COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

Guide to Best Practices in Faculty Mentoring

Office of the Provost

CONTENTS

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This guide is a result of a review of relevant literature and discussions with the Climate Change Working Group as well as with deans and senior and junior faculty throughout the University. While these discussions were focused on the mentorship needs of diverse faculty, it was recognized that attention to the mentoring needs of all faculty would substantially benefit the university. Thus, this guide provides information on the principles of mentoring, with attention to the nuances of mentoring important to diverse faculty.

First printing, August 2016.

INTRODUCTION

The Offices of the Senior Vice President for Faculty Affairs and Career Development at CUMC and the Vice Provost for Faculty Diversity and Inclusion developed this guide in collaboration with the Provost's Advisory Council for the Enhancement of Faculty Diversity. This guide was developed to help academic leaders and faculty members who wish to use mentoring as a strategy to facilitate faculty success. Specifically, this guide was written to inform three key constituencies:

- Schools/departments wishing to implement formalized mentoring programs for faculty
- Faculty who wish to act as mentors to junior faculty, postdoctoral fellows, and graduate students
- Faculty who need or wish career guidance in addition to, or in the absence of, formal school/departmental mentoring programs

These basic principles of effective mentoring may be utilized by schools, departments, and individual faculty to provide guidance to junior faculty, in formats most suited to the needs and culture of the academic unit as well as to the individual. This guide pays particular attention to the nuances of mentoring of particular importance to women and diverse faculty. Finally, the guide offers guidance to faculty who may wish to broaden and increase their mentoring opportunities and networks.

A note on organization:

- **Part I** provides an overview of principles of mentoring derived from a literature review
- **Part II** provides strategies and best practices for academic units wishing to organize different types of mentoring programs for faculty
- **Part III** provides guidance for those committed to being mentors
- **Part IV** provides strategies and best practices for mentees who are committed to identifying and optimizing their mentoring relationships

This guide is written as a living document; in that spirit, we invite feedback on what works, what doesn't, and what should be added. Please address all comments and suggestions to Vice Provost for Faculty Diversity and Inclusion Dennis A. Mitchell at dmitchell@columbia.edu.

LETTER FROM THE PROVOST

Dear Colleague:

Columbia University aspires to be the go-to institution for the world's greatest scholars. We cannot achieve this without realizing our core values of both inclusion and excellence. This requires sustained focus on equity in all of our efforts to recruit, hire, promote, and retain an exceptionally well-qualified faculty. The University's *Guide to Best Practices in Faculty Search and Hiring,* first released electronically in 2014, provides guidance for our recruitment and hiring efforts. The current *Guide to Best Practices in Faculty Mentoring* serves as a companion resource, providing direction for promotion and retention efforts within each department or school.

This guide is intended to assist schools, departments, and faculty in implementing mentoring programs tailored to their needs. It does not replace existing University, school, or department procedures, but rather serves as a framework and supplemental resource. It provides an overview and guidance for schools and departments seeking to develop new mentoring programs, and serves as an asset for those schools and departments with robust mentoring programs already in place. The Guide also provides targeted resources for mentors and mentees, with a particular focus on empowering junior faculty members to seek and shape important mentoring relationships.

We developed this manual because we believe that adherence to its guidelines will have a positive impact on faculty success and will enhance the climate of inclusiveness University-wide, thus building a stronger University community. A thriving, diverse faculty is essential to creating a dynamic learning and working environment that will prepare all of our students to lead in our global society.

We hope you will find this resource valuable in your role as mentor, mentee, and/or champion of mentoring initiatives within your unit. Thank you for all that you do to strengthen our community and ensure the future excellence of Columbia University.

Sincerely,

John H. Coatsworth
Provost

INTRODUCTION

Vital faculty are essential to Columbia University's mission to be one of the world's preeminent centers of research as well as a distinctive and distinguished learning environment. Mentoring is a highly successful, adaptable, and practical strategy for supporting faculty members' success and satisfaction across their career. Mentoring has been shown to enhance research productivity (Bland & Schmitz, 1986; Bland et al., 2002; Byrne & Keefe, 2002), to enhance teaching effectiveness (Williams, 1991), and to increase faculty retention, recruitment, productivity and satisfaction, as well as to decrease faculty attrition. In addition, mentoring may promote a more positive organizational climate (Corcoran & Clark, 1984; Melicher, 2000).

RATIONALE AND DEFINITIONS

Definitions, concepts, and practices of mentorship for university faculty vary considerably, but all place value on a relational structure that provides specific knowledge required for faculty to develop successful independent scholarship, as well as essential professional relationships that place faculty within the network of scholars in their discipline. These are often framed as career advancing or "instrumental" functions or as psychosocial or "expressive functions," but they are closely related and overlapping (Zellers, Howard, & Barcic, 2008; Chao, Walz, & Gardner, 1992; Mott, 2002). Though most frequently conceptualized as a single, formalized, dyadic, hierarchical relationship between a senior and junior faculty member (Zellers, Howard, & Barcic, 2008), more recent concepts of mentoring would suggest that effective faculty mentoring should involve both formal and informal relationships with a broad array of professional colleagues (mentoring networks, constellations, distributed mentoring, partnerships) (Zellers et al., 2008; Pololi & Knight, 2005; De Janasz & Sullivan, 2004; Kram & Isabella, 1985; McClurken, 2009; Van Emmerik, 2004; Ibarra, 1993). Mentoring networks can provide guidance and multidimensional perspectives on developing contemporary academic careers, may reduce the power dynamics often present within the junior-senior pairing, and can include individuals within and outside of academic environments (Pololi & Knight, 2005; McClurken, 2009). It has been suggested that mentoring networks are of particular importance to women and diverse faculty, who are less likely to find spontaneous dyadic mentoring relationships that address the full range of their career concerns (Mott, 2002; Zellers et al., 2008; Pololi & Knight, 2005; Van Emmerik, 2004; Chesler, Single, & Mikic, 2003; Chesler & Chesler, 2002; Bickel, 2014). Despite this, the development of effective mentoring networks may still be more difficult for diverse faculty (Ibarra, 1993). Further, the "mentoring network" model empowers junior faculty to actively identify and set in motion essential mentoring relationships suited to their unique needs, as opposed to more passive dependency on department or senior faculty to initiate mentorship. Because successful mentoring relationships require active and committed engagement on the part of both mentor and mentee, an essential concept for junior faculty to fully embrace is that they (mentees) are empowered to seek and shape important mentoring relationships (McClurken, 2009; Pololi & Knight, 2005; Fleming et al., 2015; Chesler & Chesler, 2002; Chesler et al., 2003; Bickel, 2014).

