

Navigating Faculty Identity Development through the Tenure and Promotion Process as Black and Hispanic Engineering Faculty

Dr. Maria L. Espino, University of South Carolina

Maria Luz Espino earned her doctorate degree in the Higher Administration Program in the School of Education at Iowa State University. She obtained her Masters's degree in Educational Policy and Leadership at Marquette University in her hometown of Milwaukee, WI. She completed her Bachelors degrees at the University of Wisconsin-Madison with a double major in Community and Nonprofit Leadership and Gender and Women studies. As a scholar and a student advocate, Maria believes that centering, humanizing, empowering, and supporting the communities in which we serve through practical and policy reform.

Mr. Brian D. Le, University of California, Los Angeles

Brian Le (he/him/his) is currently a Ph.D. student in the Higher Education and Organizational Change (HEOC) program at UCLA. Brian holds a bachelor's degree in kinesiology & health from Iowa State University and a master's degree in student affairs in higher education from Marquette University. Prior to attending UCLA, Brian worked at Iowa State University for 4 years as a student's program coordinator for the Science Bound program, a pre-college through college program focused on working with scholars from underrepresented backgrounds to pursue a degree in STEM. He has been a research affiliate on multiple NSF-funded projects surrounding equity in STEM. Brian's research interests are college access, retention, marginalized students, community colleges, first-generation, STEM education, STEM identity development and engineering education.

Dr. Henry Tran, University of South Carolina

Henry Tran is an Associate Professor at the University of South Carolina's Department of Educational Leadership and Policies who studies issues related to education human resources (HR). He has published extensively on the topic, and holds two national HR certifications. He is also the co-lead editor of the book *How did we get here?: The decay of the teaching profession*, co-lead editor of the book *Leadership in turbulent times: Cultivating diversity and inclusion in the P-12 Education Workplace*, co-editor of the book *Leadership in turbulent times: Cultivating diversity and inclusion in the Higher Education Workplace*, editor of the *Journal of Education Human Resources*, and the Director of the Talent Centered Education Leadership Initiative. Prior to his professorship, Tran served as an HR practitioner in both the private sector and in public education. He draws from both experiences in his research and teaching.

Dr. Spencer Platt, University of South Carolina

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****This is a Work-In-Progress****

Introduction

With the presence of about 1.5 million faculty members as of 2020 (NCES, 2022) yet continued underrepresentation of Black and Hispanic faculty, it is important to understand why marginalization persists. This is especially the case at selective higher education institutions like R1 (Research 1) universities, particularly in science and math departments (Li & Koedel, 2017). When looking deeper at departments of engineering for example, we often find limited to no Black and Hispanic engineering faculty (BHEF) members (Nelson & Brammer, 2010). While there are recruitment challenges that shape the lack of BHEF, turnover represents a major problem, with the tenure and promotion process representing a major barrier for their continued employment (Whitaker et al., 2015). Understanding these barriers is crucial. The research question is: How are engineering faculty developing their faculty identity through the tenure and promotion process?

Conceptual Framework

To further understand faculty identity, the conceptual framework that the research team used for this study focused on faculty identity development (Laney et al., 2013, Rebold, 2003; Sklar, 2016). Understanding the move from student to professor, developing the faculty identity on the other side of the academic context differs based on intersecting identities (Laney et al., 2013, Sklar, 2016). Lieff et al. (2012) found that academic identity formation is affected by three major areas: personal, relational, and contextual concepts. Each area aimed to understand how their experiences affect their connections and interactions with others. These experiences contribute to levels of self-efficacy, motivation, and overall well-being for individuals, and to their development of their faculty identity (Lieff et al, 2012). These various sections are crucial to developing and enhancing their professional academic identity as they navigate other intersecting identities that may cause disruption in their workplace. Laney et al., (2013) also further describes how identity affects motherhood and the development of women and parent faculty, which can affect the workplace dynamic with further marginalization in engineering departments. These different intersecting identities can also be affected through their racial ethnic lens. With the various intersections that may arise, to understand how engineering faculty's identity is developing in their engineering departments, it is important to start to understand how pre-tenured faculty are navigating the tenure process.

Methods

To further explore these questions, this National Science Foundation (NSF) funded grant project team conducted a national cross-sectional survey and a phenomenological longitudinal two-interview series. Through this national cross-sectional survey, the survey included 1,161 engineering faculty. Out of these 1,161 survey respondents, there were 26 Black Faculty members and 51 Hispanic faculty members that responded. In these survey responses, the team analyzes the survey data, additionally coding the open-ended questions. The demographic information included 21 Black men, 5 Black women, 35 Hispanic men, and 16 Hispanic women.

To supplement the survey data, the team reached out to the respondents to conduct the phenomenological longitudinal two-interview series. In the first round of interviews, the team

conducted 14 interviews. The second interview included nine participants a year later. The team had three participants that did not complete the second interview. To make up for the attrition, there was a push for new participants that yielded one additional interview.

