



Developing and Testing a Multi-Stage Faculty Mentoring Framework

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Abstract: Underrepresented minority (URM) faculty in higher education institutions often lack equal access to mentoring which contributes to high turnover rates. Even with equal access for all faculty, existing mentoring structures may not adequately address the unique needs of URM faculty across the career-span. We developed a Multi-Stage Mentoring Framework which utilizes a network of mentors to attend to the instrumental and psychosocial needs of faculty at every career stage. We evaluated how well existing mentoring programs at one university fit into the framework. Using both quantitative and qualitative responses, we determined that this constellation of institutional mentoring programs cumulatively provide opportunities for both instrumental and psychosocial formal mentoring support for faculty who span the early through late career stages.

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Underrepresented minority (URM) faculty¹ face unique challenges, including microaggressions, fewer scholarly opportunities, chilly climates, and a heavier service load (Duncan, 2014; Maranto & Griffin, 2011; Ogunyemi et al., 2020; O'Meara et al., 2019), often resulting in lower levels of self-efficacy, sense of belonging, and mental well-being. Additionally, URM faculty are critiqued more harshly compared to their non-URM colleagues in promotion and tenure decisions (Masters-Waage et al., 2024). The impact is greater for faculty with intersecting minoritized identities (e.g., women faculty of color), given that they face barriers stemming from multiple forms of prejudice (Muhs et al., 2012). These challenges are associated with lower job satisfaction and higher turnover rates, due to their toll on URM faculty members' career success and mental well-being (Duncan, 2014; O'Meara et al., 2019). Cumulatively, such challenges hinder their advancement and professional success and create barriers for URM faculty to achieve full-time faculty positions. As a result, full-time faculty members are not representative of an increasingly diverse population and student body in the United States (CUPA-HR, 2024; Freeman et al., 2019; National Center for Education Statistics, 2023; National Science Foundation, 2019; U.S. Census Bureau, 2023).

Greater representation of URM faculty in tenured, senior, and leadership positions benefits not just faculty themselves, but also educational institutions and scholarly fields (Brooms & Davis, 2017; Fuesting et al., 2022). Having a diverse faculty body is linked with the success, well-being, and retention of URM students, particularly students of color (Brooms & Davis, 2017; Duncan, 2014). Also, having faculty of diverse backgrounds and identities leads to greater innovation, increased problem solving, broader impacts, cultural responsiveness, and positive return on time and money invested in URM faculty (Milem, 2003).

To reap these benefits, institutions must recruit URM faculty as well as create inclusive and equitable environments (Rockquemore & Ann, 2016). URM faculty report difficulty finding mentors, a lack of institutional support for formal mentoring,

¹ The National Science Foundation (NSF) defines underrepresented minority (URM) faculty as faculty who identify as Black, Latinx, American Indian, and/or Alaska Native.

and a lack of mentoring at later career stages (Davis et al, 2022); this is especially true for women of color for whom both racial and gender bias form barriers to effective mentoring. One way to address this problem is to develop a culture of mentorship through formal mentoring at the institutional level that spans developmental career stages and goes beyond the limits of traditional 1:1 mentoring structure (Davis et al., 2022; Freeman et al., 2019; Garrett et al., 2023; Lunsford et al., 2018; Quinteros & Covarrubias, 2023). Here, we provide a multi-stage mentoring framework and examples of programs for faculty at all career stages that can be adapted at various higher education institutions. Our framework provides a structure for mentoring faculty of all backgrounds and is designed to address the many challenges that URM faculty face in academia throughout their career.

Multi-Stage Mentoring Framework

This paper describes the multi-stage mentoring framework—a comprehensive mentoring program that meets instrumental and psychosocial needs of faculty at each career stage with a network of mentors at Loyola University Chicago (LUC). The private Jesuit Catholic PhD granting university where the research was conducted has approximately 17,000 undergraduate and graduate students and about 1000 faculty members (about 30% tenure track, about 70% White, about 50% men). More than 400 participated in the programs we describe below. We assessed faculty needs via racial justice listening sessions and with a campus climate survey, where URM faculty reported experiencing challenges similar to those faced by URM faculty across the nation (Davis et al, 2022). With the support of a National Science Foundation ADVANCE grant, the LUC-INSPIRED (Inclusive Practices in the Retention and Equity of Diverse Faculty) team addressed structural gaps in mentoring identified by URM faculty by providing institution-wide mentoring support, professional development, and opportunities for interdisciplinary connections.,

As per the National Academies of Sciences, Engineering, and Medicine (NASEM, 2019), mentoring relationships are professional and reciprocal relationships that can foster personal and professional growth and success. Successful formal

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faculty mentoring programs address two critical components: instrumental and psychosocial support (Kram, 1985; Muschallik & Pull, 2016; NASEM, 2019; Schmidt & Faber, 2016; Zellers et al., 2008). *Instrumental mentoring* aims to improve external metrics (e.g., access to resources, knowledge and understanding, goal setting and career planning) by sharing knowledge, offering guidance, and providing constructive feedback to mentees (Zellers et al., 2008). *Psychosocial mentoring* aims to improve internal metrics (e.g., social and emotional well-being, self-efficacy, sense of belonging) through acceptance, providing advice, and relationships (NASEM, 2019).

Unlike traditional approaches to mentoring, our framework provides a comprehensive structure whereby faculty rely on a constellation of peers and programs for support. According to the Social Network Theory, relationships among individuals are integral for creating, sharing, and using knowledge (see Dunn, 1983). Moving beyond traditional dyadic mentorship, a mentoring network allows individuals, acting as both mentors and mentees, to participate in a wider community where information, resources, and opportunities are both shared and received (NASEM, 2019). Having a network of mentors is often more beneficial than 1:1 mentoring relationships in recognizing and meeting the various needs of all faculty across career stages (Higgins & Kram, 2001; Lunsford et al., 2018; NCFDD, 2023; Denard Thomas et al., 2015; Rockquemore, 2013). Our multi-stage mentoring framework pulls together several programs to provide a holistic mentoring structure, which differs from typical mentoring programs that often target early career faculty and focus on a 1:1 mentor-mentee relationship, where the faculty mentor provides, and the mentee receives knowledge, advice, and feedback (Lunsford et al., 2018; Rockquemore, 2013).