Specific points of general knowledge of importance (i.e., requirements for academic promotions, specific skills) may be efficiently provided to groups of faculty via seminar or workshop format. Often categorized as "group mentoring," it is an efficient way to be sure that a common fund of important career development information is delivered to all junior faculty, particularly closing the "information gap" experienced by women and underrepresented minority faculty. Finally, the focus of faculty mentoring has broadened to include faculty beyond early-career stages, including midlevel and senior faculty who face career transitions; these faculty may utilize self-initiated "peer or near peer" mentoring relationships to a much greater extent than junior faculty, but may benefit from specific school/departmental facilitated group or peer mentoring programs.

At the institutional or organizational level, mentoring has many benefits that increase organizational strength and productivity and establish an inclusive and supportive scholarly community (Zellers et al., 2008; Boyle & Boice, 1998). Mentoring has been shown to enhance research productivity (Bland & Schmitz, 1986, Bland et al., 2002; Byrne & Keefe, 2002) and teaching effectiveness (Williams, 1991; McMurtrie, 2014; Zellers et al., 2008); and has

been shown to increase faculty retention, recruitment, productivity, and satisfaction, as well as to decrease faculty attrition, and to promote a more positive organizational climate (Corcoran & Clark, 1984; Melicher, 2000; Zellers et al., 2008). Thus, fostering a culture to support the success of its faculty is in the best interests of an institution.

GENERAL PRINCIPLES

Mentoring is commonly understood to imply a supportive relationship designed to guide the successful integration of new members into an organization and to enhance the subsequent ability of those members to add value to the organization (Bland et al., 2009; Mott, 2002; Zellers et al., 2008). In this context, we wish to precisely define the important principles of these types of relationships as they relate to university faculty:

1. Mentorship is a collaborative learning process that draws upon the knowledge of a variety of faculty who can provide guidance (senior faculty, near peers, and peers may all function as mentors) (Kram & Isabella, 1985) to new faculty entering the professoriate or to more senior faculty transitioning to new roles. The relationship has been described as a "reciprocal, supportive, and creative partnership of equals" (Mott, 2002; Kram & Isabella, 1985). Mentoring requires active committed engagement on the part of both mentor and mentee. It is dependent upon the willingness of those acting as mentors to invest time for guidance on an ongoing basis. It also requires the commitment of those needing guidance to actively identify specific developmental goals and to invest time and energy to achieve them.
2. Mentoring should help junior faculty successfully acquire the key competencies (scholarly independence, educational skills, and preparation for academic advancement), as well as the constructive professional relationships (professional networks) within the institution and beyond needed to develop a productive career (Zellers et al., 2008; Bhagia & Joyce, 2000; Chao et al., 1992).
3. The traditional, hierarchical, dyadic mentoring relationships may be enriched by an additional network of individuals providing very specific guidance in areas of professional development that may not be addressed within a single dyadic relationship (Zellers et al., 2008; Kram & Isabella, 1985). Formal, departmentally assigned mentoring relationonships and informal, mentee-initiated relationships may be complementary and support different aspects of career guidance. Mentoring networks are of particular relevance to faculty groups traditionally underrepresented in the professoriate (Pololi & Knight, 2005; Pololi, 2013; Bickel, 2014; Chesler & Chesler, 2002; De Janasz et al., 2003; Van Emmerik, 2004).
4. Mentoring need not be limited to junior faculty, as midlevel and senior faculty may wish to focus on career transitions and new directions. The structure of these relationships may be less formalized and more dependent on peer or near peer relationships; professional "coaching" and group-taught skills acquisition, through facilitation by school/department, may be useful.
5. Mentoring relationships should evolve over time and may focus on one or several elements required for career success depending upon the career stage of the mentee, the career goals to be met, the level of guidance required, and the nature of the input from mentors. Thus, they may be enduring, long-term relationships that evolve over time into collegial rather than mentoring relationships, or they may be more transient relationships focused on specific areas of guidance at key career points.

MENTOR ROLES

Part of the variability in the definition of mentoring derives from the fact that mentors are perceived as having many roles that may be grouped into two broad categories: "technical or instrumental career functions" and "psychosocial or expressive career functions" (Zellers et al., 2008; Chao, Waltz, & Gardner, 1992; Ibarra, 1993; Mott, 2002).

Technical or instrumental career functions

- Advisor for overall professional goals and career choices
- Advisor for development of academic scholarship
- Facilitator of professional networking within and outside of the institution
- Sponsor who provides specific strategic opportunities with career relevance
- Advisor for the development of teaching skills

Psychosocial or expressive career functions

- Promoter of scholarly values and professional integrity
- Advocate
- Role model
- Coach
- Intellectual challenger
- Colleague
- Supporter

Given the many roles that mentors may play and the greater diversity of the professoriate, it may be unrealistic to expect a single individual to perform all roles equally well. Thus, the value of the concept of multiple mentors and mentoring networks has become considerably more important in recent years (Mott, 2002; De Janasz & Sullivan, 2004). Additionally, because traditional mentoring relationships have often been the result of senior faculty gravitating to mentorship of junior faculty "like themselves," the technical and psychosocial functions may be intermixed. Identification and development of high quality mentoring relationships providing both instrumental and expressive functions have been much more challenging for women and members of underrepresented demographic groups (Mott, 2002; Pololi & Knight, 2005; Ibarra, 1993). Data strongly suggest that because these demographic groups are less likely to find traditional, dyadic mentoring relationships of high quality (Mott, 2002; Ibarra, 1993; Ibarra et al., 2010; Bickel, 2014; Daley, Wingard, & Reznik, 2006; Girves, Zepeda, & Gwathmey, 2005), they are less likely to progress in academia (Fang et al., 2000; Daley et al., 2006; Mark, 2001; Bickel, 2014). As the professoriate has grown more diverse, mentorship requires consideration of the social dimensions of career development particularly experienced by women and underrepresented minority faculty (Daley et al., 2006; Bland et al., 2009; Girves, Zepeda, & Gwathmey, 2005; Ibarra et al., 2010). These include cultural taxation, isolation, and exclusion from informal collegial networks, unintended bias, and devaluation of scholarship focused on minorities or women, and biculturalism (Turner, Myers, & Creswell, 1999). Thus, mentoring networks and multiple mentors specifically identified and sought by historically underrepresented groups may be of special value to guide management of the unique challenges experienced by these faculty groups.

