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Evaluation of a Postdoctoral Early Career Fellowship Program Developing Future Faculty Members

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Abstract

This evidence-based practice paper describes and evaluates the first year of a postdoctoral professional development early career fellowship program. The aim of this program was to identify promising early career scholars from atypical backgrounds, such as research areas or identities underrepresented in their discipline, and further develop them into more competitive faculty candidates. We evaluated four main goals of the program: providing professional development activities; facilitating the transition to tenure track positions; creating a network of peers and mentors; and attracting faculty candidates that value diversity, equity, and inclusion to the University. To achieve these goals, the program assigned mentors to each fellow and supplied professional development activities centered on the needs of future faculty members. Thirty fellows from the first cohort were invited to complete a semi-structured interview sharing their experiences in the program. Nine main themes emerged through data analysis: program goals, how program goals were accomplished, program community building, what mentorship means to fellows, relationships with mentors, cohort camaraderie, emphasis on recognition, location matters, and critical consciousness. With the fellows' positive reception of this program, the program evaluation will not only refine offerings for later cohorts, but it will also assist similar programs' construction and evaluation in the future.

Tags: Postdoctoral Development, Future Faculty Development Program, Program Evaluation, Underrepresented Identities

Background

Postdoctoral (postdoc) appointments are meant to be temporary opportunities for these scholars to develop important skills and enhance their research while still under the guidance of another scholar in their field. These appointments often appeal to PhD earners interested in pursuing a tenure-track faculty position, but feel they need additional development in a needed skill or to build on their research portfolio [1]. When considering that postdoc appointment structures and expectations can vary wildly depending on discipline, location, and funding, and the number of postdocs at any given institution is relatively small, these young scholars are almost invisible when compared to students, staff, and faculty at an institution [2]. There is also no one size fits all solution for postdocs to improve in all the ways needed to become competitive candidates in the highly competitive market for the tenure-track jobs less than 20% of them will eventually obtain [3].

Nowell et al.'s [3] systematic review of professional development (PD) of postdocs thoroughly examined what was and was not working for post doctoral PD. One of the areas they identified as an important skill postdocs wanted to learn or further develop were "grant, manuscript, and proposal writing" and improving their presentation skills. Teaching skills saw the greatest improvement as a result of focused development in postdoc training according to another study in this review. Other areas related to career planning were mentioned as skills postdocs wanted to learn, including negotiating, interviewing, promotions, handling rejection, and managing uncertainty.

Other important components needed for a postdoc to develop are supportive mentorship and a community. The quality of the mentorship a postdoc receives can heavily influence their

satisfaction in their role. This could negatively impact the increased productivity postdocs have in research publications by causing the postdoc to feel unprepared and take another position, stretching their time as a postdoc past the productive peak of 3 years [4]. In Nowell et al's [5] Postdoctoral Scholars Perceptions of a University Teaching Certificate Program, they explained that the creation of a supportive peer network during a postdoc can lead to a better experience and smoother career transition. These seemingly unrelated postdoc aspects (PD, mentorship, and peer network) are the scaffolding that leads to a productive and supportive postdoc experience.

Program Overview

This analysis is a part of a larger study that examines a postdoc development program and the value these scholars are seeing in its first year. The overarching goal of the University of Texas at Austin's (UT) Provost Early Career Fellowship (PECF) Program is to expand the pool of highly qualified faculty who will value and advance the university's crucial goals of diversity, equity, and inclusivity (DEI). The program plans to accomplish this by attracting, hiring, and further developing prospective tenure-track candidates who demonstrate a commitment to and passion for the issues and practices of DEI, while also demonstrating scholastic excellence. The application process for the first cohort of this university-wide program started in Spring 2020. The six participating schools and colleges recruited, selected, and mentored their own Early Career Fellows. One to three fellows were hired in varying departments within those schools and colleges, with two- or three-year postdoc appointments, and funding support from UT's Office of the Vice President and Provost (Provost Office). At the conclusion of the two- or three-year assignments, the Provost Office plans to work with each department's dean to ensure that at least one strategic hiring faculty line is available for a qualified candidate that fits within the department's hiring goals.

