

Blurred Boundaries: What It Means To Be an Early Career Faculty Member During a Pandemic

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Abstract—Early career faculty are undergoing a stressful transition period and actively negotiating their professional identity. The COVID-19 pandemic has changed the daily activities in early career faculty’s personal and professional lives and thus complicated the negotiation process. This study explores how engineering faculty members redefine and reconceptualize what it means to be in their early career during the COVID-19 pandemic. Through an emergent qualitative coding technique, we identified two themes: 1) the blurring of personal and professional boundaries, and 2) the renegotiation of different identities. The findings offer insights into how to better support early career faculty and allow them to balance these different dimensions of their academic identities.

Keywords—early career faculty, COVID-19 pandemic, faculty identity

I. INTRODUCTION

Early-career faculty members are going through the transition stage when they are negotiating and forming their faculty identities [1]. The COVID-19 pandemic shifted day-to-day activities on college campuses to remote environments, which complicated the process of identity negotiation and formation as this shift meant significant changes to how they conduct their work, experience faculty life, and form professional identities as they embark on their careers [2, 3]. In this paper, we explore how these shifts influenced the ways engineering faculty navigated and negotiated different aspects of their identities to redefine and reconceptualize what it means to be an early career faculty member during the COVID-19 pandemic. Specifically, we ask the research question: How do early-career faculty perceive their identities and how are those identities impacted by the COVID-19 pandemic?

II. COVID-19 IMPACTS ON FACULTY

As COVID-19 cases spread across the United States in early 2020, many universities responded by implementing campus-wide lockdown as one of many non-pharmaceutical interventions meant to minimize case counts. Teaching and learning activities were moved to remote formats, research labs were closed, and other social and academic in-person activities were either moved remote or canceled. Following the guidelines and mandates issued by state and local authorities, interventions such as social distancing and campus-wide shutdowns were kept throughout the rest of the spring semester. These sudden changes to faculty professional life had direct impacts (e.g., lab shutdown, shifting office work to home) and indirect repercussions on faculty success (e.g., progress toward promotion and tenure) [2, 3].

As a result, nearly all facets of a faculty’s personal and professional life were impacted. With regards to teaching, the sudden shift to a remote learning mode created various challenges, especially for those who had little to no experience with remote instruction – or limited teaching experience in general. Due to the virtual nature of their teaching, faculty were required to manage technical issues and a lack of interpersonal interaction with students, leaving many faculty feeling like they were simply talking at a black screen full of names [4]. Moreover, faculty were required to help students navigate and manage distractions and experiences due to social isolation [5]. All these have posed challenges to faculty in their teaching. In the least, online teaching usually requires more time to prepare [6], prompting a popularized meme stating, “One does not simply ‘move a course online’.”. In addition, closures or limited access to labs and limited fieldwork put a stall on many faculty members’ research. At the same time, increased administrative work involved in virtual teaching and service further strained the balance of traditional faculty roles [3].

More troublingly, recent studies have indicated how the pandemic has amplified gender inequities [2, 3, 7, 8, 9]. Gender inequities can be found in both personal and professional arenas of everyday life. In professional life, female faculty are often expected to do more administrative or logistical work [3, 10]. While at home, they often take on more caregiving responsibilities for their children and other family members [11]. As such, recent research on the gendered impact of the COVID-19 pandemic has shown a decline in women faculty research productivity [8, 12, 13], which bears consequences to their promotion and success in their professional career. These gendered effects may be more severe in fields historically dominated by men such as engineering [14].

Taken together, recent research in many other fields has shown that the pandemic has had significant impacts on faculty’s personal and professional life, which yield consequences for their future career development. However, there is also a lack of published research with early career faculty in the field of engineering and their experiences during the pandemic. This study fills the gap and informs efforts to support early career faculty in engineering.

A. Data Collection

To gain a greater understanding of early faculty’s lived experiences during the pandemic and how the intersection of pre-tenure pressure, possible addition of new family member(s), and influence from the pandemic play out in those lived experiences, semi-structured interviews were conducted as part of a larger qualitative, exploratory study on the

professional identity negotiation of tenure-track faculty in engineering across career stages. Among the 21 faculty members in this larger study, eight pre-tenured faculty (Female = 5, 62.5%) were interviewed by the first author during Summer 2021 at a large R1 institution in the Northeastern US. These early career faculty members disclosed specific challenges in relation to their career stage during pandemic. To fully capture their experience, the guiding interview questions asked about how they navigated faculty life prior to the COVID pandemic and how their experiences as faculty were changing due to the pandemic. Interviews began with questions about a typical day they experienced as a faculty member, with follow-up questions that asked participants to elaborate on the people, events, practices, or personal characteristics they mentioned when describing faculty life.

