusable because they were incomplete or the faculty member did not leave Rice voluntarily. Therefore, the sample on which the data is based included 83 participants, generating a 51% response rate from overall recruitment attempt, and a 55.7% response rate from those who were contacted. Of the 83 respondents, 20 were women, 60 were men, and three respondents did not indicate their gender. All participants had left Rice between July 1991 and August 2008, with 73.4% (N = 58) having left within the past 10 years. Participants ranged from having been at Rice between six months to 20 years, with an average of 84.87 months (7.07 years) spent at the university. Of those who responded, 82.2% (N = 37) of these employees were tenured when they departed.

The results suggest that women’s experiences at Rice are different and more negative than men’s; particularly with respect to perceived discrimination, perceived harassment, and organizational climate. Overall, male former faculty members recalled receiving better treatment during their time at Rice than did their female counterparts in all respects. Women consistently cited negative gender and family issues as part of their experiences at the university, while men cited a better climate and higher job satisfaction. There were a number of additional patterns not
Triad Mentor Program Description

In Fall 2006, as part of the NSF ADVANCE Program, a faculty committee of seven women faculty and two staff members researched several different mentoring models and discussed what the faculty at Rice needed most in terms of mentoring female faculty in natural sciences and engineering. Most of the women, mentors and protégés, reported an existing mentoring program in their department; however, the departmental programs were fairly unstructured and none of the women had a female mentor assigned. The committee considered whether the mentor program should:

1) focus on facilitating the junior faculty’s promotion in the University,
2) focus on organizational socialization, or
3) combine the two concepts.

After much discussion and intensive background reading (e.g., numerous research studies, Case Western Reserve University Mentor Program\(^9\); University of Wisconsin-Madison Women Faculty Mentoring Program\(^10\); University of Dayton Mentoring Program\(^11\); Smock et al.\(^12\); Yen et al.\(^13\)), the mentoring committee decided to formally assign mentors but to focus on organizational socialization instead of formal promotion. The program would focus on the protégé’s sense of competence, self-efficacy, and professional and personal development. The matching of a mentor, with a focus on organizational socialization, was a blend of Ragins and Cotton’s models of mentoring. This mentoring approach follows the developmental network perspective, which comes out of social network research.\(^14\) The program the committee instituted at Rice is called the Triad Mentor Program. The committee matched one senior female faculty mentor with two junior female faculty members (or protégés). The committee decided a triad (three people) might be more advantageous than a one-on-one relationship for three reasons:

1) if one member of the triad did not participate, there would still be two faculty forming a relationship,
2) the junior faculty would get to know another junior faculty member, giving them a broader relationship base, and
3) the junior faculty could learn from each others’ questions and experiences.

Our reasons are supported by research by Higgins and Kram\(^14\), who researched developmental network perspectives. They found that the ubiquitous increase in organizational competition forces young faculty who want to be successful into developing a network of relationships from which they can draw advice. It is no longer enough to have one senior level, intraorganizational relationship.\(^15,16,17\) These changes demand a different model of mentoring - one that connects junior faculty to a network of people that can provide advice and opportunities.

The goals of the Triad Mentoring Program are to provide information to junior faculty during the non-tenure time to enhance the beginning of their academic career and create a sense of belonging to their individual schools and Rice University. Mentoring triads meet, at a minimum,
one time per month. They do not have to include all three members, but, by design and initial feedback, it seems this structure is beneficial for all three members.

**Logistics of the Program**

In early August, the ADVANCE office sends email invitations to each assistant female faculty member inviting them to apply for a mentor for the upcoming year. They are provided a web link to the program description and online application ([http://advance.rice.edu/Content.aspx?id=584](http://advance.rice.edu/Content.aspx?id=584)). The application asks:

- years at Rice
- research interests
- advice they want from a mentor
- goals for the mentoring relationship
- personal experiences they want considered when matching a mentor including:
  - race
  - sexual orientation
  - childcare responsibilities
  - parenting
  - elder care responsibilities
  - single life
  - dual career

Also included on the application is a request to name three senior female faculty they would like to have as a mentor. This request is based on research that has found the more engaged protégés are in selection of a mentor; the more satisfied they are with the actual mentoring.