Faculty face unique challenges at each career stage. Early career faculty often need mentoring to acclimate to a new position (Baker et al., 2015) whereas mid- to late career faculty are more likely to need mentoring to respond to increased requests to serve as mentors and take on more administrative, leadership, and service responsibilities (Lunsford et al., 2018). Faculty in all career stages benefit from training in cutting edge practices (e.g., pedagogical, scholarly), to prepare to take on

new roles, and to maintain a sense of belonging with colleagues and students (Hirschi, 2018). We, the authors, share the philosophy that no single individual is equipped to meet all mentoring needs; thus, we create conditions for a network of mentors to support faculty at various stages (NASEM, 2019; Rockquemore, 2013). Our team—which embodies the diversity we wish to support at the institution—was comprised of African American, Colombian, Filipino American, and white women and men from a variety of disciplines (Education, English, Physics, Psychology, and Sociology) and ranks (assistant, associate, and full professors). Our experience navigating the institutional context, along with the skills and insights of team members who bring their unique demographic and disciplinary perspectives, informed our approach to integrating elements of existing mentoring programs into a comprehensive intervention at the institutional level.

Programs and Expected Outcomes

To create lasting structural and institutional change, the LUC-INSPIRED program sought to offer comprehensive support to URM faculty across the institution through mentoring, professional development, and interdisciplinary connections. While higher education institutions must actively dismantle racial and gender barriers to career advancement, various avenues to psychosocially and instrumentally support URM faculty are necessary to promote their wellbeing and success in the face of systemic inequities. We drew on empirical literature, conversations with university leadership (e.g., Faculty Council, Deans) and a climate survey on faculty experiences, to develop five programs to support URM faculty at our institution: 1) Peer Mentoring Circles, 2) How-To Series, 3) Micro-Grants, 4) Faculty Advocates, and 5) Faculty Leadership. Each program provides instrumental and psychosocial support.

Together the programs were intended to support faculty in all career stages and incorporate multiple types of mentoring relationships. Some of LUC-INSPIRED programs were open to faculty of all backgrounds but all programs were designed to provide a multitude of opportunities for URM faculty to receive essential support and

to foster a mentoring network. This section describes how each program is expected to fit into the multi-stage mentoring framework. Table 1 illustrates the target career stage, the instrumental and psychosocial support provided through the multi-stage mentoring framework, and details of mentors.

Table 1.

Expected Support, Target Career Stage, and Mentors

Program	Expected Instrumental Support	Expected Psychosocial Support	Career Stage	Mentor(s)
Peer Mentoring Circles	Discuss promotion and tenure, teaching, and balancing the competing demands of faculty life.	Create communities of shared knowledge and experiences and meet the diverse needs of faculty mentees.	Early	Facilitator, fellow mentees
How-To Series	Learn immediately usable skills in teaching, writing, research, and service.	Opportunities for social interactions and networking, sharing and validation of personal experiences with related topics.	Early to Late	Senior faculty facilitator, attendees
Micro-Grants	Collaborate with external scholar(s) on scholarly activities.	Grow networks and develop community.	Early to Late	External collaborator
Faculty Advocates	Receive consultation and feedback in preparing portfolio documents for promotion to Full Professor.	Develop relationships with senior faculty, build community, belonging, and confidence.	Mid	Faculty Advocate
Faculty Leadership Fellows	Learn about the roles of faculty leaders, gain visibility with administrators, practice skills required for leadership.	Build self-efficacy for university leadership and community with leaders and colleagues interested in leadership, assess interest in pursuing leadership positions.	Mid- to Late	Program Leaders, Administrators & other fellows

Early Career Faculty

Peer Mentoring Circles (PMC) support the personal and professional development of faculty (McCarthy et al., 2025). The LUC-INSPIRED PMCs comprised of four to six early-career faculty who are in the first four years of their academic careers and one senior faculty member. The groups meet monthly during the academic year. The senior faculty member is not seen as a “guru” who can meet each mentee’s needs (Rockquemore, 2013). Rather, the early career faculty are encouraged to support one another by sharing their own knowledge and experiences. This support system of multiple mentors is intended to provide access to a broader variety of mentors than URM faculty would typically encounter in their home academic unit.

Instrumental support is expected to occur when mentees have early conversations about promotion and tenure, develop strategies to balance research, teaching, and service (e.g., planning, time management) with the mentor, and identify resources to meet their needs inside and outside of the university. Psychosocial support is expected to occur when faculty build a community of care and support, sharing and receiving validation of experiences and feelings, and having conversations about problem solving, decision making, and strategies to deal with stress and rejection in academia.

Early, Mid, and Late Career Faculty

Two programs within LUC-INSPIRED address the needs of faculty irrespective of career stage. The *How-To Series (HTS)* consists of sessions on topics related to teaching, writing, research, and service led by senior faculty members. Designed to be interactive and hands on, these sessions typically last one hour. They start with a short presentation by the senior faculty member followed by discussion or time for faculty to engage in hands on work related to the topic (e.g., a presentation on how to outline book chapters is followed by time for faculty to begin drafting outlines of their book chapters). Some HTS include up to nine meetings on the same topic across a semester. Providing direct access to information and support creates formal

mentoring at the institutional level and removes barriers that URM faculty often face when seeking a mentor (Davis et al., 2022).

Instrumental support in this context occurs as faculty learn skills and gain knowledge about writing, managing research, and service from more experienced faculty. It caters to early career faculty who want to learn new skills and expand knowledge that will help them advance in their career as well as mid- to late career faculty who want to refresh skills and knowledge. Psychosocial support is expected to occur through the opportunity for faculty to join groups and build community, especially over the semester.

Micro-Grants are small grants that support faculty in STEM who identify as women, transgender, or gender nonbinary. These grants aimed to facilitate collaborations and professional relationships with external scholars by helping cover costs of inter-institutional collaborations such as visiting a collaborator, organizing a workshop or conference, and hosting a speaker on campus. We anticipated instrumental support would occur when micro-grants facilitate research collaboration and sponsorship, sharing and receiving of academic knowledge, and access to resources. We expected psychosocial support to occur when activities funded by micro-grants foster relationships and build community among scholars, where they might, for example, receive support as they strive toward writing goals. Such support could foster a long-term connection with colleagues outside of the home institution and potentially lead to co-authored publications.

Mid and Late Career Faculty

While faculty mentoring traditionally targets early-career faculty, mid- and late career faculty also require support to address their unique challenges (see Lunsford et al., 2018). Our multi-stage mentoring framework fills this critical gap with two programs that cover faculty needs beyond the first few years of a faculty appointment. *Faculty Advocates* are Full Professors who support one to three URM mentees who are Associate Professors seeking promotion to Full Professor. Faculty Advocates meet with mentees at least once a semester. Anticipated instrumental

support includes consultation, feedback, and advice in preparing portfolio documents for promotion. Expected psychosocial support involves Associate Professors potentially developing collegial connections (e.g., professional relationships with Professors), community (e.g., personal relationships with other Associate Professors seeking promotion), feelings of belonging, and confidence as they prepare promotion dossiers. This individualized support and feedback is unlikely to occur in a peer mentoring circle as it requires a mentor to devote time and attention to build confidence to begin the application process as well support with the promotion portfolio.