B. Data Analysis

Using the sensitizing concept of McCall's Advancing from Outsider to Insider (AOI) Model [15], we utilized emergent qualitative coding techniques to explore individual faculty's lived experiences, perspectives, and professional identity formation. We chose this model because it prompted us to think about different identities that faculty consistently navigate throughout their lived experiences and their interactions with one another. This model served as an initiating point that sensitized our analysis to the identities participants used to define and conceptualize different aspects of their lives and the ways they shifted, intersected, and evolved over time.

We completed two rounds of coding. In the first round, all three authors separately coded the same transcripts. In our regular meetings, we shared our codes, interpretations, and justifications. Through sharing and discussing, we agreed on the overall patterns and the first author continued to conduct the second round of coding. In the second round, the first author segmented the interview responses into segments of text that contain critical incidents. These incidents were defined as events, people, or other experiences described by participants that reflected a change in participants' roles and expectations as a faculty member prior to and during the pandemic. Each segment was then coded for representation of personal (P) and professional life. The professional life code included teaching (T), mentoring (M), research (R), service (S), administration (A), and other (O). These codes helped us to see the interactions among the various roles participants were taking on as faculty member and how those were changing due to the pandemic. This analysis showed us the nuance of our participants' lived experiences through the blurring of personal and professional boundaries and increased renegotiations of identities.

III. FINDINGS

The themes that emerged from the interviews show changes in the transitional period in and out of COVID-19 situations as described by our early career faculty participants. Faculty members engaged with intensive identity formation and negotiation work during this transition. With the guidance of the AOI model, we identified various strategies and renegotiations of identities as they were impacted by the COVID-19 pandemic. Focusing on the impact from the pandemic, the two major themes that emerged from our analysis are: the blurred boundaries of being an early career faculty member and the renegotiation of personal and

professional identities. Participants described the blurring of boundaries during the lockdown in spring 2020. Identity renegotiation occurred due to the blurred boundaries where personal and professional identities could not be neatly compartmentalized and were in constant interaction with one another.

A. Blurred Boundaries of Being an Early Career Faculty Member

In general, what it means to be a faculty member varies among our participants in terms of what they perceive as the core values or responsibilities (e.g., teaching and research, as described by participant MC in Quote 1). Before the pandemic, these core responsibilities typically occur in daily schedules lasting from around 8am to 5pm and occasionally during evenings and weekends. Daily tasks relating to teaching included preparing for classes, teaching in classrooms, offering office hours, and communicating with students via emails. Daily tasks relating to research included supervising students in the lab, managing the finances of research grants, meeting with collaborators, meeting with students, writing proposals to seek funding, writing publications from research results, traveling to conferences to present and network, and so on. Besides being in-person in classrooms or labs, many of these tasks involve emails and meetings. Also, many valued the informal interactions among colleagues in places such as hallways within the engineering buildings, where a lot of good conversations happened. The majority of these daily tasks were carried out on campus. Because faculty had dedicated places (i.e., office, lab, or classrooms on campus) for their professional work, they had the time to 'switch on and off' their professional identities as they went to and back from work. This approach to compartmentalizing based on physical space and allocated time allowed faculty to more evenly balance their identities and roles prior to the pandemic.

Quote 1: "The two big pieces of the job are research and teaching... service is another piece of being a faculty member, but that just kind of happens."
(MC-27/28)

Relevant to the temporal context of the current study is that our participants started their tenure-track faculty positions not long before the pandemic hit. During those first years (1-3 years), especially for those whose research was experimental, faculty were establishing their labs and recruiting students to get their research going. These early stages of research involved starting up collaborative work; purchasing and setting up equipment in the lab; recruiting and training graduate students; collecting and analyzing data and disseminating preliminary results in papers or grant proposals. At the same time, they started to teach courses. This was also challenging at the beginning as most of them had very limited experience of independently preparing and teaching courses within their fields. Some participants mentioned that after a few times of teaching the same course, they started "cruising" but that new courses generally require a lot of time and effort to prepare.

