Meeting to transgress

The role of faculty learning communities in shaping more inclusive organizational cultures

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Abstract

Purpose – The purpose of this paper is to examine the role faculty learning communities (FLCs), a common ADVANCE intervention, play in retention and advancement; and the ways in which FLC spaces foster professional interactions that are transformative and support the careers of women, underrepresented minority (URM) and non-tenure-track (NTT) faculty in research universities.

Design/methodology/approach – The authors employed a mixed methods case study approach set at a large, research-intensive institution, which had received an NSF ADVANCE grant to focus on issues of gender equity in the retention and advancement of STEM faculty. Land Grant University implemented retention and advancement efforts campus-wide rather than only in STEM areas, including five FLCs for women, URM faculty and NTT faculty. The primary sources of data were retention and promotion data of all faculty at the institution (including the FLC participants) and participant observations of the five FLCs for five years.

Findings – The analysis of retention and advancement data showed that participation in FLCs positively impacted retention and promotion of participants. The analysis of participant observations allowed the authors to gain insights into what was happening in FLCs that differed from faculty's experiences in home departments. The authors found that FLCs created third spaces that allowed individuals to face and transgress the most damaging aspects of organizational culture and dwell, at least for some time, in a space of different possibilities.

Research limitations/implications – The authors suggest additional studies be conducted on FLCs and their success in improving retention and advancement among women, URM and NTT faculty. While the authors believe there is a clear professional growth and satisfaction benefit to FLCs regardless of their effect on retention and advancement, NSF and NIH programs focused on increasing the diversity of faculty need to know they are getting the return they seek on their investment and this line of research can provide such evidence as well as enhance the rigor of such programs by improving program elements.

Practical implications – FLCs offer higher education institutions a unique opportunity to critically reflect and understand organizational conditions that are not inclusive for groups of faculty. Professional interactions among colleagues are a critical place where academic and cultural capital is built and exchanged. The authors know from the authors' own research here, and from much previous social science research that women, URM and NTT faculty often experience exclusionary and isolating professional interactions. FLCs should be created and maintained alongside other more structural and cultural interventions to improve equity for all faculty.

Originality/value – The study's contribution to the literature is unique, as only a few studies have tracked the subsequent success of participants in mentoring or networking programs. Furthermore, the study reveals benefits of FLCs across different career stages, identity groups and position types (women, URM and NTT) and suggests the investment that many NSF-funded ADVANCE programs have made in funding FLCs has the potential to produce a positive return (e.g. more women and URM faculty retained).

Keywords Retention, Higher education, Faculty, Learning communities, Advancement

Paper type Research paper

> The academy is not paradise. But learning is a place where paradise can be created. The classroom with all its limitations remains a location of possibility. In that field of possibility we have the opportunity to labour for freedom, to demand of ourselves and our comrades, an openness of mind and heart that allows us to face reality even as we collectively imagine ways to move beyond boundaries, to transgress. This is education as the practice of freedom. (hooks, 1994, p. 207)

This passage from *Teaching to Transgress* highlights the nature of classroom spaces as liberatory for teachers and students while acknowledging that such spaces are not a utopia

and come with all of the trappings of organizational bureaucracy and the biases individuals bring to the classroom. Yet, author bell hooks pointed out that spaces can be crafted within higher education institutions to counter conditions of marginalization and imagine other ways of being. This perspective is consistent with notions of critical theory wherein people who have faced similar kinds of marginalization are brought together and engage in dialogue and practices that establish new collective meanings of what is possible (Abel and Sementelli, 2005; Gaventa and Tandon, 2010). This perspective also aligns with notions of third space, which have been applied to the study of ADVANCE programs overall (Cantor, 2011; O'Meara and Stromquist, 2015; Sturm, 2006), and other education and non-profit settings (Barton and Tan, 2009; Taylor *et al.*, 2014; Williams, 2013).

In this study, we sought to understand whether, how and why faculty learning community (FLC) meeting spaces may foster professional interactions that are liberatory and thus positively impact faculty retention, advancement and/or professional growth. We refer to FLCs as single, one-year, university-sponsored career development programs that bring together a group of faculty (such as women assistant professors) to meet regularly for knowledge-sharing, peer mentoring, and support. FLCs, which faculty join voluntarily, are intentionally designed to support women, underrepresented minority (URM), and non-tenure track (NTT) faculty by addressing elements of gendered, racialized and rankist academic settings. These communities, sometimes called peer networks or mutual mentoring programs, are popular in higher education and are among the most common initiatives enacted by ADVANCE programs (Hart, 2008; Kezar, 2014; Laursen and Austin, 2014; O'Meara and Stromquist, 2015; Sorcinelli and Yun, 2007; Terosky *et al.*, 2014). FLCs are documented in the literature as spaces where faculty have access to professional growth, personal development, community and collaboration, among other benefits (Cox, 2004; Glowacki-Dudka and Brown, 2007; Nugent *et al.*, 2008; Ortquist-Ahrens and Torosyan, 2009). In this study, we were interested in how FLCs act to support retention and advancement, and/or professional growth for their faculty participants, but also how and in what ways interactions in FLCs are liberatory.

By liberatory we mean setting someone free from a situation within which they were, or felt, restricted (Ringer, 2005). This could include release from a situation limiting behavior, thought, rules or a feeling of being dominated. Liberatory interactions also raise individuals' awareness of oppressive social conditions and empower them to work toward a more just society (Ringer, 2005). Liberatory professional interactions in academia may be interactions that free individuals from constraints they experience because of norms, implicit biases, or department policies and practices, and allow them to bring their full selves to the professional space. For example, faculty members of Color may experience racial bias in their department, which constrains their ability to feel like they fit into the department and will be able to succeed. In the FLC, this group of faculty members may have professional interactions that make them feel like they fit, that affirm their ability to succeed and connect them with allies. We are interested in how FLCs can help create environments that liberate faculty from constraining norms and professional interactions and provide opportunities to experience a more just, supportive work environment.

