

Designing Accessible and Inclusive Professional Development for NTTF



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A resource created by The Delphi Project on the Changing Faculty and Student Success pullias.usc.edu/delphi

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Recommended citation for this report: Culver, KC, & Kezar, A. (2021). Designing accessible and inclusive professional development for NTTF. Los Angeles, CA: University of Southern California, Pullias Center for Higher Education.

Introduction

A changing context

One of the main lessons from the recent pandemic is the importance of professional development for all faculty. And campuses responded with hundreds of online webinars and asynchronous modules about how to move teaching online, create active online modalities, engage students in an online environment, provide meaningful feedback for new kinds of assignments, and the like. It was a historic shift for higher education to offer faculty development so broadly – not just to a select group. Previously, institutions typically focused on those tenure-track faculty identified for having teaching challenges or tenure-track faculty involved in the scholarship of teaching and learning, whereas recently there has been a recognition that non-tenure-track faculty (NTTF), including part-time NTTF who are often called adjuncts, also benefit from professional development opportunities. The ways this broader offering of professional development enhanced the capacity of higher education has not been measured or quantified to date, but anecdotal accounts suggest that faculty realized the benefits of professional development, NTTF enjoyed being included, and administrators are rethinking their investment in instruction. This post-pandemic context provides an opportunity to address long-standing problems in higher education, problems that are particularly prevalent within STEM education, including that professional development has not been a professional norm and NTTF have been actively excluded even though they teach a majority of courses.

Background on the problem

We begin by reviewing two key issues that set the stage for this study of the professional development of non-tenure-track faculty members, with a focus on STEM education: the rise of non-tenure-track faculty and the suboptimal teaching and learning environment in STEM education.

Higher education has fundamentally shifted the nature of its workforce in the last 20 years from mostly full-time, tenure-track to mostly contingent full- and part-time NTTF, who now make up 70% (52% part-time and 18% full-time non-tenure-track) of all faculty (American Federation of Teachers, 2009; Finkelstein et al., 2016). Contingent faculty are classified either as part-time or full-time, but all NTTF. Part-time faculty, often termed "adjuncts," usually teach less than a full load, and may be employed at several institutions simultaneously. While numbers vary at different institutions, contingent faculty make up an average of 50% of total faculty across most institutional types, including research universities (Finkelstein et al.). New hires (3 out of 4 nationally) across all institutional types are now NTTF, and this number will continue to grow unless trends change (Finkelstein et al.). Nationally-representative data on NTTF in STEM fields is limited, due to the discontinuation of the National Survey of Postsecondary Faculty (Finkelstein et al.). Data from the NSF's 2019 Survey of Doctorate Recipients suggests that among doctorate holders employed by four-year institutions in the U.S., 39% were in contingent positions (including those with research, teaching, or adjunct appointments, postdocs, and research and teaching assistants). This percentage varies within STEM fields; only about 25% of faculty in math were NTTF, while 42%

of faculty in the physical sciences and 50% of faculty in biological, agricultural, and environmental life sciences were NTTF. However, changes in STEM faculty numbers between 2010-2019 reveal a telling story. While there has been a 17% increase in the total number of STEM faculty, the number of tenure-track roles has only increased 8% while the number of NTTF roles has increased 68% (NSF, 2010, 2019).

Book-length summaries have documented the poor institutional policies and practices related to NTTF, particularly adjuncts in STEM; they often have limited or no access to orientation, professional development, or mentoring; evaluation or feedback; office or work space; secretarial or administrative support; computer or phone; support services (copying or media); input to department decisions; clear guidelines about their work; and opportunities for promotion or a career track. Existing support structures tend to be offered during regular business hours when NTTF may not be on campus. And the list goes on (Kezar & Sam, 2010; Kezar & Maxey, 2016). In addition, some very key policies and practices have been demonstrated to shape NTTF performance and student outcomes. Contingent faculty typically do not have stable teaching appointments and office hours that permit effective planning and preparation (Kezar, 2013a). Reviewing and selecting course materials in order to design, redesign, or update curricula requires time and participation that contingent faculty may not have or are excluded from due to their non-tenure-track status. NTTF that are not included in departmental decisions are less

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able to contribute to the development of course syllabi and the structuring of courses that best fit personal teaching styles (Kezar, 2013b). Hence, NTTF may be less likely to make important connections to course content and learning objectives, at a time when many institutions are moving to departmental and program-based learning outcomes where individual courses are expected to contribute to an integrated curriculum. As a result, the working conditions of contingent faculty make it more difficult to develop effective or diverse instructional strategies to meet students' academic needs. For these reasons, lack of time devoted to course content may also create limitations on the delivery and clarity of course content. Contingent faculty members also may have limited understanding of the course

goals and the relationship of these objectives to broader program or college goals. NTTF may have minimal time to prepare for classes and are often hired days before the class starts (Kezar, 2013a).

The lack of resources invested in NTTF interferes with their ability to be excellent educators and community members. Thus, if NTTF wish to become familiar with the campus, they must often take the initiative themselves. Getting to know the ins and outs of their departments also becomes an exercise in trial and error. Without formal mentoring opportunities, contingent faculty must hope (if they have the time for concerns about growth) that they are able to find individuals around them who are willing and able to share insights and invest time in them. Without opportunities for feedback and evaluation, contingent faculty are often unable to place their own teaching and scholarship within the context of the work being done at their employing institution or find aspects of their teaching that they should emphasize and others

they should limit. Contingent faculty are thus frequently left without a compass in STEM departments. The accumulation of poor working conditions and lack of supportive infrastructure has led to a phenomenon called "lack of opportunity to perform," essentially creating an environment in which NTTF are barred from educating to their potential and frequently experience burnout from overcompensating for their poor working conditions (Kezar, 2013c). Certainly, every institution varies, but these generalized patterns speak to an overall need to rethink campus policies and practices to better support STEM faculty and their professional development.

STEM education has long been an area where student success is low and concerns about instruction high, where passive and

unengaging forms of teaching and learning are common (American Association for the Advancement of Science, 2011; Howard Hughes Medical Institute & Association of American Medical Colleges, 2009). For decades, reports point to solutions, such as faculty learning to use engaging and evidence-based pedagogies as well as to teach to a diverse student body. Suboptimal pedagogical practices have long been cited as one of the key reasons that students leave the STEM disciplines (Seymour & Hewitt, 1997). Furthermore, evidence-based teaching practices that support student learning have been identified in an abundant body of literature (National Research Council, 2012), but are not used regularly by STEM faculty. But this challenge of scaling evidence-based teaching practices in STEM is only becoming more difficult as the faculty hired in STEM are increasingly contingent, especially when professional development opportunities are designed for tenure-track faculty.

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Professional Development Support for NTTF

Even though these challenges exist for NTTF, there has been very limited research about offering professional development for NTTF, including ways it might be modified or designed with this specific population. And professional development options have expanded in recent decades based on research about varying approaches that are more promising. It is important to understand how to design professional development for NTTF as well as explore the expanding suite of professional development options being offered, including faculty learning communities that have been particularly promising in improving STEM education.

Faculty learning communities (FLCs) are one successful strategy that has been developed to support faculty in adopting evidence-based teaching practices over the last decade. FLCs are groups of faculty who meet regularly to discuss their professional practice. FLCs typically last a year or two and involve a combination of reading together as well as engaging in changes and professional practice such as teaching techniques or curricular approaches, including the adoption of high-impact practices. For example, recent FLCs have been formed to help faculty implement anti-deficit achievement

frameworks (Aronson et al., 2018), new teaching approaches based on learning science (Desjarlais et al., 2018), and improved neuroscience education (Shibley & Dunbar, 2018).

Various studies have shown FLCs are more effective than one-time workshops in equipping faculty to change their approach to teaching (Cox, 2004; Kezar, 2015). Successful FLCs have resulted in tangible changes in individual instruction practices and institutional endorsement for the creation of FLCs (Nugent et al., 2008). Faculty report gaining new teaching strategies, stronger collegial networks, and a deeper understanding of their students (Glowacki-Dudka & Brown, 2007). FLCs have helped faculty understand the co-constructed nature of learning and develop inclusive pedagogies through enhanced use of digital technology and universal design principles (Layne et al., 2002; Nugent et al., 2008; Ward & Selvester, 2012). Research also shows that STEM-specific FLCs provide an opportunity to help faculty develop greater awareness of research in STEM education, collaborate with one another, engage in teaching experiments, and reflect on pedagogy (Nadelson, 2016; Nadelson et al., 2013; Nugent et al., 2008). Nugent et al.'s (2008) evaluation of a STEM FLC found a positive impact on faculty teaching skills and effectiveness. As higher education increasingly turns to online teaching, scholars have also identified virtual FLCs can support online course instructors and improve faculty teaching (Mohr, 2016; Sherer et al., 2003; Velez, 2010).

Components of successful campus-based FLCs include sustained and frequent participation by a small group of committed faculty (e.g., a year-long commitment with bi-weekly meetings). The combination of campus-based expert mentorship and training along with active input from faculty participants on topics and activities can be effective in designing a relevant learning community. Additional essential components include explicit dialogue on teaching, guidelines and opportunities for pedagogical experimentation, resources on teaching, labs for hands-on learning and experimentation with pedagogy, and a high degree of collaboration and discussion of successful strategies among teachers (Hardré et al., 2014; Layne et al., 2002; Nugent et al., 2008; Ward & Selvester, 2012). Research on faculty who teach online indicates this group benefits from professional development as well. Mohr (2016) and Velez (2010) identified several areas

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to enhance online faculty instruction, including onboarding and ongoing training on pedagogy and learning technologies. Online faculty also desire mentorship, a central online hub of resources, and training opportunities—goals that mirror those of face-to-face FLCs (Velez, 2010).

Yet FLCs have been primarily created for tenure-track faculty members. In this study, we wanted to explore campuses that have modified their professional development options to be more inclusive of NTTF and included FLCs as an option for NTTF. To date, there have been no studies of professional development specifically designed for NTTF and the ways that initiatives can be modified to suit their contract, time availability, and other specific needs.

Study Overview

Our study was designed to overcome this gap in the literature by identifying campuses that have altered their professional development to specifically meet the needs of NTTF. The overall methodology was a qualitative research design utilizing interviews and document analysis. We identified campuses for study based on recommendations from the POD Network, a national organization of professional and organizational development specialists. This professional organization has a special interest group focused on supporting adjunct faculty that provides awards for campuses that are trying to experiment and innovate to support NTTF through professional development. We met with the leadership of the special interest group, who shared a list of campuses that had received awards for developing and evaluating FLCs for adjuncts. These awardees provided us with a list of high-quality professional development initiatives, including various models of FLCs designed for NTTF. In addition to this identification of campuses through a national organization and award, we also used snowball sampling of campuses from interviewees that were familiar with other institutions that had also created professional development initiatives for NTTF.

We identified 14 campuses for interview, presented in Table 1 (page 7). The 14 campuses represent a diverse set of institutions, including control (public or private), type (associates, bachelors, masters, or doctoral institution), mission (research-focused, teaching-focused, or comprehensive), and location (rural, suburban, or urban). At these campuses, we typically interviewed the director or other staff members in their Center for Teaching and Learning (CTL; a term we use to refer to these centers even when specific campuses have named them differently), as well as other individuals that those leading professional development efforts recommended we speak with. For example, at some campuses, we also spoke to an individual who had a role advocating for NTTF members on the campus and administrators such as department chairs and associate deans who assisted with professional development on some campuses. And at other campuses, we spoke with some of the NTTF who had helped with the planning or participated in the programming. We also interviewed individuals coordinating professional development at the system level and those leading efforts at an independent organization that offers certification programs used by some campuses. The total number of interviewees was 29 individuals across 14 campuses.

We developed an interview protocol based on the literature on professional development for faculty, asking interviewees about the types of initiatives they offered with a focus on designs that offered NTTF opportunities for sustained engagement with colleagues around instructional improvement. We also asked questions about how initiatives originated, institutional and state context features that shaped their design, ways that institutional policies and practices needed to be altered for initiatives to be successful, and benefits of offering professional development opportunities, as well as challenges they experienced and advice they would offer to others creating professional development initiatives for NTTF. While we collected data at each of these 14 campuses about various models of FLCs, we also captured information about academies, institutes, webinars, certification programs, and other forms of professional development that they found were particularly helpful for NTTF members. Interviews lasted between 1 to 2 hours and were video recorded on Zoom; transcripts were developed for analysis.

In addition to interviews, we conducted document analysis of the 14 campuses where we explored the professional development for non-tenure-track faculty. Document analysis focused on two areas: 1. Programming and events offered by CTLs as well as any other professional development programmatic efforts offered by other units that we learned about; 2. Policies and practices that apply to non-tenure-track faculty members at these 14 campuses. We also collected documents from interviewees about their FLCs, including curriculums, evaluation tools, needs assessments, research they conducted on their programs, facilitator tools, and online tools and guides. These artifacts were reviewed to inform our understanding of the professional development as well as to provide helpful tools for others who are interested in engaging NTTF in professional development.

We used grounded theory data analysis, which fits the topic well since there has been no research conducted on this phenomenon before. We analyzed the interviews and documents and created case study documents for each institution. We also conducted cross-case analysis, comparing data at each institution and across different interviewees for themes. We conducted memoing throughout the data collection to capture our insights over time. We used the memos and insights to ask additional questions of later interviewees that could build additional insight into an emerging theme, as is common in grounded theory analysis. Therefore, data analysis was happening continuously throughout the data collection process. Our analysis resulted in a set of case study documents as well as cross-case theme reports.

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We ensured the trustworthiness of the data by having interviewees review our analysis and insights for accuracy. We also had multiple researchers review the data and develop consensus about themes. We utilized multiple forms of data (and in some cases multiple interviewees) to develop insights. Lastly, we had a robust set of institutions from which to draw transferable conclusions.

Table 1.

Institution	Control	Location	Professional development initiatives we learned about
Boise State University	public	Boise, ID	FLC, workshops, adjunct orientation
Boise State School of Social Work Online Program			FLC, asynchronous new faculty orientation, adjunct resource site
Boise State First-Year Writing Program			FLC, workshops, CTL faculty liaison
California State University San Bernardino	public	San Bernardino, CA	FLCs (certificate, learning communities)
Embry-Riddle Aeronautical University Worldwide Campus	private	online	FLC, asynchronous workshops and microlearning, asynchronous new faculty orientation and returning faculty refresher
IUPUI	public	Indianapolis, IN	FLC, adjunct short institute, adjunct website, workshops with asynchronous option
Kennesaw State University	public	Kennesaw, GA	FLC, workshops with asynchronous option, adjunct-specific institute, SPACE conference, adjunct website and listserv
Kennesaw State College of Math and Science			FLC
Kennesaw State College of Humanities and Social Sciences			FLC
Ohio State University	public	Columbus, OH	FLC, NTTF microlearning lunches, NTTF website
San Francisco State University	public	San Francisco, CA	FLCs (certificates, learning community)
Sinclair Community College	public	Dayton, OH	FLC, discussion groups, new faculty orientation, short institute, adjunct website
Texas State University	public	San Marcos, TX	FLCs, workshops with asynchronous option, lunch series
University of Colorado Boulder	public	Boulder, CO	FLC, course redesign grants, discussion groups, symposium
University of Georgia	public	Athens, GA	FLCs (for faculty, for department leaders)
University of Michigan	public	Ann Arbor, MI	FLC, advisory committee, recognition event, website
University of North Carolina Charlotte	public	Charlotte, NC	FLCs (certificate, learning community), asynchronous workshops, short institute, adjunct website
Valencia College	public	Orlando, FL	FLC, workshops, orientation, mentoring program

Suite of Professional Development Initiatives and Resources

The campuses that we studied offered a wide variety of professional development opportunities for NTTF. Creating a suite of professional development options is often necessary to support NTTF with varying needs, interests, and time constraints. In this section, we describe several types of professional development initiatives that are less intensive in terms of faculty time commitments and institutional resources. The types of less intensive initiatives we learned about on each campus are included in Table 1. Many of these initiatives tended to be used more often with full-time NTTF. In the next section, we focus on more intensive professional development initiatives, including various forms of FLCs.