The timing of their career and the pandemic intensified and added on to stressors that new faculty members typically encounter. Because of the pandemic, some participants had not had enough time to get their lab fully running or graduate students well trained, while being expected to produce research work under tenure pressure. After the pandemic hit,

there were about three months of lockdown when no access was allowed to labs. When the university started to establish protocols for limited use of labs, faculty who conducts experimental research immediately started to go through the process of coordinating schedules and filling out protocols to allow graduate students to conduct laboratory experiments. Also, having large, shared laboratory space built for better collaboration created additional administrative work during pandemic as different labs needed coordinate with each other so that they would not exceed the access limit. Other faculty employed a pivoting strategy in which they shifted towards computer-aided simulations and computational research to conduct their work (Quote 2).

Quote 2: “we made a conscious decision as a group to kind of let things slow down...we pivoted towards computational research... we ended up collaborating quite a bit. We establish collaboration with faculty from other universities who are purely computational.” (MG-40/43/54)

At the same time, graduate students were burning out and had low productivity, so many faculty used virtual laboratory meeting times so that students could have some social connections. Faculty also observed that reduced face-to-face interaction or interaction overall among their research lab affected their lab culture (Quote 3). Some faculty had Ph.D. students quit and leave their program with a master’s degree while others had a difficult time recruiting new students. One participant had a new student who started the program remotely, which required more effort to mentor or include the student in the lab. Another participant empathized with students: “Same way that I was burnt out, the students, because of the age or maturity...they are even more anxious and stressed out...there is also age difference too, right? So they are less mature compared to me, so I can handle things easier, better.” This faculty employed the strategy of empathizing to resolve the conflict between their definitions of mentor or advisor and the need for them to emotionally support students.

Quote 3: “...it's actually led to some culture problems in my lab ... no interpersonal conflict or anything like that, but I think that students are just ... not pushing forward because ... they got used to just kind of waiting for instructions from me and now they're having trouble to kind of be independent again. That actually is going to have newly long-term implications for my lab.” (BML-52)

Besides negative impact on research productivity, some faculty observed that their graduate students were navigating mental health issues spurred by the impacts of COVID-19 on one’s family or, for international graduate students, increased isolation from family (see an example in Quote 4). To address this challenge, many faculty encouraged students to engage in more writing, either for preparing for milestone exams in their doctoral programs, or for other projects such as disseminating findings through research papers or writing chapters in their dissertation documents. One faculty also made use of small funding from the department to sponsor students in professional development programs. This provided support for students to take online courses provided by Code Academy, Coursera, etc., on data visualization or Python to learn skills applicable to their research, and the faculty

sponsored students by covering the financial cost who completed the courses and got a certificate.

Quote 4: “because of the pandemic, it got worse and he [one graduate student in the lab] quit the Ph.D....that was another bigger stress on myself, on my group...the difference between the faculty and a student is most of the students, they are sharing a house with roommates. So, they only have, let's say, a one-bedroom thing to themselves, or they get isolated. So, they really don't have—they lose a lot of the connections that they had before. That impacts their mental health, I would say.” (ES-68)

As the pandemic hit, teaching and learning shifted to fully remote and as it continued, later moved to a hybrid version where some students participated online and others participated in-person. For faculty, this change impacted all aspects of teaching including class preparation, classroom teaching and learning, office hours, email exchanges, grading, and others. In terms of class preparation, changes needed to be made to adapt to the online component hosted in the learning management system. Class prep time took longer as faculty needed to create new quizzes or design new activities that would be more engaging in remote instruction. In cases of synchronous, hybrid classes, technical and instructional support was needed to manage two groups of students to ensure they actively participated. A few faculty had been teaching online or blended courses so the transition to remote was easier. However, most needed to learn new ways to engage students and/or adopt new technologies such as iPad or GoPro to facilitate the remote course, as the student engagement and interaction was very low in remote environments with some reporting that most students did not turn the camera on via Zoom, and there was no way to get any feedback from students. This remote instruction created both challenges and opportunities. The challenging part was low engagement from students, as shown in Quote 5. Quote 6 showed a different case where offering remote lab sessions were attended and well facilitated by the use of advanced technologies such as GoPro.