MENTORING FOCI

The foci of faculty mentoring should include guidance in multiple domains of career development. These include, but may not be limited to the following:

1. Development of independent scholarship/research
2. Development of internal and external professional networks crucial to recognition as an independent scholar
3. Teaching skills
4. Development as a clinician or applied practitioner of a discipline
5. Strategies for success and advancement within the institution, school, or department, with attention paid to formal as well as informal measures of success
6. Requirements for academic advancement
7. Overall career planning, including short-, mid-, and long-term goals
8. Management of career challenges of particular relevance to women and underrepresented minority faculty
9. Sponsorship

SPONSORSHIP VS. MENTORSHIP

Mentorship and sponsorship both enhance career advancement, and mentors may also be sponsors; however, these two advisory functions are quite different. While mentors provide guidance, feedback, and psychosocial support on an ongoing basis, sponsors provide specific strategic opportunities to an individual at a particular time (Ibarra et al., 2010). Mentors can be peers, near peers, or more senior and provide ongoing guidance on technical as well as psychosocial functions. By contrast, sponsors are generally more senior in rank with sufficient influence in their field to provide key opportunities, but may have no other supportive function (Ibarra et al., 2010). Actions such as advocating at a critical time on behalf of the faculty, nominating faculty for selected awards or important organizational memberships, or making strategic introductions to key people within the discipline of the scholar can be single or episodic sponsoring actions, separate from mentoring, that nonetheless may have very significant career impact.

Though the roles of a sponsor and a mentor are different in function, a mentor can often be a sponsor if the mentor in question has the necessary authority, connections, and network to provide key opportunities (Ibarra et al., 2010; Zellers et al., 2008). However, a mentor and sponsor may not always be found in the same person. Both mentorship and sponsorship are influential to career success, and have been shown to be particularly important for developing the "social capital" of women and minority faculty in academia (Ibarra et al., 2010; Bickel, 2014). A 2008 survey of men and women in business companies found that both men and women had mentors, but the quality of mentorship greatly varied between men and women (Ibarra et al., 2010). As Hermnia Ibarra, Nancy Carter, and Christine Silva wrote:

"All mentoring is not created equal, we discovered. There is a special kind of relationship—called sponsorship—in which the mentor goes beyond giving feedback and advice and uses his or her influence with senior executives to advocate for the mentee . . . Furthermore, without sponsorship, women not only are less likely than men to be appointed to top roles but may also be more reluctant to go for them (2010, p. 82)."

Because sponsorship may occur outside of traditional assigned mentoring dyads, and it is often initiated by a senior faculty member who identifies in some way with a particular junior faculty member, this quality of "sponsoring" may present a major obstacle for women and minority faculty (Bickel, 2014), who differ in many ways from established senior faculty (Chesler & Chesler, 2002; Chesler et al., 2003). This was famously illustrated by Sheryl Sandberg, author of *Lean In,* who stated that "It's wonderful when senior men mentor women. It's even better when they champion and sponsor them. Any male leader who is serious about moving toward a more equal world can make this a priority and be part of the solution. (2013, p. 71)."

MENTORING MODELS

	TRADITIONAL	PEER AND NEAR PEER	GROUP	MENTORING NETWORKS	SPONSORSHIP
STRUCTURE	Hierarchical Often assigned, highly structured	Peer, near peer Often mentee initiated, may be facilitated by school/department	Hierarchical Often time limited	May include any level of faculty. May be mentee or mentor initiated or facilitated by school/department	Hierarchical-highly influential senior faculty who provide key opportunities
FORMAT	One mentee with one mentor or team of mentors	One-to-one or small collaborative group Nonhierarchical power dynamic Reciprocal information sharing and psychosocial support	One or small number of mentors for specific skills, training, or information distribution	Multiple relationships with a variety of advisors. Variable duration, scope, and nature of support	Can be single or intermittent actions not associated with ongoing mentorship
TYPICAL CAREER STAGE OF MENTEE	Early	All career stages	All career stages	All career stages	Junior
TYPICAL CAREER STAGE OF MENTOR	Mid or senior	All career stages	All career stages	All career stages	Senior

Adapted from Bland et al., 2009

FORMAL VS. INFORMAL MENTORING RELATIONSHIPS

Formal mentorship is defined as a structured and assigned pairing of mentor and mentee with clear goals, meeting structure, duration, and definition of target outcomes. A meta-analysis of studies on the career benefits associated with mentoring and sponsorship found that, overall, individuals who were mentored and sponsored reported better objective career outcomes (compensation and number of promotions) as well as better subjective outcomes (career satisfaction, career commitment, and job satisfaction) (Allen et al., 2004).

In a study of two mentoring programs for junior faculty, formal mentoring was deemed to be, overall, more effective than informal or "natural" mentoring (Boyle & Boice, 1998). The study showed that mentoring relationships continued longer and were better sustained in the formal program. Additionally, the sustainability of the mentoring relationship was less dependent on personality, but instead more on specific tasks to which the mentoring pair attended (Boyle & Boice, 1998). Research productivity has been found to be increased by formal mentorship. A study of medical school faculty found that having a formally designated mentor was the second-best predictor of higher research productivity (Bland, Seaquist, Pacala, Center, & Finstad, 2002).

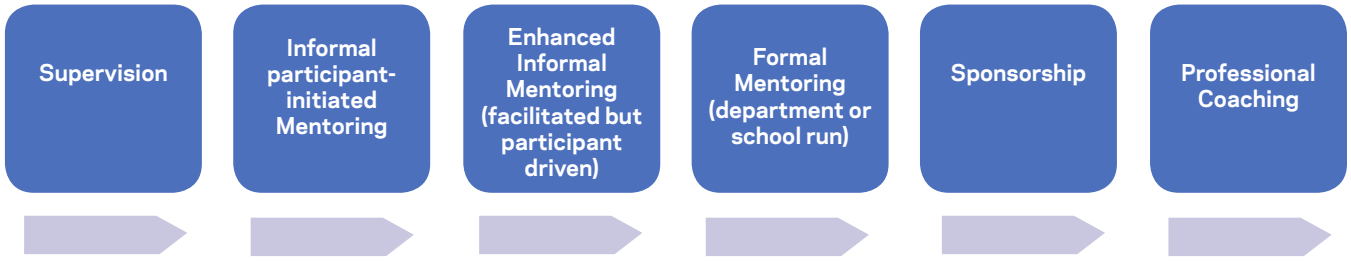
Other literature directly comparing formal structured mentorship to informal mentorship surprisingly found informal mentorship to be more positively correlated with career-related support, organizational socialization, and satisfaction than formal mentorship (Chao et al., 1992). However, this study measured overall career satisfaction of alumni from a single university and thus did not measure the specific outcomes required of university faculty.

A significant risk in traditional dyadic pairings is the inherent power differential between senior and junior faculty and the pressure to replicate the senior generation rather than promote the emergence of newer scholarly approaches, fields, or concepts of professorial roles. This has been described as "academic cloning" (Zellers et al., 2008; Tenner, 2004).