Understanding how FLCs shape liberatory professional interactions at work can help us gain insights into issues of retention, advancement and/or professional growth for women, URM and NTT faculty, a topic that has never been more important. US Census Bureau (2014) data from the US Department of Education's National Center for Education Statistics (2016) show that blacks, Hispanics and American Indians/Alaska Natives continue to be underrepresented in academia. In 2013, blacks accounted for 13 percent of the US population but only 6 percent of all full-time faculty at degree-granting postsecondary institutions; Hispanics accounted for 17 percent of the population but only 4 percent of faculty; and American Indian/Alaska Natives accounted for a little over 1 percent of the US population

but only 0.4 percent of faculty. While white women are well represented among faculty overall accounting for about 35 percent of the US population and of all faculty, they continue to be underrepresented among full-time faculty (26 percent). White and URM women are also underrepresented in higher-ranked, tenured positions. While women made up 50 percent of all assistant professors in 2013, they accounted for only 44 percent of associate professors, and 31 percent of full professors. Key reasons why women and URM faculty leave positions in academia include isolation, lack of peer networks and mentoring, professional interactions that devalue or dismiss accomplishments, and rigidity in conceptions of what it means to be a successful faculty member in a department, university and field (Gardner, 2012; Griffin *et al.*, 2011; O'Meara *et al.*, 2014; Rosser, 2004; Turner, 2002; Turner *et al.*, 2008).

NTT faculty are also a growing, but often forgotten, group in academia. While in 1969, 78.4 percent of faculty positions were tenure-track and only 21.7 percent were NTT, these numbers almost flipped by 2009 with only 33.5 percent of faculty positions being tenure-track and 66.5 percent NTT (Kezar and Maxey, 2013). In spite of their growing numbers, policies and procedures often fail to consider the unique needs of NTT faculty. NTT faculty report being treated as second class citizens because of their appointment type (Kezar and Maxey, 2013; Levin and Hernandez, 2014; O'Meara *et al.*, 2018). NTT faculty face weak systems of social support, few professional development programs to develop on-campus networks and low social integration (Fuller *et al.*, 2017; Waltman *et al.*, 2012).

FLC spaces have the potential to counter some of the challenges women, URM and NTT faculty face in their work environment by fostering different types of professional and personal interactions than the prevailing norms. Yet, little is known about what happens inside these spaces. The purpose of this study was to examine the role FLCs play in retention, advancement and professional growth for tenure-track faculty and professional growth for NTT faculty; and the ways in which FLC spaces foster professional interactions that are liberatory within the careers of women, URM and NTT faculty in one research university.

Guiding perspectives
In understanding the potential role of FLCs on faculty retention for marginalized groups, we were guided by two related literatures. We looked to the work of psychologists, sociologists, organizational theorists, feminists and critical race scholars who have studied the ways in which social-relational contexts, specifically in the form of professional interactions among organizational members, can marginalize groups and reproduce inequality (Acker, 2006; Bernal and Villalpando, 2002; Fuller, 2003; Griffin *et al.*, 2011; Ridgeway and Correll, 2004; Stout *et al.*, 2007; Turner, 2002; Turner *et al.*, 2008). We were also informed by research on third spaces that serve as liberatory environments where marginalized individuals feel that they belong and create positive and affirming personal and professional relationships (Barton and Tan, 2009; Cantor, 2011; O'Meara and Stromquist, 2015; Sturm, 2006). We used these bodies of literature to guide us in our exploration of what was happening within the FLCs we studied.

Professional interactions among colleagues play a powerful role in faculty retention, advancement and/or professional growth (Eagan and Garvey, 2015; O'Meara *et al.*, 2016) and are common sites where inequality between groups is reproduced or mitigated (Roos and Gatta, 2009). A lack of positive professional interactions also means a lack of social capital, as positive professional interactions are not only helpful as interpersonal support but carry with them career sponsorship, mentoring, information and allies (Christakis and Fowler, 2009; Ibarra and Deshpande, 2004; Kezar, 2014; Lin, 1999; Niehaus and O'Meara, 2015; Pifer and Baker, 2013; Seibert *et al.*, 2001). Women, URM and NTT faculty frequently report that their gender, race or position type negatively impact their professional

interactions with supervisors and colleagues, which makes them question whether they belong and can succeed in academia (Griffin *et al.*, 2011; O'Meara *et al.*, 2018; Terosky *et al.*, 2014; Turner, 2002; Turner *et al.*, 2008).

Experimental work in psychology has documented ways in which implicit biases, especially by gender and race, influence professional interactions and shape perceptions of faculty accomplishments and sense of competency (Grunspan *et al.*, 2016; Gutiérrez y Muhs *et al.*, 2012; Kanga *et al.*, 2016; Knobloch-Westerwick *et al.*, 2013; Moss-Racusin *et al.*, 2012; Steinpreis *et al.*, 1999). For example, research found that women and men STEM faculty are less likely to discuss research with women colleagues in hallways and impromptu meetings (Holleran *et al.*, 2011). Women faculty also note struggling with isolation and a lack of role models (Morimoto *et al.*, 2013; Stanley, 2006). URM faculty report micro-aggressions by race, with colleagues assuming URM faculty are incompetent (Solorzano, 1998; Sue *et al.*, 2007; UMass Lowell, 2012). NTT faculty describe experiencing isolation, disrespect, fewer on-campus networks, a lack of voice in decision making and a lack of resources (Kezar, 2013; Kezar and Maxey, 2013; O'Meara *et al.*, 2018).

