

## ORIGINAL RESEARCH

# Nurse faculty shortage problem and a grant solution to the problem

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## ABSTRACT

**Introduction:** The projected growth of the nurse workforce will drive the need for more nurse faculty in the U.S., with an estimated needed increase of 24% (16,000 new faculty) to meet workforce demands between 2016 and 2026. However, nursing schools have struggled to keep pace with growing enrollment demands and faculty retirements.

**Methods:** To meet the needs of the nursing workforce and to address the nursing shortage by educating qualified faculty, the University of Cincinnati College of Nursing (UC CON) has applied for and received funding through the federal government's Health Resources & Services Administration (HRSA) Nurse Faculty Loan Program (NFLP) grant.

**Results:** Since 2012, the UC CON has utilized the NFLP to provide nearly \$4.4 million in loans to students. The UC CON has supported 115 individual graduate-level nursing students with NFLP funds. As of 6/07/24, 73 UC CON degrees have been awarded. Several prior recipients are working as nurse faculty, some at rural and community colleges where the nurse faculty shortage is most acute. Some of the students who received NFLP funds and graduated are working in medically underserved and/or rural areas across the U.S.

**Conclusions:** A new grant submission was funded in June 2024 to fund more doctoral students and Master of Science in Nursing Education Students. The UC CON provides additional components (e.g., nurse educator development, professional development, and job search support) to strengthen recipients' preparation and marketability for nurse faculty roles in all regions, including rural and underserved areas.

**Key Words:** Nursing shortage, Faculty shortage, NFLP, Funds

## 1. INTRODUCTION

The demand for nurses continues to rise due to the aging Baby Boomer population, changes in the structure of health care systems, and the incidence of disease in the collective health of the population. The shortage is estimated to last through 2030. According to the Bureau of Labor Statistics' Employment Projections 2021-2031, the Registered Nursing (RN) workforce is expected to grow by 6% by 2031. The RN workforce is expected to grow from 3.1 million in 2021 to 3.3 million in 2031, an increase of 195,400 nurses. The Bureau also projects 203,200 openings for RNs each

year through 2031 when nurse retirements and workforce exits are factored into the number of nurses needed in the U.S. The nurse practitioner (NP) workforce is expected to increase 36% over the same period as one of the 10 fastest growing occupations. The projected growth of the nurse workforce will drive the need for more nurse faculty in the U.S., with an estimated needed increase of 24% (16,000 new faculty) to meet workforce demands between 2016 and 2026.<sup>[1]</sup> However, nursing schools have struggled to keep pace with growing enrollment demands and faculty retirements.<sup>[2]</sup> According to a Special Survey on Vacant Faculty

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Positions released by American Association of College of Nursing (AACN) in October 2022, a total of 2,166 full-time faculty vacancies were identified in a survey of 909 nursing schools with baccalaureate and/or graduate programs across the country (84.4% response rate).<sup>[2]</sup> According to the Bureau of Labor Statistics, employment in nursing education is expected to grow by 8% by 2032.<sup>[3]</sup> That number is much higher than the national average for all employment. The National League for Nursing's (NLN's) biannual Faculty Census Survey confirms this trend, reporting that 80% of nursing programs responding sought to hire new faculty in 2023 to fill upwards of 1,000 vacant positions, yet 80% of respondents had difficulty recruiting and hiring new faculty members. Among the reasons cited for this difficulty were the lack of qualified candidates, decreased salary, and the fact that tenured and tenure track positions have become limited. According to the survey, nearly 70% of faculty are not tenured nor on a tenure track at present.<sup>[4]</sup> This shortage is anticipated to worsen, as a third of faculty are expected to retire by the year 2025.<sup>[5]</sup>

### 1.1 Burnout and retention

A compounding factor in the nurse shortage is the growing burnout of nurse faculty and the correlation between the supply of nurse educators and the ability of schools to produce enough nurses to meet workforce needs. The term *burnout* was first coined by Herbert Freudenberger in 1974 and defined as "a state of emotional exhaustion based on interactions with other people."<sup>[6]</sup> Nursing faculty are often involved in intense interactions with students, peers, clinical site staff, local and state organizations, and many other individuals, which can lead to burnout.