Mismatches, either personal or professional, between assigned mentor-mentee pairs can occur with negative and potentially disruptive consequences to career progression (Mott, 2002). There are, however, data demonstrating that formal mentorship is likely to be more enduring and successful when the mentee and mentor(s) have some choice in the assignment (Zellers et al., 2008). However, even when the mentor and mentee have a choice in pairing, such pairings may not be successful, and thus some oversight with the authority to dissolve and reassign is required by the school/department sponsoring the formal assignment.

Informal mentorship, by contrast, occurs as a result of spontaneous initiation by either the mentee or mentor based on perceived commonality in some aspects of career goals (Zellers et al., 2008). These mentoring relationships can be highly effective as they evolve based on mutual affinity, though they may lack the regularity of communication and the comprehensive approach to multiple dimensions of career development that occurs in structured formal programs. However, informal mentoring relationships may be of great value in providing additional perspectives on scholarship, as well as psychosocial support. Other aspects of career development centered around gender, race, or ethnicity may not be addressed within a formally assigned mentoring relationship. Such discussions may be more easily addressed in informal, self-initiated relationships. In addition, the "self-assignment" in informal relationships lessens the likelihood of unsuccessful or negative mentor-mentee matches. In particular, peer and near peer mentoring relationships remove the inherent senior-junior power dynamic defined by roles and rank, and may permit freer reciprocal exploration of career issues (Mott, 2002). Such relationships may be particularly important to women and underrepresented minority faculty. The literature comparing formal and informal mentoring points to advantages and disadvantages of both. Thus, junior faculty are well advised to not limit mentorship relationships to either format, but to use both formats to their advantage (Chao et al., 1992).

MENTORING CONTINUUM



Adopted from Harold Pincus, MD, Department of Psychiatry, Columbia University College of Physicians and Surgeons

CHARACTERISTICS OF EFFECTIVE MENTORING

In formal mentoring relationships, the roles and responsibilities of mentors and mentees should be defined and made explicit from the outset. Both the mentor and mentee have responsibilities for maintaining the productivity of the relationship.

The literature distills characteristics of effective mentoring to include the following:

1. Development of clear, agreed-upon career goals and plans to achieve them:
    a. Objectives
    b. Strategies for achieving them
    c. Specific deliverables
    d. Timelines
2. Agreeing upon roles for each mentor when there is more than one mentor (particularly important for interdisciplinary scholars) as well as whether technical or psychosocial functions are the focus
3. Setting clear rules regarding meetings (frequency, agenda, and deliverables)
4. Establishing accountability and oversight for mentors and mentees when formal assignment is made
5. Maintaining confidentiality when requested and appropriate
6. Agreeing on communication mechanisms, frequency, and style
7. Measuring progress with timelines
8. Providing constructive feedback
9. Creating an environment of trust and open communication
10. Gradually reducing level of guidance, with encouragement toward academic independence

MENTORING CONTINUUM

As mentoring relationships evolve, so do the roles and functions of the members in the relationships. The figure above demonstrates the ways in which roles can vary over time and in different forms of mentoring. Mentoring can vary in the proportion of directive versus nondirective advising on the part of the mentors, depending on the stage of development of the mentee. While close supervision may be appropriate for student mentees, faculty mentor/mentee relationships are between individuals who also are professional colleagues and thus should be collegial and collaborative rather than highly directive.

Qualities of Effective Mentors

1. Commitment to the time required for meeting and advising
2. Commitment to reviewing the mentee's work
3. Guidance on setting realistic career vision/goals/objectives
4. Collaborative development of appropriate goals and strategies for achieving goals
5. Guidance and resources for developing academic competencies, in scholarly research, teaching, scholarly presentations, and overall career management
6. Facilitation in the development of academic networks
7. Careful and active listening, ability to work across boundaries of gender/race/ethnicity/sexual orientation/culture/religion

Status of Women and Minorities in U.S. Degree-Granting Institutions, 2011

	Women	Men	Minorities*
Full-Time Faculty	44%	56%	19%
Assistant Professor	49%	51%	23%
Associate Professor	42%	58%	20%
Full Professor	29%	71%	15%

From U.S. Department of Education, National Center for Education Statistics, 2011 national study of full-time instructional faculty in degree-granting postsecondary institutions
* Includes Black, Hispanic, Asian, Pacific Islander, American Indian/Alaska Native, and of two or more races

8. Provision of constructive feedback
9. Attention to measuring progress
10. Consideration of sponsorship when appropriate and possible
11. Maintenance of confidentiality when appropriate and creation of an environment of trust
12. Respect for personal boundaries

Qualities of Responsible Mentees

1. Active engagement in the identification of specific developmental goals for which guidance is sought
2. Commitment to setting meeting times and agendas to ensure a productive discussion
3. Initiative and follow through in both setting and completing agreed-upon goals
4. Commitment to hard work and integrity
5. Preparation of agreed-upon deliverables in adequate time for review by mentors, with respect for the time constraints of mentors
6. Development of listening skills and willingness to work outside of "comfort zones," across boundaries of gender/race/ethnicity/sexual orientation/culture/religion
7. Ability to solicit and consider thoughtful feedback, both positive and negative
8. Active commitment to developing scholarly independence
9. Respect for personal boundaries

CONSIDERATIONS FOR EFFECTIVE MENTORSHIP ACROSS GENDER/RACE/ETHNICITY/SEXUAL ORIENTATION/CULTURE/RELIGION

Though women start academic careers in almost equal numbers as men, the numerical difference between the groups widens with advancing rank, so that men lead with slightly greater than 2:1 ratio at the full professor rank (Snyder, 2015). Snyder (2015) cites that in 2013, the National Center for Education Statistics, as part of a U.S. Department of Education report, published data from 2011 showing that women and men entered higher education faculty positions in similar numbers at the assistant professor level, but that as they move up the ranks, the quantitative difference between men and women changes dramatically, with significantly more men than women at the full professor rank. Minorities, constituting 19 percent of all full-time faculty, followed a similar pattern as women (see table above) (Snyder, 2015).

Data show that women and minorities are less likely to be promoted and are more likely to stay at the same rank longer (Fang et al., 2000; Alexander & Lang, 2008; Liu & Alexander, 2010; Palepu et al., 1998), which can lead to higher attrition among these groups (Cropsey et al., 2008; Mahoney et al., 2008; Nunez-Smith et al., 2007).