The subtle forms of discrimination that shape professional interactions among women, URM or NTT faculty and colleagues can have serious consequences. Several studies show that out-group discrimination over time causes health problems, dissatisfaction and faculty departure (Gardner, 2012; Griffin *et al.*, 2011; Stout *et al.*, 2007; Thomas *et al.*, 2014). In one faculty study, women were found to be twice as likely as men to report experiencing stress due to subtle discrimination from faculty colleagues, and black faculty were two and a half times as likely (Hurtado *et al.*, 2012). This stress can impact faculty work, as faculty who experience more stress due to subtle discrimination were found to have lower research productivity (Eagan and Garvey, 2015).

Clearly, women, URM and NTT faculty face distinct challenges. Intersections of identities among these three and with other faculty sub-groups – such as being a STEM woman, a black assistant professor and a Hispanic NTT faculty member – also influence individual's experiences (Griffin *et al.*, 2011; Gutiérrez y Muhs *et al.*, 2012). By exploring programs created for women, URM and NTT faculty together, we do not dismiss the distinct challenges faced by each of these groups nor the intersectionality of their experiences. However, when it comes to negative professional interactions that these faculty experience in a research university environment, many of the stories have similar themes. In this paper, we want to highlight those similarities and focus on an intervention, FLCs, that has been utilized for all three groups: women, URM and NTT faculty.

In striving to understand FLCs as an intervention, we were informed by research on the role of third spaces in fostering liberatory professional interactions (Cantor, 2011; O'Meara and Stromquist, 2015; Sturm, 2006). Third spaces are separate from home and work, focus on community building and civil society, and are typically highly accessible, welcoming and comfortable (Oldenburg, 1991; Putnam, 2000). Cantor (2011) found that FLCs facilitated through the Syracuse University ADVANCE program serve as third spaces. FLCs for women that are interdisciplinary and cross-campus are especially good environments to nurture women faculty in STEM, as they naturally override the typical barriers of a chilly climate. Women are less isolated and less likely to feel like tokens in FLCs than in their departments where there is rarely a critical mass of women (Cantor, 2011). O'Meara and Stromquist (2015) likewise found that FLCs serve a third space function by creating an environment devoid of competition and individualism. In such spaces faculty find respite from alienating aspects of their department work environments. O'Meara *et al.* (2018) found that an FLC for NTT faculty helps NTT faculty navigate the process of trying to earn legitimacy in departments that are often organized to be hierarchical and rankist.

In this study, we were interested in the role FLC programs play in faculty retention, advancement and/or professional growth, as well as whether and in what ways interactions

within FLCs are liberatory for faculty. Whereas the explicit intention of the tenure-track FLCs we studied was retention to tenure-track positions and advancement (with tenure and promotion bids being successful); the NTT FLC was focused more on faculty professional growth and strengthening on-campus networks than retention and advancement per say. NTT faculty discussed promotion issues specific to their appointment type at some FLC sessions, but retention and advancement were less explicit foci because of the varied nature of NTT appointments (e.g. some looking to stay and advance, others holding temporary positions). Across all FLCs though, there was a goal of helping faculty find supportive professional interactions, role models and information that helped them transcend experiences they might have had more generally on campus or in their home departments. In other words, whether NTT or tenure-track all of the FLCs were intended to be liberatory.

As such, in this study, we sought to answer the following research questions:

RQ1. Do FLCs developed for participants with a common identity (e.g. for women assistant professors) improve faculty retention, advancement and/or professional growth experiences?

RQ2. What kinds of constraints and/or restrictions do members of marginalized groups share within these settings?

RQ3. What occurs within the FLC meeting space to help faculty overcome marginalized experiences, grow professionally and be retained within career and organization?

Methods
We conducted a mixed methods case study set at Land Grant University (a pseudonym, LGU hereafter). LGU, a large research-intensive institution with a research budget of about $500m and 38,000 students, received an NSF ADVANCE grant to focus on issues of gender equity in the retention and advancement of women faculty in the STEM fields. LGU implemented retention and advancement efforts campus-wide rather than only in STEM areas. The ADVANCE program, in partnership with the Provost's Office and the Office of Diversity and Inclusion, created FLCs – first for women faculty at assistant, associate and full ranks, then for URM women and men assistant and associate professors and full-time NTT faculty – out of recognition that the institution faced serious challenges in retention, advancement and professional growth opportunities for all of these groups. For this study, our primary sources of data were retention and promotion data and participant observations of the five FLCs at LGU for five years.

Retention and promotion data
We wanted to know whether FLC participants ($n = 265$) were more likely to be retained and promoted than their peers, who did not participate in FLCs ($n = 1,911$). To answer this question, we analyzed retention and advancement data of tenure-track faculty at LGU from 2010 to 2016 ($n = 2,176$), the period when the ADVANCE grant began and during which all FLCs were formed and implemented (see Tables I and II for participant demographics). We did not include NTT faculty in this analysis, as retention and advancement issues differ between NTT and tenure-track groups and, as mentioned earlier, these were not explicit foci of the NTT FLC in the same way. To control for faculty demographics and characteristics we included gender, race and rank in the analysis. Faculty of Color refers to non-international American Indian/Alaskan Native, Asian, black/African American, Hispanic and two or more races. International faculty ($n = 51$) and faculty of unknown race ($n = 183$) were not included in the analysis.