Nurses are considered essential health care personnel and account for the largest portion of employees in the health care system; in the U.S., nurses number about 3.9 million.<sup>[7]</sup>

### 1.2 Underrepresentation

Although individuals from underrepresented racial and ethnic groups represent 37% of the current U.S. population, the current nursing workforce does not reflect the nation's demographic profile.<sup>[8]</sup> This discrepancy could contribute to disparities in health care outcomes among the different underrepresented racial and ethnic groups.<sup>[9]</sup> Similarly, only 10% of nurse educators reflect underrepresented racial and ethnic groups and even lower numbers hold leadership positions.<sup>[10]</sup> AACN highlighted the importance of including and reflecting the racial and ethnic diversity among the population in academic institutions' employment. AACN stated that the inadequate racial diversity among academic faculty and in the nursing profession could lead nursing students

to assume incorrectly that diversity and equity are not important. Furthermore, AACN asserted the important role of underrepresented faculty members in curricular design and strengthening the nursing role in providing a culturally competent care approach.<sup>[2]</sup> Practicing diversity in clinical practice by including underrepresented groups and staff with different racial/ethnic backgrounds promotes several benefits such as reducing health disparities and enhancing patients' engagement in health care activities when they are receiving care from staff nurses who share cultural similarities such as language and religion.<sup>[11-13]</sup> According to 2021 data from AACN's annual survey, only 19.2% of full-time nursing school faculty come from minority backgrounds, and only 7.4% are male.<sup>[14]</sup>

### 1.3 Enrollment

New data released in May 2023 by AACN indicated the number of students enrolled in undergraduate baccalaureate nursing programs decreased for the first time in 20 years by 1.4%. There were decreases again in master's and PhD degree programs, indicating a projected decrease in the number of teaching faculty in nursing.<sup>[2]</sup>

A 2021 report from the National Advisory Council on Nurse Education and Practice expects the employment of registered nurses to grow 6% from 2021 to 2031.<sup>[3, 15]</sup> Therefore, there is an increased need to educate more nurses to meet the growing demand.

Faculty shortages limit the ability of nursing programs to expand their capacity to meet the nation's health care needs. The undergraduate nursing program at the University of Cincinnati College of Nursing (UC CON) is constrained in this way. The UC CON has increased enrollment numbers to the extent possible in the BSN program to meet growing demand over the past few years, yet still hundreds of qualified applicants are turned away each year. Despite an institutional commitment to increase the number of faculty to support further expansion of the undergraduate nursing program to meet demand, the UC CON has experienced a net loss in faculty numbers over the past few years due to retirements and departures. The UC CON has faced challenges in filling vacant faculty positions due to intense competition for the limited pool of doctorally prepared nurse educators.

### 1.4 Challenges

Increasing the number, as well as the diversity, of nurse faculty is a challenge that the UC CON is working to address. Faculty and students from various backgrounds should feel welcomed and supported in nursing education programs that include a curriculum designed to meet the needs of all populations.<sup>[16]</sup> To support diversity more fully in the educational

pathway, the UC CON is examining the institutional culture of the college to purposefully embrace belonging and inclusion. Currently, members of underrepresented groups account for 25% of the UC CON staff, which includes many roles with direct student engagement (e.g. Student Affairs staff). Among full-time faculty at the UC CON, 8% are of races/ethnicities underrepresented in nursing. Accounting for part-time adjunct instructors, the percentage increases to 11%. Nevertheless, the UC CON has ongoing recruiting goals to increase representation among our full-time faculty, especially for tenure-track positions. Recruiting efforts to improve diversity at the UC CON have also been accompanied by an acknowledgement that an intentional shift in institutional culture is needed to foster a diverse and inclusive environment with a sense of belonging and support for students, faculty, and staff from disadvantaged or underrepresented backgrounds.