A small committee then meets to match mentoring triads. The committee typically consists of the co-chairs of the ADVANCE Retention and Climate Committee and the ADVANCE Executive Director. The guidelines are flexible, but we have found it is effective to:

- match women in similar research fields;
- match women from different departments;
- consider years in rank;
- pay close attention to their self-identified personal concerns; and
- consider who they have selected as possible mentors.

These guidelines were derived based on our readings and experiences. For instance, we have found that it is very stressful for protégés to match two junior women who are both going up for tenure at the same time, or to pair together a first year assistant professor with a professor who is going up for tenure.

The ADVANCE Executive Director then contacts the senior women who have been requested as mentors and invites them to mentor two junior women. The committee is sensitive to women who are holding administrative jobs and does not typically invite department chairs or deans to be mentors.

A Kick-Off Meeting is held in early September when each member of the triad meets the other members. The ADVANCE Executive Director leads a discussion on good practices for mentors
and for protégés and emphasizes why the mentoring relationships of the past have worked and/or not worked well. For the first two years of the program, we used mentoring support materials that had been developed by the Triad Mentor Committee. In 2008, the committee, instead, used materials developed by the National Center for Women and Information Technology (NCWIT) for academic mentoring (http://www.ncwit.org/resources.res.box.faculty.html). We continue to use these materials to provide templates for: a) setting a regular time to meet each month, b) deciding goals for the year long mentorship, and c) providing a list of discussion topics.

At the end of each semester, a mentoring lunch provides an opportunity for the mentors and protégés to gather as a group. Throughout the year, the Executive Director visits informally with the mentors and protégés to troubleshoot and provide support when needed. In general, initiation of the triads has been very, very smooth, however, there was one junior woman reassigned and some minor interventions quietly made to other relationships intended to jumpstart what was perceived to be floundering relationships.

There are occasionally reasons to pair two faculty instead of three. For instance:

- One senior woman was a center director and did not believe she could manage two protégés.
- One senior woman was assigned two protégés, and then the mentor was asked by the dean to spend extra time with one of the junior faculty members.
- An associate professor was hired and paired with a single senior woman because her transition, as a senior faculty member, was unique.

**Evaluation of the Triad Mentor Program**

**Annual Online Survey**

We administered an online survey to Triad Mentor participants in the first and second years (2006-06 and 2007-08) of the ADVANCE grant. In those two years, 12 senior women served as mentors with 75% of them participating in the online survey. During the same time period (2006-07 and 2007-08), 21 junior women were protégés with 52% of them participating in the online survey. There was 61% overall participation in the online survey during the two year period.

In the survey, we asked about the goals of the participants, topics discussed, and benefit(s) of the program.

- 71% reported the mentor program "mostly" or "totally" met their goals
- 78% reported they will participate next year
- 50% reported they are part of another mentor program

When asked, “As a result of my participation in the Triad Mentor program, I feel…”, participants' responses (indicated on a 5 point Likert scale, with 1 being “not true” and 5 being “very true.”) reflect that the program goals were being met. We anticipated that participants would believe their success matters to the university and their school because the mentors were outside their departments, but found that mentees felt that their success mattered not only in the university and school but also in their own departments. This suggests that the Triad Mentor program impacted mentees' overall sense of support by the institution.
• Like my success matters to the university (3.94)
• Like my success matters to my school (3.8)
• Like my success matters to my department (3.7)
• More a part of my department (3.1)
• Less isolated (3.2)

**Senior Mentors Reported**
When asked “why the mentors participated” in the program, they responded:
• Getting to know other women faculty
• Sharing what they know
• Learning from others
• Understanding the different departments

**Junior Protégés Reported**
When asked “why the protégés participated” in the program, they responded:
• Understanding the department
• Learning from others
• Understanding tenure process
• Learning about what committees to join/not join
• Identifying grants for which one is eligible and should apply
• Teaching effectiveness
• Thinking about career development
• Learning how to balance work and family
• Learning effective group management skills
• Gaining strategies for an international research reputation

When asked to report what topics they discussed with their mentor, the top five were:
• Balancing personal and professional lives
• Discussing how to build a tenure dossier
• Thinking about collaborative research
• Learning how to handle rejection of a paper, proposal, or poor teaching evaluations
• Learning how to appropriately raise concerns, issues, and/or problems

**Suggestions for Improvement**
Suggestions for program improvement given for Mentors include:
• Have a set monthly meeting at the beginning of the school year
• Be more proactive and offer more advice than what a junior faculty knows to ask
• Tell the protégé ways the mentor is willing to help (i.e. willing to review proposal, show or review a dossier, etc.)