Resignation numbers ($n = 338$, 16.5 percent of the total 2010–2017 tenure-track faculty) did not include faculty who left for retirement reasons. Analysis of promotion included only those

who started at LGU between 2010 and 2017 as assistant and associate professors ($n = 1,187$). Of 1,187 assistant and associate professors, 30.3 percent ($n = 360$) were promoted between 2010 and 2017. Of all tenure-track LGU faculty between 2010 and 2017, 19.7 percent of faculty of Color participated in peer networks compared to 9.4 percent of white faculty ($p < 0.001$); 21.3 percent of assistant professors and 14.8 percent of associate professors compared to 4.8 percent of full professors ($p < 0.001$); and 32.4 percent of women compared to 2.4 percent of men ($p < 0.001$) (more of the FLCs were focused on women than men).

To analyze our data, we first calculated descriptive statistics to determine the overall numbers and percentages of resigned and promoted faculty. Next, we used Pearson χ^2 statistic to test the statistical significance of resignation and promotion differences between FLC participants and non-participants. Finally, we performed logistic regression analysis to test the relationship between FLC participation and likelihood of leaving or promotion, controlling for gender, race and rank.

Participant observations
To gain an in-depth look at what was happening inside the FLCs, we used participant observations. We had unique access to study and attend FLC meetings as the first and second authors were part of an ADVANCE program social science team studying the program. These two authors conducted participant observations of five FLCs at LGU for five years (see Table III). FLC participants were asked to grant permission to researchers to observe FLC meetings and

Gender		
Male	1,467	67.4%
Female	709	32.6%
Race		
White	1,459	75.1%
Faculty of Color	483	24.9%
Rank		
Assistant	653	30.0%
Associate	534	24.5%
Full	989	45.5%
Notes: $n = 2,176$. Rank level before promotion		

Table I. LGU tenured/tenure-track faculty demographics, 2010–2017

	Participants ($n = 265$)		Non-participants ($n = 1,911$)	
Gender				
Male	35	13.2%	1,432	74.9%
Female	230	86.8%	479	25.1%
Race				
White	137	59.1%	1,322	77.3%
Faculty of Color	95	40.9%	388	22.7%
Rank				
Assistant	139	52.5%	514	26.9%
Associate	79	29.8%	455	23.8%
Full	47	17.7%	942	49.3%
Note: Rank level before promotion				

Table II. LGU peer networks participants' ($n = 265$) and non-participants' ($n = 1,911$) demographics

Cohort	Number of participants	Number of observations	Focus groups
Keeping our faculties: year-long network of pre-tenure assistant professor women created to enhance agency in career advancement (meets monthly for 2 hours)			
2011–2012	11	5 of 8 meetings	5 focus groups
2012–2013	18	7 of 10 meetings	
2013–2014	16	8 of 10 meetings	
2014–2015	24	6 of 9 meetings	
2015–2016	20	5 of 9 meetings	
Advancing together: two-day workshop for women associate professors created to enhance agency in career advancement to full professor			
Winter, 2012	16	All of the workshops, for all 4 runs of the program	5 focus groups
2013	12		
2014	12		
2015	18		
2016	20		
Advance professors: year-long network of women full professors created to enhance their agency as college leaders and mentors as well as provide a set of mentors for more junior faculty			
Spring, 2011	13	5 of 5 meetings	6 focus groups
2011–2012	13	6 of 9 meetings	
2012–2013	13	6 of 9 meetings	
2013–2014	10	7 of 9 meetings	
2014–2015	11	10 of 10 meetings	
2015–2016	11	9 of 10 meetings	
Advancing faculty diversity: year-long network of assistant and associate Faculty of Color (men and women) created to enhance agency in career advancement			
2013–2014	21	9 of 9 meetings	3 focus groups
2014–2015	14	7 of 9 meetings	
2015–2016	12	6 of 9 meetings	
Advancing professional track faculty: year-long learning community of full-time non-tenure-track (men and women) created to enhance agency in career advancement			
2014–2015	24	7 of 9 meetings	1 focus group
2015–2016	25	6 of 9 meetings	2 focus groups
2016–2017	22	5 of 9 meetings	1 focus group

Table III.
Faculty learning community descriptions and data collected

report findings in aggregate through an informed consent process approved by the university's institutional review board.

When conducting observations, we utilized a semi-structured observation protocol that prompted us to take both descriptive and reflective notes. Our protocol was informed by our literature review (e.g. it cued us to look for aspects of a third space in the FLCs) but provided us space to actively look for data that may emerge in ways we had not anticipated (Fereday and Muir-Cochrane, 2006).

Participant observations are ideal when wanting to learn about the lives and cultures of individuals from their perspective (DeWalt and DeWalt, 2010). However, using participant observations as one's sole data source can potentially lead to misinterpreted comments and should thus be used alongside other data sources from the same participants (Corbin and Strauss, 2008). We conducted focus groups with FLC participants during their last session each Spring where we asked faculty to share their perspectives on experiences in both their home departments and the FLCs. We also shared initial findings from our observations and asked for FLC leaders and participants' reactions and feedback. Our data sources, thus, included not only what we observed at FLC meetings but also what participants themselves said at focus groups about their experiences. We continued data collection until we reached saturation in key themes, (Jones et al., 2006) which took approximately five years.