Other studies have echoed these findings and have attributed this "leaking pipeline" for women and minority faculty to subtle cumulative barriers (Ibarra et al., 2013; Ibarra et al., 2010; Fried et al., 1996; Smith et al., 2015)

including unconscious bias, lack of institutional support, feelings of isolation, poorer-quality mentoring relationships, absence of sponsorship, work/life imbalance, and cultural, societal, and institutional norms. For women in particular, barriers such as inflexible and unsupportive work/life policies (i.e., tenure-clock systems that are not flexible around issues of child or elder care, or being required to work outside of traditional hours), lack of access to sponsorship or peer networks, and poorer-quality mentoring relationships have been identified as contributing to a cumulative disadvantage and lower perceived capabilities of women to achieve their goals (Ibarra, 1993; Fried et al., 1996; Smith et al., 2015; Pololi et al., 2013). While overt discriminatory practices have diminished over the years, women and minorities continue to face less overt but nonetheless substantive cumulative challenges (Ibarra et al., 2010; Ibarra et al., 2013; Girves et al., 2005; Daley et al., 2006). Mentoring relationships often form more spontaneously between individuals who easily identify important commonalities between themselves. This aspect of mentoring relationships may be particularly challenging for women and minorities whose mentors are likely different in a multitude of ways and who have faced different challenges (Bland et al., 2009; Zellers et al., 2008; Ibarra, 1993).

Women and underrepresented minority faculty experience unique social dimensions to academic career development that may very significantly impact professional advancement. In 2012, the provost of Columbia University commissioned a study to assess the needs of diverse junior faculty. Focus groups of twenty-two junior women and minority faculty were interviewed regarding their view of unique potential barriers to career success. Four themes were identified by the focus groups as having a negative impact on the success of women and minority faculty:

- disproportionate service burden
- feelings of isolation
- lack of mentorship
- lack of clarity about promotion and tenure process

These factors were quite congruent with those reported in the literature as listed below (Turner et al., 1999; Bland et al., 2009):

- Professional isolation, the experience of being the "lonely only" one of a particular demographic group within one's unit, with interactive challenges not experienced by senior or majority peer faculty.
- Exclusion from spontaneous or informal collegial networks, whether intentional or not.
- Unintended bias on the part of colleagues, as well as students and trainees, who may place lower value on scholarly contributions of women and underrepresented minorities.
- Societal norms about acceptable behaviors (i.e., expectations regarding gendered behavior) that may be at variance with professional behaviors required for successful advancement.
- Cultural taxation—the overburdening with service of value to the institution, but not of value for the career advancement of the faculty member.
- Biculturalism—the strain of being required to straddle or be fluent in more than one culture. This becomes particularly relevant when behaviors that are normative in one culture (i.e., modesty and humility) are at variance with behaviors expected for career success within academic disciplines (i.e., self-promotion and outspokenness).
- Devaluation of scholarship focused on issues highly relevant to women or underrepresented minorities.

Moreover, as pointed out in an excellent study and review of the literature (Williams et al., 2014), when there is the intersection of both race/ethnicity and gender, women of color report patterns of bias that incorporate both race/ethnicity and gender-based bias ("double jeopardy"). Of importance, such bias may focus more or less on gender compared to race/ethnicity such that the experience of women of color is not uniform and may significantly differ from that of white women.

Thus it is essential for mentors and mentees to be self-reflective and mindful regarding potential subtle barriers for women and underrepresented minority faculty and to maintain a focus on achievement of the specific tasks and goals that contribute to career success.

It is evident from the literature review that mentoring can have a positive impact on faculty career development as well as on departments and institutions as a whole. However, programs may vary in their effectiveness in meeting the needs of faculty and departments. Careful consideration of the structure, model, culture of the academic unit, and resources available to the unit—and devoted to the programs by the academic unit implementing a mentoring program—will ensure that faculty receive appropriate support to meet their goals and the goals of the schools/departments.

ESTABLISHING SCHOOL/ DEPARTMENTAL MENTORING PROGRAM

School/departmental programs should aim, at minimum, to assist all junior faculty to:

1. develop independent scholarship/research productivity
2. develop the necessary professional networks
3. identify determinants essential for academic advancement in that unit
4. identify whether additional desired support should include proactive recognition and mitigation of factors that disproportionately negatively impact women and underrepresented minority faculty

Schools/departments should identify which mentoring model(s) will most effectively align with the needs of their faculty, with faculty demographics, and with the culture of the school/department considered. It would be wise for the department to clearly establish expectations regarding mentoring activities, as well as training for mentors. For example, a unit may choose to assign a principal mentor, but may also encourage or facilitate mentoring networks to bring together faculty of similar rank, interest, or demographics, or to provide group sessions covering information on advancement or particular skills.

Models

A combination of modalities may decrease the mentoring burden on individual senior faculty, as well as decrease the reliance of junior faculty on a single mentoring relationship:

- traditional hierarchical senior-junior faculty relationship (may be either a senior team or a senior individual)
- facilitation of groups of mentees matched to one or to a small group of senior mentors that are organized around the acquisition of specific skills or problem solving
- peer and near peer mentorship groups where faculty of a similar or near rank, or of similar demographics, meet individually or as a small collaborative group
- active consideration of appropriate sponsorship opportunities

Key Steps

In the process of identifying and creating a mentorship program model, the key steps outlined below may be useful:

- *Consultation with junior and senior faculty:* In order to build programs that are aligned with the needs of both junior and senior faculty and thus likely to be sustained, faculty should be involved in the process of building a program consistent with the needs and culture of the department. The scope of mentoring programs may be broad and include both career advancement and psychosocial support, or the academic unit may choose more narrowly focused mentoring. Clarity regarding expectations of the time commitment and efforts on the part of the mentors and mentees is essential. In addition, making sure that mentoring work is fairly distributed among senior faculty may require some training in mentoring skills (Pfund et al., 2006). It is also extremely important that all demographic groups of junior faculty (i.e., women, underrepresented minorities) have equivalent support and access to information supportive of career goals.
- *Identify the structure:* Departments and schools should identify which models might be best suited for their faculty and for the needs of the department or school overall. For example, skills acquisition—such as principles of grant writing, teaching skills, research team management, and understanding the promotion process—lends itself to seminar or group formats, thereby allowing units to share resources to disseminate this information. By contrast, individual scholarly or research advising should be department specific since scholarship content and network development will be discipline specific.
- *Resources:* Departments and schools should identify what kind of resources or tools will be available to provide faculty mentors with needed skills and incentives. Attention should be paid to equitable distribution of the work of mentorship among senior faculty. Incentivizing faculty mentors in ways

such as making mentorship an integral part of the annual evaluation and promotion process—and finally, recognition and celebration of the importance, value, and the successes of excellent mentors through awards—helps to build a culture of mentorship. Resources for both mentors and mentees should also include tools for communications and/or programs that aim to enhance mentoring relationships.