Suggestions to improve the Triad Mentor Program given for Protégés include:
• Prepare specific goals for the mentor
• Seek more input; ask questions
• Be open to mentor’s guidance and not just complain about the way things are
Suggestions to improve the Triad Mentor Program given for the ADVANCE office include:

- Suggest topics throughout the year
- Encourage and hold get-togethers more often to facilitate mingling
- Match mentor/protégé in more closely related disciplines

**Triad Mentor Focus Groups**

In January 2010, the ADVANCE Program contracted an external qualitative evaluator to assess the impact of the Triad Mentor Program. Together the evaluator and the ADVANCE Executive Director led several different focus groups with mentors and protégés. From these discussions, we learned junior faculty perceived significant value from the mentoring they receive from senior mentors. In Gibson’s study of women faculty’s mentoring experience; she reported the essential themes we found in assessing the protégés at Rice. That is, they described the importance of: 1) having someone who truly cares, 2) feeling connection, 3) being affirmed of one’s worth, 4) feeling like one is not alone, and 5) understanding that politics are part of every person’s experience.

There were several strengths described by the women faculty that make the Triad Mentor Program special or unique. These included: 1) the protégé doesn’t feel constrained about the questions they can ask; 2) the mentor is a woman; 3) the mentors have an interest in mentoring; 4) there is feedback gathered on the effectiveness and if a mentor doesn’t do a good job, they are not asked to mentor again; 5) the protégés learn a breadth of knowledge because the mentor is outside their department and many times outside their school; and 6) the protégé gets many points of view so they can incorporate all of them into their decisions.

*Senior Female Mentors’ Perceptions*

The senior female mentors reported valuing their experiences in the Triad Mentor Program. They specifically agreed to mentor junior women because they: 1) wanted to make a difference in the experiences of young women, 2) believed they had learned things through their experience of going through the promotion and tenure process that could be valuable to younger women and lower the stress they might be experiencing, 3) believed the simple, open structure of the Triad Mentor Program allowed the needed flexibility for open conversations about a range of topics that are determined by the junior faculty member, 4) thought the program design allows for a breadth of information, and 5) believed they became more valuable as mentors the longer they participated in the program. The first time they mentored, they began with only their experience. But, as they mentored more young women, they became aware of the workings of different departments and sought out information for their protégés, which provided new information to them. In addition, there was a consensus of the mentors that mentoring was not a burden and required an insignificant amount of time. Mentoring was as much a social thing as anything to them. Some felt they served as a clearinghouse of information for the junior faculty and some described themselves as a cheerleader.

“It’s a process that allows you to define exactly what you want to cover or the individuals get to say, ’These are the issues that affect me and I’d really like to know more about it or I’d like to discuss.’ And so from that perspective, I think having an open process is very valuable. There are no restrictions on what you
can cover and it allows and encourages every participant to come up with their top list for the agenda.”

(Natural Science Mentor)

The senior faculty suggested a system of recognition for mentoring would be valuable. They believe that mentoring needs to be viewed as a “service” to the University and should be something a department chair and dean recognize as part of faculty contribution to the department, school, and university. Both the mentors and the protégés agreed there are two primary keys to success of the program: 1) the personality match of the mentor and at least one of the protégés; and 2) proactively setting a regular meeting time at the beginning of each semester.

**Junior Female Protégé Perceptions**

The protégés reported they participated in the program because they thought it would benefit them to know other junior faculty and senior faculty in other departments. They reported: 1) it was good to be “welcomed” to the university by someone, 2) the advice they received from outside their department provided a breadth of information, 3) the mentoring relationship provided a safe place to ask questions, especially political questions, 4) there was no fear of evaluation for promotion and tenure, and 5) they did not have to proactively find the mentor and set the first meeting. This proactiveness from the mentors made them feel the mentors really cared about mentoring them and getting to know them. They also liked being paired with another junior faculty member because they learned through their experiences. Sometimes when they had no questions for the mentor, the other junior member of the Triad would ask very good questions. This pairing shared the responsibility of knowing what questions to ask.

“I think one thing I know, as the protégé, you’re a little bit afraid of asking time from your mentor so it’s good if the mentor contacts or makes the first (contact), initiates or says right at the beginning, ‘Let’s meet at these dates,’ and sets it in writing because if you have a thing where you have to set up a time every month and the protégé has to ask for it, then they may feel embarrassed or feel like they’re taking up time or asking for stuff all the time.”