The *Faculty Leadership* program provides leadership training for university-level administrative roles (e.g., department chair, program director, assistant dean, assistant provost). We expected instrumental support to occur when mid- to late career faculty fellows attended monthly workshops led by university administrators, learning about the different roles and expectations of university leaders and building skills that promote success in an institutional-level leadership position. Each fellow practiced those skills by completing a year-long project to address institutional challenges. We anticipated psychosocial support to occur when participants build confidence and self-efficacy for university leadership, reflect on skills and interests related to leadership roles, network with institutional leaders, and build community with other faculty interested in leadership. This type of access to institutional leadership, combined with an opportunity to design and execute a project aligned with faculty interest, is unlikely to emerge in a 1:1 mentoring context or in a peer mentoring group—especially for URM faculty who have difficulty finding mentors and may not been seen as potential leaders due to stereotypes (e.g., Davis et al., 2022).

Methodology

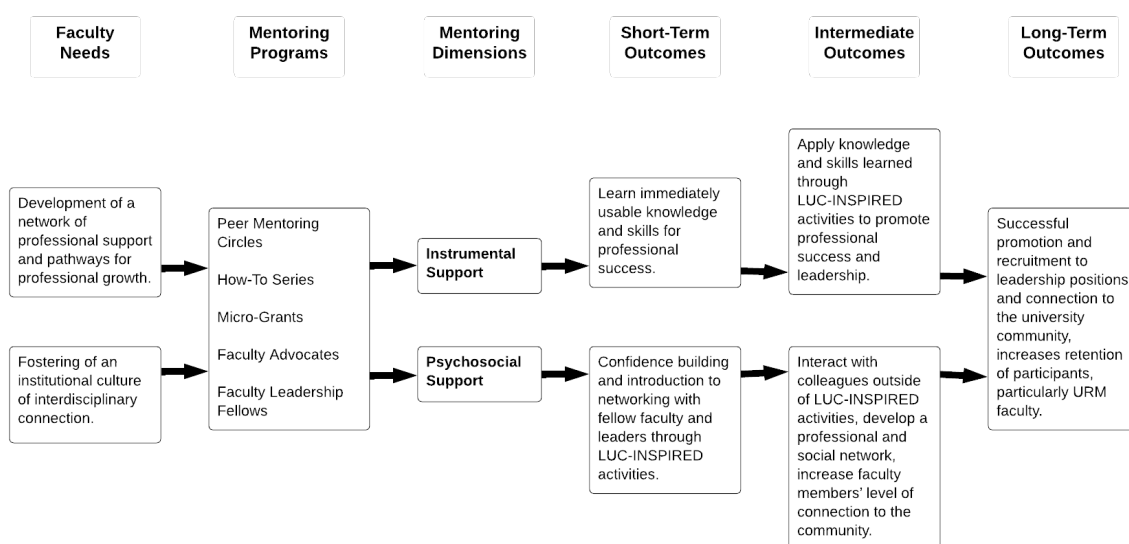
The present study evaluates the outcomes of the programs in providing instrumental and psychosocial mentoring support to faculty. Figure 1 illustrates a logic model for LUC-INSPIRED programs, including summaries of short-term, intermediate, and long-term goals. Within the logic model, short-term and

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intermediate outcomes represent the intended progress of outcomes over time resulting from program participation. Short-term goals focus on the outcomes that result during or immediately after program activities whereas intermediate outcomes represent the application of or sustain practice of short-term outcomes over a year. These sets of outcomes display the links between program activities and intended long-term outcomes that illustrate the underling theory of addressing instrumental and psychosocial needs of faculty to promote personal and professional success.

Figure 1.

Summary of the Logic Model



Participants

Participants were recruited to attend programs via university-wide newsletters, advertisements, and announcements which noted that they were part of a Provost Office initiative to support under-represented faculty. A total of 421 faculty members participated across all five programs during the 2021-2022 academic year (cohort 1) and during the 2022-23 academic year (cohort 2). We consider responses from the 139 faculty participants ($N_{\text{cohort 1}} = 71$; $N_{\text{cohort 2}} = 68$) who completed surveys, reports, and/or interviews as part of the internal and external evaluation efforts.

Given the multi-stage nature of our mentoring framework, we review eligibility criteria for each program. Full-time tenure track and non-tenure track faculty in their first four years at Loyola were eligible for PMCs. The HTS sessions were open to tenure track and non-tenure track faculty at all stages. Micro-Grants recipients were full-time tenure track or non-tenure track faculty in STEM fields. Faculty Advocate mentees were full-time tenured Associate Professors. The Faculty Leadership program was open to full-time tenured faculty at the Associate or Full Professor rank or full-time, non-tenure track senior faculty.

While all programs were developed with URM faculty in mind, only the Micro-Grants and Faculty Advocates programs were restricted to URM faculty. Approximately 47% of participants who took part in the programs identified as faculty of color and 53% of participants identified as white faculty. Approximately 67% of participants identified as women faculty, 1% of faculty identified as gender expansive, and 32% of participants identified as men. Given that approximately 30% of full-time faculty identify as faculty of color, that demographic is over-represented in our programs. This suggests that our efforts to ensure participation by diverse faculty were successful.

Program Evaluation Procedures

We used an outcome approach to evaluate the multi-stage mentoring framework. In an outcome approach the goals and related program objectives inform and define the outcomes, in this case, for instrumental and psychosocial mentoring. Outcomes for instrumental mentoring included acquiring, developing, and using knowledge and skills to promote professional success. In line with our aim to ensure that URM faculty receive holistic support, outcomes for psychosocial mentoring included establishing, developing, and continuing professional and personal relationships that promote connection within the university community or discipline. Informed consent was obtained from respondents prior to participation in surveys and interviews. This research was approved by our Institutional Review Board.

To capture *short-term* instrumental and psychosocial outcomes, faculty were invited to complete an anonymous online questionnaire immediately after participation in the PMCs, HTS, Faculty Advocates, and/or Faculty Leadership program(s). Participants self-reported how much the programs supported their progress, success, and growth of knowledge and skills, confidence levels, and relationship building (see Table 2 for items).

When responding to surveys capturing short-term outcomes, participants indicated how much the programs supported their instrumental and psychosocial needs using: “Not at All,” “A Little,” “Somewhat,” and “Very.” Micro-Grant recipients submitted in-depth reports describing how the program supported their professional success. An external evaluator conducted phone and virtual interviews with faculty regarding their experiences. The LUC-INSPIRED team reviewed participants' open-ended responses to determine whether instrumental and/or psychosocial outcomes emerged as themes.