Data analysis
To analyze our data, we began by reading and rereading all of the transcripts and focus group data. Our coding process was iterative and involved "thematic memoing" on the research questions (Rossman and Rallis, 2003). Each author looked for themes alone before coming together to share the themes discovered through individual analysis. Related themes were then grouped together, and renamed if necessary, to begin coding. There was considerable consistency (e.g. no substantive contradictions) among the three researchers' identified themes. We then engaged in two rounds of coding. First, we marked excerpts where participants shared and/or we observed constraints or restrictions that participants faced in their home departments. In this initial round, we also marked excerpts wherein participants noted and/or we observed the experiences within their FLC as liberatory (e.g. freeing them from constraints and/or providing the opposite experience). For example, we coded the following professional interaction, as described by one participant, as liberatory: the participant had been told there was only one way to be successful in a bid for promotion to full. She came to an FLC session and was given several examples of faculty who were successful with different pathways. She felt released from her previously held perception that she would either need to conform to dominant norms or she would not advance. In a second round of coding, we grouped the aforementioned constraints in thematic categories; and we coded the kinds of experiences faculty noted and/or we observed in FLCs into categories. Table IV provides a description of our coding process and illustrative quotes embedded within each theme.

Findings
Our analysis of retention and advancement data showed that participation in FLCs was positively associated with retention and promotion of tenure-track participants. Analysis of participant observations then allowed us to gain insights into what was happening in FLCs that differed from faculty's experiences in home departments.

Impact of FLCs on retention and advancement
Controlling for gender, race and rank, FLC participation was found to decrease the odds of leaving the institution by 80.2 percent (see Table V)[1]. With Nagelkerke $R^2 = 0.077$, the model explained 7.7 percent of the variance: $\chi^2(5) = 84.106$, $p < 0.001$. Overall, LGU FLC participants were more likely to stay at the university than non-participants. Since Fall 2010, 6.1 percent of FLC participants have left the university, compared to 17.9 percent of non-participants ($\chi^2(1) = 23.230$, $p < 0.001$) (see Table VI).

We also found that FLC participation increased the likelihood of promotion by 64.1 percent, controlling for gender, race and rank (see Table V). With Nagelkerke $R^2 = 0.038$, the model explained 3.8 percent of the variance: $\chi^2(4) = 27.597$, $p < 0.001$. Overall, LGU FLC participants were more likely to get promoted than non-participants. Since Fall 2010, 36.7 percent of the assistant and associate professors who participated in FLCs have been promoted (to associate or full professor rank), compared to 28.9 percent of non-participants ($\chi^2(1) = 5.126$, $p = 0.024$) (see Table VI).

Inside meeting spaces
Participants shared that in their home departments and colleges, they experienced isolation and professional interactions that were shaped by implicit bias; models of success that did not fit their realities or passions; and prevailing norms that suggested they could not bring their full selves to their workplace. Alternatively, participants shared and observation data revealed that FLCs fostered affirmation and resonance with peers; encouragement to pursue

Theme	Illustrative quote or observation notes
1st round of coding	
Constraints experienced	An APTF participant explained that she had intentionally chosen a professional track faculty job, part teaching/research, part administration, but many of her colleagues in her department thought she was just waiting around to apply to a "legitimate" job, another tenure-track job. She had decided in fact that she wants a professional track faculty CAREER not just job, but "I don't know how to navigate this as a career"
	ADVANCE professors describe how exhausting and isolating it can be if your research and or methods do not fit the paradigm in your department to "do that education to colleagues yourself" about what journals matter, what funding agencies, etc.
Faculty learning community third space experiences	An Advancing Together participant shares, "After hearing what [name of well-known successful STEM women faculty] went through and didn't get it, but went back again and did, I thought I am going to go back and see. I thought her speaking was just inspirational, a nontraditional trajectory"
	"One of the things I have loved about ADVANCE in the last year is having a context for talking with colleagues about how we balance our personal and professional lives"
	"It has given me a sense of resiliency to know that we are all struggling"
2nd round of coding	
Constraints	
Isolation and professional interactions that were shaped by implicit bias	In introducing themselves at the first APTF session, a participant shares experiences of feeling "invisible" in her department
	"I've struggled to find good mentors"
	A member of the AFD program mentions she was frequently in department and college discussions where her position was described as a "minority hire"
Models of success that did not fit their realities or passions	NTT faculty shares: "My career trajectory in my department is considered illegitimate […] but to me, it isn't"
	One ADVANCE Professor says she had been mentored to be like someone else. "I was told to be another person. Be like her"
Prevailing norms that suggested they could not bring their full selves to their workplace	An associate professor shares that in a department meeting, when conversation turned to writing and resiliency, she shared that she had an article rejected. After the meeting, a senior colleague stopped her and said, "Never do that again. Never announce publicly in front of people you want to vote positively on you for promotion that you have had work rejected"
	One AFD participant noted that she struggled to "make academia engage all of who I am"
Liberatory professional interactions inside FLCs	
Affirmation and resonance with peers	"Hearing other people's stories was so helpful – Hey, I have chaos too! Kids are kicking my butt. It is a comfort to know you are not alone"
	At the start of each FLC meeting, the facilitator highlights faculty, who received a grant, published a paper, or had another professional or personal success to celebrate. Facilitator also asks if there are any accomplishments to celebrate to make sure nobody's successes are missed
	A KOF participant shares, "My graduate student had a paper accepted." The facilitator affirms, "You know that is really important. It matters for tenure that you are mentoring"

Table IV.
Illustrative quotes and observations from coding rounds

Theme	Illustrative quote or observation notes
Encouragement to pursue varied pathways to success	"I liked hearing from the fulls about their career trajectories. All the women showed very different stories, which contributed to the concept that achieving full is doable and that there is not one right way to do it"
	At the NTT faculty learning community, the facilitator says, "there should be and is a very positive way to describe your role," not "she just does everything tenure-track faculty don't do"
	Full professor shares with associate professors at FLC meeting that she was turned down the first time for promotion. She is the mother of four children and chose to spend time with her family. Her productivity was steady but not spectacular. After she was turned down, she was embarrassed and frustrated but a few years later, she went up for promotion again and this time she received the promotion
A sense that faculty could bring their full selves into view during FLC interactions	Woman faculty shares at FLC meeting: "I have been married 18 years and […].we are good. And that is an accomplishment"
	Guest speaker, who is known for her accomplishments in teaching, shares: "I had flipped the classroom, done something completely different. I got my evaluations back and one of the students had said, 'it was a big sucking black hole'"
	Facilitator, who is a well-known scientist and accomplished scholar, shares that she had many experiences of getting into the final round of grants but then not getting the grant. She admits how frustrating that can be

Table IV.