Quote 5: “I think on the more challenging side, I feed off of student response when I'm teaching. I take cues from them and whether they're understanding what I'm saying, whether we're progressing at the right pace... it's much more challenging online.” (AA-53)

Quote 6: “...that was a good opportunity to literally teach [inaudible] lab virtually. So that was a good exercise in engineering education, do a little bit by getting GoPro cameras for the lab technicians, working with them on creating virtual machine models.” (MG-49)

Similar to the mental health issues of the graduate students in their research groups, faculty participants observed a change in the types of support that students needed, which led to negotiations on the definition of teacher. Students were under a lot of pressure due to the impacts of COVID affecting them both within and beyond the classroom. Rather than solely serving as a course facilitator and instructor, faculty needed to be attuned to student needs and provide support by being flexible on assignments, activities, deadlines, etc. Also, as the in-person interactions among colleagues and with

students disappeared, communication depended heavily on emails and the sheer volume of emails that faculty needed to deal with took so much longer. In addition, faculty had to spend additional time managing the university's deferred grade policy for students. This policy was implemented so that students could spend more time to pass the course and receive credit, "but at the same time, it does add more to the faculty load." Shifting the workload to faculty could then potentially create more conflicts in the definition of teacher identity.

University policy also changed to offer one-year extension for tenure and promotion. One faculty pointed out that this could potentially cause more consequences rather than providing benefits. Pre-tenured faculty have been differently impacted by the pandemic given their different situations and their unique struggles. Those who do computational work and/or who did not have children were, in general, less impacted by COVID protocols than those who relied on experiments and/or had young kids at home. This type of university-wide mitigation effort is not tailored to individual faculty needs; some might need it and others might not. It is then possible that those who did not need it still took the opportunity. One of our participants raised up this issue: "probably some people will take it and just raise the bar for everybody else." While university-wide policies, such as promotion and tenure extensions are often intended to help and support faculty, these unintended consequences and implications for future policy necessitate careful consideration.

Other major events that caused additional hardship for some of our faculty participants included an extensive, multi-year lab renovation that decreased research capacity, an adoption of a new, university-wide financial management system that created more administrative work when managing research funds. These events, in and of themselves, might not have universal implications, but when considered in the context of shifting roles due to the COVID-19 pandemic, they reflect a huge impact that infrastructure development or institutional policy could have on faculty life. With the increased administrative work, multiple participants described questioning their satisfaction with their current career path and if the university valued their time and expertise.

Besides research and teaching, conferences were virtual, and other service work also changed to include some initiatives related to the COVID-19 situation. In general, faculty found it harder to connect with colleagues, which affected the informal interactions that many of them valued as part of their job. However, meeting with people virtually made formal meetings more efficient because they did not require travel time. This was also true for virtual conferences. Participants reported that they could attend more conferences because they did not need to travel. Also, virtual conferences were more accessible because faculty were not required to pay for or spend the necessary time to travel internationally. Many participants had mixed feelings towards virtual conferences; while they thought virtual conference formats were good opportunities to establish conference norms that were more equitable and accessible, they also need to allow for more meaningful interaction and networking.

Because of the changes to daily life, as faculty outlined above, our participants adopted many coping strategies to deal with these issues and try to keep up with the tenure and

promotion process; they also took up opportunities to reflect on their practices in the past and present to plan for the future. The theme that stood out across all aspects in terms of time, space, and work we identified as 'blurred boundaries'. Quote 7 from one participant presented an example that was echoed by others regarding attempts to work while watching their young kids. Participants without children described working long weeks with few breaks as work life encroached on personal life.

Quote 7: "I've always valued boundaries in terms of, like I said, trying to keep my work to the office and then get home and have my family time and not be doing a ton of work at home. I think the pandemic really threw things out of whack and that I was trying to do both at the same time. And my kids are like, 'Mom, why are you working again?' I'm trying to work on my computer while they're watching a movie and I disliked that. I disliked the total blur of boundaries." (ML-95)

As the faculty participants took up these forced shifts and disrupted schedules on a daily basis, they positioned these disruptions as opportunities to reflect on their job. They reevaluated their approaches to teaching, research, and service, as well as reexamined the boundaries of their professional identities as faculty and their personal identities. For example, as the administrative workload involved in research increased because of procedures and protocols for safety during the COVID-19 pandemic and sudden shifts to a new financial management system in the university, many of them started to question if tenure-track faculty had the support and work environments necessary to do what they were supposed to do. Significant concerns related to conducting research, which was a major reason many faculty members took a position on the tenure-track. Similarly, with teaching, incorporating deadline flexibility was commonly seen across the classes that our participants were teaching. While faculty took this opportunity to redesign some aspects of their courses and to reevaluate essential content, they also described how much preparative and administrative work was involved in that process.