To capture *intermediate* instrumental and psychosocial outcomes, the LUC-INSPIRED team invited faculty to anonymously respond to online questionnaires one year after completing the PMCs, HTS, Micro-Grants Faculty Advocates, and/or Faculty Leadership program(s). The questionnaires included survey and open-ended questions (see Table 3 for items). Intermediate outcomes measured the application of the skills and knowledge learned (i.e., instrumental support) and the continued engagement with one's network beyond the program (i.e., psychosocial support). Responses to the intermediate surveys were captured on three different scales, depending on the item and program. One year after completing the program, PMC mentees reported how often they used information or skills from the program using: “Not at All,” “Once,” “2 or 3 Times,” “4 or 5 Times,” and “Over 5 Times.” Participants in the PMCs, Micro-Grants, Faculty Advocates, and Faculty Leadership programs were asked how much the programs helped them using: “Not at All,” “A Little,” “Some,” “Quite a Bit,” and “A Great Deal.” Participants in the HTS indicated how much the program helped them using slightly different parameters such as: “Not at All,” “A Little,” “Somewhat,” and “Very.”

To establish whether the programs successfully met our short-term and intermediate goals (listed in logic model; see Figure 1), program merit was established by using a 66% or greater performance standard. To meet the performance standards of items on the 4-point scale, at least 66% of participants were required to indicate that the program supported them somewhat or very much. To meet performance standards of items on the 5-point scales, at least 66% of participants needed to report that they used information and skills from the programs two or three times, four or five times, or over five times, or that the programs helped them some, quite a bit, or a great deal. Performance standards were examined separately for participants in each program and cohort, given that the programs were updated from cohort 1 to cohort 2 and faculty were asked program-specific questions. We do not disaggregate findings by demographic characteristics, career level, or tenure-track status to avoid unintentional disclosure of personally identifiable information (Loyola University Chicago, 2024). We also examined outcomes reported through open-ended questions, program artifacts, and interviews. The worth of the programs will be discussed by the alignment of the program services and outcomes with the institution's social justice mission and strategic plan.

Results

Short-Term Outcomes

Intended instrumental short-term outcomes include learning usable knowledge and skills, and intended psychosocial short-term outcomes include promoting professional success and building confidence and establishing relationships with other faculty leaders to support connectedness with the university. Short-term outcomes develop from direct participation in program activities and are assessed shortly after participation.

Instrumental Support

Survey Findings. When PMC mentees were asked how much they know about expectations for promotion and tenure after completing the program, the

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program only met performance standards for cohort 1 (Table 2). However, more than half of PMC mentees in cohort 2 felt that they knew “somewhat” or “very” much about expectations for promotion and tenure after the conclusion of the program. The HTS focused on anti-racist pedagogy in cohort 1 and focused on scholarly writing in cohort 2. As expected, cohort 1 found the program to be helpful for their teaching, and cohort 2 indicated that the program supported their professional success and progress on scholarship products. Both cohorts of the Faculty Advocates program indicated that the program improved their understanding of the Full Professor Review. After completing the Faculty Leadership program, most of cohort 1 indicated that they learned about leadership at the university, and most of cohort 2 reported that they were provided with a relevant understanding of being a university-level administrator.

Table 2.

Short-Term Instrumental Outcomes by Survey Item

Program	Item	% Indicated Somewhat or Very	
		Cohort 1	Cohort 2
PMC C1:N=19 C2:N=23	How much do you know about expectations for tenure and promotion?	68.2%	63.2%
HTS C1:N=19	How helpful was the HTS event for teaching?	83.8%	-
C2:N=11	How much did the HTS support progress on your scholarship products?	-	77.8%
	How much did the HTS support professional success?	-	77.8%
FA C1:N=9 C2:N=8	How much has your participation in the Faculty Advocate program improved your understanding of the Full Professor review?	66.6%	75.0%
FL C1:N=4	How much do you know about the various types of university leadership?	85.7%	-

C2:N=5	How much did the information and instruction presented in the FL program provide you with a relevant understanding of being a university-level administrator?	-	75.0%
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Note. FA = Faculty Advocates; FL = Faculty Leadership; - blank spaces indicate that items were not captured for that cohort. Item wording for cohort 2 was sometimes changed to make learning directly related to a program.

Interview and Open-Ended Responses. HTS participants, Micro-Grant recipients, Faculty Advocates mentees, and Faculty Leadership Fellows learned useful knowledge and skillsets in writing, teaching, research, and professional development. Participants in the HTS developed knowledge and skills in teaching, envisioning the big picture, brainstorming, and following submission guidelines when writing manuscripts, book proposals, and grant proposals. One participant shared the following:

From how to set up a better-looking learning management system, to how to get feedback from students...integrating a lot of the work that they did around making sure that there's not as much bias in classes. There's been several [How-To Series] that I've been to, and I've taken a lot away from them. (HTS Participant)

Micro-Grant recipients received instrumental support from the program. They shared that the grant supported their collaborations with research partners, supported their research in general, led to service and grant writing opportunities, and increased visibility. According to recipients, the benefits trickled down to their students. One recipient (cohort 2) shared, "[The program] not only enriched my research, but also broadened the way I interacted with students and develop undergraduates' research projects... [The program] made a big difference for my own professional development, which obviously benefitted my students and colleagues."

Participants in the Faculty Advocates program felt that their mentors served as a sounding board and provided different perspectives and neutral advice that mentees would not have received within their department. Mentors led them through

practices to develop more knowledge that would help when applying for promotion.

One mentee (cohort 2) stated:

All the advice [the mentor] has been giving me has been wonderful. For example, she wanted us to do this reverse CV, which is to look at the [faculty] handbook, what is required, and what are the criteria that will be used to review our application package and from there you need to develop goals, what needs to be achieved by when. From doing that comparison, I noticed that I'm a little behind on publications and in terms of international recognition...so I have been doing more of that. (Faculty Advocates Program Mentee)

In interviews, Faculty Leadership Fellows discussed that the program helped them learn about university leadership and administration, and balancing leadership opportunities with other faculty responsibilities. One fellow (cohort 1) shared, "These conversations address... this notion of what does leadership look like, or what does administrative work look like? How do we balance that with our commitment to student-centered pedagogy and to research?" In addition to the facilitators, fellows received helpful advice and feedback from colleagues in the program on their leadership goals and scholarly work. One fellow (cohort 2) said, "This program... kind of pushed me to get [my project] done in a faster timeline and it was helpful to get some feedback from peers and colleagues."