Variable	Resignation			Promotion		
	B	SE	Exp(B)	B	SE	Exp(B)
Faculty Learning Communities	−1.619	0.262	0.198***	0.495	0.186	1.641**
Female	0.369	0.144	1.446*	−0.483	0.151	0.617**
Faculty of Color	−0.062	0.149	0.940	0.221	0.143	1.247
Assistant Professors	0.915	0.150	2.498***	0.464	0.134	1.591**
Associate Professors	−0.224	0.178	0.799	–	–	–
Nagelkerke R^2		0.077			0.038	

Notes: Assistant professors are compared to associate professors in promotion. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table V.
Summary of logistic regression analysis for resignation and promotion

	Resigned		Promoted[a]	
	n	%	n	%
Participants ($n = 265$)	16	6.1	80	36.7
Non-participants ($n = 1{,}911$)	321	17.9	280	28.9

Note: [a]Promotion numbers include only those who started at assistant and associate ranks between 2010 and 2017

Table VI.
Resigned and promoted LGU faculty, 2010–2017

varied pathways to success; and a sense that faculty could bring their full selves into view during FLC interactions. These themes are summarized in Table IV.

Each of the constraints described and liberatory professional interactions fostered by FLCs were present across all FLCs, each of the five years we studied the program.

However, the circumstances under which the theme was expressed differed at times by program and group. For example, women associate professors noted that they felt pressure within their departments to make a bid for promotion based on a fast-paced timeline and narrow description of research success; yet within their FLC they met women full professors who took longer to go up for promotion and had contributions more balanced across teaching, research and service roles. Whereas for NTT faculty this same constraint was experienced more as department colleagues assuming their goal was to get out of an NTT position and into a tenured position as soon as possible; yet, within their learning community these faculty met more senior NTT faculty who found success in their NTT role by taking on new leadership roles on campus and/or moving up within NTT promotion ranks. We note such variations in themes as they played out in each section.

Constraints. Participants shared that they often experienced isolation or professional interactions shaped by implicit bias because of them being in the minority or because of the structure of their position. In FLC meetings, women and URM faculty expressed feelings of being weighted down as "the only" person like them in their department. NTT faculty reported that the structure of their position provided few opportunities to interact with others in the department, particularly other NTT faculty. These feelings of isolation and being different influenced participants' ability to engage in positive professional interactions. For example, a female faculty member of Color shared the following story at an FLC meeting: in department meetings or when attending other departmental events, she would look around and not see anyone who looks like her. "I'm the only person of Color," she explained, "or at least the only person that you can see is a person of Color." Being in the minority, she often did not feel comfortable speaking up, though later, she would get angry at herself for not saying anything.

When participants did interact with colleagues, these interactions were often shaped by implicit bias. For example, a female faculty member of Color shared at an FLC meeting: she and a male white colleague were both up for a fellowship. When she received the fellowship, he said to her, "They must have been looking for a woman." The female faculty member said she realized she would probably have needed twice the accomplishments for him not to think that. She noted that it was not the first time that her accomplishments were tied to her gender or race, but what stunned her most was that her colleague made this comment to her face. "The fact that he said that – he must have thought that was okay." Other examples of interactions shaped by implicit bias that were discussed in the FLCs included questioning of participants' legitimacy, downplaying their accomplishments or denying access to opportunities or resources.

Participants also felt frustrated that professional interactions were often constrained by mentors, role models, and administrators emphasizing models of success that did not fit their realities or passions. For example, NTT faculty were assumed to be looking for a tenure-track position. One NTT faculty, who intentionally chose an NTT position said, "My career trajectory in my department is considered illegitimate […] but to me it isn't and I wanted to find others." Women and URM faculty in tenure-track positions also experienced this idea of only "one" way to succeed. They shared instances of having been told not to have children until after getting tenure or not to do interdisciplinary research or engaged scholarship because colleagues would not accept it.

In FLC meetings, participants also shared that professional interactions were hampered by prevailing norms that suggested they could not bring their full selves to the workplace. Participants felt that they needed to pretend to be the "ideal worker," one with no outside commitments or priorities who never experienced any failures. For example, in one FLC meeting, an associate professor shared the following experience: in a department meeting, the conversation had turned to writing and resiliency. During the discussion, the issue of

article rejection and the need to assist students in gaining resiliency in the process came up. The associate professor agreed and mentioned that she recently had an article rejected. After the meeting, a senior colleague stopped her and said, "Never do that again. Never announce publicly in front of people you want to vote positively on you for promotion that you have had work rejected." This associate professor and other participants, who had been told not to share certain aspects of themselves (e.g. related to family and non-work life), felt that having to hide these parts constrained their ability to be "real" with colleagues in their own department and develop meaningful professional relationships.