## 2. METHODS

To meet the needs of the college and to address the nursing shortage, the UC CON has applied for and received funding through the federal government's Health Resources & Services Administration (HRSA) Nurse Faculty Loan Program (NFLP) grant. The UC CON first applied for this grant in 2012 and has been funded every year since. The NFLP seeks to increase the number of qualified nursing faculty nationwide by providing low interest loans for individuals studying to be nurse faculty and loan cancellation for those who graduate and become or continue to be full-time faculty members or preceptors. A diverse, geographically dispersed nurse faculty workforce is essential to producing the nursing workforce needed to meet U.S. health care needs.

### 2.1 NFLP Maintenance

The UC CON operates an NFLP student loan program by maintaining a fund, providing loans to students enrolled in advanced education nursing degree programs, and monitoring compliance with program requirements. In exchange for completion of up to four years of post-graduation full-time nurse faculty employment in an accredited school of nursing, graduates receive cancellation of up to 85% of the original student loan amount (plus interest thereon) as authorized by the program. NFLP also encourages Advance Practice Registered Nurses (APRNs) to serve as full-time preceptors within an academic-practice partnership framework to expand clinical training opportunities for nursing students.

### 2.2 Goals

The goals of this program are to expand the nation's capacity to train nurses by:

1) Increasing the number of adequately prepared and quali-

fied nursing faculty nationwide through supporting training of advanced education nursing students who will serve as nurse faculty upon graduation, with a focus on doctoral preparation;

2) Decreasing the financial barrier of serving as nurse faculty through loan cancellation; and

3) Expanding clinical training capacity by increasing graduate student access to designated joint nurse faculty (serving as APRN preceptors, etc.).

The UC CON specific project objectives for the NFLP are to:

1) Collaborate with College and University initiatives to recruit, train, and support students from diverse and underrepresented backgrounds in the UC CON nurse educator pathway.

2) Provide training, professional development, and employment resources to support NFLP recipients in obtaining nurse faculty positions.

3) Maintain collaborative academic-practice partnerships with three regional hospitals serving underserved and vulnerable populations to provide NFLP graduates the opportunity to serve as joint faculty preceptors.

4) Implement strategic measures and fiscal oversight to manage the NFLP loan fund and maintain a default rate below 5%.

### 2.3 Structure and program resources

The UC CON is one of 14 colleges that comprise UC, a state-supported urban institution with an enrollment of over 50,000 students. Key resources at UC available to support this project include a centralized web resource for student services (One Stop) and the Financial Aid Office, Registrar's Office, Controller's Office, Bursar's Office, Graduate School, Office of Institutional Research, Career Development Center, and Center for the Enhancement of Teaching and Learning (CETL). One Stop and the Financial Aid, Controller's, Bursar's, and Collections Offices are highly involved in NFLP loan collection, repayment, monitoring, and employment tracking. UC has demonstrated expertise in academic education through the establishment of the CETL, which provides programming to enhance pedagogy for all University programs. UC also offers the Preparing Future Faculty Program for students across all University disciplines to receive preparation for the faculty role; however, this program does not provide specialized preparation for those in practice disciplines. Our UC CON Nurse Educator (NEDU) program fills that gap.

The mission of the UC CON is to develop nurse leaders who are empowered to generate, explore, and apply nursing knowledge for evolving health care environments. The faculty, staff, and administration all contribute to the fulfillment of this mission. The UC CON had over 2,700 stu-

dents enrolled in the 2023-2024 academic year, over 60% of whom were in graduate degree programs. Our excellent and innovative learning environment place the UC CON among the best graduate nursing programs in the U.S.<sup>[17]</sup> The UC CON has led numerous initiatives to increase diversity and cultural competency of our nursing students and to promote health equity and has received multiple federal grants in support of these efforts [Pathways for Emerging Health Care Leaders, funded by the U.S. Office of Minority Health from 2015-2020 (OMH CPIMP151094); Leadership 2.0: Nursing's Next Generation program, funded by the HRSA Nursing Workforce Diversity program from 2013-2018 (HRSA D19HP25914); and Cultivating Undergraduate Nursing Resilience and Equity (CURE) funded by the HRSA Nursing Workforce Diversity program in 2021 (HRSA D19HP42043)]. Through the successful implementation of these programs, the past 12 years of NFLP participation, and over \$3.3 million in active year-to-date program and research grant funding, the UC CON has demonstrated its capacity to successfully manage the operational and administrative aspects of federally funded programs.