MENTOR/MENTEE PAIRING

If units decide to assign mentor/mentee pairs for ongoing advising, pairs can be constituted in various ways. The options include assignment (either a mentoring committee or individual mentor) by the department, allowing mentors and mentees to fully self-select, or some combination of these two options. Data suggest that pairings may be more sustained and successful when both the mentor and mentee have some choice, but departments may also consider the scholarly basis for assignments. Departments should also be mindful of the data showing that women and underrepresented groups are less likely to develop high-quality mentoring relationships when self-selection is the sole method of assignment, and so should ensure that these faculty groups have equal access to excellent mentors.

RESPONSIBILITIES

Creation of specific annual goals, meeting schedules, deliverables, and measures of progress must be the joint work of mentors and mentees.

The mentee/junior faculty should be responsible for creating meeting agendas to include an update on interim activities related to their academic performance and career development. There should be discussion of progress in each career development domain and agreement concerning goals/strategies/deliverables for the next period. Additionally, the mentor should be sensitive and receptive to issues relating to sense of isolation, exclusion from school/department, or disproportionate service burden that can be particularly experienced by underrepresented minority and women faculty. While it is the responsibility of the mentor to advocate for, advise, coach, and support the mentee, mentees are responsible for collaboratively developing appropriate goals and meeting expectations, and for the hard work and integrity necessary to develop academic independence.

FREQUENCY OF MENTORING MEETINGS

The frequency and level of detail of mentoring discussions may vary depending on the level of advancement of the junior faculty (i.e., it may be determined that more frequent meetings would be necessary for faculty in early years, with tapering of frequency or change in focus as faculty advance), as well as the level of independence of the junior faculty. An annual review of academic goals to assess overall progress is also advisable. The annual review may be clearly distinguished from mentoring meetings by its format and comprehensive review of all aspects of career development. Both the mentor and mentee should keep a record of the meetings as a measure of progress and for reference. The academic unit may decide whether or not it wishes to formalize review of these records to ensure that assigned mentoring meets the standard set by the school/department.

FACULTY GROUP MENTORING

In addition to school/departmental formal individual mentoring, academic units may wish to facilitate peer or near peer meetings in which groups of faculty may share their experiences, concerns, and problem-solving approaches. They may also provide opportunities for junior faculty networking with external scholars.

Other group mentoring meetings may enhance the knowledge and transparency of promotion policies and processes, departmental or school-specific academic expectations, and information on resources and opportunities available to faculty. Group meetings focusing on information critical to advancement also ensure equal access to key information across all faculty demographic groups.

INTERDISCIPLINARY/TEAM MENTORING

An added complexity to mentorship occurs when a faculty member works primarily in a center or institute, but academic milestones and advancement processes remain the responsibility of the department. Close collaboration between department and center/institute will be required to serve the needs of this group of faculty. For interdisciplinary mentoring to be effective, a few additional strategies should be utilized:

Define Roles and Team Structure

Clarification of the roles and structure of the mentoring group is essential for an effective interdisciplinary or team mentoring relationship. All who advise in this setting should know for what particular types of guidance they will be responsible. Boundaries, as well as the specific work for which each individual is responsible, should be clarified. While scholarly advising may be best done within the center, advice regarding promotion should come from the department that is responsible for executing this process.

Communication

Because the structure of interdisciplinary mentoring relationships are more complex than traditional departmental or school-based mentoring, effective communication is crucial to ensure that center/institute-based faculty are well advised with respect to scholarship, academic advancement, and network development. Thus, communication pathways between school/department and centers need to be clearly established.

ESTABLISHING OVERSIGHT, EVALUATION, AND SUSTAINABILITY

For systematic advising/mentoring efforts initiated and supported by a unit to be sustained and successful, they require both oversight and evaluation by the school/department. Assurance that mentoring is occurring and assessment that junior faculty are satisfied with the quality and quantity of mentoring are evaluative tasks that can be done at different levels of complexity. Oversight may also be managed by a school/department designee, who can provide tools and resources, as well as consult those involved, for appraisals of needs and satisfaction with the program. Evaluation of program efficacy may be done using simple survey tools, faculty activity reports for evaluating the mentoring, teaching evaluations, and faculty advancement outcomes.

School or departmental plans that strongly rely on assigned pairing of faculty should also have a mechanism for "unpairing" should the relationship prove problematic for any reason. It is desirable for the unit to have some neutral and confidential way of evaluating and managing unsuccessful or difficult mentoring interactions.

Regardless of the model chosen, the departmental leadership should determine the priority of mentorship efforts within the departmental portfolio of work and ensure that a proper evaluation and oversight plan is included in their mentorship efforts.

As the definition of mentoring can vary greatly depending on the roles, models, and functions the individuals in the mentoring relationship perform, evaluating mentorship requires a consensus on the operational definition of mentoring and the specific outcomes most important to the academic unit from which to derive measurements and assessments of effectiveness and success (Berk, Berg, Mortimer, Walton-Moss, & Yeo, 2005). Mentoring programs and relationships grow and change over time, so it is important to use both formative and summative evaluation principles in evaluating mentorship initiatives.

Nevertheless, mentorship initiatives can be evaluated in the following areas:

- competencies and satisfaction of the mentor
- competencies and satisfaction of the mentee
- quality of the support provided by mentors
- achievement of defined goals and outcomes for mentoring
- quality of the program resources

In higher educational institutions, teaching and supervising students at all levels is coequal in importance to the generation of scholarship and is considered an essential measurable parameter guiding promotion decisions. By contrast, mentorship of junior colleagues by senior colleagues is often the product of an individual commitment by a senior faculty member relying on "natural skills and intuition." In addition, this type of mentoring relationship is occurring between colleagues, albeit at different career stages, but which influences the interactions. Mentoring skills, like teaching skills, can be enhanced by specific training and attentiveness to key principles and best practices (Pfund et al., 2006):