Psychosocial Support

Survey Findings. Results of PMCs evaluations for cohorts 1 and 2 indicated that most participants felt welcome and confident in their ability to resolve conflicts as well as advice and mentor students after the conclusion of the program (Table 3). Most cohort 2 mentees felt a sense of belonging, felt confident in balancing teaching, research, and service, and felt confident in their ability to manage time. The HTS made participants in cohort 2 feel connected to other scholars at the institution. Although findings from cohort 1 did not meet the performance standards, most participants indicated that the HTS made them feel "somewhat" or "very connected"

to other scholars. Most mentees in both cohorts of the Faculty Advocates program indicated that the program helped them feel connected to the university community. All participants in the second cohort of the Faculty Leadership program indicated that the program helped them feel connected to the university. The majority of Faculty Leadership Fellows in both cohorts said the program helped them feel somewhat or very confident in long-range planning to achieve an administrative goal, developing networks of collaborators, mentors, and mentees within administration, and in their leadership abilities.

Table 3.

Short-Term Psychosocial Outcomes by Survey Item

Program	Item	% Indicated Somewhat or Very	
		Cohort 1	Cohort 2
PMC C1:N=19 C2:N=23	How do you feel about your experience at the University regarding feeling welcome?	72.7%	94.7%
	How do you feel about your experience at the University regarding sense of belonging?	50.0%	68.4%
	How confident are you in your ability to balance teaching, research, and service?	45.5%	84.2%
	How confident are you in your ability to manage time?	54.5%	94.7%
	How confident are you in your ability to advise and mentor students?	86.4%	84.2%
	How confident are you in your ability to resolve conflicts?	81.8%	84.2%
HTS C1:N=9 C2:N=11	How much did the HTS make you feel connected to other scholars?	64.9%	66.7%
FA C1:N= 9 C2:N=8	How much has your participation in the Faculty Advocate program helped you feel connected to the Loyola community?	77.7%	75.0%

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FL C2:N=5	How much did participating in the FL program help you feel connected to Loyola?	-	100.0%
C1:N= 4 C2:N=5	How confident are you in long-range planning to achieve an administrative goal after completing the FLF program?	80.0%	100.0%
	How confident are you at developing networks of collaborators, mentors, and mentees within administration after completing the FL program?	80.0%	100.0%
	How confident are you in your leadership abilities?	100.0%	100.0%

Note. FA = Faculty Advocates; FL = Faculty Leadership; blank spaces indicate that items were not captured for that cohort.

Interview and Open-Ended Responses. Participants of the PMCs, Micro-Grants, Faculty Advocates, and Faculty Leadership received short-term psychosocial support, evidenced by building relationships with faculty who have similar identities and experiences. Also, participants of the HTS, Micro-Grants, and Faculty Leadership programs increased their confidence for scholarly work and professional development.

The PMCs provided participants with a safe space to share feelings and experiences that they did not feel comfortable talking about with colleagues within their department. The program helped them feel less isolated and more validated in their unique experiences, and similarities in identities with fellow mentees and mentors helped to build connections. A mentee (cohort 1) stated:

I found it helpful in that I felt I didn't feel as isolated. In my first year as a faculty, I felt very isolated because I did not have the best experience in my school, and I felt like I was totally alone in that. Then once I participated in the [peer mentoring circles] it was a breath of fresh air. I'm like, 'Oh wow, other people in my similar position are experiencing the same thing or similar things.'...I'm so grateful, because if I didn't have any of these things, I probably would've left the university. (PMC Mentee)

However, a few mentees suggested that the program was too emotionally heavy for them. One participant (cohort 1) shared, “I think, because I was still so traumatized by my own experience, that it could be kind of heavy at times... It added to my stress and burden... I do think the program is fantastic though”. Additionally, some mentees indicated that if their identities did not overlap with other mentees in their group, it was hard for them to connect with fellow mentees. For example, another participant (cohort 2) stated, “Most of the other women I work with, including those in my peer mentoring circle, have children and I cannot relate to that demographic.”

Data suggests that participants in HTS developed confidence in decision-making. A participant (cohort 1) who attended a HTS on anti-racist pedagogy said, “It felt like I had the license to make decisions about how I want equity to show up in my classroom, what strategies I feel like I have the agency to employ in my classroom.”

Similarly, recipients of the Micro-Grants indicated the program helped them feel “more confident” in using their research equipment, helped them make “a lot of connections” through networking opportunities provided from the micro-grant funds, and increased their sense of belonging at the institution. One recipient (cohort 2) shared, “During my first year as a faculty member at Loyola, engaging in the Micro-Grant program significantly boosted my sense of belonging as a principal investigator, collaborator, and mentor.” Recipients also felt supported as expressed by one recipient (cohort 1), “I have been supporting students who are from groups that are underrepresented in STEM. It feels great to see that the university has a program that supports me.” This suggests that URM faculty felt supported by the Micro-Grants program in a similar way to support they provide to their URM students.

The Faculty Advocates program helped participants feel supported by, develop personal relationships with, and build connections with faculty mentees and mentors who have similar identities and experiences. One mentee (cohort 2) highlighted the importance of such connection, “My mentor happens to be a woman and then the other people in the group are also women. We could connect a lot better when we talk about issues and the conversation is more helpful.” In this case,

sharing a gender identity with the mentor helped participants be better prepared to face barriers through sharing their own experiences and feeling validated by others. When creating this type of support, institutions should attempt to recruit faculty advocates from diverse backgrounds and give consideration to valuable mentorship and support that they can provide for others who share their identities.

The Faculty Leadership program Fellows reported building personal relationships and connecting with other faculty at similar career stages. One fellow (cohort 1) expressed that “the relationship building really lies at the heart of what we were able to do. Our cohort has remained pretty tight.” The program also affirmed their career paths and goals, whether that included taking on more leadership opportunities or not. This is evident in the following feedback from a fellow (cohort 2):

It was affirming for me in the way that it helped me discern and think about if this is the right path for me, to go this route or trudge along to the next level, which is a professor. Listening to people's journey inspired me to continue to serve and be a servant leader... It was really beneficial in terms of helping me discern my path. There were peers in my cohort who it also helped them discern, but they made a decision that this is not what they want to do. I think either way, it's a win-win. (Faculty Leadership Fellow)

Intermediate Outcomes

In the context of this project, intermediate outcomes from instrumental support refers to promoting professional success through the application of learning through INSPIRED programming. Outcomes from psychosocial support refers to sustaining social or professional networks post INSPIRED programming and maintaining a feeling of connectedness to the university. Intermediate outcomes were assessed one year after participation and represent the use of or continuation of short-term outcomes over time.