Table 1.0
List of Participants

Pseudonym	Level of TNP
<i>Monica</i>	TT-Track Non-tenure
<i>Carlos</i>	TT-Track Non-tenure
<i>Jenny</i>	Department Chair
<i>Robert</i>	TT-Track Non-tenure
<i>Andres</i>	Department Chair
<i>Denise</i>	TT-Track Non-tenure
<i>Eva</i>	TT-Track Non-tenure
<i>Jose</i>	TT-Track Non-tenure
<i>Jesus</i>	Department Chair
<i>Debbie</i>	TT-Track Non-tenure
<i>Marla</i>	Professor
<i>Santos</i>	Professor
<i>Kara</i>	TT-Track Non-tenure
<i>Gia</i>	TT-Track Non-tenure
<i>Alma</i>	TT-Track Non-tenure

Findings

Our finds are derived from the open-ended questions of the survey and the two series longitudinal interview data. There are three major themes that arose as we understand the development of faculty identity in engineering faculty: (1) The Importance of professional development and mentorship, (2) Understanding the Tenure and Promotion process in engineering departments, and (3) Developing a faculty identity during COVID-19.

The importance of Professional Development and Mentorship

In the interviews, each participant alluded to the mentoring and intentional faculty development settings needed for their success and growth as junior/early career faculty members. Quotes emphasize the areas of 1) a way to connect to senior faculty members in their fields/colleges, 2) Searching and keeping mentors from outside their institutions, and 3) Searching for opportunities to learn obtain information for requirements of Tenure and

Promotion. Andres, a Hispanic faculty member, mentions how important mentorship is for developing as a scholar.

“I think mentorship is very important. Being able to connect with a network of mentors, they have walked that path and can help them navigate some of the difficulties of the process is extremely important to me that will be absolutely number one.”

Andres mentions how giving mentorship and the ability to help mentors is crucial to him and for faculty to develop and gain identity development. Having positive mentorship interactions allows for early faculty individuals to have another support system as they navigate being on the other side of the academic fence.

Additionally, Eva, a Hispanic faculty member, also mentions the importance of mentorship while navigating the faculty development and mentorship program. Eva states, “I actually have a really good colleague slash friend slash mentor here at the university, who's also associate who's also in charge of our tenure promotion committee and he you know, he's watched it happen with other people before and so he definitely does his best to say, you know, you need to figure out a way to get out of that, and this is what I would tell you to say to do that or, you know, so I have people in my corner, who definitely are trying to help reduce that kind of workload.”

Eva has a mentor that understands the tenure process and is a support for her as she navigates the workload and faculty norms. Understanding the importance of mentorship in these experiences is crucial to understanding how faculty navigate the tenure process, especially with the lack of mentors that reflect their identities which promotes isolation.

Understanding the Tenure and Promotion process in Engineering Departments

Participants spoke in detail about the worries they had about the process. Some of the areas of concern are highlighted by a few select quotes. These quotes highlight the lack of clear guidelines and the added pressures that Black and Hispanic faculty endure during this process.

Jenny, Hispanic faculty, shares

“...I heard many challenges among assistant professors in some of the departments and some of the departments many assistant professors would leave before going for tenure. And I, you know, there is a lot of history about that. But I do think that mechanical engineering, more traditional old engineering, they have a hard time adapting to the way that women may be doing research [mixed-methods] little differently because it's different times.”

She understands that there are pressures that come from the departments. Similarly, Santos, a Hispanic Faculty member, shows how implicit bias plays a role in how the tenure process happens.

"Like I said, I don't know if I noticed anything. Like a general trend, if anything, I guess I would say there may be certain individuals [that have bias], but again, I think given a lot of these cases you know, hearing these individuals, I think it's always difficult to admit that there. But I think as far as like I said of these implicit bias, I think there's subconsciously doing things that they're maybe not fully aware they're doing..."

Santos shared “you know, the potential aggression towards especially female candidates when they're interviewing” to show how there is bias inside the bias getting into the tenure track.

Developing a Faculty Identity During COVID-19

As they are navigating the tenure process, there was a major underlying conversation that BHEF have mentioned obstacles that COVID-19 has presented as they navigated the early

career. Robert, a Black faculty member, mentioned how COVID affected the production of research.

“COVID is like crushed my research agenda. You know, kind of for the last year and a half. So, yeah, not is not a I think my track record is not where we wanted to be.”

Due to Robert’s research, direct human contact was not permitted due to the global pandemic. This affected the timeline and the production of publications, research groups, service, etc. that faculty members needed. These obstacles are especially hard having a Black faculty member due to the biases occur when having to submit their dossier.

In Monica’s, Hispanic faculty member, experience, this timeline push affected her mental state negatively as she got an extension on her tenure clock.

“I can’t think of any other job that like puts you in that scenario where you have to like, kill yourself for five, six years and then for them to like extend my anxiety because of COVID like I have another year I have to like go through all of this.”

Monica’s experience provides insight into the various barriers that COVID-19 increased. As a Hispanic woman as she carries multiple identities that caused her isolation and instability with extending the stress of being on the tenure clock longer by taking the extra time.

Conclusion

This study explores how faculty and academic identity is developed in engineering faculty through the tenure process. Furthermore, this study is to highlight and provide voices of the struggles that BHEF face through their development of their identity. With the importance of developing mentorship and professional development, to navigating the tenure and promotion process, and developing a faculty identity during COVID-19, these findings can further provide implementation opportunities for departments to support faculty in the terms of faculty identity development and impacts the recruitment and retention of Black and Hispanic engineering faculty. Additionally, future work would like to highlight the ways in which departments can mitigate the various challenges that BHEF face.

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