One-to-one consultations

All of the campuses included in this study offered some form of one-to-one consultations with NTTF. These consultations allow faculty to get support for effective teaching that is tailored to their individual needs. For instance, at Boise State University (BSU), an adjunct described how even though she had been teaching for years at another institution, her student evaluations went way down when she started at BSU. Consultations with CTL staff were helpful for getting feedback on how she could better support the learning of BSU students. At some campuses, including Embry-Riddle Aeronautical University's Worldwide campus (ERAU-W) and University of Michigan's College of Engineering, consultations were also offered to support faculty in their career development. While one-to-one consultations can be useful for helping instructors address a specific issue, we found that other options were far more effective in terms of using resources efficiently and offering benefits such as a sense of community. Additionally, consultations may be difficult for NTTF to schedule when they are offered only in a face-to-face format during business hours.

New Faculty Orientation

While nearly all campuses offer an orientation for new faculty, many focus on resources and services without recognition of

NTTF's limited time and specific needs; these programs can also marginalize NTTF when discussions move to benefits such as retirement plans and grant opportunities that aren't available to them. Therefore, several of the campuses in our study had created adjunct-specific orientation programs, with tailored approaches such as offered orientation in the spring, having online options, utilizing websites or learning management systems to provide and link to specific resources aimed at their needs, and identifying individuals who adjuncts can contact to troubleshoot issues. We provide a few examples of these programs below.

Spring Orientation

At BSU, adjunct orientation is offered at the beginning of both the fall and spring semesters, in recognition that new adjuncts are hired every semester. They often included tailored information about campus resources available to adjuncts and provided information about the student population, effective teaching practices, FERPA, and campus policies related to evaluation. This model fills an important gap that arises from the assumption that faculty are hired on an annual basis.

Asynchronous Orientation

Both Valencia College (VC) and ERAU-W designed virtual, asynchronous orientation programs that adjuncts were

required to complete before being allowed to teach; these programs provided integrated support for onboarding new faculty. These orientation programs require about 15-20 hours to complete, including modules that provide indepth training related to the learning management system, federal and institutional rules and regulations, professional development opportunities, and effective teaching practices. Assessment of learning is integrated into the modules to ensure that faculty have the necessary knowledge and skills to succeed in the classroom. VC also integrated proactive support from an instructional designer so that each new faculty member had a person to contact with questions or problems. Because of the time commitment required, adjuncts at this campus are compensated for completing the intensive orientation program.

Workshops

Workshops offer faculty a chance to learn and often engage in conversations focused on a specific aspect of instructional effectiveness, such as providing feedback on assignments and understanding first-generation college students. Workshops are usually open to all faculty, including NTTF. At most campuses, workshops are held face-to-face during business hours and last for between one and two hours. We found three key considerations for making workshops more accessible to NTTF: timing and delivery mode, microlearning, and compensation.

Timing And Delivery Mode

Several interviewees noted that NTTF and adjuncts in particular often cannot attend mid-day weekday workshops in person. At BSU, therefore, the CTL experimented with offering workshops early in the mornings, later in the afternoons, and on Saturdays in order to reach part-time faculty. Additionally, several campuses also offered recorded webinar versions of workshops so that faculty can engage

in professional development asynchronously.

Microlearning

We found an emerging trend of transitioning workshops to microlearning, with material presented in 10-15 minutes to provide faculty more flexibility and motivation for engaging in instructional development. At ERAU's Worldwide campus, the CTL has started breaking up workshops into microlearning videos that faculty can watch asynchronously. While asynchronous options improve the chances that adjuncts can engage in professional development, they do not address the isolation that many contingent faculty experience.

Therefore, a few campuses offered synchronous workshops that combined microlearning with opportunities for connection with colleagues. At Ohio State University (OSU), a six-week lunchtime series was designed for NTTF where about 15 minutes of a workshop was presented each week, leaving about 45 minutes for lecturers to discuss teaching issues and connect with one another socially. And the Boise State School of Social Work hosts virtual drop-in meetings with teaching-related microlearning for their primarily adjunct faculty; an interviewee noted that the synchronous format of virtual microlearning is particularly useful for engaging adjuncts, especially professional adjuncts who work full-time elsewhere.

Compensation

While most campuses do not offer compensation for workshop attendance, the CTL at San Francisco State University (SFSU) compensates NTTF who participate in workshops since professional development does not contribute to evaluation and promotion as it does for TTF. It is important to signal the value of professional development by compensating part-time faculty as this is not typically part of their contracted work typically.

Institutes and Symposiums

Institutes and symposiums offer faculty a chance to engage in more in-depth learning than workshops offer; some campuses also designed these opportunities so that faculty could present their own work related to teaching and learning. These initiatives ranged in length from a few hours to a few days. and were often scheduled in the evenings, on weekends, or during breaks in the main academic calendar.

We found that most campuses offered some type of teachingrelated institute or symposium, but there was a great deal of variation in the intentional alteration of policies and practices that could promote NTTF participation. For instance, we found varying policies about whether NTTF were invited to participate, and at some campuses, only full-time NTTF were eligible. There was also wide variation in whether faculty were invited to present and whether they were compensated for participating.

Adjunct-Specific Institutes And Symposiums

A few campuses we studied designed institutes specifically for adjuncts. For instance, Indiana University - Purdue University Indianapolis (IUPUI), Sinclair College (SC), and Kennesaw State University (KSU) all used models that engaged faculty actively through breakout sessions or discussions in addition to learning, used hybrid or online formats, and compensated adjuncts for successful completion. For instance, IUPUI's Institute for Engaged Learning is open to adjuncts and offers \$500 compensation for completion. Participants attend two synchronous sessions and then choose one of seven workshop options, complete a written reflection, and provide evidence of course redesign to implement engaged learning. These campuses were able to reach many more NTTF and in ways that acknowledged their assets and challenges.

Scholarly Conferences

Both BSU and KSU organized opportunities for adjuncts to present research related to teaching and learning or in the disciplines to an audience of peers. At both campuses, scholarly conferences were held locally for one day over the weekend with very modest registration fees. The conference organized by KSU was open to adjuncts nationally, while BSU partnered with a local community college for the conference. These initiatives address several challenges to engagement in this form of professional development that many adjuncts face. For instance, adjuncts are usually not eligible for institutionally-supported travel to disciplinary conferences. Adjuncts often cannot take time away from their other responsibilities to attend multi-day conferences. Further, the competitive submission processes that many scholarly conferences employ preclude the inclusion of practice-oriented scholarship of teaching and learning that often is most valuable for teaching-focused faculty. Thus, these conferences offer important opportunities for adjuncts to share research and network with faculty at other institutions in an inclusive environment.

Newsletters, Resource Sites, and Websites

Several interviewees discussed the importance of creating websites, resource sites hosted within campus learning management systems, and/or newsletters that are tailored to NTTF and adjuncts. These publications often included information about the campus resources and benefits that are available to NTTF in addition to providing tips for effective teaching and information about professional development opportunities that are available to them. Some campuses also used these channels to raise the visibility of NTTF by spotlighting individual faculty, listing professional development participants, and announcing award winners. In addition, these methods of communication can identify a point person for NTTF to contact if they have questions.

Awards and Recognition Events

Most campuses offer faculty recognition for teaching through awards, celebrations, and other events. However, these forms of recognition can privilege full-time and tenure-track faculty in explicit and more implicit ways. For instance, at some campuses, policies state that only full-time faculty are eligible to receive awards. Further, tenured and tenure-track faculty often teach upper-division courses where students are more interested in course content, two characteristics that have been linked to higher student evaluations, giving these faculty an advantage if students ratings are considered as part of the selection process. Part-time faculty may also be at a disadvantage because they teach fewer course sections and therefore have less visibility. At campuses where teaching awards were not open to all faculty, interviewees noted that being excluded from this recognition decreased morale among NTTF. Conversely, on campuses that intentionally created awards for NTTF and adjuncts, interviewees talked about how being eligible increased faculty's motivation to engage in professional development.

Role-Specific Teaching Awards

California State University San Bernardino (CSUSB) offers a lecturer teaching award specifically for NTTF. And SC and KSU both offer a teaching award specifically for part-time faculty. At SC, a ceremony is held to recognize faculty who receive these awards, and awardees also receive free registration to the national Lily Teaching Conference, which is held nearby. These awards create a more level playing field for adjuncts and NTTF. They also convey an institutional emphasis on teaching effectiveness that can motivate faculty to work to improve their instructional effectiveness.

Recognition Events

Our interviewees also talked about the importance of recognizing NTTF's participation in professional development, especially to raise the visibility of NTTF to administrators and academic leadership. For instance, at CSUSB, a convocation ceremony is held each year that recognizes students, faculty, and staff who have earned a degree or professional credential in the past year. The director of the CTL thus included faculty who had earned their certificate as part of this ceremony. At the University of Michigan (U-M), the College of Engineering hosts an annual event specifically to recognize lecturers who have participated in professional development. They also invite several college leaders to talk at the event in order to demonstrate that academic leaders in the college value and support NTTF.

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More Intensive Approaches to Faculty Development

The literature on faculty learning communities (FLCs) suggests that these more intensive initiatives offer a number of benefits for NTTF, including helping faculty employ more student-centered teaching practices that foster student success, develop a professional community, and create a sense of institutional belonging. We found four general models of FLCs that were implemented at the campuses we studied: faculty learning communities, curricular redesign and departmental action teams, certification programs, and discussion groups. We describe each of these models in detail, including themes that emerged from cross-case analysis and some of the variations we found in terms of institutional structuring of FLCs and the populations served. In Table 2 (page 52), we outline some basic information about the type of FLC we found at each campus, including how long it lasted, the delivery mode used, whether faculty were expected to complete a project or deliverable, and whether participation was compensated.

Faculty Learning Communities

Traditional Learning Community Model

We found that several campuses had modestly modified the faculty learning community model used by Miami University (MU) (Cox, 2004), which has been well-documented and implemented widely for several decades. The purpose of these groups is to foster community through a focus on the improvement of teaching and learning. In this model, interdisciplinary groups of 8-12 faculty are selected through an application process to engage in the FLC. Cox identifies two approaches to group composition for FLCs: the cohort-based FLC is designed for faculty in a particular role or stage of their career (e.g., new faculty, department chairs, adjunct faculty), while the topic-based FLC includes a mix of participants who are focused on a specific aspect of effective teaching and learning (e.g., collaborative learning, diversity and equity, first-generation college students).

In the model used by MU, FLCs convene across an academic year, with in-person meetings occurring every few weeks to facilitate faculty's sustained engagement. Meetings are supplemented by off-campus retreats, often held at national conferences on teaching and learning, to offer

more social opportunities for connection. Meeting topics and discussions are mostly self-designed and self-led, in order to maximize agency among participants. A coordinator role is sometimes used to manage the logistics, but not the content, of meetings, including scheduling rooms for meetings. Participants create a self-designed learning project to complete as part of the FLC, including mid-year and final reports that include reflection on engagement and outcomes and a teaching project that is usually presented to colleagues at a department meeting or campus-wide event. Faculty receive compensation through funding or a course release for participation.

Several of the campuses in our study designed cohort-based FLCs for NTTF, and, in a few cases, specifically for adjuncts. Most of these campuses had been offering topic-based FLCs through their CTL for several years based on the MU model, and so they initially used the same model for the NTTF-specific FLCs. At these campuses, interviewees learned that a number of modifications were necessary to support participants' success, including modifying the length, scheduling, and attendance expectations; delivery mode; and facilitation and content. After describing some of these changes, we present the cases of campuses that designed FLCs specifically for adjuncts.

Length, Scheduling, And Attendance

All of the campuses offering NTTF-specific FLCs moved to a semester-long format, as the changing schedules and responsibilities that NTTF have across semesters often created barriers for continued engagement. Interviewees across campuses noted that it was challenging to schedule meetings around the heavy teaching loads of NTTF faculty. For instance, the University of Colorado, Boulder (CU Boulder) moved to scheduling in-person meetings in the early evenings. Organizers also learned to be more flexible with attendance requirements, providing needed flexibility.

Delivery Mode

Several campuses noted that while participants were initially expected to attend meetings in person, they started allowing faculty to attend virtually if they could not come to campus. For instance, at the University of North Carolina Charlotte(UNCC), where there have been 16 cohorts of adjunct-specific FLCs, they started offering remote options to be inclusive of faculty who teach in their online programs. Because other participants also requested to attend remotely, they have now offered a few cohorts of online-only FLCs; however, the individual leading these efforts noted that evaluations data is not as strong for the online cohorts.

Because of the pandemic, interviewees talked about the pros and cons related to moving FLCs online for the past year. In general, they noted that more NTTF were able to participate in virtual FLCs and that a continued opportunity to connect with peers around teaching was beneficial for participants. At the same time, a few interviewees sensed that some NTTF crave face-to-face opportunities for engagement and connection. At many, those leading professional development efforts for NTTF were ambivalent about the delivery mode they would use for future cohorts.

Facilitation And Content

They also made some changes to the facilitation and content of meetings. Several interviewees noted that the traditional FLC model is premised on a time commitment equal to a course release, which is not feasible for many NTTF. Thus, they often moved to a more expert-facilitated model, with previous FLC participants or staff from the CTL curating topics and resources, reducing the amount of reading and research faculty are expected to complete between meetings, and tailoring resources to be more immediately practicable so that participants could easily implement changes in their teaching. Interviewees from a few campuses also talked about including opportunities for career-related discussions as part of FLCs, including topics such as evaluation, compensation, and departmental practices. Participants' project deliverables were also often modified. SFSU and CU Boulder both implemented collaborative projects so that cohorts could work together on the same topic. IUPUI moved to more reflective written products rather than research-based reports. Other campuses dropped project requirements altogether.

Adjunct-Specific FLCs

FLCs designed specifically for adjuncts tended to have more modifications and offer examples of the types of changes needed to make professional development inclusive for adjuncts across several categories. At the UNCC, the CTL has been offering adjunct-specific FLCs since 2014. In addition to moving to a semester-long format and offering flexibility for virtual attendance, UNCC utilized feedback from participants to shift their recruiting practices and structure of meetings, as well as learning to better articulate their intentional inclusion of adjuncts from multiple disciplines in the FLC. Because adjuncts often don't know their teaching schedules until shortly before a semester begins, they created a consolidated time frame, advertising, recruiting, and accepting applications for the FLC for just one week

before the start of each semester. In addition, because those leading the initiative wanted to provide a space for adjuncts to build community, UNCC uses a model where the first hour of each two-hour meeting is dedicated to open discussion about teaching that fosters relationship-building, and the second hour focuses more on delivery of content related to instructional effectiveness.