Liberatory professional interactions inside FLCs. FLCs fostered affirmation and resonance with peers. Participants noted that they did not feel a sense of competition in the FLCs; on the contrary, observations revealed a supportive culture among participants where each other's accomplishments were celebrated. For example, many meetings started with the sharing of good news. The facilitator would highlight faculty who had received a grant or had a paper published in front of the whole group. Everyone applauded and congratulated each other. The facilitator also asked if there were other accomplishments to celebrate to ensure that nobody's successes were missed. Faculty appeared genuinely excited for each other. It was common across all FLCs in these moments for faculty to smile broadly when hearing other's good news and call out phrases of positive reinforcement. An ADVANCE professor noted, "Being involved with this ADVANCE group has been especially helpful, as it makes me feel like there are other people out there who care about the things I'm interested in and who value what I do." Participants also shared that in FLCs they found others who faced similar challenges and whose experiences resonated with them. For example, a woman faculty member shared, "Hearing other people's stories was so helpful – Hey, I have chaos too! Kids are kicking my butt. It is a comfort to know you are not alone." Similarly, a faculty member of Color explained, "It's freeing when you talk about issues of micro-aggressions among people of Color because you get the support – with others, you are concerned you won't get the support." Faculty shared that experiencing this resonance with peers and receiving affirmation positively influenced their experiences at LGU and encouraged them to stay.

In FLCs, participants felt encouraged to pursue varied pathways to success that fit their realities and passions. FLC facilitators and presenters were often senior women, URM or NTT faculty who were respected on campus and considered successful. At FLC meetings, these individuals shared their own paths to success, which were often non-traditional and involved challenges and setbacks. Reflecting on one of these sessions during our focus group, an associate professor said, "I liked hearing from the Fulls about their career trajectories. All the women showed very different stories, which contributed to the concept that achieving full is doable and that there is not one right way to do it." When participants questioned if the path they had chosen or wanted to choose could lead to success, facilitators were quick to respond with affirmation and encouragement. For example, at one FLC meeting, an assistant professor woman questioned if she could be successful because of her background and the unique path she had chosen. The facilitator responded by sharing that she had been "different" in her college by virtue of her educational background and added, "Different is good, different means you bring something no one else does." Likewise, NTT faculty were reminded by facilitators and colleagues that their position type did not mean they were unsuccessful or on the "wrong" path. After noticing that NTT faculty tended to describe themselves and their role using the words, "I just" do this or that, the facilitator asked participants to articulate the important contributions they make to the university in a short description or "elevator speech." During this session, the facilitator said, "there should be, and is, a very positive way to describe your role," not "she just does everything tenure-track faculty don't do."

This reminded NTT faculty that success in academia did not need to include the tenure-track, and that their contributions as NTT faculty were important.

Professional interactions in FLCs were shaped by a sense that faculty could bring their full selves into view. Observation data showed that in FLCs, faculty were encouraged to talk about all aspects of their life including family, non-work lives and struggles faced. For example, at one FLC meeting, a woman faculty member shared, "I have been married 18 years and […] we are good. And that is an accomplishment." Other participants clapped to show their support for how she prioritized her marriage. Bringing their whole self to professional interactions also meant talking not only about successes but also failures and struggles. Observations revealed that in FLC sessions failure was discussed as something necessary to reach success. During one of the FLC meetings for assistant professor women, a guest speaker, who was known as an award-winning teacher on campus shared how failure led to success. She told the group: "I had flipped the classroom, done something completely different. I got my evaluations back and one of the students had said, 'it was a big sucking black hole.'" Immediately following this admission, we observed the entire room light up with resonance and questions. Assistant professor women shared stories of trying new things that negatively impacted teaching evaluations and how scary that was – and never being trained to be a good teacher in graduate school and struggling. Participants' responses and non-verbals indicated obvious relief and appreciation from participants in the room about being able to be "real" with colleagues and discuss both teaching accomplishments and struggles.

FLCs also fostered a general sense that faculty were not alone by virtue of their gender, race or rank; rather, they had a group of allies and a network on campus through FLC participation. Connections forged at FLCs went beyond the FLC meetings. A woman full professor explained, "I [now have] a really strong senior faculty woman network for myself, and that's something I never knew I was missing, but my God, I feel like I could call up on any one of these women now and say, I've got a problem. Can you help me? You know I might not need to go to the ombudsman next time." By fostering affirmation and resonance with peers, providing encouragement to pursue varied pathways to success, and creating a sense that faculty could bring their full selves into view, FLCs allowed for professional interactions that liberated women, URM and NTT faculty from the constraints that they experienced in their home departments. In the FLCs, faculty felt supported and valued and started to believe again that they could succeed in academia.

Discussion and implications

Our findings indicate that, while no utopia, FLCs provided a liberatory space for women, URM and NTT faculty, which positively influenced retention, advancement and/or professional growth. Our study's contribution to the literature is unique, as only a few studies have tracked the subsequent success of participants in mentoring or networking programs (e.g. Blau *et al.*, 2010; Thorndyke *et al.*, 2006). Furthermore, our study reveals benefits of FLCs across different career stages, identity groups (women, URM) and appointment types suggesting the investment that many NSF-funded ADVANCE programs have made in funding FLCs has the potential to produce a positive return (e.g. more women and URM faculty retained in the STEM fields). Granted, participants in FLCs were not randomly assigned to participation and our study did not include established control groups. Therefore, participants may have been those already most likely to be retained and advanced (who do all the right things). However, this argument is counter-balanced by the lower retention rate for women and URM tenure-track faculty in higher education in general as well as at LGU. Our findings thus suggest that FLCs "have legs" as one of a series of interventions to advance women and URM faculty in STEM and non-STEM fields.