Instrumental Support

Survey Findings. Considering instrumental support (e.g., access to resources, knowledge, goal setting), one year after completing the PMCs, most mentees in the second cohort used the information or skills learned in the program two to five times to promote their professional success (Table 4). Most HTS participants in the second cohort felt the program led to the submission of scholarship products one year later, but only half of participants in the first cohort felt the program supported their teaching. Most recipients in both cohorts of the Micro-Grant program reported that the program supported their scholarship, and most mentees in the second cohort of the Faculty Advocates program indicated that the program helped them prepare service documents and for the full professor review. However, the Faculty Advocates program did not meet performance standards for preparing service documents for the first cohort, nor did it meet the performance standards for preparing scholarship and teaching documents for both cohorts. Half of the fellows in both cohorts of the Faculty Leadership program reported that they were recruited to serve in university-level leadership roles.

Table 4.

Intermediate Instrumental Outcomes by Item

Program	Item	% Engagement	
		Cohort 1	Cohort 2
PMC N ₁ =15 N ₂ =23	How often have you used information or skills you learned in Peer Mentoring Circles to support your professional success? ^a	21.1%	85.7%
HTS N ₁ =10	How much has the information and skills you learned in the HTS supported your teaching? ^b	54.5%	-
N ₂ =11	How much did topics/presentation/discussions during the HTS sessions lead to the submission of scholarship products (e.g., article, grant proposal, book chapter, book)? ^b	-	83.4%
MG N ₁ =5 N ₂ =4	How much has your participation in the Micro-Grants supported your scholarship work? ^b	100.0%	75.0%

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FA N ₁ =9 N ₂ =8	How much has your participation in the Faculty Advocate program helped you prepare your scholarship documents? ^b	55.5%	50.0%
	How much has your participation in the Faculty Advocate program helped you prepare your teaching documents? ^b	44.4%	25.0%
	How much has your participation in the Faculty Advocate program helped you prepare your service documents? ^b	44.4%	75.0%
	How much has your participation in the Faculty Advocate program helped you prepare for full professor review? ^b	55.5%	75.0%
FL N ₁ =4 N ₂ =2	Since participating in the Faculty Leadership program, how often have you been recruited to serve in university-level leadership roles or activities? ^a	50.0%	50.0%

Note. MG = Micro-Grants; FA = Faculty Advocates; FL = Faculty Leadership; blank spaces indicate that items were not captured for that cohort. A “1” subscript in the Program column denotes cohort 1 and a “2” subscript denotes cohort 2.

^a participants indicated “2 or 3 times,” “4 or 5 times,” or “5 or more times”

^b participants indicated “Some,” “Quite a Bit,” or “A Great Deal”

Interview and Open-Ended Responses. One year later, participants in all programs shared that they received helpful information and gained useful skills in one or more of the following areas: professional success, teaching, research, service, and writing. Mentees of the PMCs developed skills in setting boundaries and managing time while balancing the multiple facets of faculty members’ workloads. One mentee (cohort 1) stated, “I used tactics and strategies discussed in Peer [Mentoring] Circles to help manage my research time more effectively in preparation of two manuscripts for publication.” Mentees used the knowledge and skills gained in their teaching and professional development. One mentee reported that their circle discussed, “student support and strategies for balancing support in classes...also talked about self-advocacy in our roles and working to specifically target questions about promotion, contracts, and so on” and they used this information regularly.

HTS participants implemented their learning in their teaching and student advising. One faculty member (cohort 1) said that the program shaped how they

“engage with students to support them for academic success at [Loyola] and beyond, with peers to frame and define success, and in the framing of my scholarship in terms of communication with readers.” Many participants also used knowledge from the program in writing book proposals, articles, and grant applications. One participant (cohort 2) talked about how the sessions had helped them gain the knowledge to fulfill the goal of submitting a book proposal:

As a [non-tenure track faculty member], I have been thinking about submitting a book proposal for a few years. I felt like I did not know the specifics of how I should consider doing so. [The facilitator’s] discussions and her guidance were absolutely valuable in making my goal a possibility. It was like a lightbulb went off. I got a very clear sense of what I need to include and why. (HTS Participant)

Micro-Grant recipients had long-term benefits on their research and writing. One recipient indicated that the “Micro-Grant supported a new collaboration, which has grown into a longer-term research project, including a pending collaborative grant for \$2.3 million.” Another participant emphasized the positive impacts of their research, that was supported by the Micro-Grant, on surrounding communities:

I’m doing environmental justice work, so the question really isn’t how it helped me but how it has helped us, with us being the frontline community residents who partner with me and the student and faculty colleagues at [Loyola] who collaborate on this...One of my goals is to help my community partners who worked on the [Micro-Grant] with me to develop richer connections with [environmental justice] groups in other parts of the country, to support each other to share resources. (Micro-Grant Recipient)

Faculty Advocates program mentees indicated the program helped them “clarify expectations and identify areas of improvement” in their portfolio for promotion, gain a “better understanding of the [promotion] process,” and feel accountable for working on their application. Most participants received advice and feedback from mentors and fellow mentees that they might not have received within

their unit. One mentee (cohort 1) stated, “Meeting with my mentor and another faculty member in the program was really useful to hear how other departments go through the same process. The other faculty member and I were able to give each other useful advice.” While most mentees shared that having a mentor outside of their unit helped them while preparing to apply for Full Professor, one mentee mentioned that this led to a mismatch in expectations between their School’s Dean and their mentor’s advice regarding whether the mentee had sufficient experience to submit their application.

When asked how they used information from the program one year later, Faculty Leadership Fellows had mixed responses. Some fellows found the information useful when engaging in leadership tasks. Others felt that learning more about the inner workings of upper administration at the university helped them understand how to be more involved as leaders. One fellow shared, “Learning more about the processes at a university from an administration point of view is helpful. I am actually becoming interested in pursuing a department chair position after the [Faculty Leadership] program.” However, a few fellows in the first cohort indicated that the program did not share the information they wanted to receive and felt that it “didn’t substantially foster [leadership opportunities].” Fellows in the second cohort did not share this sentiment, as the program was adjusted to include an individual project component, where fellows had the opportunity to tailor the project to learn more about the types of leadership they were interested in (e.g., mentoring, administrative work).