The CTL at BSU has been hosting an adjunct-specific FLC since 2015. Initially, the FLC included a meeting at the beginning and end of the semester, and participants chose several CTL workshops to attend during the semester. However, adjuncts identified the meetings as the most beneficial aspect of their experience, and so they now meet four times per semester and attend one fewer workshop. Meetings were initially held in person; to be inclusive of adjuncts who teach in their online programs, the facilitator added the option to participate remotely, and adjuncts now mostly choose to participate virtually because of the convenience. Additionally, while the facilitator chooses meeting topics, they are moving to a more responsive model where topics are chosen based on participants' interests and the evolving discussion.

As ERAU-W is a virtual campus, they created an asynchronous, virtual FLC for their faculty, 96% of which are adjuncts. Their topic-based FLCs still reflect the traditional learning community model in that they are faculty-driven, with organizers only creating the structure of the FLC within the learning management system and providing resources based on the discussions that occur among faculty. Participants also complete an individual culminating project. In order to foster robust discussions, they have been experimenting with larger cohorts of up to 75 participants per FLC.

Action Teams

A few campuses implemented action teams, where groups of faculty focused on course redesign or creating curricular alignment across courses, often with the goal of improving student success. Interviewees called these groups departmental action teams or instructional action teams in recognition that some teams were interdisciplinary. At the campuses we studied, these initiatives were not led by CTLs, but instead were located at the college level or focused specifically on STEM disciplines. Action teams can be beneficial for departments and colleges in terms of having specific outcomes for improving teaching and achieving scale. And because the collective impact is more measurable in terms of students' evaluations of courses and success rates, faculty are often compensated for participation, which can support the participation of NTTF. At all of the campuses that implemented action teams, initiatives used yearlong formats that were inclusive of full-time NTTF, but participation from adjuncts was sparse.

College-Level

At KSU, college-level initiatives reflect a blending of action teams and learning communities, with compensation for faculty who participate. The College of Math and Science uses a yearlong format, an interdisciplinary cohort of about 25 faculty meets monthly during the spring and fall semester, where a representative from the CTL presents workshops on relevant teaching topics. Smaller teams of 4-6 faculty are then expected to meet about twice a month during the spring and summer to engage in course transformation planning. During the summer, faculty also participate in an intensive course transformation institute. Redesigned courses are implemented in the fall, and participants engage in peer observations of teaching to continue learning and growth. In this college, most action teams have been formed within a single department, but a few have been interdisciplinary, including one team of faculty from math and physics that worked on better aligning language and concepts related to calculus to help students transfer knowledge.

In the College of Humanities and Social Sciences, groups of 10-15 faculty participate in yearlong FLCs with specific topics that the associate dean identifies, aligning the focus

of each FLC with the college's strategic goals. Previous topics have included increasing transparency in assignments or engaging students in learning through reflection assignments. During the first semester, participants engage in intensive learning about the topic and redesign a course based on their learning. In the fall, faculty implement the changes they have planned, collecting data on their experience, the experiences of their students, and outcomes to assess the effectiveness of their changes.

Other STEM-Specific

Both CU Boulder and University of Georgia (UGA) implemented grant-funded STEM-specific action teams related to course or departmental transformation. In these initiatives, small groups of faculty work to design and implement changes to improve student learning and success and to collect data related to effectiveness; the resources they develop and the results of their projects are then shared with other faculty as a means of spreading change. At CU Boulder, self-designed groups participated in a competitive grant process to transform specific courses. At UGA, action teams work collaboratively to redefine learning objectives for their courses and then individually develop instructional activities and assignments for their courses that are better aligned with these objectives. In addition to disciplinary action teams, UGA organized a leadership action team of department chairs from all STEM departments to create better alignment in terms of student evaluations of teaching and peer evaluations of teaching, as well as in policies related to how teaching is rewarded. At the third level, individuals are engaging in outreach, working with committees and institutional administrators to address institution-level policies. Faculty are not compensated for participation at UGA.

Certifications

Five campuses offer some type of certificate program for professional development; certification recognizes the engagement of faculty in professional development. The certificate programs we learned about varied in design. At SC and CSUSB, faculty participate in cohorts, similar to traditional learning communities, so that they engage with same the colleagues over time. At VC, SFSU, and IUPUI, certificate programs are more self-designed by faculty who choose from among a number of offerings. This approach allows faculty to have greater agency in deciding which topics are most relevant to them but does not allow for community building in the same way that cohorts do.

Interviewees noted that certifications are advantageous to NTTF because they provide a tangible demonstration of instructional competence to better compete in the job market and also were used for promotion opportunities at their campuses. Certificates also reflect a more comprehensive professional learning experience aligned with institutional objectives. At campuses that made certification a requirement, they also achieved scale of professional development and ensured a certain level of quality among instructors. The certificate programs we learned about all offered some form of compensation for completion, which is another advantage for NTTF and adjuncts.

Two-Year Colleges

Both two-year institutions included in our study offer a teaching certification program specifically for adjunct faculty that allows for promotion to a higher tier of part-time faculty and increased hourly pay. These programs are primarily virtual with one or two in-person events, and the content combines learning about effective teaching *practices with* information about institutional resources.

At SC, this program includes a one-day intensive workshop, five weeks of asynchronous learning and discussion online, and peer observations of teaching, which can be completed within a semester. The one-day workshop occurs in person so that participants get a chance to meet one another before engaging virtually. Each module covers a different topic related to effective teaching that is situated in the institutional context, and participants complete an assessment of learning

for each module. After completing these modules, they conduct a teaching observation of a tenure-track faculty member in their department and also have their teaching observed by a CTL-trained faculty member. Adjuncts who have taught more than 9 semester hours at SC and completed the certification course are eligible for promotion to a higher tier of part-time faculty and increased hourly pay rate.

The program at VC is somewhat more intensive, as it requires 60 hours of professional development engagement. Half of that time is spent in an online course organized around the essential competencies of effective instructors at VC that is supplemented by face-to-face meetings at the beginning and end of the course. For the remaining 30 hours, adjuncts create an individualized learning plan, choosing from a number of other professional development courses VC offers. Once participants have completed the certificate, they must engage in 20 hours of continued professional development annually to maintain their promotion.

CSU Institutions

Two campuses of the California State University (CSU) system offer certificate programs that are open to faculty more broadly.

At CSUSB, the director of CTL recognized the challenges that NTTF faced in accessing their yearlong FLCs and offered an opportunity for faculty to complete a certificate in effective teaching practice through the Association of College and University Educators (ACUE), a national organization that offers fully online instructional development. The ACUE effective teaching course uses a module-based curriculum on effective teaching practices that, when offered through colleges and universities, includes institution-specific cohorts and facilitators. The director supplemented the course with a face-to-face launch event for each cohort of 25 faculty so that they could meet one another. Of the three cohorts that

initially completed ACUE certification at CSUSB, two were limited to NTTF.

SFSU offers two certificate programs: teaching first-year students and quality learning and teaching online. Faculty can earn these certificates through engagement in several different types of professional development over 2-3 years: an intensive institute, a series of workshops or self-paced courses, a semester-long learning community, and the creation of a reflective teaching portfolio. Together, these components take about 60 hours to complete. Faculty are compensated for completing each component and also receive a bonus when they earn the certificate.

IUPUI

The CTL at IUPUI partners with the Institute for Engaged Learning to offer a badge for faculty who engage independently in a series of learning experiences and complete projects. These badge programs have included a variety of topics, including engaging students and portfolio learning. The curriculum for each program provides options for each of several predetermined modules. For instance, during the pandemic, they offered a program on Just-In-Time Course Design that required faculty to choose among options related to structuring the course; creating an inclusive learning environment; engaging students online, in Zoom, and why physical distancing; creating assessments for different course formats; and adapting content for different course formats. For each module, participants could choose from a number of live and recorded webinars, readings, or other learning resources. Deliverables included the development of course materials that enact what they've learned and a reflection on their teaching. Participants who complete the badge also receive \$500.

Discussion Groups

At a few campuses, book clubs and discussion groups have been established for NTTF; these groups are often organized around a common book or single topic related to effective teaching, with a few in-person meetings scheduled during the semester. Book groups have been implemented at Texas State University (TXST), UNCC, and BSU. SC uses a similar model called incubators; groups are formed through faculty interest in a specific topic rather than organized around a common book. Discussion groups align with other learning community models in that they include regular meetings led by a facilitator with expectations that participants are reading or conducting similar work between meetings.

A few aspects of these discussion groups differentiate them from other FLC models. For instance, there are no projects or other deliverables and faculty generally aren't required to commit to attending every meeting. Additionally, participation is generally not compensated. As a result of these differences, discussion groups often include a larger number of faculty than other FLCs, with some campuses hosting groups of up to 75 NTTF. Therefore, they could have much greater access, scale, and often required less time for busy non-tenure-track faculty.

Discussion groups were sometimes used as a first step in professional development for NTTF because of the low barriers to entry or an alternative when there were more applications for FLCs than a CTL could accommodate. These less formal initiatives do not require a lot of institutional resources and placed fewer demands of time and energy on faculty participants compared to learning communities and certificate programs. Interviewees noted that discussion groups offered many of the same benefits as more traditional learning communities. Advantages mentioned were that these were often based around NTTF interests so there was built-in motivation to come and engage. Additionally, the lighter level of commitment and time provided flexibility that NTTF appreciated. At the same time, interviewees also concluded that the low-stakes format of these groups seemed to lead to less accountability and lower engagement among faculty that likely resulted in less impact compared to other FLC models.



Benefits of FLCs for NTTF

Our study explored the benefits of faculty learning communities (FLCs) for NTTF members. We asked interviewees to consider the benefits generally but also in comparison to other professional development that they offer to their NTTF. Many of these benefits were also identified in their evaluation processes and research studies that they shared with us. As the benefits varied across different FLC models, Table 3 (page 54) presents a general overview of the most prominent benefits for each type of FLC we identified in the previous section. While additional benefits were described, the main themes that emerged from our analysis across the institutions were instructional improvement, sense of belonging, institutional integration and knowledge of resources, a professional network, career development, advocacy opportunities, and leadership opportunities. It is important to note that evaluations at the campuses we studied tended to focus on instructional improvement and professional community. These two are the traditional outcomes from FLCs. The other benefits we identified offer opportunities for evaluation in future initiatives designed for NTTF.

Of course, the design and implementation of FLCs also impacts the benefits that interviewees identified. For example, adherence to a strict FLC design where participants determine all content could strengthen their development of a professional community and sense of belonging. Choice of facilitator, as well as the facilitator's style, can impact sense of belonging and professional community as well. The benefits also differed based on the makeup of the FLCs (e.g. NTTF only or mixed with tenure-track faculty). For instance, a sense of belonging and community is often stronger among NTTF-specific groups. If tenure-track faculty members are included, as is common in action teams, then very careful facilitation is needed, and group dynamics should be addressed prior to establishing these groups. Additionally, NTTF are less likely to open up about career issues, advocate for change, and identify mentors if tenure-track faculty are present. Our interviewees identified a number of factors such as these that influenced the success of FLCs; we describe these influences in greater detail in the next section of this report. We also offer a framework of best practices to support the needs of NTTF to help campuses maximize the benefits they identify as important goals for FLCs.

Instructional Effectiveness

The primary reason for establishing FLCs is to improve instructional effectiveness. Therefore, one would expect that program evaluations would identify improved instructional effectiveness and this was indeed the case. In particular, interviewees highlighted how many adjuncts have not had any training in teaching so the opportunity to learn about active learning, assessment, developing meaningful assignments, grading writing assignments, culturally responsive teaching, ways to improve online instruction were all very valuable insights that they would have no other way to garner beyond one-time workshops. Interviewees also described how these opportunities are important ways for non-tenure-track faculty to learn about diverse students' backgrounds/demographics (first generation, racialized minorities), needs and assets. However, for most adjuncts, participating in faculty learning communities is quite challenging due to time constraints. Those leading professional development efforts in CTLs felt that webinars were more accessible to most adjuncts and even some full-time NTTF. So, while instructional effectiveness was certainly an important outcome of faculty learning communities, they felt there were other modalities that could serve this purpose in more efficient ways.

Interviewees noted that learning communities were best suited for long-time adjuncts and instructors who were committed to deepening their professional practice and to investing more based on their ongoing commitment. They also felt that faculty learning communities were a better place for doing deeper work such as exploring one's teaching philosophy, thinking about disciplinary strategies to teaching, and deeply integrating assessment into one's teaching practice. Therefore, targeting faculty learning communities for non-tenure-track faculty members looking to do this more intensive level of teaching improvement is likely a more effective strategy. They noted the importance of leaving opportunities open to all faculty but targeting and marketing the faculty learning communities in this way might identify those individuals who will benefit best from the opportunity.

Sense of Belonging

One of the other benefits frequently mentioned was the sense of belonging and creation of community that comes through meeting with other faculty members on a monthly basis to discuss their joint practice. Those leading professional development efforts were able to observe faculty learning communities among tenure-track faculty members and could compare them to experiences for non-tenure-track faculty members. Certainly, tenure-track faculty also develop a sense of community with their colleagues, but interviewees identified a much more profound sense of community being created among NTTF. Interviewees also could detect a much deeper need for community among the NTTF who chose to participate in the faculty learning communities. Repeated comments used this language: NTTF shared that this is the first time "they felt included" or "like they belonged" or were "a member of the community." Many of these faculty members described isolation and loneliness that they experienced as a result of having little or no contact with any other faculty members, including those in their department. And when NTTF are in departments with marginalizing cultures, faculty learning communities provided them with a network of individuals outside of their department to develop collegial relationships with. FLCs provided them with an outlet of support given the dynamics of their department were negative. Some campuses had faculty learning communities for particular departments as they worked on addressing curricular or pedagogical issues. Evaluations of these initiatives showed that NTTF were able to develop much more positive relationships with other colleagues in their department through participation in FLCs. Therefore, creating FLCs at the department level is likely to have the added benefit of creating local community that is very beneficial to NTTF. In general, the involvement in FLCs allowed NTTF to develop relationships they were unable to develop through any other means at the institution. For campuses interested in enhancing the sense of belonging and community for NTTF, the use of FLCs (as well as other models such as departmental action teams) might be a strategic choice.

Institutional Integration and Knowledge of Resources

Related to sense of belonging was also the benefit of feeling integrated into or connected to the institution. When reporting the benefits of learning communities, interviewees kept using words like: "finally feeling connected to" or "being a part of" or "greater sense of connection" or "appreciated." Overall their comments seem to suggest a greater affinity for their department and institution and an interest and willingness to give back. Interviewees communicated the sense that NTTF were largely coming and going from the institution and that the experience of being part of the faculty learning community forever changed that connection to be transformed to be closer and meaningful. Interviewees noted how this

also translated into these faculty members wanting to give back and to mentor others, especially senior non-tenure-track faculty members wanting to help out early-career NTTF members.

And a sense of affinity was not only an emotional connection but also resulted in many tangible differences in their experience. Through the faculty learning community, interviewees reported that participants were also able to better identify resources to support their teaching and learning such as the tutoring or cultural center, workshops, departmental tip sheets, and the like. They also report knowing about important processes like evaluation and annual reviews in much more detail than they had prior. They were able to identify colleagues they could ask questions and felt more confident about their ability to contribute to the teaching and learning environment.