Our faculty had been asking themselves key questions in relation to their identities: "what I expected academia to be or what my interests are and why it's still a good fit." In these reflective moments, participants were reexamining the boundaries of being faculty, especially when they were overloaded with the administrative work involved in research, teaching, and service and started to question their roles and responsibilities as a faculty member and if the university was using their time and expertise wisely. They tried to differentiate and articulate their identities by identifying aspects of their lives that had been changed by the COVID-19 pandemic and was not a part of their pre-pandemic faculty identity."

Renegotiation of Different Identities

Without a dedicated work office, the sense of time allocation and boundaries between work and home life during the COVID-19 pandemic created a lot more interactions or conflicts between different identities. They tended to work unhealthy hours as they worked from home or because they also experienced a lack of motivation and productivity, to a point that they immediately went back to the office when permitted and started to re compartmentalize their time so that

they had dedicated time for personal life. The reexamination of boundaries was accompanied with a renegotiation between different identities. In their work, they were researchers, instructors, mentors; in their personal life, they were parents, spouses, sisters or brothers, friends to others. Participants also discussed being intentional about taking time to pursue their hobbies such as equestrianism. "To me, it's more of a life choice. I go out and see my horse every day. I go compete. I do a lot with my horse. And so I guess it's more than just-- it's not just a hobby... definitely been something that's helped me get through the pandemic..."

As our faculty participants see teaching as one of the core responsibilities, they tried their best to adapt to all the added requirements in their role as an instructor in the classroom by making changes to the course requirements and activities, or looking for new ways or tools to increase interaction and engage students. However, one thing that stood out in this stressful situation is the gender differences in the expectations from students (see an exemplar quote in Quote 8). In our early career participants, one female shared her perceptions of the different expectations that students had toward her. While it is hard to attribute it to a single factor, it is about being a young female faculty in engineering in a particular R1 university during the pandemic. Many factors were at play in this experience, and it reflects an unresolved conflict in the definition of being a teacher.

Quote 8: "I was dealing with a lot of students who were struggling. And I'm not a psychiatrist. I don't want to be a psychiatrist. But I do feel like a lot of them were leaning on me to try to help solve their other problems that were outside of the classroom, outside of my scope of knowledge... I do feel like being a female especially, they tend to want to migrate and feel like you should be more empathetic or more... But I definitely feel the expectations being female are different and that the student's responses in general, that they expect me to be more lenient on things than my male counterparts. (SJ-116/134)

For the blurred boundaries and identity work as impacted by COVID-19, they were much worse when the faculty had children at home who tend to be very young and need a lot of care and attention. For faculty who became parents for the first time during the pandemic, having children immediately created this new identity for them, which frequently prompted the reexamination of the balance between different identities. This newly established identity as a parent often took priority.

This is also true for those who had babies before the onset of the pandemic. The need to take care of young kids on a daily basis disrupted work schedules (indicated in Quote 9), and faculty as young parents could find only fragments of time to get the bare minimum of work done. They also went through a similar process of trying to watch their kids and do some work at the same time, which turned out to be neither efficient nor healthy. In addition to everyday childcare, the pandemic added another layer of stress for young parents because, at the time of publication of this paper, there was no vaccine developed for young children (highlighted in Quote 10).

Quote 9: "...now all of my time is just chopped up and I now work all the time at nights and on the weekends. And to try to make up for the fact that I

still don't have as much coverage for child care. So that was probably the biggest thing. Was that I have two small children at home, and during the pandemic, they were home with us for large segments of the time. My wife has a full-time job and we would just constantly balance schedules ... It was taking care of the needs of the kids, whether it was food or social needs, or we would try to teach them to read and try to teach them math so that they still got some educational component..." (SS-60/67)

Quote 10: "especially as a parent, just monumental challenges related to going through the pandemic with children, every time our kids got a cold or any symptoms that remotely resembled COVID, we had to take them out of daycare and go and get a COVID test." (BML-84)

With the added stress in both work and home life for many, one shared that "I'm not enjoying my job as much as I used to, just because I don't have as much time to just like, breathe and relax and be a person, other than working or being a parent." This calls for a more complex model to capture the negotiations of self, a faculty member, and, as demonstrated through the presented quotes, being a parent/spouse, and how the stress from these interactive identities could create burnout. .