The NFLP Project Director (PD)/NEDU Director, Dr. Melanie Kroger-Jarvis, manages the NFLP at the UC CON, including recruiting and reviewing applicants, coordinating with the Student Affairs, Financial Aid, and Bursar's Offices, maintaining and regularly reviewing a spreadsheet of recipients, and tracking student employment post-graduation. Dr. Kroger-Jarvis was awarded the Distinguished Nurse Educator Leadership Award in October 2019 and the Faculty Excellence Award in 2021 for Teaching, Research and Service. She was nominated and awarded by peers for her unique and creative teaching style in which she engages students and leverages technology in the classroom.

In addition, the NFLP and other programs have the support of other resources at the College. The UC CON Business Office (five-person team) manages the day-to-day finances of the College, makes budget forecasts and predictions, prepares an annual budget, conducts hiring, and manages scholarships and awards. The UC CON Student Affairs Office's twelve-person team of recruitment and retention specialists provides support to all nursing students, recruits for and facilitates the NFLP application process, and tracks and archives student data integral to the completion of this project. The Office of Learning Design and Digital Innovation collaborates with faculty to design and develop innovative courses that align with current learning theories and best practices to transform the student learning experience. The UC CON has a three-person marketing team that develops recruitment strategies, manages the College website, conducts public relations activities, plans events, and conducts web analytics. The UC

CON Office of Research and Scholarship provides grant consultation, submission, and post-award management support. These rich resources and strong infrastructure within UC and the UC CON have enabled the CON to successfully manage its participation in the NFLP since 2012.

#### **2.4 NFLP administrative capacity**

The UC CON has successfully administered marketing, disbursement, and borrower tracking for NFLP due to well-defined processes and communication between the UC CON, the Bursar's Office, and other UC units. The PD/NEDU Director monitors the project and provides general oversight. Once HRSA notifies the UC CON of the NFLP amount each year, the UC CON Student Affairs Office manages the recruitment, selection, and orientation processes and monitors and tracks students in coordination with the Bursar's Office. The Assistant Dean for Student Affairs (ADSA) is the first contact for students interested in applying for NFLP funds and guides them through the application process, which includes an interview with the NEDU Director as well as the submission of information to UC One Stop, a centralized customer service web area comprising Offices of Registration, Student Records, Student Accounts, Student Financial Aid, and Collections. The ADSA tracks students who express interest in applying, application status, pending awards, and awards posted to student accounts. All application processes are performed in accordance with HRSA NFLP guidelines. Student Affairs and the PD, as NEDU Director, also track whether NEDU courses are being completed by students receiving NFLP funds.