Professional Network: Finding Mentors and Colleagues

While faculty appreciate the opportunity to develop relationships in general, the interviewees underscored how faculty members appreciated the opportunity to create community specifically around their discipline, classes they taught, and around particular teaching approaches that they are passionate about such as community engagement or engaging diverse learners. As noted in the last section, when describing the benefit of a professional community, NTTF spoke about their desire to connect with and develop a set of colleagues, develop long-term relationships, and even find mentors. Throughout our interviews, when speaking about the benefits of a professional network, individuals noted "feeling like a professional" or "being part of a professional community" or "being in a space where they are respected." NTTF also appreciated how FLCs allowed them to develop professional knowledge with others through reading current research in their discipline and learning about new teaching approaches. Doing this made them feel like a part of a larger professional community, which was important because they often feel professionally isolated. Adjuncts, in particular, are really interested in connecting with other faculty around disciplinary or field conversations, whereas full-time lecturers may be more likely to connect regularly with their departmental colleagues and have some sense a professional community.

The collegiality that is developed allowed for them to support each other and open up about professional issues they have been suppressing for years. For example, one interviewee gave an example of an NTTF describing a tenure-track colleague who had treated them with disrespect for years and discussing how to deal with this workplace issue. Developing a professional network also allowed NTTF to improve their working conditions. For example, NTTF who participated in action teams often felt more valued by their departmental colleagues as a result of their collaborative work.

Career Development and Advancement

Interviewees talked about an area that was more unexpected and turned out to be very important for many NTTF – career development and advancement. Interviewees noted that faculty learning communities provided opportunities to discuss career options and opportunities. It was noted that FLCs provide a space where faculty can ask questions they may have had for years but did not have the type of relationships to feel comfortable asking—whether it relates to ways they might move into a full-time faculty role, possibilities to move departments, concerns about evaluation processes and getting them changed. Another described how a faculty member asked the group about strategies for applying for a full-time position. NTTF have virtually no outlet for discussing career options and the faculty learning communities became a place

for these important discussions. However, the need for career development may not be best left to optional faculty learning communities and institutions should consider other avenues they might have for career development.

At some institutions, FLCs were a way that NTTF could illustrate their commitment to the institution, which could result in moving from part-time to full-time work, promotion within the lecturer ranks, additional teaching opportunities, a higher course load, and other career benefits. Therefore, the benefits of participating are tangible in terms of institutions rewarding faculty members for their participation in these learning opportunities. Institutions could more intentionally connect participation in FLCs to career development and advancement. At most institutions, this was a relatively informal process and might benefit from formalization and making the opportunity available to all so that issues of equity do not arise.

Advocacy Opportunities

Another unexpected benefit from faculty learning communities is they became a space for advocating for change. NTTF members do not have any regular ways that they meet together at most institutions. Only one institution in our study had an Adjunct Council. The Adjunct Council convened 50 different adjuncts from across the campus to advocate for the needs of adjunct faculty. A few campuses in our study included NTTF in their faculty senate. But as is typical of most campuses, NTTF are underrepresented in governance, task forces, and committees, making it challenging to identify all of the issues and to make substantial changes. And at most campuses, there is no group dedicated to addressing the on-going issues or needs of NTTF, particularly adjuncts.

Because NTTF-specific faculty learning communities provided a space for NTTF to meet together, they were also able to discuss common concerns and needs. By meeting monthly, faculty members are able to develop the type of relationships to bring up long-standing concerns or questions. Interviewees brought up examples of changes that emerged from their faculty learning communities such as including contingent faculty in campus awards, advocating for needed inclusion in governance, creating better communications, addressing problematic departments, improving technology support, getting access to funds for conferences, and ensuring there are opportunities to participate in other forms of professional development. Interviewees noted that faculty who participated felt empowered; more knowledgeable about the policies, processes, and politics across the institution; and interested in participating in collective action. While FLCs offered an important counterspace for cultures that marginalized NTTF, they should not be a substitute for including NTTF in shared governance at the departmental, college, and institutional levels.

Leadership Opportunities

The other benefit mentioned by interviewees was providing an opportunity for leadership for NTTF. When it comes to leadership within the institution, non-tenure-track faculty members may not have familiarity with institutional processes to play leadership roles. However, participating in and leading faculty learning communities was a way that long-time NTTF could practice leadership and give back to the institution by supporting their less experienced colleagues. The ability to be a facilitator and contribute to the planning of a faculty learning community was identified as a great benefit to some of the longer-term non-tenure-track faculty members, and campuses may want to more intentionally involve and support long-time NTTF in participating in and leading faculty learning communities.

Multilevel Framework of Considerations for Professional Development of NTTF

We identified a number of factors that influenced the availability, types, success, and sustainability of professional development for NTTF. Based on our findings, we developed a multilevel framework that identifies these considerations, which we visualize in Figure 1 (page 23). The various considerations we identified occurred across different phases of the design and implementation process. At the broadest level of our framework are environmental factors, including external, institutional, and disciplinary policies, processes, and cultures. These factors tended to present opportunities and constraints related to the role of professional development, the value that was placed on it, and the opportunities for NTTF to participate.

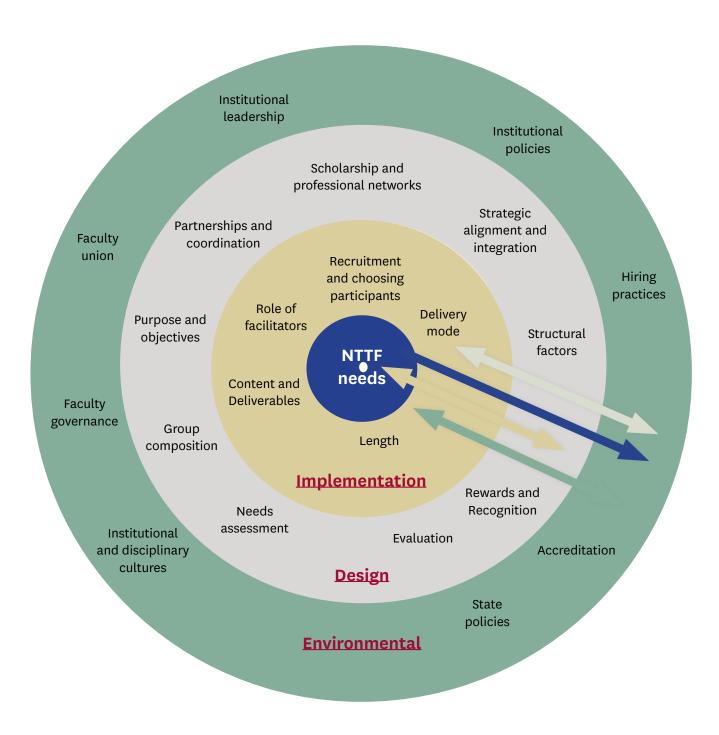
The second level includes factors related to the design and sustainability of initiatives. Structural factors included where initiatives were located, who led professional development efforts, and how programs were funded. The design of initiatives was also influenced by efforts to create strategic alignment, partnerships, and coordination with others across the environment. Another influence on design was the types of knowledge from scholarship and professional networks of the people leading efforts. Other design-related influences on the success and sustainability of initiatives included the purpose and objectives of initiatives, group composition, needs assessment, evaluation, and rewards and recognition of participants. Design-level factors affected how accessible and inclusive initiatives were for NTTF.

Influences at the environmental and design levels also shaped key implementation decisions, including how participants were recruited and chosen, the role of facilitators, the type of content covered, the projects or other deliverables expected of participants, the mode of delivery, and the length and scheduling of program components. These implementation choices were crucial for the accessibility of initiatives for NTTF.

At the heart of our model is the needs of NTTF. Developing a thorough understanding of the population of NTTF on a campus and identifying their needs is the most important consideration in designing professional development for them. Thus, while broader considerations reflect constraints and opportunities for professional development that create pressure inwards, the needs of NTTF simultaneously exerts pressure outward. In other words, the needs of NTTF pushed out to determine how successful initiatives were in terms of the timing of meetings and length of FLCs, while state policies about work responsibilities of adjuncts simultaneously pushed in, constraining when initiatives could be offered and for how long.

Next we begin by describing how environmental and design considerations shaped professional development. In the following section, we offer a framework of best practices for environments, design, and implementation based on our findings. And the final section of the report summarizes some of the challenges specific to designing professional development for NTTF that cut across the levels of our framework.

Figure 1. Multilevel model of professional development



Factors that Shaped Professional Development

We identified various environmental factors that shaped the opportunities for NTTF to engage in professional development. These include external influences such as unions, accreditors, and professional associations. We then describe institutional and disciplinary issues related to employment policies and practices, as well as less explicit priorities, cultures, and norms.

We also identified several design-related factors that shaped the success and sustainability of initiatives. These include structural factors related to where initiatives were located within the institution, who led them, and how they were funded. Related to the structure was how those leading efforts developed partnerships and coordination with others on campus as well as how the strategically aligned and integrated professional development within the institution. Other considerations included needs assessment, rewards and recognition, and evaluation.

Environmental: External Impacts

Interviewees often described external factors that shaped their ability to offer professional development for NTTF including state and federal legislation and policies, employment contracts, collective bargaining agreements, and accreditation. These external impacts, which are intended to protect NTTF in most cases, can have unintended consequences. For instance, interviewees at several campuses talked about adjuncts being limited in their ability to engage in professional development because it is considered working hours with implications related to the Affordable Care Act. Interviewees also talked about state and institutional policies related to how career titles, responsibilities, and resources influenced their choices. In Georgia, the state has mandated that part-time faculty work a maximum of 18.25 hours per week, and faculty report their working time weekly to ensure that workloads are aligned with their role. These policies have shaped the scheduling and format of opportunities geared towards adjuncts; for instance, rather than a learning community, the CTL KSU offers a 2-day intensive teaching academy for part-time faculty during spring break in order to adhere to state regulations.

At unionized campuses, policies related to employment contracts, rehiring part-time faculty, and required compensation for professional development also impacted the availability and success of professional development offerings. For instance, in the CSU system, the collective bargaining agreement allows NTTF to collect unemployment in the summer. Because of the shift to virtual teaching during the pandemic, the union negotiated that faculty who participated in professional development for online teaching during summer 2020 would receive a stipend. This agreement, which was intended to reward faculty for engaging in professional development, instead caused concern for adjuncts who worried that being paid for work during the summer would jeopardize needed unemployment benefits.

Accreditation was also mentioned as an external influence on the value placed on professional development and teaching affectedness, especially in disciplines that are independently accredited. In STEM, this influence is particularly visible in engineering, as accreditation by ABET (Accreditation Board for Engineering and Technology, Inc.) emphasizes evidence-based teaching practices and student learning outcomes, so that engineering faculty are more open to engaging in professional development compared to faculty in some other disciplines.

Another environment that influenced the design and implementation of professional development was scholarship and the professional networks of those leading efforts. They often began with models that are well-documented in scholarship, including the traditional learning community model from Miami University and models used for the professional development of teachers in K-12. We also found that those leading efforts used models from other institutions that they learned about through engagement in professional organizations including national conferences on education and professional development. Several of our interviewees referenced specific models at other institutions; this was particularly true of campuses that offer certificate programs.

In addition to influencing the type of initiative chosen, these sources of information also influenced the purpose and objectives of initiatives as well as group composition. Thus, supporting CTL staff to engage in professional development through reading, participating in virtual networks, and attending conferences can help them choose models that are appropriate for the institutional context.

Environmental: Employment Policies and Practices

We found that most institutions lacked consistency in institutional policies related to faculty hiring, compensation, resources, and inclusion across career tracks, colleges, and even disciplines. This lack of consistency impacts the degree to which NTTF feel valued, their motivation for engaging in professional development, and, ultimately, their instructional effectiveness. Interviewees at several campuses talked about colleges or departments using different hiring practices, pay scales, and role expectations for NTTF. One interviewee described how engagement in professional development was rewarded differently in different colleges, so that for some NTTF, engagement was associated with the evaluation process or with opportunities to apply for tenure-track positions, while others received no recognition for their efforts. These differences in policy

created confusion, demoralized faculty, and often led to a breakdown of community.

Environmental: Institutional and Disciplinary Priorities, Cultures, and Norms

In addition to explicit policies and practices, our interviewees discussed a number of issues stemming from institutional and disciplinary priorities, cultures, and norms. These issues related both to perceptions of part-time and NTTF as well as perceptions of teaching and professional development.

A few of our interviewees openly discussed their perceptions that administrators at their campuses didn't see value in investing in adjunct faculty. This translated into a lack of resources, which was a major challenge for creating equitable professional development offerings for NTTF. We found that at most campuses, some professional development opportunities were limited to TTF, especially those that provided compensation. And while campuses also offered some initiatives for NTTF, several of these were limited to full-time NTTF.

Institutional and disciplinary perceptions of teaching also made a difference. Several interviewees at regional institutions described shifting priorities related to institutional striving, noting that the increasing focus on research productivity jeopardized the value placed on teaching effectiveness, which also had implications for the budget for professional development. Our interviewees also talked about differences in perspectives of professional development across disciplines. When asked about differences among STEM disciplines, interviewees suggested that faculty across STEM disciplines often had different perspectives on the purpose of teaching and appropriate instructional practices. They also noted disciplinary differences within STEM in faculty's openness to teaching improvement and willingness to learning about evidence-based teaching practices and student learning outcomes.

Another influence on the success of initiatives was how institutional cultures and hierarchies influenced communication practices. Individuals leading professional development efforts sometimes faced gatekeeping challenges that made it difficult for them to raise awareness about their work. For instance, we heard stories about not being allowed to attend dean council's meetings or to email department chairs, hampering their ability to make academic leaders aware of initiatives so that they could share opportunities with their NTTF. An interviewee at one campus with several initiatives open to NTTF talked about results of a needs assessment survey that revealed that both TTF and NTTF believed that NTTF were excluded from these initiatives. There has been a long history of marginalizing NTTF in higher education, and these results reflect how institutional hierarchies and cultures can influence perceptions widely.

Design: Structural Factors

We found that how efforts were situated influenced their design and success, including where they were located within the institution and who led efforts. These influences were often more subtle than the role of institutional policies but had important implications for how effectively initiatives could meet the needs of NTTF. When individuals leading efforts were aware that the responsibilities, priorities, and positionality of their role within a particular office or program influenced their decision-making, they were better able to balance these factors with the needs of NTTF.

The CTL is a centralized location for professional development offerings at many campuses. The initiatives hosted by CTLs tended to focus on engaging faculty across disciplines and, often, across career tracks. Individuals leading professional development efforts in CTLs considered models they were familiar with when choosing which types of initiatives to offer; many CTL staff chose modestly modified faculty learning communities.

Those leading efforts also chose based on their positionality;

for instance, a CTL director who was new to the position talked about choosing a discussion group rather than a learning community as the informal nature of it carried lower stakes for success. College-level administrators and those leading grant-funded efforts tended to choose the instructional action team (IAT) model. Two interviewees who implemented IATs noted a preference for this model over learning communities because the increased structure and goal-oriented format created more measurable change products, facilitating assessment. Additionally, when CTLs were led by faculty as a rotating administrative position, we found that the regular changes in leadership often meant that the types of professional development offered and the populations served changed as well based on their priorities.