Program Goals

Evaluation of the PECF Program focused on interviews with fellows from the first cohort to understand progress toward the initiative's goals, focusing on the four areas listed by the program:

(1) Develop a curriculum that improves fellows professional skills, research, and scholarship through activities
(2) Facilitate the fellows transition to tenure-track faculty positions
(3) Create an environment where fellows can create a network of peers and benefit from mentorship relationships in their fields
(4) Attract competitive tenure-track facility candidates who are committed to and value UT's crucial goals of DEI

In all cases, we will address how the programs can be improved in terms of meeting their goals and advise on whether resources can be used more efficiently to attain comparable impact.

Methods

This IRB approved study was completed by two researchers conducting interviews, a researcher advising on the evaluation, and a program leader. A total of six of the 30 fellows responded to multiple outreach attempts via email during the Summer of 2022. Semi-structured interviews lasted between 15 and 40 minutes, were conducted over Zoom, and transcribed through a third party. The interview protocol was organized into 3 parts: background information; program experience; and DEI in practice (see Appendix A). Immediately after the

interviews, researchers created memos as a space for reflection and initial data analysis. The research team completed two rounds of coding and refining the interview data [6]. During the first round of analysis, the first and second author individually coded each interview. The second round of analysis consisted of the first and second author comparing and consolidating their codes, which led to the creation of nine themes (Table 1).

Table 1: Nine Themes

Program Goals	What Mentorship Means to Fellows	Emphasis on Recognition
How Program Goals were Accomplished	Relationships with Mentors	Location Matters
Program Community Building	Cohort Camaraderie	Critical Consciousness

Results

Program Goals

When we asked the fellows what the goals of the fellowship were and how well they were meeting them, there were a variety of responses. All the fellows agreed that the program prepared them for tenure-track faculty positions. One fellow described the main goal of the fellowship as "to make me a stronger candidate once we look for faculty positions." Another fellow described the goal of the fellowship as attempting to increase the diversity of tenure-track faculty:

> I think the ultimate goal is to increase diversity within UT in general. And then, in a larger part, increasing diversity on the faculty level at all institutions. I see that the main goal is to provide us with all of the tools and frameworks to make us be really competitive candidates when we're on the faculty job search… Ideally, there is a position for us here at UT, sort of making us also not just competitive here but wherever we would decide to pursue faculty jobs at in the future.

Bringing a different and more inclusive perspective to UT's body of research is also described by one fellow as the purpose of the program:

> I would articulate the goals of the fellowship as to increase the diversity of UT's faculty, in addition to the kind of research that gets conducted. And so, from what I understand, a lot of the people that are a part of the program not only bring things that are different to the table, in terms of their personal identities, and experiences, and expertise, but also conduct research that is oftentimes related to underrepresented populations, and their respective fields and departments.

Another fellow described the program's goal as an opportunity to hone their skills and find their identity as a researcher while learning to navigate aspects of academia:

> To develop our skill sets as academics and finding our identity as academics or early career scholars. Really understanding the complexities of entering into academia, and considerations as we move forward… Really knowing a lot of those key strands of grant writing, teaching, service, and writing articles, and dedicating time to all of the above. So, it's finding yourself as an academic, but also developing yourself as an academic. And I think its continuing to learn.

All the fellows described the program as a place of learning and development, whether just as a candidate for tenure-track jobs, or as a way to diversify the academy, or both.

How Program Goals were Accomplished

In discussions about how the program was supporting its goals, the fellows identified the program sponsored seminars in every interview. The PECF Program facilitated seven seminars during the first year of the program (see Appendix B). There were three seminars in the Fall covering classroom management, mentoring students, and community research. In the Spring, they covered handling ups and downs, raising visibility profile, creativity, and creating community. The topics the seminars covered varied, but they all addressed important aspects of academia that any early career scholar would need to know to be successful both in the job search and as new faculty. All participants praised the seminars and their content, referring to them as "helpful" and "very useful." One fellow described most of the seminars they attended and described their impact:

> We have what I would describe as different professional development modules or workshops that we have monthly or bi-monthly where it could range from how to write your CV, how to come up with DEI initiatives and what's involved… How to properly negotiate, and just overall expectations of what academia is and sort of the pathway in terms of tenureship and how that varies between different fields. So, I do think that the fellowship program has really prepared me and it's given me a lot of valuable resources to consider as I move forward in my academic career.