- **Time Commitment:** Because mentoring requires ongoing advising and review of a junior colleague's scholarship and teaching, senior faculty should be sure they can commit adequate time to this task.
- **Collaboration:** In contrast to teaching students, which may be supervisory in nature, mentoring junior colleagues requires a more collaborative working approach with the goal of scholarly independence and recognition as an expert in discipline.
- **Scope of Guidance:** Mentors and mentees, whether assigned by the academic unit or self-selected, should establish what the scope of mentoring will be. Will the focus be scholarship, teaching, overall career development, advancement, sponsorship, or combinations of these? It is particularly important, when there is a mentoring team or interdisciplinary mentoring is planned, that there is clarity regarding the team structure and individual responsibilities of team members.
- **Mentoring Plan:** Mentors should collaboratively work with mentees to agree upon the mentorship goals, frequency of meetings, who will create the agenda for any meetings, and the timetable for deliverables, as well as the duration of the relationship. In general, the areas of career development that should be discussed during meetings may include
    - o development of scholarship and progress toward scholarly independence;
    - o educational skills and evaluation;
    - o network development opportunities;
    - o preparation for and progress toward academic promotion; and
    - o advice on academic service (what, how much and when are key considerations).
- **Special Considerations:** Mentors should assess whether there are considerations that would be especially important for women or underrepresented minority faculty that should be discussed. If the mentor does not feel comfortable or sufficiently experienced to discuss such specific topics, facilitating meeting with other faculty members better able to address these concerns is recommended. Mentees should also feel empowered to broaden their group of advisors based on their specific concerns and their level of comfort in discussing these concerns.
- **Record Keeping:** Mentors and mentees should mutually decide what kind of record of meetings should be retained. It is advantageous to both the mentor and mentee to keep written records that allow measurement of progress and accomplishment of goals. The exact format will depend on the nature of the work and the wishes of mentors and mentees, as well as the departmental or school culture.
- **Network Development:** Mentors should encourage and facilitate, if possible, the development of professional and broadened mentoring networks. In addition to the professional growth opportunities, such networks can provide alternative or complementary career development perspectives. They may provide a comfortable environment to discuss some of the unique concerns of women and underrepresented minority faculty.

PART IV – STRATEGIES FOR MENTEES

Whether or not academic units have structured mentoring programs, or junior faculty have been fortunate enough to find more senior faculty willing to act informally as mentor, there are specific strategies and best practices that junior faculty may employ that will allow them to expand their opportunities for mentorship and maximize the benefit of such relationships. Because mentoring relationships are active collaborations, they require commitment and engagement, as well as ongoing self-reflection and evaluation on the part of junior faculty. Thus, it is essential that the faculty members seeking guidance clearly formulate career goals and define what they wish their key accomplishments to be.

A useful construct for faculty to organize a career plan is a brief written summary statement including an overarching vision of the impact on a field they wish to have, the specific areas (mission) in which they will work to realize that vision, and then the specific goals (strategic goals) with timelines for accomplishments that will mark progress within their field. Junior faculty should then consider what competencies they need and plan how and when these should be acquired. This construct provides a framework for discussion and development of specific strategic goals. Faculty should also recognize that the specifics of this construct may change over time and with mentoring advice, but that the initial framework provides a working document for reference. Once a framing construct is articulated, junior faculty should identify in what specific areas guidance is needed and who might best provide such guidance. They should be encouraged to think broadly regarding sources of career development advice and to develop a network including senior faculty, peers and near peers, as well as individuals sharing similar challenges or demographics. Networks should provide opportunities for reciprocal exchange of information relevant to career advancement but also for expressive or psychosocial support.

It is important for junior faculty to be aware of key domains of importance for their success (i.e., teaching; independent scholarship; professional networking; academic or institutional service) and to be sure that appropriate guidance is provided. They should also measure progress in each of these domains within the context of timelines for academic advancement:

- Expectations for achieving academic goals and timelines
- Setting appropriate academic goals and timelines for individual development of these goals
- Direction of scholarly work
- Development of the timelines and measurement of progress, i.e., the type of grants or other support for which to apply and expected scholarly output
- Perspectives and guidance for teaching; student supervisory efficacy
- Advising and preparation for promotion processes and timelines
- Advising on academic service/citizenship—what, how much, and when
- School or department-specific policies surrounding advancement
- Facilitating connection between potential collaborators
- Guidance for institutional navigation (school/department history, priorities, formal and informal rules, structures, practices, and resources)
- Annual discussion of scholarly work and goals as part of long-term goals
- Sponsorship opportunities (nomination for key organizational memberships, lectureships, honors, and awards when appropriate)
- Assistance with opportunities to build networks within the institution and externally within the scholarly field
- Identification of barriers or impediments to progress
- Development of solutions to overcome impediments
- Provision of constructive feedback and encouragement
- Identification of other individuals who may provide guidance on academic or nonacademic matters on which the mentor is less able to advise
- Identification of opportunities for collaboration

MENTORING (DEVELOPMENTAL) NETWORKS

Perhaps one of the most important conceptual changes regarding mentorship in both business and academia is the emphasis on the need for more than a single mentor (DeCastro et al., 2013a; Pololi & Knight, 2005; De Janasz & Sullivan, 2004; Van Emmerik, 2004; Ibarra, 1993). Multiple mentors who may provide both technical career advancing advice and support for psychosocial needs are important components of a mentoring network.

DeCastro et al. (2013a) surveyed 100 NIH research grant recipients and 28 research mentors regarding their mentorship experiences and found that the need for more than a single mentor emerged as a recurrent theme in interviews with both mentors and mentees. The reasons given by both types of participants included:

1. Identification by mentees of unique guidance needs
2. Additional sources of information from other perspectives
3. Significant technical, informational, and psychosocial support from peer groups
4. The importance of having some mentors based on demographic factors, i.e., gender congruence
5. Recognition that guidance needs might evolve over time and thus the network might evolve with time

A larger European study (Van Emmerik, 2004) focused on the specific characteristics that developmental networks associated with positive career success. The author found that the size of network, the range (the diversity of positions or roles of members within the network), the strength of the ties and longer duration of network relationships were network characteristics positively correlated with greater career success and satisfaction.

Ibarra (1993) specifically examined the characteristics of effective mentoring networks, directly comparing the networks of women and minorities to those of majority men. Of importance, she found that the networks of women and underrepresented minorities significantly differed qualitatively from those of majority men. Networks of women and minorities often provided more psychosocial support from similar individuals of similar rank, and thus less technical career advancing support, which comes more easily from individuals of higher organizational rank and status. Further, she makes the very clear point that "the opportunity context" for network development may be a more important driver of limited network composition than the preferences of women and underrepresented minorities. Stated somewhat differently, it may not be the case that women and minorities prefer more psychosocial support, but rather that they lack the opportunities to develop networks that include individuals capable of providing technical support and sponsorship.

In considering developmental network formation, faculty should include individuals who are knowledgeable and supportive of technical career advancement, who may be peers or superiors. Other network members may be more supportive of psychosocial needs, and relationships may be based on similarity in goals or challenges. Women and underrepresented minorities should be mindful to be certain that the range and diversity of their networks support both technical and psychosocial aspects of career advancement.