While there may be some institutions that offer STEM-specific professional development through the CTL, this was not true on the campuses we studied. All of the STEM-focused initiatives we learned about were located at the college level or in STEM-specific centers rather than in the CTL. This trend may reflect the influence of funding sources or different philosophies about whether professional development is more effective when interdisciplinary or narrowly focused. As we describe below, at campuses where initiatives were not hosted in the CTL, professional development was often more effective when leaders coordinated with CTL staff to ensure appropriate expertise, communication, and sustainability.

NTTF and adjunct-specific initiatives were primarily developed on campuses with a role dedicated to the success of this population, such as in the CTL at KSU and in the College of Engineering at the U-M, and at institutions and programs with a primarily adjunct population, such as the BSU School of Social Work and SC. These issues highlight the importance of considering where initiatives will be located and who will lead them, as these choices shaped the types of professional development offered. Most importantly, to best meet the needs of NTTF and adjuncts, we found that there needed to be sustained, focused attention on this population, regardless of where professional development opportunities were located.

Another factor that influenced the design and sustainability of initiatives was the source of funding. Several of the campuses we studied had created STEM-specific initiatives as part of grant-funded projects. Interviewees at other campuses talked about NTTF-focused initiatives that had been developed using soft money, usually funded by the dean or the provost. In nearly all of these cases, initiatives disappeared when funding ended. Further, several interviewees noted new programs that were more inclusive of NTTF that had been developed in response to the COVID-19 pandemic using federal stimulus funding, voicing hesitation about the future of these initiatives. The uncertainty of funding made it difficult for those leading professional development efforts for NTTF to plan ahead, especially in terms of recruiting participants, and influenced them to focus on short-term goals. This uncertainty also exacerbates the tenuousness that many NTTF feel about their careers, diminishing their sense of belonging and motivation to engage in professional development.

Design: Partnerships and Coordination

Professional development was occurring in multiple spaces within the colleges and universities we studied, and we found varying levels of coordination across levels and programs. Particularly at research universities we spoke with, they had professional development initiatives offered by a CTL, some through academic affairs, others through particular colleges and departments (e.g., medical schools, STEM, etc.), grant-funded initiatives, and initiatives offered through other programs on campus such as service learning or undergraduate research. Some campuses also had technology offices or others that offered professional development specific to certain areas like technology.

At the campuses with little to no coordination, interviewees mentioned discipline-specific efforts that they were aware of but knew little about. Such arrangements sometimes occurred when someone who participated in CTL efforts was inspired to create a similar group among their disciplinary

colleagues and within programs with a large contingent of NTTF, such as first-year writing and math. One individual leading PD efforts reflected that the cohorts of NTTF who participated in their FLCs rarely included faculty from certain programs because these programs had their own initiatives, narrowing opportunities for NTTF to build an interdisciplinary network of peers. Another interviewee reflected that initiatives might be less effective when designers don't engage the expertise of educational developers. Additionally, duplicating efforts in different spaces is not an efficient use of resources. Further, a multiplicity of initiatives in different spaces makes it difficult for NTTF to know which opportunities may be open to them and might be the best use of their limited time.

Less structured coordination

BSU is an example of an institution that had multiple professional development initiatives with informal coordination that helped initiatives be successful. The CTL offered a number of programs, including several adjunct and online faculty initiatives. Within the School of Social Work, an educational specialist offers workshops and drop-in sessions to support the predominantly adjunct faculty who teach in their online program. And in the first-year writing program, leaders have hosted initiatives such as book groups and teaching circles that are more discipline-specific; the program also provides a small stipend for liaisons who participate in CTL offerings and bring applicable learning back to present to faculty in the program. In both social work and first-year writing, the individuals who led professional development initiatives connected with staff in the CTL.

More structured coordination

Some campuses discussed multilevel efforts with structured integration across levels. For instance, KSU offers interdisciplinary FLCs through the CTL with additional professional development at the college level created through partnership with the CTL. At UGA, faculty in the STEM education research center are leading efforts,

with departmental action teams in multiple disciplines supplemented by a leadership action team composed of department chairs and efforts to influence policy at the institutional level. These models offer strong structures for coordination of efforts that leverage expertise about disciplines and instructional effectiveness to benefit NTTF.

Consortium Models

We also found several consortium models; these models also reflected varying levels of coordination. For instance, the CSU system office offers a number of professional development initiatives. In addition, CSUSB and SFSU offered several campus-specific programs, including some that overlapped in purpose with system offerings but were tailored to specific aspects of campus culture and mission. Additionally, CSUSB partnered with ACUE for their certification program; as a third-party organization, ACUE offers professional development to institutions and faculty nationally, and certificate-holders become members of a national community of ACUE participants. And the STEMspecific learning community and course transformation teams at CU Boulder were part of TRESTLE, a grant-funded network of seven institutions working to improve educational practices in STEM disciplines. Each campus hosted their own initiatives that were tailored to the campus context. Additionally, the network hosted an annual symposium for conversation across campuses as well as presentations from different campuses on a regular basis. As with other multilevel models, the consortium model is most effective when designers consider expertise, resource allocation, and coordination and partnerships.

Design: Strategic Alignment and Integration

Several campuses demonstrated the effective use of strategies to align professional development with institutional improvement. For instance, the Assistant Dean of the College of Math and Science at KSU meets with each department

chair annually to learn about departmental goals to inform the focus of the learning community. And SC uses the work of the college-wide assessment committee to inform the focus of an annual professional development symposium. Approaches like these helped to raise the visibility of professional development efforts and foster the support of institutional leaders.

When initiatives were not designed to be strategically aligned with institutional or college goals, their sustainability was threatened. We heard stories about how changes in institutional leadership caused dismantling of offices, how organizational restructuring that combined CTLs with other offices (e.g., technology, student success) eliminated their NTTF-focused roles, and how changing institutional priorities meant that less funding was available for professional development participation.

Design: Needs Assessment

While all of the campuses we studied thought about how to make professional development more accessible and inclusive to NTTF, we found a broad range of practices related to understanding their needs, including using institutional data, conducting focus groups or surveys, or using anecdotal methods like talking to a few NTTF. And a few campuses didn't do any type of needs assessment. The different approaches often influenced the success of the initiatives they designed.

Campuses that were intentional about assessing the needs of NTTF were most successful in designing initiatives that were accessible to and inclusive of NTTF. We found that many campuses were interested in increasing access to FLCs for NTTF, but if they did not do a needs assessment, they made only minimal changes to initiatives designed for TTF—creating many implementation challenges related to scheduling meetings, making the workload realistic, and motivating NTTF to participate. Further, without a needs assessment, designers sometimes relied on assumptions

about their NTTF population that shaped how they thought about initiatives. These assumptions related to the types of NTTF they employed, the willingness of NTTF to engage, and the benefits that could be reaped. Thus, initiatives that were designed without an understanding of the need of NTTF had to be significantly modified to be successful, including modality, timing, setting, facilitation, and requirements.

Design: Rewards and Recognition

Many of the campuses we studied offered compensation for participation in more intensive forms for professional development such as FLCs, certificates, and action teams. The availability of funding helped NTTF be able to participate, especially given their limited time and resources. And stipends were even more important when campuses did not have supportive employment policies that recognized NTTF's participation through promotion or salary increases.

Unfortunately, some of the FLCs we studied did not include any kind of stipend, and those leading professional development efforts had little power to change this reality. Our interviewees often mentioned smaller ways that they worked to communicate to NTTF that their efforts were valued. The most common consideration was holding inperson meetings in a nice space. NTTF are often assigned the least desirable classrooms and offices on campus, if they are offered offices at all, and so being able to sit in nice chairs around a conference table can make a big difference. They also talked about providing coffee, lunch, or snacks during meetings, which not only communicates that the work is valued but also helps to create a community atmosphere. One interviewee talked about offering parking passes for adjuncts to attend FLC meetings, and another gave each participant a \$50 budget to purchase additional teachingrelated books. Of course, these practices should not be seen as a substitute for compensation, and they can occur in addition to giving NTTF stipends for their engagement.

Design: Evaluation

We found that the ongoing success of initiatives was tied to leaders' intentional efforts around conducting evidence-based assessment that demonstrated their value. At one campus where a FLC for NTTF was discontinued, the interviewee talked about how the lack of evaluation data made it difficult to demonstrate why the program was worth continuing. To evaluate the effectiveness of efforts, some campuses used data about the numbers of faculty who participated in professional development and reported their satisfaction with the programs they engaged in.

While this is a good first step, the growing emphasis on accountability reveals a need for more thoughtfulness around demonstrating impact in order to have ongoing support for NTTF. Other methods of demonstrating effectiveness included having participants write reflections, present at departmental faculty meetings, author white papers, or present at a poster session based on their work in learning communities. A few campuses conducted check-ins with faculty in the semester following participation, both to offer ongoing support and to evaluate successful implementation of proposed changes. In addition to these forms of assessment, a few campuses use measures such as student evaluations of teaching and students' academic achievement and success to investigate change in these measures as a result of faculties participation. Having documented evidence of impact was beneficial for individuals leading efforts in terms of funding and sustainability.

Ways to demonstrate impact:

- Participant presentations to departmental colleagues, white papers, or poster sessions
- Student evaluations of teaching
- Students' course achievement

Multilevel Framework of Best Practices for Systematic Design

Based on our findings of the various influences on professional development, we identified a number of effective practices to supporting the professional development of NTTF. In this section, we describe considerations for how institutions can create environments that promote the access and inclusion of NTTF in initiatives and how designers can be intentional in their decision-making. In addition, we identify a number of best practices for implementation of specific initiatives to help those leading efforts maximize the benefits of professional development participation among NTTF.

Level 1: Environmental

One of the key findings from our study is that designing strong professional development opportunities and faculty learning communities in the absence of larger changes within institutional culture, policies, structures and practices is unlikely to yield successful professional learning that advances NTTF. Campuses that engaged large numbers of NTTF, had positive evaluation results, and reported the greatest number of benefits had made changes to support involvement by NTTF in professional development. As we identify best practices for design and implementation, it is critical to place these recommendations within the broader institutional changes that enabled individual faculty to participate as well as creating environments for the right supports to be in place.

We should also note that a few of the campuses that we spoke with either initially or still struggle to obtain NTTF involvement in professional development and typically this is because they had not made institutional changes. It's also important to note that some campuses had uneven or partial changes in policies and practices that resulted in inequities that interviewees deemed problematic and which they heard was received poorly by NTTF and created a demoralizing environment. We heard stories of some departments offering multi-year contracts for NTTF who avail themselves of professional development, but others did not. Or departments might be more inclined to hire adjuncts as full-time, or rehire adjuncts if they have taken professional development, but others were not applying the policy. Making changes institutionally rather than departmentally can ensure greater equity.

Making changes institutionally rather than departmentally can ensure greater equity.

Environmental: Employment Policies And Practices

An area where interviewees identified critical and important policy change was around employment policies and practices that offered rewards and recognition for professional development. SC and VC both tied career advancement and higher pay to faculty participating in professional development. As noted earlier, at ERAU-W department chairs acknowledge faculty who participate in professional development and link it into their annual evaluation and merit increases. At these campuses, institutional leadership had made it a priority to connect their incentive system with professional development. As the interviewee noted: "people pay attention to where we put our resources."

Other campuses looked at their existing reward systems and are making alterations in support of the professional development they offer. For example, at UGA, the leadership action team is examining how to more effectively evaluate teaching for tenure and promotion, especially through the lens of diversity, equity, and inclusion, with the goal of also creating better alignment in policies across departments. Additionally, strategic action teams are contributing to institutional efforts to alter their promotion guidelines to include professional development and attach it to rewards, as well as to efforts to revise campus-wide teaching evaluations to support the work they were doing through professional development. For instance, they altered tenure and promotion guidelines to now focus more on how faculty provide evidence of effective teaching and documenting their contributions to teaching. Altering all of the facets of the reward system can provide strong impetus for faculty to be involved in professional development. Another example is at KSU where they have tied professional development to annual evaluation, program review, and revised student evaluations. So, as faculty fill out their annual evaluation, they will be rewarded if they have participated in professional development. And student evaluations are now are geared towards faculty practices that they are promoting in professional development.

Environmental: Institutional And Disciplinary Mission And Culture

In order to more broadly engage NTTF in professional learning, campuses should include the development of all faculty in their institutional mission, vision, and values. Leaders at VC and SC described a culture and set of values about a growth mindset for faculty and expectations that all people should be constantly developing their knowledge. Aligning the mission creates a sense of priority, motivation and willingness to engage NTTF who otherwise tend to be overlooked. Both VC and the U-M's School of Engineering have altered their mission statements to include professional development among all faculty as a desired part of their culture. Because it is included in the mission, vision and values, it becomes natural for staff who planned activities and department chairs who can encourage involvement in professional learning to support NTTF participation.

Another way that institutional mission and culture can support involving NTTF is having a strong student success initiative in place. CSUSB, SFSU,TXST, KSU, and VC all had adopted student success initiatives, which identified the significance of faculty for student success and articulated the need for support of all faculty members regardless of contract type. Staff and leaders at centers for teaching and learning were able to use the student success initiative to leverage support for resources to create and support participation for NTTF in professional development.

Lastly, but far less common, three institutions had more fundamentally rethought educational mission in ways that made NTTF central to the mission. At VC, they have redefined their education around central competencies to which they align professional development for all faculty. Therefore, professional development is truly aligned with executing the mission and work at the school and systematically aligned with meeting objectives for the institution. Professional development is not just aimed at individuals but for a more collective set of goals. We also see this happening with the development of departmental action teams and

other initiatives with broader goals. ERAU-W's professional education mission is met by hiring NTTF, and they are integral to the educational experience and included in all professional development.

Level 2: Design

The culture, policies, and structures surrounding the professional development of NTTF create an important foundation for the success of initiatives. But campuses also need to engage in intentional work that informs the design and implementation of FLCs for NTTF. Because there has been no previous research on this topic, individuals leading efforts often had to learn through trial and error. And the campuses in our study were in different phases of engaging NTTF in professional development; some campuses had just started in the past year or two, while others had been working on improving access and inclusiveness for more than a decade. We review several systematic approaches to design that can foster the success of initiatives and create instructional change that supports student success. As we noted above, however, even the most well-designed initiative might not be successful if there is not also a systematic approach to changing culture, policies, and structures at the institutional level.

We begin by reviewing considerations related to how those leading professional development efforts can work across the institution, leveraging environmental influences to create better opportunities for NTTF. These efforts often resulted in creative solutions to external constraints and greater use of institutional resources and expertise that made initiatives more successful and sustainable. We then discuss considerations for the design of initiatives related to the purpose and objectives of specific initiatives. Clearly defining these goals helped campuses make effective choices related to design and implementation. We found that individuals or group who were focused specifically on NTTF and campuses that assessed the needs of this population were particularly effective. These practices can then inform how FLCs are situated within efforts to provide ongoing support for the professional development of NTTF. There also needs to be intentional thought around how FLC cohorts are structured, including considerations about whether participants are mixed across career tracks and disciplines, the size of each cohort, and how cohorts are facilitated. Another decision related to the structure of cohorts is how faculty will be compensated and recognized for their participation. Finally, campuses can design practices for evaluating the effectiveness of initiatives during this phase in order to shape the implementation of FLCs.