Another fellow spoke about how the program activities focused on creating application statements helped them be better prepared for their job search:

> This year, being on the job market, I can say with more confidence that my statements are going to be a lot more effective… after going through those workshops.

Thus, participants felt the program was helping prepare them to be competitive for faculty positions.

Program Community Building

Participants shared that the cohort structure was a great way to build a community amongst the fellows. One fellow talked about how a community based on camaraderie was created by having a network of people from atypical backgrounds on similar career trajectories and sharing resources, even when a large amount of it is done virtually:

> I found a lot of comfort and camaraderie within the fellows, despite the fact that we've been remote for half of the fellowship. So, it's only been a handful of times

> where we've met in person, but I would say there still has been a strong connection… I definitely think that it was a really great experience being surrounded by people with shared experiences.

A few fellows mentioned that the online nature of their first year in their cohorts made community building difficult outside of their individual departments. This fellow explains how their department's postdocs met weekly, while the program's fellows met monthly online, and the impact that had on building relationships:

> I think I'd agree that among the fellows, the community building has been useful in the times that we are together, but it has also been quite minimal. And Zoom community building is not very successful. Or I don't think it reaches the same level of interaction or building those relationships… That's been a challenge this past year. And if we have seen each other, maybe with a broader cohort, it's been maybe a handful of times in-person, whereas the rest of the meetings were online. And that community-building was a challenge to establish if it wasn't within our College cohort.

Another fellow wanted to highlight the differences in interaction between the fellows' relationships in their departments and their interactions within the fellowship cohort. No matter how the program intends to build the cohort into a community, each fellow's departmental norms and expectations may have an impact on their relationships and involvement with other fellows:

> I would say that in terms of the fellowship itself, the people who are leading it, I think they're doing their best. But I do think that the problem is that the fellowship as a program doesn't exist in a vacuum. The fellowship has to negotiate and deal with all these different departments with disparate interests. Some segments of those departments are gonna be better than others, in terms of intentionally trying to resolve problems related to creating a more just working environment, or DEI. And so, I think a lot of this is not even stuff that the fellowship as a program itself can resolve.

Although the cohort program built community among fellows, their experiences were also influenced by the departments in which they worked.

What Mentorship Means to Fellows

When asking the fellows about their experiences with DEI, more than half specifically mentioned mentoring other students with similar backgrounds as a passion and commitment. One fellow spoke about how undergraduates would seek them out because of their shared ethnicity/race, allowing them to form informal mentoring relationships. Another fellow supported their students by making letters of recommendation and detailed information about graduate school available to their first-generation students:

> I think the biggest thing for me has been writing letters of recommendation for my students and making that very accessible; answering questions very honestly about graduate school, pointing out to my students, who particularly reach out to me because they are also first gen students and coming maybe from similar

> backgrounds and cultural backgrounds as myself, to really consider things that no one told me or people aren't told to consider this.

A different fellow spoke about wanting to work with other fellows to support and mentor students of color at local community colleges because that was their background and they were passionate about being a visual representation of what was possible for those students:

> I've been talking to a few of the different fellows, and one of the DEI initiatives that I want to be able to move forward on is targeting community college students of color, specifically in the surrounding area. So, somebody that went through the community college experience. I don't know the statistics but a lot of them are first generation. A lot of them are from underrepresented groups, low socio-economic environments. All those checks are where I came from personally. And again, I think it's important to be able to see yourself in other people, and if I could be that representative, I think that's great.

Having the fellows mentoring younger researchers was not an explicit goal of the program, but it was important to fellows as a natural extension of their commitment to DEI.

Relationships with Mentors

The program assigned each fellow at least one mentor in their department. All of the fellows we spoke with had at least 2 formal mentors. Most fellows described their mentors as "helpful," "supportive," and "a good fit." One fellow stated that they had one mentor for more technical support, like a "science advisor," and the second was more personal support, with whom they could have "regular conversations." Another fellow felt they needed an informal mentor to fill a research gap their assigned mentors left:

> Two faculty mentors were assigned to me when I started the postdoc. And so, they were fulfilling my quantitative needs... And then, I needed somebody who will tell me more on the applied side. So, it is very informal… but she gives me a lot of great input, and then I combine both sources of information.