APPENDIX A

CHECKLIST: BEST PRACTICES FOR SCHOOLS/ DEPARTMENTS, MENTORS, AND MENTEES

FOR SCHOOLS/DEPARTMENTS

☐ **Clearly articulate career priorities and expectations for faculty that mentorship programs will address***

- ☐ Develop independent scholarship/research productivity
- ☐ Develop important professional networks
- ☐ Provide guidance regarding the determinants (both formal and informal) essential for academic advancement in that unit
- ☐ Support teaching performance
- ☐ Proactively recognize and mitigate factors that disproportionately deter the advancement of women and underrepresented minority faculty
- ☐ Identify whether additional psychosocial aspects of mentoring will be addressed by departmentally facilitated programs

*School/departmental programs should aim, at minimum, to provide technical career support but may also facilitate psychosocial support

☐ **Identify mentoring models most feasible for the unit**

- ☐ Senior–junior dyads
- ☐ Group seminars
- ☐ Peer or near peer mentoring
- ☐ Demographically based peer groups
- ☐ Sponsorship
- ☐ Coaching

☐ **Identify the structure and resources needed**

- ☐ Mentorship training for senior faculty
- ☐ Departmental reward for mentoring work
- ☐ Curriculum and facilitators for group programs
- ☐ Facilitation of peer, near peer, or group meetings and demographically focused groups (i.e., women, midlevel faculty, underrepresented minority, etc.)
- ☐ Establish meeting parameters (i.e., frequency of meetings; content; record keeping)
- ☐ Determine tools and skills needed by mentors
- ☐ Determine tools and skills needed by mentees

☐ **Identify and articulate roles and responsibilities**

- ☐ Define specific expectations for each kind of mentoring relationship
- ☐ Define and communicate individual and shared responsibilities of mentors and mentees
- ☐ Communicate expectations surrounding deliverables and measures of progress for department, mentor, and mentee

☐ **Establishing Oversight, Evaluation, and Sustainability**

- ☐ Identify metrics that the unit will use for evaluating the effectiveness and impact of mentoring programs and relationships (i.e., mentee/mentor satisfaction, specific scholarly product delivery, promotion)
- ☐ Establish methodology to assure that needs of mentors and mentees are met
- ☐ Assess junior faculty satisfaction with the quality and quantity of mentoring
- ☐ Assess mentor satisfaction with preparation for and support of his or her role
- ☐ Identify and provide tools and resources to ensure ongoing support
- ☐ Determine tools and skills needed and responsibilities needed by mentees
- ☐ Decide on a confidential process for mentors and mentees to voice concerns
- ☐ Decide on a confidential mechanism to resolve serious differences between mentor and mentees

FOR MENTORS

- ☐ **Time Commitment:** Mentors should be able to commit to and honor the time required for meeting and advising their mentee(s).
- ☐ **Skills and Needs:** Mentors should assess their skills for mentorship and determine their developmental needs.
- ☐ **Collaboration:** Mentors should work with the mentee(s) on the development of realistic career goals and timelines for achieving those goals.
- ☐ **Scope of Guidance:** Mentors should be able to provide guidance on setting objectives, vision, and strategies for the specific scope of advising.
- ☐ **Mentoring Plan:** It is the responsibility of the mentee to provide the mentor with his or her goals, a CV, teaching portfolio, research statement, and whatever other materials will be useful in forming a mentorship plan; it is the responsibility of the mentor to collaborate with the mentee to develop attainable goals, types of guidance, and resources for developing necessary academic competencies, relationships, and measurement of progress.
- ☐ **Communication:** In order for mentorship to be most effective, both the mentee and the mentor must establish a level of trust with each other. Both should practice careful and active listening and be able to communicate respectfully and confidentially. Potential communication barriers based on race, ethnicity, culture, or background are important to consider. Mechanisms to provide constructive feedback should be thoughtfully considered.
- ☐ **Network Development:** A key role of a mentor is to help facilitate the development of academic networks.
- ☐ **Sponsorship:** Some faculty may benefit from sponsorship in addition to technical mentorship. Sponsors advocate for their mentees and use their influence to help a mentee's career advance.
- ☐ **Diversity in Mentorship:** Careful consideration of issues that may arise with mentorship across boundaries of gender/race/ethnicity/sexual orientation/culture/religion.

FOR MENTEES

- ☐ **Identify Needs and Interests:** Mentees should start by identifying their own needs and interests in order to create a draft of career goals and objectives. These needs and interests should be provided to the mentor, along with a draft of goals and any supporting materials (i.e., CV, research statement, teaching portfolio, individual development plan, etc.), prior to an initial meeting.
- ☐ **Active Engagement:** To ensure effective mentorship, it is essential for the mentee to be actively engaged in the mentoring relationship. This includes listening attentively, a willingness to work outside of one's "comfort zone," identifying specific developmental goals for which guidance is sought, initiation of meetings, adequate preparation for meetings, soliciting feedback and willingness to listen to feedback both positive and negative, and taking responsibility for developing scholarly independence.
- ☐ **Identify Any Gaps in Competencies/Skill Sets:** A responsible mentee will also reflect on their own activities and goals and identify gaps in competencies and/or skill sets that may be essential to the mentee's ability to successfully attain his or her goals.
- ☐ **Setting Meeting Times and Agendas:** It is the responsibility of the mentee to set meeting times and agendas with a mentor. Though the agendas may be set collaboratively, a successful mentoring relationship requires the mentees to be respectful of the time of his or her mentor(s) and to be prepared for meetings with questions, materials, and a commitment to work hard.
- ☐ **Developing Networks:** The mentee should be actively engaged in developing a broad network of developmental relationships.

APPENDIX B

LOGIC MODEL FOR SCHOOLS/ACADEMIC UNITS IMPLEMENTING MENTORING PROGRAMS

INPUTS

What is invested

Mentors

Faculty

Staff

Time

Resources

Materials

PROGRAM DESIGN

Mentoring Model:
- Hierarchical
- Peer or near peer
- Group
- Mentoring networks

Format:
- Individual or group
- Formal or informal
- Mentor/mentee pairing
- Interdisciplinary/team

Delivery:
- Frequency of meetings
- Duration of meetings
- Duration of program
- Record of meetings

Content:
- Informational
- Advisory
- Psychosocial support
- Appraisal and evaluation

Resources:
- Professional development activities
- Tools for communication or programs
- Annual evaluation
- Incentives for mentors and mentees

OUTCOMES - IMPACT

Short Term

Mentees:
- Enhanced knowledge and skills
- Increased satisfaction
- Clear sense of professional goals and timelines
- Increased confidence
- Enhanced productivity for professional outcomes (scholarship, grants, publications, education, overall citizenship)

Mentors:
- Increased job satisfaction
- Strengthening the department
- Investment in mentee's career as part of a legacy
- Increased collaboration
- Exposure to new ideas

Long Term

Mentees:
- Increased satisfaction
- Satisfactory productivity
- Establishing independence of scholarship
- External recognition

Mentors:
- Satisfaction with mentor's career
- Organizational recognition
- Increased retention

School/Department:
- Faculty success with scholarship
- Increased faculty promotions
- Increased faculty retention
- Increased hires
- Decreased faculty attrition

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