Design: Structural Factors

Another facilitating mechanism that helps in designing professional development in systematic way is that can lead to success is having planning groups that assemble the right individuals/groups across campus who are tapped for their expertise. We found that the planning groups differed by institution, so the particular structure or specific roles/ individuals is not important, but the structure allows them to bring together key individuals who can shape the design and implementation. The group needs to include individuals who understand NTTF needs, the broader institutional faculty system around rewards, evaluation, etc.; teaching and learning; academic affairs; unions; diversity, equity, & inclusion; evaluation & assessment; institutional research; human resources; library; and technology. There are many different dimensions that are needed and when the team is missing some aspect then the overall effort is less than ideal.

Many campuses have created a position within their center for teaching and learning in which an NTTF helps design professional development and services on these types of planning groups. We saw this position at BSU, OSU and KSU. One of the most beneficial structures that we identified were advisory boards or councils that brought together all the groups we mentioned above to design a professional development. CSUSB and SC both had such advisory groups. These advisory groups not only help create better professional development, but they also help connect other systems to professional development or campus operations. For example, making sure that teaching awards are open to NTTF, that union contracts include professional development, that orientation for faculty describes professional development, and that technology support is communicated to adjuncts, for example.

One of the most important practices we identified was conceptualizing individual initiatives within a framework of ongoing support for instructional effectiveness and career advancement. These considerations including thinking about how to extend support beyond the formal timing of

an initiative, how to support NTTF across a spectrum of expertise about teaching, and how to integrate professional development with other institutional processes related to teaching. These considerations shape how designers think about the initiative, how facilitators lead, and how participants view the work of effective teaching. For instance, at OSU, the facilitator of the NTTF-specific FLC emailed participants a few times during the summer before the FLC began in order to start building relationships and give participants helpful resources for the first week of classes. In addition to meetings, individual check-ins were scheduled mid-semester during the fall and again in the spring semester after the FLC had ended. These proactive check-ins help faculty feel supported in their work to implement new practices.

Similarly, at VC, new faculty are assigned an instructional designer who reaches out during orientation, so that they have a specific person to reach out to with questions about teaching. Professional development offerings at this campus are also designed at varying levels of proficiency, based on the expectation that faculty are continually developing their expertise. Several campuses used previous FLC participants as facilitators for future cohorts, which also offers the opportunity for ongoing professional development and connection.

At a few campuses in our study, the CTL manages the evaluation process for faculty, including conducting observations of teaching, which offers another opportunity for check-ins outside of professional development engagement. This practice can also raise the visibility of the CTL and the professional development initiatives it hosts, so that NTTF learn about opportunities that are open to them.

Design: Partnerships and Coordination

In addition to strategically leveraging leadership and governance structures for support, individuals leading efforts also created intentional partnerships for collaboration with a multitude of groups/units on campus. We found that some

of the campuses had created powerful partnerships that help support their efforts to provide systematic professional development for NTTF. For example, at the U-M the College of Engineering partnered with the overall CTL, obtaining expertise from the center on professional development but complemented this with their own associate dean who had expertise in engineering education and NTTF issues. This team approach allowed them not to duplicate a professional development center within their unit, maximized institutional resources, and tailored the professional development to the educational needs of their specific audience, NTTF in engineering.

Another important opportunity for coordination is between the CTL and the course coordinator or adjunct coordinator for departments and programs with a large percentage of NTTF. At BSU, the director of the first-year writing program collaborated with the CTL to offer some workshops as part of the teaching circles the program uses for professional development. This partnership can allow programs to be able to provide more content-specific professional development to NTTF that is also informed by the expertise of the CTL.

ERAU-W has a model based of partnerships between the center for teaching and learning and all the various college units (through deans and department chairs) which helped the individual leading efforts to recruit, communicate, and connect to faculty with center resources. Our interviewee noted that "very close connections with department chairs helped make professional development an expectation and part of their campus system."

Many campuses recognize that NTTF work life is determined largely by their department chairs. As a result, support for NTTF involvement in professional development can be facilitated by including department chairs in key planning groups, regular communication and getting on the agenda of their regular meetings. Various interviewees underscored the importance of department chairs as key partners in this work. If they are more aware and engaged, then faculty are much more likely to be involved and benefit. Having

a newsletter that goes to the administration to talk about adjunct faculty opportunities helps make department chairs more aware of professional development, which happened at several institutions such as KSU and ERAU-W. Additionally, at ERAU-W, department chairs acknowledge faculty who participate in professional development and link it into their annual evaluation.

At VC, those leading professional development efforts coordinate with leaders not only within academic affairs but also with human resources. This partnership allows for better integration of professional development initiatives with campus policies and practices related to hiring, compensation, and evaluation. It creates greater institutional alignment and also makes the faculty experience more unified. Partnerships like these that integrate people who are using very different approaches to support faculty can be powerful for the success of NTTF. It can be particularly important for adjuncts, who often have to navigate disjointed policies and practices.

Design: Strategic Alignment And integration

Campuses that had more systemic designs worked with their governance systems, collective bargaining, and leadership to both get feedback from these groups to inform the design as well as use these groups to advocate for NTTF to pursue and make normative professional development. In terms of governance, at KSU, interviewees talked about the development of the Adjunct Council as a systemic way to obtain ongoing needs assessment from adjunct faculty, communicate needs and create a feedback loop from the institutions to address as well. Some members of the Adjunct Council also served on other campus committees, working to ensure that adjuncts' voices were being included in many types of decision-making across campus. At the U-M, administrators worked with the union that bargained for NTTF so that the professional development that they were creating would be welcomed and not face resistance by the union.

At CSUSB, the director created more equity for NTTF through strategically aligning efforts with their union, the California Faculty Association, which represents librarians, counselors, and coaches in addition to tenure-track and non-tenure-track faculty. For instance, the director worked to revise existing policies that prohibited NTTF from some initiatives entirely and disadvantaged them in initiatives they could apply for. In the revision process, a librarian on the CTL advisory board noted that some of the language inherently excluded librarians and counselors who have teaching assignments but not courses. So, the director invited a group of librarians to read through all of the policies to make sure the language was inclusive of these types of adjuncts, justifying the more inclusive approach based on the structure of the faculty union. As another example, during the pandemic, the union negotiated to compensate all faculty, including NTTF and adjuncts, for participating in professional development related to teaching online. The director leveraged this collective bargaining to offer several learning community options that met the needs of different NTTF. Through the CSU chancellor's office, faculty could participate in the Intro to Quality Learning and Teaching program developed for the CSU system or earn a micro-credential in online teaching through ACUE. Additionally, the CTL hosted 16 FLCs that were developed and led by CSUSB faculty; this option was particularly important for meeting the needs of NTTF who had previously participated in the programs offered through CSU.

Engaging leadership is critical for obtaining resources and altering existing policies and practices. For instance, at KSU, the CTL engages key academic leaders in their planning to provide guidance about needed workshop topics. One of the most sophisticated models for leveraging leadership and governance was at UGA. Rather than work with all the existing leadership and governance structures, which in most campuses are not well aligned with supporting NTTF, they created alternative leadership and governance structures. They had created a three-level model. In addition to their departmental action teams that involved non-tenure-track faculty members, they created a steering group

of department chairs that were tasked with creating an environment supportive of the departmental action teams. At the third level, they created strategic action teams that contributed to broader institutional planning by working with key individuals from across campus (e.g., Provost, Deans, VP of Instruction) that was also aimed at supporting the departmental action teams as well as NTTF involvement. The broader teams are contributing to efforts related to policies and issues of evaluation, compensation, and promotion guidelines, for example, that could get in the way of appropriately recognizing the work of the departmental action teams.

Design: Purpose And Objectives

Beginning by clearly defining the purpose and objectives is a critical step for the success of professional development. These can be directly related to the benefits of participating in FLCs we identified. For instance, campuses that want to emphasize career development and advancement tended to implement certificate programs that provide NTTF with portable credentials. Campuses that were focused on creating a sense of belonging for NTTF created initiatives that emphasized community-building and networking opportunities, including time for informal socializing. While these goals shaped every aspect of the FLC models we identified, those leading efforts didn't always begin by articulating the intended objectives. And at these campuses, they shifted FLC practices once they realized the importance of these outcomes. Therefore, it is important for campuses to spend time defining clear goals and objectives based on institutional needs, the needs of NTTF, and the potential benefits we have identified in order to design initiatives effectively from the start.

Design: Group Composition

Our interviewees used different approaches to forming cohorts and groups, including mixing faculty across career tracks and disciplines. These choices depended on the type of initiative implemented and where programs were located. Most of the initiatives that we learned about were open to faculty across career roles and disciplines. We learned about several aspects of group formation that could influence the success of specific groups and the benefits that NTTF reaped, especially given power and paradigmatic differences that shape who talks, what is valued, and beliefs about teaching. Thus, it is important for designers to be thoughtful about these issues when considering who participates.

Many of the benefits for faculty that we identified in this study, including improving instructional effectiveness, developing a professional community, and feelings of belonging to and being supported by the institution, can occur in all of the different types of groups we studied. However, benefits related to career development and advocacy were predominantly identified in NTTF-specific FLCs specific to groups limited to NTTF and adjuncts, and adjuncts often benefited most from being in communities that were specific to their role. NTTF are marginalized in many ways, and so creating a space that centers them can be tremendously impactful.

Mixing career tracks

At several campuses, interviewees noted that in groups with mixed career tracks, NTTF made up the majority of professional development participants. The most prevalent advantage that campuses noted for mixing career tracks was that it provided important opportunities for NTTF to build their professional network. These opportunities were particularly beneficial in instructional action teams, where NTTF were able to connect with TTF in their own and similar disciplines. At the same time, discussions related to career development and advocacy were usually only included when groups were limited to NTTF or adjuncts, suggesting that these role-specific groups were particularly beneficial for NTTF.

Another consideration that is important for being inclusive of adjuncts is awareness of course control. The reality is that adjuncts often teach introductory courses with many sections, where a course coordinator makes decisions about curriculum, texts, etc. In this case, adjuncts often do not have agency to redesign many aspects of the courses they teach. This may naturally exclude them from participating in instructional action teams, and may make workshops and discussions about topics like course readings and assignments less relevant to them.

We found that power differences came into play among cohorts that mixed faculty across career tracks. Several individuals we spoke with noted that mixed cohorts could be problematic for NTTF and that good facilitation was key to overcoming this challenge. Interviewees also noted that career status was not the only power issue at play. For instance, they discussed that faculty have varying years of experience teaching, institutional knowledge, and levels of expertise about teaching and learning that also contribute to the power dynamics. For instance, in a few instances, those leading efforts talked about how long-term NTTF were empowered by their institutional knowledge and teaching expertise, helping newer TTF learn. These positive experiences were not as prevalent as negative experiences in mixed groups, however. In some instances, we heard about TTF participants discussing institutional processes or practices like funding opportunities with little awareness of their privilege, lacking any understanding that many resources and opportunities are not available to NTTF. And NTTF were hesitant to point out these differences because it highlights their contingency in a space where they already perceive power differences. Thus, it was important for facilitators to be aware of power dynamics and to directly address issues as they arose.

Mixing disciplines

Many of the campuses we studied included faculty groups across disciplines. They noted that interdisciplinary groups were important for helping faculty consider other perspectives on and approaches to teaching, especially as most faculty are acculturated to teaching through a disciplinary lens. At the same time, interviewees noted that interdisciplinary learning communities could sometimes

be problematic because of the vast differences among paradigms and epistemologies across disciplines. They noted that faculty were often dismissive of new approaches or activities used in other disciplines if they did not believe it to be a good fit for their discipline. And this was not true only of differences between sciences and humanities, but also within STEM disciplines. Even in STEM-specific initiatives, we learned that departmental groups may be more effective than mixing faculty across STEM disciplines, because of the wide variation in paradigms, instructional metrics, and accountability that occur across these disciplines, resulting in part from program accreditation.

One approach to this issue is to use a hybrid approach like KSU, where larger groups engaged in workshops and discussions about teaching while smaller, discipline-aligned groups worked to improve specific courses. Another approach is to implement faculty-designed discussion groups such as the incubators at SC and the book group at TXST. In this model, faculty have agency to engage in topics of interest and therefore are more likely to be aligned across disciplines.

Another consideration in interdisciplinary groups is being inclusive of many different programs, including those with their own initiatives. One effective approach used by BSU was to have programs with a large contingent of NTTF, such as first-year writing, designate liaisons who participated in learning communities. Through this approach, the liaisons contributed perspectives and teaching practices in the interdisciplinary spaces and also brought relevant learning back to other NTTF in the writing program.

Size and scalability

Designing the right size of groups is largely dependent on the model being implemented. In all cases, our interviewees worked to provide support to as many faculty as possible and to foster vibrant discussions and learning given resource constraints including funding and space. For instance, discussion groups often had a mix of faculty across disciplines and career tracks with groups of 20-25 participants, which

fostered a diversity of perspectives and opportunities for NTTF to connect with peers outside of their discipline and college, while accounting for varying attendance at different meetings. Instructional action teams were typically much smaller, with most models including teams of 4-8 faculty. Smaller groups were more effective for creating course change but offered faculty few opportunities to connect with colleagues that they didn't already know. And as most IATs included funding, this model wasn't particularly scalable to reach more faculty. Asynchronous, online initiatives were much more scalable, with some cohorts up to 75 participants. This size accounts for faculty's varying levels of contributions to discussions, as some participants may read postings but not engage in conversations.

Design: Needs Assessment

At several campuses, the individual or group leading design and implementation had experiential knowledge as a current or former NTTF themselves. However, to be inclusive of the diversity of types of NTTF, and especially adjuncts, it is crucial for campuses to assess the needs of NTTF broadly within the institution. The campuses where this happened more successfully used all of the data they could find and sometimes collected their own. For instance, our interviewees discussed using surveys and data collected by the institution, by the union, by the faculty senate, provost's office and by departments. While this data may not explicitly address professional development, it can help inform the design of initiatives through a better holistic understanding of who the NTTF on a specific campus are, as well as providing context about topics like what their work lives look like, what their priorities are, and what perceptions of the institution they have. One theme that emerged across campuses was how much individuals who were leading efforts learned from engaging with such data, especially in terms of realizing that the different types of NTTF employed at their campus had different needs, leading them to create a suite of professional development options rather than using a one-size-fits-all approach.

Below we describe targeted efforts to assess the needs of NTTF. These campuses used surveys, focus groups, and other means to gather information specifically about adjuncts or NTTF. A few campuses noted that they conducted a needs assessment of all faculty, but the response rates for NTTF were very low. Thus, conducting assessment that specifically targets NTTF and adjuncts can be useful to better understand the needs of these faculty, who may be less likely to participate in institution-wide surveys. Additionally, we found that it was also important to engage in this work on a regular basis, especially given the changing faculty profile and turnover among NTTF.

Adjunct-Specific Needs Assessment

Systematic attention to needs assessment among NTTF was more prevalent at campuses that employed a significant percentage of adjuncts. At these campuses, leaders often assessed adjuncts' experiences and needs related to several topics in addition to professional development. For instance, at BSU, the CTL conducted a survey of adjuncts that asked about topics including departmental and campus culture; faculty control over course readings, assignments, etc.; orientation experiences; career characteristics such as a length of employment at BSU and education level; and engagement and interest in different forms of professional development, topics of interest, etc.