One fellow also emphasized the importance of a mentor familiar with their specific research area having the knowledge and understanding to supplement areas the program may have to keep general for the benefit of all other fellows:

> I think the biggest value in terms of my personal [goal of] being prepared is, a lot of those come from my mentors within my field because they have an insight into what the expectations are for my field. And we've had really good conversations. And so, I've been applying for tenured track positions and they've told me how to properly sell myself. We've also had discussions like if I receive an offer, how to properly negotiate… So, it's advice that's coming from the Provost Office. But it's advice also coming from my specific mentors, I think, I personally value more just because I know they had better insight in terms of what the expectations are for my specific field.

During the interviews, the fellows shared that they "felt lucky" that their mentors were a good match and supported their needs. However, over half of the fellows shared that they would

have liked more opportunities to interact with other faculty before their mentors were assigned to them.

ASCohort Camaraderie

It was clear throughout all the interviews that fellows felt a sense of belonging as a member of the cohort and within their departments. One fellow described this through the lens of a common experience:

> Whoever I'm talking to has a shared experience with me, and so we don't have to go through that background discussion to catch somebody up. It's just understood that 'I know exactly what you're talking about".

In particular, fellows mentioned a sense of safety. One fellow said that they knew their mentors "really do have my back" and mentioned the "camaraderie" from the Provost Office. Another clear example of camaraderie within the cohort occurred when another fellow felt they could share resources and small "wins" with other fellows, specifically within the context of academia.

> For me personally, it's just wonderful to see other people, being able… to share wins. That's so huge. Usually, we only share wins in academic research institutions if someone gets an award. We're not gonna share wins of, "Hey, I finished this draft and I got rejected three times. Finally, it's moving on." It's like, "Yay." But that's a huge win, and that's not part of the culture. So, having a network to understand and empathize with one another, I think, is a huge bit of it, and then also sharing resources. Like I've gotten budget samples, templates from other folks. I've gotten the cover letter sample for article submissions from another person. So, those kinds of resources, they're just incredibly valuable.

The environment of encouragement created by the cohort's camaraderie was based in part by the mutual understanding seen with common experiences. When the fellows spoke about feeling safe or feeling like they belonged, the main focus was around how they felt with the other fellows, not program leadership or their mentors, which implies that the cohort structure supported the development of these types of environments.

Emphasis on Recognition

The topics of postdoc recognition and influence were addressed by two fellows. One fellow felt empowered because their department had a large number of newer faculty members who encouraged and embraced change. They explained that "the younger faculty do have power to actually implement changes that, at a lot of other institutions, they just do not". They went on to explain that the changes being put in place were ones that they were "really passionate about" and were "one of the reasons why UT was a good place for me".

Another fellow spoke about how there is a "power dynamic that is unbalanced naturally". They explained that postdocs are inherently at a disadvantage due to the nature of power in a postdoc appointment. They emphasize the need to "develop structures that address that power imbalance" to protect postdocs from negative experiences and empower faculty members and mentors with the tools to have the "language" and "grace" to handle those situations. This fellow later explains that what postdocs bring to their departments is often under-appreciated and their research areas are often overlooked:

> I've had enough time to think about how people speak to postdocs and myself, and realized that "Oh, there's an absence of understanding that I have this very valuable experience and I've had all these different research experiences and these ideas and all of those things." It almost feels kind of like I'm being spoken to like "Well, you don't know any of this," or "there's no reason to ask me about what I think about this, because what could I possibly have to offer to the situation?" And that seems consistent, not just in my department or at my school; that seems pretty consistent in any space where I meet UT folks that get introduced to me as "I'm a postdoc."

The differences in the climates these two fellows faced highlights that feeling empowered and engaged in the department, either in enacting changes or feeling valued, can heavily impact the postdocs' experience.

Location matters

In the interviews, half of the participants described disparate views towards Austin as a location. It was clear that while the city was attractive in its location and amenities to some, others described the increased cost of living as well as the current political climate as reasons for planning to leave the state. One fellow stated that they were "thinking about building a family" and shared that their romantic partner thought that "Texas is just not for [them]." When describing their decision, the fellow went on to say that they, as well as others in the program, would leave the program feeling like "UT is not the place to continue developing as a scholar" and accredited this feeling to "the political context in Texas."