Turning to how and why the FLCs we studied were successful in retaining and advancing faculty, we found that, as previous research suggested, the FLCs created "third spaces" for participants within the university (Cantor, 2011; O'Meara and Stromquist, 2015; Terosky *et al.*, 2014). In their home department and colleges, professional interactions with colleagues constrained participants' ability to succeed. Consistent with much prior work, we found that faculty faced isolation and professional interactions shaped by implicit bias (Eagan and Garvey, 2015; Gardner, 2012; Griffin *et al.*, 2011; Grunspan *et al.*, 2016; Gutiérrez y Muhs *et al.*, 2012; Kanga *et al.*, 2016; Knobloch-Westerwick *et al.*, 2013; Moss-Racusin *et al.*, 2012; Turner, 2002), a pressure to conform to a singular pathway to success (O'Meara, 2015; Terosky *et al.*, 2014) and an inability to be authentic at work and in their interactions with colleagues (Stanley, 2006; Turner *et al.*, 2008). It is important to recognize that FLCs were not created to systematically change realities back in departments, other than through new perspectives and actions of participants and information shared among colleagues. FLCs, thus, do not and cannot replace campus-wide interventions that try to change those cultures (e.g. mandatory sexual harassment training, implicit bias trainings, policy reform and required mentoring programs). What FLCs did was create a space, away from the department, where faculty found a supportive community and could engage in professional interactions that provided them with support, affirmation and encouragement.

One of the reasons why FLCs were able to foster liberatory professional interactions that supported faculty retention, advancement and/or professional growth may be by virtue of their structure and membership. Since participants came from across campus rather than one department, faculty were not in a group in which they would be evaluated in or within which they would compete for resources and recognition (Blackburn and Lawrence, 1995; O'Meara, 2011). This structure allowed faculty to bring their whole self to work and to share their struggles and failures, without fearing repercussions. FLC membership was also focused on identity and appointment groups (e.g. URM faculty, women assistant professors and NTT faculty) which meant by definition, no participant would be the "only" URM or woman or NTT faculty member in the group – rather they would be part of a majority, reducing the chances for feelings of isolation. The reality of intersectional identities suggests that some members could have experienced being the "only one" by being, for example, the only woman of Color first generation academic in the group, or the only gay Latino assistant professor. However, based on our observations and what participants shared with us, the solidarity and relief participants experienced by being in the majority (for at least one identity group) seemed to outweigh feelings of isolation. It is important to note that LGU's FLCs were cross-campus networks, which meant that women and URM faculty participants from STEM areas were able to leave departments with low numbers of women and URM faculty and find resonance and establish networks with other STEM and non-STEM faculty. NSF ADVANCE funding often has restrictions that can seem to prevent cross-campus efforts. However, campuses can provide in-kind support, essentially funding the non-STEM participants in the same activities. In this way, STEM faculty can benefit from being part of these wider campus networks with a greater critical mass of women and URM faculty.

We recommend future research build on this study. Specifically, we hope institutions with FLCs keep track of faculty participation and subsequent retention and advancement similar to the way faculty affairs data systems currently track post-tenure review, parental leave and grant awards. We are encouraged by work in the last 10 years exploring the impact of implicit bias trainings on hiring outcomes (Carnes *et al.*, 2012; Isaac *et al.*, 2009; Jackson *et al.*, 2014; Sheridan *et al.*, 2010). Here the cost of training (e.g. time and effort) is compared to subsequent success in the diversity of faculty hired. Likewise, while we believe there are clear professional growth and satisfaction benefits to FLCs regardless of their effect on retention and advancement, NSF and NIH programs focused on increasing the diversity of faculty need to know that they are getting the return they seek on their investment. This line of research can

provide such evidence as well as enhance the rigor of such programs by providing data on the efficacy of program elements. We would also like to see analysis of the benefits of FLCs organized by identity and appointment type as compared to FLCs organized around particular areas of faculty work such as teaching with technology or with high impact practices. Institutional type and context matters in such analyses. Part of the reason identity and appointment type FLCs were important at LGU was because it is a large and decentralized institution. Smaller campuses, where it is easier to build networks, may not experience FLCs as value-added to the same degree or in different ways. Future research might make such comparisons across institutional types in a state system.

Our study has implications for academic administrators and senior faculty working to retain faculty and create more inclusive academic cultures. FLCs offer higher education institutions a unique opportunity to critically reflect and understand organizational conditions that are not inclusive for certain groups of faculty. Malcom-Piqueux *et al.* (2017) observed that equity is "proportional representation" in "experiences and activities that build […] academic and cultural capital" (p. 1). Professional interactions among colleagues are a critical place where academic and cultural capital is built and exchanged. We know from our own research here, and from much previous social science research, that women, URM and NTT faculty often experience exclusionary and isolating professional interactions within their departments and colleges. Cross-campus FLCs should be created and maintained alongside other more structural and cultural interventions to improve equity for faculty within their home units. While higher education works to become more inclusive, FLCs offer a space for individuals to face and transgress the most damaging aspects of organizational culture and dwell, at least for some time, in a space of different possibilities.

Note

1. Exp(*B*) indicates the odds ratio (see Table V). For example, for assistant professors the odds of resigning are 2.498 times higher than for full professors. Variables with a negative *B* (and thus odds ratio value less than 1) are associated with lower odds and calculated as $1-\text{Exp}(B)$. In this case, FLCs ($B = -1.619$, $\text{Exp}(B) = 0.198$) means that participation in FLC is associated with lower odds of leaving the institution precisely by 80.2 percent ($1-0.198 = 0.802$).

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