At the same time, attempts to survey adjuncts on their professional development needs was not always successful. An interviewee from KSU discussed some of the challenges they had faced using this approach. First, the adjuncts who are most likely to respond to such surveys are likely already engaged, leaving a knowledge gap about how to engage disconnected adjuncts who are probably the most important to reach. Second, our interviewee noted that it is important to interpret data appropriately. For instance, they mentioned that some offerings were very poorly attended even though they were designed based on the interests and needs expressed in survey responses. They reflected that adjuncts may also respond using an idealized perspective

about how they would like to engage, rather than thinking about the realities they face.

Multimodal Needs Assessment

On campuses that have a good understanding of the professional needs of NTTF they tend to have ongoing mechanisms for assessing needs and do so using multiple modalities. For instance, SC regularly conducts focus groups and surveys with faculty, as well as connecting data from institutional evaluation and effectiveness committees. At VC, the cross-functional part-time faculty engagement work team uses a variety of direct and indirect methods to assess the accessibility and relevance of professional development initiatives for adjuncts. They use data collected from various sources, including shared governance committees, focus groups, feedback from professional development participants, annual evaluations, professional development engagement data, and from department chairs and deans who host listening sessions with their faculty. The results of comprehensive assessment tended to lead to more systematic approaches to professional development. For instance, VC noted that they publish their schedule of professional development offerings for the entire semester during the first few weeks of class, because they had learned how important it is for adjuncts to be able to plan several weeks in advance.

Design: Rewards And Recognition

NTTF should be compensated for their engagement in professional development. These efforts contribute to student success that benefits the institution, and at most institutions is work that is outside the scope of their job responsibilities. Thus, compensation is an equity imperative. NTTF benefitted the most from stipends given at the beginning of the semester of participation, which gave them the ability to purchase technology, books, and other resources that supported their individual FLC projects. At a few campuses, compensation was not provided directly, but faculty could be funded to attend conferences or purchase resources in future semesters. This model does not reflect

the reality of annual or semester-based contracts. At the very least, faculty should be provided with the book and other resources that will be used in the FLC, so that faculty don't have to spend money to participate. And if nothing else is possible, providing a nice space for meetings and snacks can at least convey that participants are valued.

One systematic way to recognize involvement in professional development is the creation of a certification. At SC; SFSU (they also increase their pay once certified); CSUSB; and UNCC, they have all created a certification program for involvement in the faculty learning communities. This certification could then be used as a credential and demonstration of excellence as they applied for jobs at other institutions. Interviewees at these institutions noted that they wanted to provide something tangible to NTTF for their time involved in the learning community and something that was transportable to other environments.

Another way those leading professional development efforts can support NTTF's engagement in professional development is to examine opportunities for recognition through campus awards, announcements, and photographs for newsletters and websites. For example, at CSUSB they now have an award for teaching excellence among NTTF specifically. Several of the individuals leading professional development efforts for NTTF described how even though they could not get formal reward systems changed, they did their best to recognize individuals' involvement in professional development by announcing their involvement in a newsletter or on a website. These efforts can contribute to a sense of belonging and being valued among NTTF, but these approaches require academic leaders to seek out this information to be impactful for faculty's careers. More proactive efforts to try to obtain recognition for participants include writing a letter to the department chair or sending a letter of completion to participants and copying institutional leadership.

Design: Evaluation

As we described above, the longevity of professional

development initiatives was threatened by a lack of evaluation for impact at several campuses. Therefore, it is critical for campuses to consider how they will conduct assessment as part of the design process. Most CTLs regularly assess their initiatives through short surveys that measure participants' perceptions of learning and satisfaction. In addition, a relatively simple way to demonstrate impact is by tracking the number of participants who engage in various initiatives. Identifying who the faculty are who participate in FLCs, including their discipline, career track, professional histories, and social identities can be beneficial not only to demonstrate impact but also to identify gaps in participation. Several campuses also used faculty's final projects and other deliverables as a means of assessment.

A few campuses are focusing on ways to measure changes in teaching. For instance, at KSU, faculty must complete a teaching narrative annually as part of their evaluation. In the College of Math and Science, they are a few years of these narratives for evidence that participation changed faculty's perceptions and practices related to teaching. They are also comparing faculty who participate in FLCs against those who are not and how it directly ties to student success.

At UGA, they are using a pre-test/post-test design for all faculty in the STEM disciplines included in the project, with survey instruments designed to measure participants' attitudes towards instructional change in STEM and their use of evidence-based practices. These instruments reflect the five core commitments of the project: learning objectives, evidence-based decision making, promoting diversity and inclusion, continuous teaching improvement, and collaborative work on teaching. Through this data, they hope to analyze impact not only for the instructional action team participants, but broader changes that might occur as a result of dispersion or the changing policies and practices implemented by department chairs. They are also using a journey map for the different individuals involved in their project as faculty and leaders will not all change at the same time or in the same ways.

Level 3: Implementation

Best practices related to the implementation of FLCs influence the degree to which FLCs are accessible to and inclusive of NTTF. To be inclusive of NTTF, individuals leading professional developments efforts should consider the role of facilitators; practices related to recruiting and choosing participants; determining the delivery mode, length, and scheduling of FLCs; and identifying the content, resources, and deliverables that will support participants' learning. Thinking through these issues can be beneficial across the various FLC models that we identified, especially as best practices may depend in part on the institutional context, the purpose of FLCs, and group composition. These considerations are especially important given the limited time and resources of NTTF and adjuncts.

Implementation: The Role Of Facilitators

In the traditional FLC model, faculty self-lead meetings. While the campuses we studied reflect a spectrum of how much guidance facilitators provide, from only organizing meeting spaces to leading workshops and discussions, we found that NTTF benefit from having facilitated experiences. Facilitators often identified useful instructional resources for participants, even when they let faculty identify the topics under discussion. This approach draws of the expertise of the professional developers and experienced faculty who facilitate FLCs and recognizes that NTTF are less able to dedicate time to self-lead FLCs given their many other responsibilities. And some campuses were intentional about having NTTF become facilitators and offered stipends for this work.

Facilitators are also beneficial to address group dynamics. This issue may be especially relevant in FLCs where faculty are mixed across career tracks in order to address issues of power that may exclude or silence NTTF. They can also help to draw connections across disciplines to help faculty learn from one another. At CU Boulder, a faculty member from the College of Education and a member of the CTL staff co-led an FLC, which they found to be a particularly beneficial practice, as their individual expertise allowed them to simultaneously provide support for instructional effectiveness and for an equitable and inclusive group where all faculty regardless of contract type felt comfortable speaking.

Because facilitators have these dual responsibilities, it is

important for facilitators to receive training and support. At UGA, facilitators engaged in leadership development activities before beginning in their role, and individual leading professional development efforts held regular meetings with all facilitators in order to help them create flexible environments and also accountability the cohorts they led.

The work of facilitators can also contribute to the evaluation of FLC effectiveness. CU Boulder developed a template for facilitators to reflect on the success of each meeting in real time as a means of formative assessment, and they also wrote a summative assessment at the conclusion of the FLC. Facilitators also documented meeting agendas, attendance, and participant progress in these documents. This type of documentation and reflection can be used not only to assess the effectiveness of initiatives but also to help future facilitators by identifying the types of challenges and opportunities they may face.

Implementation: Recruiting and Choosing Participants

Many campuses used an application process for FLCs because of limited resources or to ensure that faculty had thought about what they wanted to learn through participation. These applications often included questions that were designed for TTF, asking about plans for scholarship and expected long-term impact. Thus, at campuses that were thoughtful about being inclusive of NTTF, they had to revise, and often shorten, applications and scoring rubrics. The timing of applications is also important. Many CTLs had applications due in the

semester prior to participation, but adjuncts often don't know whether they will be teaching in the next semester. UNCC changed their application process to have a one week recruiting period in the beginning of the semester in which the FLC would occur, so that adjuncts who were teaching that semester could participate. A shorter timeline can also be beneficial for NTTF whose course load and schedule may change at the last minute.

We also found that CTLs that used multiple methods of communicating opportunities were most successful. For instance, on campuses with a part-time faculty representative or group in governance, having them advertise opportunities in emails or newsletters was a successful means of communication. In CTLs with a staff member dedicated to NTTF, this person often created a tailored email or newsletter with relevant opportunities. At several campuses, CTLs also had department chairs send tailored emails, as NTTF often feel most connected to the institution at the departmental level. Finally, campuses that had websites and resource sites specifically for part-time faculty often leveraged these virtual spaces to advertise professional development that was relevant for NTTF. It was through a mix of these communication methods and word of mouth that campuses most successfully recruited NTTF.

Another consideration for being inclusive of NTTF is the application process. This issue is especially relevant if initiatives include a mix of faculty across career roles. For instance, CSUSB had success engaging more NTTF in their mixed-track groups after revising the rubric they used to score applications. And several interviewees talked about revising FLCs applications to be shorter, given the amount of time and effort it requires to fill these out. At CU Boulder, they removed a requirement for faculty to get permission from their department chair to apply, as the requirement was based on expectations for service that do not apply to NTTF.

Implementation: Delivery Mode, Length, And Scheduling

We found that various modes of delivery can be effective based on the institutional population of NTTF. Several campuses used hybrid modes of delivery, including CSUSB and VC, who both had face-to-face orientations for their programs, so that faculty could meet one another before engaging in a cohort online. The initiative in KSU's College of Math and Science includes face-to-face meetings for the large cohort, but offers some flexibility for the instructional action team work, which might occur synchronously or asynchronously and virtually or face-to-face. The hybrid mode of delivery reflects a balance that helps faculty develop a professional network and a sense of belonging on campus with the convenience of online attendance that values their many other responsibilities. And campuses that utilize a face-to-face mode quickly learned that they needed to also offer a virtual option to make meetings accessible.

Whatever mode of delivery is chosen, designers also need to think through scheduling early in the process. One big takeaway is that shorter FLCs were far more effective for engaging adjuncts compared to yearlong initiatives. And in FLCs that included intensive workshop components, such as the adjunct certification course offered by SC, individuals leading efforts were intentional of scheduling these events outside of the academic semester, such as during spring break or over the summer, to reduce potential conflicts on time. Campuses also learned to schedule meetings outside of business hours, including early in the morning, late in the afternoon, and on weekends. And a few campuses used mostly asynchronous formats. For instance, the entirely asynchronous online format of ERAU-W's FLC facilitates the engagement of adjuncts who live in many different time zones. At the same time, several interviewees described that NTTF found synchronous meetings very beneficial, especially in terms of engaging in discussion and connecting with peers, and so using a combination of synchronous and asynchronous activities may be best to help NTTF realize the benefits to participation that we identified earlier.

Implementation: Content And Participants' Deliverables

We asked directors about the differences in the types of content and resources that NTTF were interested in learning about. At institutions that had adjunct-specific FLCs, including BSU, KSU and UNCC, individuals leading professional development efforts noted that adjuncts are more concerned about immediate issues in the classroom, so focusing content on instructional approaches that are immediately actionable can be very helpful. The topics they listed included collaborative learning, leading discussions, motivating students, savings time, and integrating technology tools. Those leading NTTF-specific FLCs, such as those at CSUSB and OSU, identified that NTTF tend to have more short-term, practical goals for improving a particular aspect of instruction, including how to handle challenging situations in the classroom, compared to TTF, who tend to think more theoretically about shifting their perspective on teaching. At the same time, we spoke with several long-term NTTF whose interests were more aligned with those of TTF, and so it is important for facilitators to understand the population of NTTF to design appropriately. Interviewees also noted that NTTF in STEM often teach courses with a common syllabus, readings, and assignments, and so they are less interested in these aspects of course design.

In addition, in several of the NTTF-specific LCs, facilitators dedicated part of meetings to presentations by others, including workshops by CTL staff. For instance, at UNCC, the first hour of each meeting is dedicated to discussions about teaching and building relationships, and the second hour is a workshop in pedagogical improvement. While our interviewee noted participants could attend CTL workshops for the same information presented in the second hour, this approach brings workshops to them in a time they have already set aside to focus on teaching. It can also be particularly helpful for adjuncts to bring in representatives from academic technology or other offices that may be closed when these faculty are on campus.

Most of the LCs we studied included some type of project or deliverable that faculty completed, including course redesigns, teaching portfolios, or reflections. Several of our interviewees framed a deliverable as an important component of professional development for fostering changes to teaching practice. At the same time, many of the individuals leading efforts talked about modifying these projects to be shorter and/or more practice-oriented. They also noted the importance of centering this work in meetings, as NTTF are often challenged to fit pre-work and homework into their busy schedules. In addition, several campuses included a requirement that faculty create a poster or presentation to be shared with colleagues as a means of dissemination. And some realized having a deliverable at the end was just too demanding and gave up this requirement, especially if faculty were not compensated.

...it is important for facilitators to understand the population of NTTF to design appropriately.

Challenges in Designing for NTTF

The best practices we identified also reveal a number of challenges that designers faced in meeting the professional development needs of NTTF. These challenges often cut across the multilevel model of influences on professional development, representing thorny problems that are difficult to solve. At the broadest level, environmental cultures that marginalized NTTF presented ongoing challenges to design and implementation, as NTTF had little motivation to engage in the campus community. Constraints related to resources and scaling often created challenges to supporting all NTTF on campus. We also identified a number of other challenges that affected whether initiatives were truly accessible to and inclusive of NTTF. Other common challenges we identified were making NTTF aware of opportunities, truly understanding and meeting the needs of the diverse types of NTTF at their campuses, and implementing LCs in a way that facilitated NTTF's ongoing participation and engagement.

Addressing Cultures that Marginalize NTTF

Institutional and disciplinary cultures that marginalized NTTF created enormous challenges. Some campuses reported that tenure-track faculty members and administrators did not value the work of non-tenure-track faculty members and this made it challenging to engage NTTF in professional development. When faculty are stressed because they feel a lack of respect, they are much less likely to engage in professional development and are unlikely to feel safe in learning communities with a group composition that include tenure-track faculty members. Leaders on several campuses noted that it's important to focus on improving the culture so that NTTF feel safe and have confidence that participating in professional development is worthwhile.

Obtaining Resources and Achieving Scale

Resources were a persistent challenge. Convincing administrators, CTL leadership, or advisory boards to invest in non-tenure-track faculty, and especially part-time faculty, who may only teach at an institution for a semester or a year, was sometimes difficult. The lack of investment affected whether NTTF were allowed to participate in initiatives and whether they were rewarded for their efforts. In order to overcome this, many campuses had collected data about how their non-tenure-track faculty had been around for a long time. Campuses that were able to strategically align their initiatives by leveraging university systems, unions, or governance structures with part-time and NTTF representatives were often more successful in persuading administrators to provide needed resources. In fact, the CSU system office regularly collected data to convince campus administrators that many of their NTTF were long-term employees worth investing in.

Limited resources also affected the scalability of initiatives; most learning communities only had funds to provide stipends for 8-10 people, limiting the reach and impact of initiatives. Several campuses mentioned receiving three or four times the number of applications compared to the number of faculty they could support. This is why it is key to strategically align efforts to get support from administrators who can change priorities, evaluation, rewards, and other structures that would incentivize involvement in professional development. Influencing employment policies and practices especially by

creating promotion systems tied to professional development is a systemic way to increase scalability. Another approach is to create a model that uses departmental or program liaisons to disseminate learning and change through a model of embedded expertise. In this model, a few individuals are chosen to participate in initiatives with the expectation that they then disseminate new knowledge and teaching materials with colleagues in their department or program.