Critical Consciousness

Critical Consciousness occurs when individuals achieve an in-depth understanding of their worth through learned and lived experiences that allows for the comprehension of oppression and injustices. The act of combating the oppressive elements brought to the fore by this understanding is also Critical Consciousness [7]. It was clear through interviews that fellows were enacting Critical Consciousness through the support of the cohort as they navigated academia. One fellow shared that the cohort leadership helped them by telling them "how to navigate the system," "how to play the game right," and how they can go about "playing the game without sacrificing some of our principles."

There was also a strong desire amongst fellows to see DEI in action in academia and a desire for understanding "the value" of DEI. One participant shared, "It's sort of unclear how much value [a DEI statement] has and how much time we're allowed to spend on actively participating in things that are going to help make academia a more inclusive and more equitable and more diverse place." Fellows were enacting Critical Consciousness around DEI issues in academia.

Conclusion and Recommendations

The results were a summation of the fellows experiences in the program, but the purpose of this study is to evaluate the effectiveness of the program. To do this, we chose to reevaluate the program goals (Table 2) and use the fellows' responses as a metric for how the program enacted their plans and its effectiveness in achieving its goals.

Table 2: Four Program Goals

Program Goal #1	Develop a curriculum that improves fellows professional skills, research, and scholarship through activities
Program Goal #2	Facilitate the fellows transition to tenure-track faculty positions
Program Goal #3	Create an environment where fellows can create a network of peers and benefit from mentorship relationships in their fields
Program Goal #4	Attract competitive tenure-track facility candidates who are committed to and value UT's crucial goals of DEI

Program Goal #1: Develop a curriculum that improves fellows professional skills, research, and scholarship through activities

The fellows felt like the content of the seminars were accomplishing the fellowships goals by making them more competitive applicants for tenure-track positions. Application packet materials and negotiating seminars were named as informative and impactful. The desire to change the timeline of these seminars to be more in line with the job market timeline was expressed. The fellows also saw a need not originally anticipated by the program, a place for the fellows to meet and work together outside of the program's structured curriculum. Two fellows took it upon themselves to start a Fellows writing group to fill that gap. When the program heard this was taking place they volunteered to sponsor the weekly meeting and encouraged other fellows to join. The program planned to combat that more formally in their second year by incorporating socials and retreats into the program plan. Being flexible and adapting to the needs of the fellows is an important part of coordinating a program like this.

Year one of the PECF Program partially achieved their goal of developing the fellows through their curriculum, however by overlooking the more informal needs of the fellows and having to adapt to a mostly virtual environment they fell short. Their plans to improve their curriculum from year one to year two will continue to refine the program until it is optimized through iterative evaluations and program updates.

Program Goal #2: Facilitate the fellows transition to tenure-track faculty positions

All of the fellows agreed that the goals of the fellowship were to prepare them to enter the tenure-track job market as competitive candidates, whether at UT or at another institution. Diversifying the professoriate was also listed as a goal of the program due to its nature, as well as giving the time and space to fellows to build their brand as academics in their research community.

The program did its best to bring value through the seminars, but the variety of the fellows research areas and stages in their job search caused the information to need to be broad to be relevant to everyone. In the future, supplementing the seminars facilitated by the program with follow-ups from either the fellows mentors or others in their departments to make the topic and timing more individually relevant to them would bring benefit to the fellows PD.

Program Goal #3: Create an environment where fellows can create a network of peers and benefit from mentorship relationships in their fields

The importance of connections was a salient finding from the interviews. Some of the fellows felt like they created connections with other members of their cohort; others felt that

when remote or virtual the cohort meetings and workshops made community building more difficult. Fellows also admitted that they had very little knowledge of the other cohort member's research and expertise. Connections made within department cohorts were sometimes described as stronger than those made in the PECF Program because of more frequent in person interactions. However, fellows expressed a strong desire to be seen and recognized for their work, as some did not feel acknowledged in their departments. To improve both the unawareness among the cohort of each other's work and the lack of recognition in the fellows departments the Provost Office should organize opportunities for fellows to share their work with the cohort as well as other faculty at the University.