Psychosocial Support

Survey Findings. In terms of psychosocial support (e.g., social/emotional wellbeing, self-efficacy, belonging), when asked how much their participation in the PMCs program supported their professional success one year later, most participants in cohorts 1 and 2 reported “some,” “quite a bit,” or “a great deal” (Table 5). The HTS connected most participants in cohort 2 to the university community and other scholars, but this was not the case for cohort 1. Most participants in both cohorts of

the Micro-Grants program indicated that they built and maintained “some,” “quite a bit,” or “a great deal” of professional relationships during the year after completing the program. Responses from participants in the Faculty Leadership program indicated that the program did not meet its performance standards in making faculty feel more connected to the university community.

Table 5.

Intermediate Psychosocial Outcomes by Item

Program	Item	% Indicated Some, Quite a Bit, or A Great Deal	
		Cohort 1	Cohort 2
PMC N ₁ =15 N ₂ =23	How much has your participation in the Peer Mentoring Circles supported your professional success?	66.6%	71.5%
HTS N ₁ =10 N ₂ =11	How much has your participation in the HTS made you feel connected to the Loyola community/other scholars?	36.4%	83.4%
MG N ₁ =5 N ₂ =4	How much has your participation in the Micro-Grants helped you build professional relationships that you maintain beyond the program?	100.0%	75.0%
FL N ₁ =4 N ₂ =2	How much has your participation in Faculty Leadership Fellows program made you feel connected to the Loyola community?	0.0%	50.0%

Note. MG = Micro-Grants; FA = Faculty Advocates; FL = Faculty Leadership

Interview and Open-Ended Responses. In addition to knowledge and skills, participants of all programs developed lasting supportive connections with other faculty members, including friendships, interdisciplinary connections, and professional relationships, helping them feel connected to the university community. Faculty who participated in the HTS, Faculty Leadership, and Faculty Advocates programs increased confidence in their writing, problem solving, and application materials, respectively.

One year later, PMC mentees reported that the program helped them feel more supported by and connected to the university community, develop lasting

friendships, and served as a “gateway experience” to writing groups and other groups at the university. One mentee (cohort 1) said:

Through getting to know other junior faculty and one senior faculty member in other schools or departments across Loyola, it was nice to discuss everyone’s unique experience at Loyola even though we largely do the same thing at Loyola. I felt more connected to faculty and developed some friendships along the way. (PMC Mentee)

The HTS helped participants have a greater sense of belonging and led to relationships with colleagues that they “maintained outside of the series.” One participant shared, “To know that [Loyola] has a concern for issues around race/ethnicity and the success of members of the community gives me a greater sense of connection to the community.” Additionally, one faculty member (cohort 2) indicated that the HTS increased their confidence, “I feel more confident when I submit those materials [book proposal], I may have a good chance of truly receiving a contract.”

One year later, Micro-Grant recipients appreciated the support they received from the interdepartmental and interdisciplinary connections, both “in and outside the university,” that were strengthened during Micro-Grant supported activities. Some recipients said the program was especially helpful for their collaborative research networks while working remotely due to the COVID-19 pandemic. One recipient stated, “This grant allowed me to keep in contact and continue working with a research team at another university. Keeping that network has been crucial to getting my research back after COVID.”

Mentees in the Faculty Advocates program felt supported by their mentor, even when their school’s environment did not feel as supportive in their career advancement. Mentees shared that the program helped them feel more confident when they submitted their materials. One mentee (cohort 1) said, “I felt supported along the way and especially appreciated it right before I submitted my [promotion application] materials. The whole process was stressful, but I felt more confident than I would have alone.”

Fellows of the Faculty Leadership program recognized that the program fostered relationships with faculty outside of their schools and units, with one faculty fellow sharing that it is “nice to have peer support outside of my department.” Such connections led some fellows to feel more connected to faculty in other units of the university, and “feel much more connected with issues they contend with in different academic units across the campuses.” By learning best practices of other units, one fellow indicated feeling more confident to address problems that might be uncommon in their own unit.

Discussion

Congruent with the proposed multi-stage mentoring model, we found that the programs we implemented collectively provided instrumental and psychosocial dimensions of mentoring support for early, mid-, and late career faculty. To our knowledge, this is the first study to develop and test a formal mentoring framework which spans career stages, incorporates instrumental and psychosocial supports, and recommends building a network of mentors. The mentoring programs benefited mentees both subjectively (e.g., feeling satisfied) and objectively (e.g., publishing scholarly work; Allen et al., 2004). In alignment with the Social Network Theory (Dunn, 1983), having different types of mentors allowed the programs to meet the specific needs of mentees, supporting the notion that one program or mentor might not sufficiently meet all needs of faculty members throughout their career. The programs provided benefits immediately noticeable by participants and had lasting impacts for faculty (at least one year based on our current data). Overall, evaluations of the programming provided support that implementing the multi-stage mentoring model has the potential to benefit women and URM faculty at predominantly White and male institutions.

Both quantitative and qualitative results demonstrated that these programs offered immediately useable knowledge about career development, teaching, scholarship and research progress, and overall professional success. These findings align with previous literature suggesting that faculty mentoring is beneficial for

teaching, research, and career development (Fountain & Newcomer, 2016). Instrumental support via assistance, coaching, and advising helps mentees feel more prepared to engage in challenging tasks (Lankau et al., 2006). Regarding tenure attainment, having mentors with similar identities is helpful in navigating the promotion process successfully (Palmer & Jones, 2019). Collaborating with other minoritized faculty also served as means to develop and improve upon existing research skills, provided more opportunities for scholarly writing, and opened avenues for grant writing (Garstein et al., 2018). Although some programs did not consistently provide expected short-term instrumental support, it could be that the programs collectively provided opportunities to develop immediately useable skills and knowledge by meeting the developmental needs of most of the faculty who attended (Eby et al., 2013).

Regarding short-term psychosocial support, the programs helped faculty feel more connected to other scholars and the university and more confident in a variety of skills. These programs provided a safe space to ask questions without judgment, feel validated in one's experiences, develop personal and professional relationships with other faculty members, and establish a feeling of connection with the university community. Generally, safe spaces are environments free of bias and judgment and often remove barriers to discussing sensitive issues commonly experienced by minoritized individuals. When mentors and peers validate experiences and identities, it allows for greater self-reflection and expression (Johnson, 2007), new ways to problem solve (Kram, 1985), and greater confidence in oneself (Garstein et al., 2018; Gibson, 2004) when facing workplace challenges. This could be particularly useful for URM faculty with intersectional identities.

Still, some programs inadvertently felt too emotionally heavy for a few participants indicating that intentions for psychosocial support may not always have the anticipated benefits depending on an individual's needs. Based on cohort 1 feedback, the programs were updated for cohort 2. For example, some HTS participants did not feel that the program fostered relationship building with other faculty in the first year. So, in the second year, the HTS included re-occurring

sessions with groups so participants could build relationships and camaraderie with facilitators and other participants.