The sustainability of initiatives was often dependent structurally on finding long-term sources of funding rather than soft money such as grant and stimulus funding. Such funding was often dependent on the ability of leaders to demonstrate the impact of professional development on faculty and student success. Several of our interviewees noted challenges to demonstrating impact even when they conducted evaluations. For instance, faculty's participation in professional development is confounded with their use of good teaching practices such as supplemental instruction and community engagement, making it difficult to isolate the unique impact of professional development on student success. Further, learning communities are often designed to foster incremental changes in teaching over time, making visible differences difficult to discern. In addition, initiatives that were not strategically tied to the institutional mission and student success often faced challenges to sustainability.

Coordinating Efforts and Communicating Opportunities

Over time, some campuses have created a decentralized and sometimes disconnected set of professional development opportunities for faculty. Particularly at the research universities we spoke with, they had professional development programs offered by CTL, some initiatives through academic affairs, others through particular schools and colleges (e.g., medical schools often have their own initiatives), and still more through specific departments (this was particularly true in STEM departments). There are also growing numbers of grant-based initiatives through the National Science Foundation and the Howard Hughes Medical Institute as well as campus-based initiatives or institutes around service learning or undergraduate research that include forms of professional development for faculty. Some campuses also had technology offices offering workshops or other initiatives and others that offered professional development specific to faculty teaching in online or distance education programs.

While the lack of coordination creates duplications of efforts and often varying expertise among those leading efforts that affect their success, it also creates confusion for faculty about which initiatives are available to them and most worth their investment of time. And it creates challenges to communicating with faculty, particularly NTTF who may not be integrated into the institution well to begin with. Some campuses were considering a virtual hub where faculty could go to learn about all of the different opportunities. But on many campuses, communicating opportunities remains a challenge.

Even when programming is more centralized or coordinated, it can still be difficult to reach NTTF. The NTTF population is very diverse and often not engaged with campus communications so, even when you develop important opportunities it is hard to get the word out. In this report, we have highlighted campuses that created communication mechanisms specifically for NTTF and adjuncts (e.g., a newsletter or a website). Some campuses hired an adjunct to serve as an adjunct coordinator who was tasked with communicating with NTTF, so that NTTF would know that communication from that person was relevant to them. KSU had created a model of ways to connect with adjunct faculty. They created a part-time faculty council to communicate with adjuncts. They have 50 departments represented on the council and a very good

network across the entire campus. It is also connected to the faculty senate. They have a very thorough newsletter and are strongly networked into the administration as well. The leader of part time faculty council is a paid position similar to an adjunct coordinator.

Understanding and Meeting the Varying Needs of NTTF

There was vast diversity among the NTTF and adjuncts employed by the institutions we studied. Some NTTF have been at the institution for a long time and needed one thing, while new NTTF have different needs. Some are working at lots of different campuses and others are only working at that particular campus. Some have a lot of family demands. Because of the many types of NTTF, it can be challenging to develop a thorough understanding of their needs. Campuses that faced the most challenges often did not use systematic approach to needs assessment. And even campuses that conducted needs assessment described some limitations to using surveys to fully understand the needs of adjuncts in particular because many do not respond, as they are often do not feel connected to campus. Without this deeper understanding, initiatives serve a smaller population of NTTF than is needed. And the reality is that no one type of professional development will be effective because of the diversity of types of NTTF and adjuncts employed by an institution. Offering a suite of professional development initiatives is therefore necessary to support all NTTF.

Similarly, there are challenges related to designing initiatives that are relevant to NTTF. For instance, our interviewees noted that NTTF who teach at the introductory level often teach the same course over and over again. These faculty often have little control over the course syllabus and so discussions of choosing readings or designing assignments may not be relevant. They may also lose their excitement in teaching, resulting in a lack of motivation to participate in professional development. As a result of these contexts, it can be difficult to keep NTTF motivated and intellectually engaged. Additionally, for adjuncts, many of whom may teach once a year or every other year, it is similarly important to consider how to keep them updated about new policies, instructional tools, and the like.

One other challenge related to meeting the needs of NTTF that came up frequently was how to support the ongoing professional development of NTTF who have previously participated in initiatives. Many campuses are having conversations about how to create advanced certificates and learning communities, but the challenges we've previously identified, including resistance to investing in NTTF have made it difficult for them to create more initiatives. And if NTTF are allowed to participate in FLCs more than once, it is not a good use of their time to engage with the same content repeatedly.

Ongoing Implementation Challenges to Access and Inclusion

Even with a deep understanding of the needs of NTTF, designing initiatives that are accessible and inclusive over time is an ongoing process. Common challenges related to accessibility included scheduling, being realistic about NTTF's responsibilities and projects, the mode of delivery, and more. In particular, yearlong initiatives exclude adjuncts and other faculty who are hired on a semester basis, and even when NTTF do commit, changes to their course load or job responsibilities between semesters sometimes cause problems for ongoing participation. Additionally, interviewees talked about different types of challenges NTTF faced attending face-to-face meetings, including travel time to and from campus and having to find and pay for parking.

Those leading professional development efforts for NTTF also found it challenging to schedule meetings given the heavy course loads of NTTF. A few interviewees admitted that, for some cohorts, it was impossible to find a time during the day when all 10 participants were not teaching. These issues are compounded by the fact that most support offices on campuses, including CTLs, operate during business hours, while course schedules do not. One interviewee talked about shifting the work hours of a LC facilitator so that meetings could be held in the early evenings. Other campuses experimented with holding face-to-face meetings early in the morning or during weekends. And, at one campus, fewer faculty participated in workshops when the person leading professional development effort shifted them to the evenings in an attempt to increase accessibility for NTTF. Thus, it is important to understand the needs of different NTTF, to find times that are more successful, and to consider whether different timeframes may be more effective for face-to-face meetings compared to virtual offering. For instance, some campuses found success by hosting virtual meetings during lunchtime to accommodate professional adjuncts.



Conclusion

In the end, we learned that a couple of key perspectives can help drive a strong process for establishing quality professional development for non-tenure-track faculty. Perhaps the most important take away was that without a systems perspective that addresses the needs of non-tenure-track faculty members and the ways that the institution can minimize their participation or enable it, planners will be limited in their success.

Perhaps the most important take away was that without a systems perspective that addresses the needs of non-tenure-track faculty members and the ways that the institution can minimize their participation or enable it, planners will be limited in their success.

Second, having compassion and empathy for non-tenure-track faculty is essential for designing professional development to meet their needs. Without this empathy, planners will not be able to create equitable experiences, understand their vulnerabilities, empower non-tenure-track faculty members, and advocate for their interests. We recommend that individuals to read our companion report on Designing for Equity in Higher Education (Culver et al., 2021).

Third, working with your campus to create a culture where growth and development is an expectation is critical to obtaining the resources, priority setting, and structures to support professional development on scale that includes non-tenure-track faculty. And, if professional development as an expectation, then it will also be valued and recognized much more so than it is now with at the Academy. Lastly, connect the work to issues that people are passionate about and make it fun and enjoyable, too.

We have provided a lot of detail about ways to activate this work successfully. In Appendix A, we also offer some models of the resources and research created by the campuses we studied to serve as models and information for campuses engaging in this work.

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Appendix A. Institutionally-provided Resources

NTTF-specific websites with resources

University of Michigan College of Engineering. Resources for Lecturers. https://adaa.engin.umich.edu/lecturers/ [includes information about new lecturer orientation, the Lecturer Advisory Committee, and more]

Adjunct-specific websites with resources

Sinclair College CTL: https://ctl.sinclair.edu/professional-development/adjunct-faculty/ [describes adjunct certification, links to adjunct faculty handbook and adjunct faculty of the year award nomination form, etc.]

Kennesaw State CETL Scholarly Teaching Programs and Services for Part-Time Faculty: https://facultydevelopment.kennesaw.edu/scholarly-teaching/part-time-faculty.php [describes the Teaching Academy, part-time faculty listserv access, resources for part-time faculty, teaching guidebook, and more]

UNC Charlotte Adjunct Website: https://adjunct.uncc.edu/ [offers policies, classroom guidance, and campus resources]

Newsletters with resources

Boise State CTL Adjunct Faculty E-Newsletter: https://www.boisestate.edu/ctl/resources/adjunct-newsletter/ [includes upcoming workshops and events, teaching tips, relevant changes to policy, and spotlights an adjunct faculty member]

Embry-Riddle Worldwide RCTLE newsletter: https://rctle.erau.edu/category/publications/newsletter/ [includes upcoming workshops and events, teaching tips, relevant changes to policy, and spotlights a faculty member]

Kennesaw State Part-Time Faculty Council Newsletter: https://ptfc.kennesaw.edu/newsletters.php [includes meeting minutes, announcements from CETL, and sometimes spotlights part-time faculty]

Assessments and Annual Reports

UNCC CTL: https://teaching.uncc.edu/about-ctl/ctl-history [includes annual reports]

Sinclair College: https://ctl.sinclair.edu/leadership/ [describes advisory board and links to annual reports]

Adjunct-specific Scholarly Conferences

Adjunct Faculty Scholars Conference: https://www.ius.edu/afsc/index.php [participants from IUPUI, IU Southeast, Bellarmine University, Ivy Tech, Spalding University, Sullivan College, the University of Louisville, and other Indiana University campuses]

Treasure Valley Adjunct Conference: https://www.boisestate.edu/ctl/events/adjunct-conference/ [participants from Boise State University and the College of Western Idaho]

Academic Publications

Atwell, A., Cottom, C., Martino, L., & Ombres, S. (2017). Virtual Faculty Learning Community Implementation Framework. Scholarly Commons. https://commons.erau.edu/publication/1372 [offers a framework to guide development of virtual learning communities based on the Embry-Riddle Worldwide model]

Buch, K., & McCullough, H. (2016). Addressing the needs of adjunct faculty with a cohort-based faculty learning community. Learning Communities Journal, 8(1), 35-50. [describes the needs assessment and first year of the learning community including results of evaluation at UNCC]

Buch, K., McCullough, H., & Tamberelli, L. (2017). Understanding and responding to the unique needs and challenges facing adjunct faculty: A longitudinal study. International Journal of Learning, Teaching and Educational Research, 16(10), 27-40. [describes how needs assessment guided development of several adjunct-specific initiatives that led to increased perceptions of support at UNCC]

Cottom, C., Atwell, A., Martino, L., & Ombres, S. (2018). Virtual Community of Practice: Connecting Online Adjunct Faculty. Learning Communities Journal, 10(1). Retrieved from https://commons.erau.edu/publication/1159 [describes the creation of the virtual learning communities at Embry-Riddle Worldwide]

McCullough, H., & Buch, K. (2020). Using Certificates to Engage Faculty in Professional Development. Current Issues in Education, 21(2). [about creating certificate programs at UNCC]

Sherick, H. M., Khan, P., & Bailey, E. J. (2020). Lessons learned in implementing increased support and building academic community for teaching faculty. ASEE Virtual Conference. https://peer.asee.org/lessons-learned-in-implementing-increased-support-and-building-academic-community-for-teaching-faculty [description of conference presentation with a link to the paper describing many of the professional development initiatives offered by University of Michigan College of Engineering).

Compensated yes yes yes yes yes yes 20 2 2 2 2 Faculty Project or Deliverable several projects course redesign assessment of course redesign collaborative group project assessments culminating reflection learning project project none none 2 asynchronous with on-campus launch and conclusion FLC, adjunct short institute, adjunct website, workshops campus, each offered twice virtual, asynchronous onvirtual, synchronous with with asynchronous option virtual, synchronous on-campus launch on-campus, virtual **Delivery Mode** on-campus on-campus on-campus on-campus on-campus on-campus self-paced six weeks yearlong yearlong semester semester semester semester drop in yearlong semester semester Length Social Sciences social work writing program Disciplines Humanities; mixed mixed mixed mixed mixed mixed mixed mixed STEM mixed **Participants** mixed (mostly mixed (mostly **Career Track** adjuncts adjunct faculty) adjunct faculty) adjuncts NTTF mixed mixed mixed mixed mixed NTTF NTTF NTTF action teams certification Instructional certification Community Learning virtual LC Model Γ DG DG DG Γ DG Γ Γ California State University Kennesaw State College Sinclair Community College Boise State School of Social Work Online Boise State First-Year Writing Program Kennesaw State College of Humanities and Social University Worldwide San Francisco State **Embry-Riddle Aeronautical** Kennesaw State University of Math and Science **Texas State University Boise State University** Ohio State University San Bernardino Institution Program Sciences University Campus IUPUI

Table 2. continued

Institution	Learning Community	Participants	pants	Length	Delivery Mode	Faculty Project or Deliverable	Compensated
	Model	Career Track	Disciplines				
University of Colorado Boulder	ГС	mixed	STEM	semester	on-campus	final project course redesign teaching eval	Ou
University of Georgia	instructional action teams	mixed	STEM	yearlong	on-campus	redesign	Ou
University of Michigan	DG	NTTF	STEM	yearlong	hybrid	none	ou
University of North Carolina Charlotte	C	adjuncts	mixed	semester	on-campus with virtual synchronous option		yes
Valencia College	certification	mixed (mostly adjuncts)	mixed	self-paced	virtual with in-person orientation	syllabus; course ecaluation	yes

Note under Learning Community Model: LC = Learning Community; DG = Discussion Group.

Table 3. Benefits most commonly found for different types of learning communities

	Instruc	Instructional effectiveness	Sense of belonging	Institutional integration	Professional network	Career development	Advocacy skills	Leadership
	Measurable change	Measurable Incremental change						
Traditional learning community		×	×	×	×		×	×
Action teams	×		×		×	×		×
Certificate program		×	×	×		×		
Discussion group		×	×	×	×			×

Project Team



Adrianna Kezar | Director and Principal Investigator

Adrianna Kezar is the Dean's Professor for Higher Education Leadership at the University of Southern California and director of the Pullias Center for Higher Education at the USC Rossier School of Education. She is a national expert on student success, equity and diversity, change, governance and leadership in higher education.



KC Culver | Co-Investigator

KC Culver is a senior postdoctoral research associate in the Pullias Center for Higher Education at the USC Rossier School of Education. She employs quantitative, qualitative, and mixed methods to study the impact of educational policy and practice on the development and success of diverse students. Her research focuses on policies and practices related to faculty, curriculum, and learning environments.

Recommended citation for this report: Kezar, A., & Culver, K.C. (2021). Designing accessible and inclusive professional development for NTTF. University of Southern California, Pullias Center for Higher Education.

About the Pullias Center for Higher Education

The world's leading research center on student access and success in higher education, the Pullias Center for Higher Education advances innovative, scalable solutions to improve college outcomes for underserved students and to enhance the performance of postsecondary institutions. The Pullias Center is located within the USC Rossier School of Education, one of the world's premier centers for graduate study in urban education.

Since 1995, the mission of the Pullias Center for Higher Education is to bring a multidisciplinary perspective to complex social, political, and economic issues in higher education. Our work is devoted to the key issues of college access, retention, and accountability for underserved students—and the effectiveness of the colleges and universities that serve them. Both directly and through our research, we engage with institutional leaders, policymakers and the community at large to address the major challenges in educational equity today. For more information, please visit: https://pullias.usc.edu

This research is also based upon work supported by the National Science Foundation under Grant No. (NSF DUE-1914784). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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