Additionally, mentorship within the context of the cohort emerged as an important finding. Some participants mentioned a strong relationship with their assigned fellowship mentor and others shared that mentors within their department served a more supportive role. Regardless of where mentorship happens, the program should provide space and time for fellows to interact with faculty multiple times before assigned and/or provide opportunities for fellows to change mentors without consequence.

The program was successful in creating a space and a network among the members of the cohort, regardless of departmental climate. Although the fellows were interviewed and hired by their respective departments, there was still a separation established between the true departmental postdocs and the fellows. This cannot be addressed in any meaningful way by the program, but they have done all they can by incorporating mentors from the fellows departments into the program to ensure that the fellows have at least one internal contact.

Program Goal #4: Attract competitive tenure-track facility candidates who are committed to and value UT's crucial goals of DEI

Mentorship was very important to all fellows interviewed, and was mentioned a number of times when discussing how they practice DEI. They expressed a desire to learn more about inclusive mentoring as well as wanting the opportunity to serve as mentors for others in their field with similar identities. One avenue that this could be achieved is through the in-person seminars. Fellows were also very clear about how they enacted navigational capital, an individual's skills and abilities to navigate unsupportive or hostile environments [8], during their academic journey. This critical consciousness and the fellows' desires to serve as mentors are assets and have the potential to support other individuals from historically excluded communities.

Fellows shared the importance of the location and political context of UT. While Austin as a city was attractive for some fellows, others shared their concerns about the conservative political climate of Texas. It was clear from the interviews that the political context influenced fellows perception of academic freedom. In order to support navigating both location and scholarship, fellowship leadership should address laws and regulations that might disproportionately impact students of color as well as legislation that purports systemic oppression. Acknowledging this is only the first step in supporting fellows, and the program should also share sources of support and resources to assist fellows and their supporters in Texas. Despite a concern about the political climate, all fellows mentioned a sense of belonging and sense of safety as part of the cohort. This is an incredible asset and strength of the program and should continue to be purposefully included as a goal of the program.

DEI is a deeply personal topic and can have very individual definitions based on people's personal experiences. The program started the process of addressing the DEI needs of UT by bringing all of these fellows who value DEI into the university. However, they have further work to do based on the feedback from the fellows. The fellows' need for support in mentoring and their need for the program to acknowledge and provide resources and support for those feeling unsafe in the political climate in Texas is something that the program cannot ignore.

Overall Program Conclusion

Although the PECF Program has only finished its first year, its goals are important and they have been laid out in an achievable way. Preparing postdocs who value DEI for tenure-track faculty is a lofty goal, and made even more complex by the way the program was structured. The difficulty of navigating all of the pitfalls that can present themselves when attempting to weave a program like this across six different colleges and schools cannot be understated, but the benefits of it outweigh the trouble. This program is a true space for camaraderie and support and can serve as a model for other universities looking to implement a similar program.

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Appendices

Appendix A: Interview Protocol

About you

1. General background information (outcome of this question could be a timeline of events to anchor other questions in)
    a. How did you end up working at [the university]?
    b. How did you find out about this position?

Current

2. Tell me about this fellowship.
    a. How would you articulate the goals of the fellowship?
    b. How does the fellowship support these goals?
    c. What are your goals for participating in the fellowship?
    d. What activities/trainings do you participate in?
3. Do you network or work closely with anyone else as a result of this fellowship?

Diversity, Equity and Inclusion (DEI) Practice

4. Please tell me about your experience practicing and supporting DEI?
5. How does the fellowship encourage and support your experience in the issues and practices of diversity, equity, and inclusion?
    a. What is being done well?
    b. What could be improved
6. What else? What didn't I ask you about your fellowship or DEI at the University in general that you would like to share?

Appendix B: Monthly Seminar Topics

Date	**Topic**
October 6	Syllabus, Inclusive Classroom, Classroom Management
November 17	Mentoring Graduate Students
December 15	Moving Beyond Community Research/Trust Building in Community Research
February 16	Externalizing the Downs/Celebrating the Ups
March 9	Raising Visibility Profile (web presence, social media, etc.)
April 13	Exercising & Cultivating Creativity
May 11	Creating Community & Investing in Professional Social Networks