In the year after completing programs, participants continued to feel supported in their professional growth, research, writing, and teaching. Intermediate findings suggested that many faculty continued to maintain relationships developed in the program(s) and build on their confidence. The programs strengthened some of the tools necessary to progress in their career and data shows that participants continued to apply what they learned one year later. Skills and confidence in oneself help faculty persevere through barriers to professional success, even when faculty members are no longer formally meeting with their mentor (Eby et al., 2013). URM are often at risk of receiving lower levels of support from mentors in the workforce (Blake-Beard et al., 2007). By creating programs with minoritized faculty in mind, opportunities for growth and success at higher education institutions may become more equitable.

Limitations and Future Directions

While the programs were effective for many participants, only a small percentage (about 10%) of all faculty at the institution took advantage of program offerings. Moving forward, we aim to institutionalize the programs by working with Deans of the various schools and colleges at the university to customize the multi-stage mentoring approach for their local climate. Faculty in each school have unique needs, given the various disciplines, promotion and tenure processes, and culture. Customizing the programs and having buy-in and accountability at the school level can make the programs more sustainable and provide instrumental and psychosocial support to more faculty. By embedding the programs at the school level, rather than at the institutional level, we hope to increase our reach, particularly to faculty who are minoritized based on their gender and racial identities. Embedding mentoring programs into the school level may result in implementation dilution which could impact program effectiveness. Care must be taken so programs at the school or department level continue to provide support for URM faculty.

Some merit scores fell below our 66% threshold. For cohort 1 (e.g., short-term instrumental and psychosocial outcomes), we believe this largely reflects program development and first year implementation practices. In response, we implemented program changes for cohort 2—such as more strongly emphasizing building connections between participants within a program, focusing more on research than teaching in the How-To-Series, and more intentional mentor matching. These changes contributed to the same outcomes mostly exceeding the merit threshold for cohort 2.

We were unable to disaggregate findings by demographic characteristics, including intersecting identities, or career-stage, to protect participant confidentiality. However, evidence suggests that faculty with multiple marginalized identities (e.g., women of color faculty) greatly benefit from additional mentoring support and from developing supportive networks and communities (Garrett et al., 2023; Kelly et al., 2017; Muhs et al., 2012). Notably, the present study found that the programs which were developed for URM faculty benefited faculty of all backgrounds. We conducted a separate longitudinal study of institutional climate after implementing the multi-stage mentoring programs, finding a positive impact on relevant downstream variables by race, gender, and the intersection of race and gender (Mallett et al., 2025). Still, future research should empirically examine the program level effectiveness of utilizing a multi-stage mentoring framework among faculty of varying demographic characteristics as well as career-stages.

To date, we have limited evidence of long-term outcomes on retention and promotion or change in climate. Long-term benefits are associated with the larger impact of programs on the “social, economic, civic, and environmental conditions” at an institution (Taylor-Powell & Henert, 2008). As per the logic model (see figure 1), the long-term goals of these programs were to increase the rates of successful tenure and Full Professor promotions among URM faculty, and to raise the percentage of URM faculty in leadership positions (Efsthathiou et al., 2018; Mayer et al., 2014). The programs also aimed to promote retention among URM faculty and foster a culture of mentorship and inclusion.

In terms of culture, faculty mentoring programs may also have long-term benefits for mentors; providing short-term instrumental and psychosocial support to mentees positively predicts mentors' attitudes towards their work and their intention to mentor again (Eby et al., 2006). Fostering a culture of mentorship can help institutions reduce barriers to URM faculty success by creating more equitable and inclusive opportunities for professional development and relationship building, promoting a sense of belonging and increasing retention for all faculty (Davis et al., 2022; Freeman et al., 2019; Lunsford et al., 2018; Rockquemore & Ann, 2016).

Finally, our framework is primarily designed for Tenure Track faculty on the trajectory from assistant to associate to full professorship, although this approach may also benefit NTT faculty throughout their careers. Future research focused on the career development of NTT faculty is necessary to examine the generalizability of our model.

Conclusion

Although the long-term outcomes on institutional climate and retention of using a multi-stage mentoring model are beyond the scope of this study, these findings suggest short-term and intermediate benefits for faculty. As such, adopting a multi-stage mentoring model may be advantageous for faculty well-being at other higher education institutions. Our mentoring model aims to foster growth in knowledge and skills for faculty at all stages in their career, meeting faculty where they are at in their mentoring wants and needs. Beyond the development of knowledge and skills to promote professional success, the model promotes the overall well-being of faculty through relationship and confidence building.

While these programs were built for URM faculty, the model could serve and benefit faculty of all backgrounds. Given unique needs based on identities, experiences, scholarship, and career route and stage, having a multi-stage mentoring model that is institutionally supported may increase the likelihood that all faculty members flourish. Still, when considering the implementation of a mentoring model at one's institution, it is important to recognize the service load of mentorship on faculty,

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especially faculty of color, women faculty, and faculty in their mid- to late career. To ensure that the institution is not perpetuating an inequitable system, administrators must consider ways to appropriately reward mentorship and fairly distribute the workload.

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Christine Pajunar Li-Grining, PhD, is a Professor of Psychology at Loyola University Chicago. She completed her BA in Sociology from the University of

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Dana Garbarski, PhD, is an Associate Professor in the Department of Sociology and Director of the University Core Curriculum at Loyola University Chicago, and co-PI on the NSF ADVANCE – INSPIRED Grant. Dana’s research examines and informs the valid and reliable collection of survey data on health and well-being, with an intersectional focus on dimensions of race/ethnicity, gender, socioeconomic status, and sexuality. She focuses on survey methodology, as surveys are a core methodology through which social, behavioral, and medical researchers learn about the health and well-being of populations. Her work has been published in journals of sociology, public opinion, survey research, and health.

Walter Tangarife, PhD, is an Assistant Professor of Physics at Loyola University Chicago. Tangarife’s main research area is theoretical particle physics, including the phenomenology of dark matter and neutrinos. He is a co-PI on an NSF-ADVANCE grant - INSPIRED (Inclusive Practices in the Retention and Equity of Diverse Faculty). This grant supports women and women of color in the STEM faculty at Loyola using evidence-based strategies to address gender-based inequities.

Badia Ahad, PhD, is Dean of Oxford College of Emory University, serving as Chief Academic and Administrative Officer. Previously, Ahad was director of the University Core Curriculum and Vice Provost for Faculty Affairs at Loyola University Chicago. She served as principal investigator of an NSF ADVANCE grant to support the retention and equity of underrepresented faculty in STEM fields. Ahad is recognized as a national expert on faculty development and mentoring, having served as the

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