IV. DISCUSSION

The blurred boundaries during the COVID-19 pandemic have brought many difficulties and prompted renegotiations of identities for early career tenure-track engineering faculty. As the pandemic hit, faculty started carrying out their research, teaching, and other work in their living rooms, kitchen countertops, or just a small space they found amid family members who were also working or taking classes remotely. In general, the interactions between these personal and professional identities created challenging and stressful situations for participants.

Our findings showed various aspects and struggles that other early career faculty might also relate to. However, as the variety of experiences indicates, there are individual differences in perceptions, definitions, and negotiation strategies, and for each participant, they have their own personalized understanding of the profession and own negotiation process. One extreme example is the contrast between the strategies to maintain the oneness of "me being a researcher/teacher" as core identity and the strategy of intentionally differentiating "who I am as a person" and "what I do as a researcher." They reflect two approaches and strategies to being that work for the same purpose of maintaining or regaining the equilibrium between personal and professional identities in the chaos of the pandemic.

Apart from differences in individual approach, there are differences in the situational factors that affect the strategies in balancing identities. One faculty member embraced remote instruction and took the opportunity to actively carry out an online lab, an idea conceived before the pandemic. It worked well; the faculty member said he planned to keep it remote in the future, appreciated the effectiveness of this remote lab, and commented how he could also stay home to be more present with a toddler and a young child. However, many other faculty members were dealing with a new form of blended classes

where some students showed up in the classroom and some chose to synchronously attend remotely. They needed to prepare for both in-person and online portions of class and coordinate with technical support, if they got any, as they attempted to meaningfully interact with both groups of students, in class and via Zoom.

As our participants narrated their experiences, we qualitatively identified gender differences in the ways the pandemic impacted daily life. Our female faculty shared how students held different expectations to be more supportive in mental health or lenient in coursework. This confirms previous work that students saw female and male faculty through the lens of gender stereotypes [16] and might expect female professors to be more empathetic and sensitive. Another gender difference was seen in for young parents who have intensive caregiving responsibilities with none to little support during the COVID-19 pandemic and no vaccine available for young children.

Existing research suggests the pandemic has negative impacts on women faculty and faculty of color, amplifying existing gender and racial inequities [2]. This study shows that the university responses to the pandemic, such as tenure clock extensions, could potentially further increase these inequities as the bar for future tenure and promotion in general could be raised by those who are less affected by and relatively more productive during the pandemic, such as those who are not impacted by the lab lockdowns or who do not have caregiving demands. Similarly, prior work has identified that this extension policy might work toward adversely affecting female faculty's long-term growth regarding scholarship and grant production during the extension [17].

Though until now we have presented mostly the struggles that our participants faced during the pandemic, we also want to highlight some critical moments that helped them navigate these challenges. One faculty took immediate action over the spring break, once the university went into lockdown, to set up detection devices to collect field data for her own research project. The immediate response helped her collect some data and make progress. Another faculty embraced technologies in classrooms, such as iPads and GoPros, which helped with engaging students. Taking a positive attitude in technology integration into classroom would potentially have long-term positive impact, given the overall trend to use technology to support teaching and learning. Also, for those faculty who have toddlers or young kids at home and tend to work on laptops while taking care of them (such as in Quote 7), there were those moments of reflection upon current practice of balancing and how they might need to change as they could not fully engage in either spending time with children or at work. Those moments of conflict between identities worked to inspire reflection that could help with identity work in the long term.

This work presented the wide range of factors and situations where early career faculty could face an imminent identity crisis in which personal and professional selves cannot be balanced, such as when they questioned their value as faculty. From the findings, we believe there is a need for holistic support to help faculty in maintaining that balance and to actively consider possible negative implications of programs and policies and further design supporting solutions to mitigate those negative implications. We encourage universities to create professional development activities that

utilize the new norms that we continue to establish as a society to allow faculty members to balance these different dimensions of their identities.

The complexities reflected in our current study point us to two different future directions. The first is to go in depth. Our findings already suggest the critical factors of gender and childcare responsibilities. In next steps, we could conduct in-depth case studies with different gender identities and faculty with and without childcare responsibilities to capture how these two critical factors could influence their lived experiences and further articulate a faculty identity development framework that captures negotiations among the self, faculty, and parent identities. A second direction is to go broad. Our larger project on faculty identities included participants in both early career and mid to late career. Our next step is to holistically analyze all participants in their professional stages to seek opportunities for innovative faculty development programs to meet diverse needs of faculty in different stages of their professional career.

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