(Natural Science Protégé)

The experiences of the junior women in the Triad Mentor Program can be contrasted with their descriptions of the more traditional departmental mentoring programs that currently exist. When approaching their assigned departmental mentor, that person is typically in their research area, so the junior faculty member spends considerable time thinking about what questions have enough merit in the research arena to be asked. The departmental mentor was viewed as an evaluator in the promotion and tenure process. The departmental mentors were assigned by the chair and may not want to mentor, but rather see the assignment as a service requirement to the department. The mentor programs are not evaluated in the departments, so no one really knows how successful the mentors are.

The junior faculty reported an immediate comfort level when the triad mentor was female. There was a bond without even knowing the person. They asked questions about topics they did not think they would ask a male mentor such as balancing life and research, children and timing of
children, managing graduate students, asking the department chair for resources, committee work, when and how to say no, and advice about political issues that arise in the departments. It was important to them to have senior women role models, especially if their department has no senior women.

“Even on a mental level, when you see someone else struggle like you and you realize you’re not the only one and you’re not stupid or anything.”

(Engineering Protégé)

2007 Rice Faculty Climate Study

By the time the 2007 Rice Faculty Climate Study22 was administered, the Triad Mentor Program had only been in place for one year. However, the faculty reported a more positive, tolerant, and gender egalitarian climate than in 2003. Also, in the 2007 Rice Faculty Climate Study, both women and men reported they did not receive substantial mentoring in their departments or school. Seventy-one percent of respondents reported their respective departments did not have formal mentoring programs. However, women reported having more mentors (2.33 in Natural Sciences; 3.08 in Engineering, 2.42 in Humanities, and 2.2 in Social Sciences) than men (1.95 in Natural Sciences; 2.08 in Engineering, 1.8 in Humanities, and 1.68 in Social Sciences). Women also reported higher quality mentoring than men across all the schools.

Expansion of Mentoring

The Provost has placed faculty mentoring as a high priority at Rice University. As such, the department chairs and deans are developing a plan concordant with their faculty and perceived needs to meet this clear mandate for mentoring — and this priority is being reinforced both from the highest levels of the institution and from the faculty. In response to the Provost’s request for mentoring, the ADVANCE Program developed a Department Grants Program in summer 2009. ADVANCE and the University leveraged resources to fund six grants totaling $23,400. Although the Department Grants Program did not specify mentoring, six junior faculty departmental mentoring programs were proposed and funded. Most were a mix of internal mentoring and invitations to external scholars to come to Rice University and mentor junior faculty. Another intriguing grant developed a departmental faculty handbook. The Departmental Grants Program fully supports and economically backs the Provost’s request that each department establish a junior faculty mentor program with accountability.

One area that the ADVANCE Program is just beginning to address is the mentoring of junior male faculty. The junior female faculty involved in the Triad Mentor Program, reported they learn so much from their mentors and they are concerned for their junior male colleagues because of the lack of mentoring in their department. They have asked the ADVANCE Program to address this issue. ADVANCE also had an External Advisory Committee who came to campus in years one and three of the grant. The committee met with junior male faculty who reported they would value a mentoring program like the ADVANCE Triad Mentor Program. In Fall 2010, the Deans of the Schools of Engineering and Natural Sciences agreed to financially support a Junior Faculty Triad Mentoring Program for men and women junior faculty. The ADVANCE Program provides the infrastructure and staff. Ragins and Cotton23 provide good
research-based suggestions for cross-gendered mentor programs. This and other mentoring research will be used as Rice moves forward to mentor all junior faculty.

Conclusion

There is little doubt that mentoring in departments and schools helps junior faculty succeed. This is born out in the research studies and at Rice University with the Triad Mentor Program. There are many models, interventions, and systems that can be developed, formally and informally, to mentor junior faculty. The great expectations placed on junior faculty are stressful to varying degrees depending on individual personalities and circumstances, but departments and universities who invest in and employ young faculty can protect their investment and reputations by thoughtfully creating systems that ensure the success of untenured junior faculty. Such benefits, like those inherent in the Triad Mentoring Program, not only serve the junior faculty, but also the senior faculty who mentor and invest in the next generation.

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