#### **2.5 Submission and completion of reports**

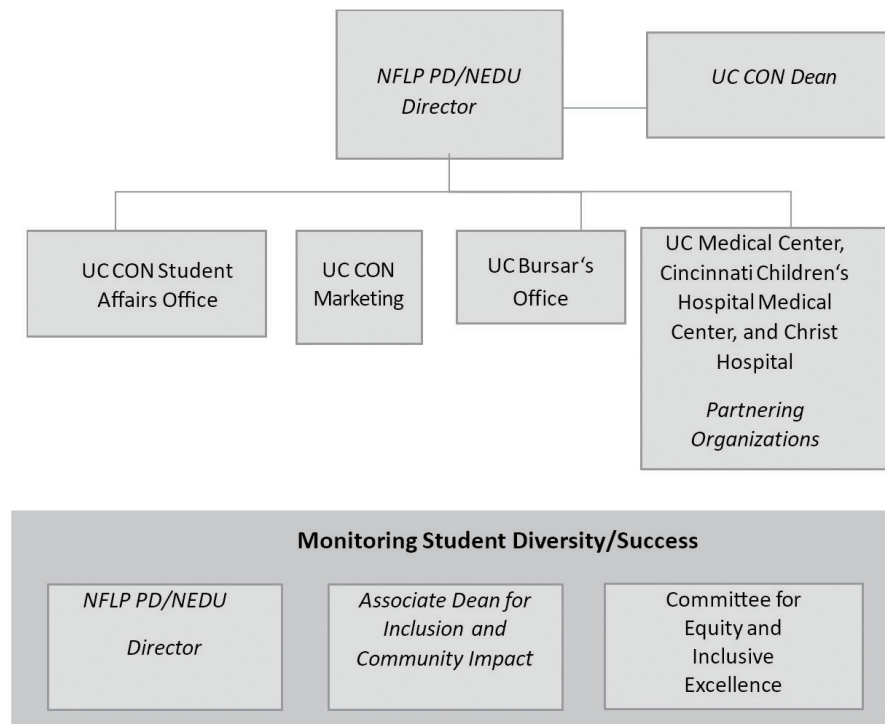
The comprehensive NFLP data mentioned above are maintained and updated and the UC CON receives financial reports from the Bursar's Office. The NFLP database, which contains all metrics required by HRSA for annual Performance Measures Reporting, is maintained and updated by the PD. The PD reviews all data to ensure accuracy and is responsible for overseeing the program as well as completing and submitting reports required by the sponsor. The PD completes day-to-day program administration and monitoring. The Controller's Office provides the NFLP fund balance reported on the NFLP Annual Performance Report.

#### **2.6 Partnering organizations**

NFLP guidelines have expanded eligibility for loan cancellation to graduates who enter into academic-practice partnership agreements as designated joint-appointment faculty serving as full-time advanced practice registered nurse (APRN) preceptors with an accredited school of nursing. The UC CON has established practice affiliation agreements which

are updated as needed with three of the largest medical centers in the Cincinnati area: University of Cincinnati Medical Center, Cincinnati Children’s Hospital Medical Center, and

the Christ Hospital. This allows full-time nurse practitioners to work as full-time preceptors for graduate students at the UC CON in order to receive loan forgiveness (see Figure 1).



**Figure 1.** UC CON NFLP project organization chart

**2.7 Alignment with NFLP purpose and HRSA mission**

The UC CON’s NFLP objectives align with the NFLP purpose and HRSA’s mission to increase access to quality health care and grow a skilled nursing workforce. The UC CON’s goal is to address the nurse faculty and nurse workforce shortage by preparing a diverse cohort of future nurse educators who will increase the capacity of our nursing program to educate a nurse workforce that is equipped to manage the dynamics of the health care environment and responsive to the needs of vulnerable and underserved patient populations. The UC CON recognizes that expanding the diversity and reach of the nursing workforce is vital for providing quality, accessible care. Diversity and inclusion are integral parts of our strategic vision for leading the transformation of health care in response to the changing needs of the health care sector and an increasingly diverse patient population. To this end, the UC CON is committed to increasing the diversity of our students and preparing them to provide culturally competent, equitable care. The UC CON also addresses professional well-being and resilience in both the undergraduate and graduate curriculum. The UC CON has instituted several initiatives to recruit and support students of underrepresented backgrounds, as well as to cultivate future nursing

faculty. The UC CON’s students’ diversity is represented in our NFLP recipients (see Table 1). Efforts to strengthen the nurse workforce pipeline occur across all our degree programs and center on academic excellence and creating an inclusive environment that welcomes and supports students of all backgrounds.

**2.8 Holistic admissions**

The UC CON undergraduate program utilizes a holistic admissions process and multiple mini-interviews to value the broad attributes and experiences of applicants that are not captured solely by grades and test scores. The use of holistic admissions has significantly increased the diversity of the undergraduate program while maintaining an excellent retention rate of 95% and National Council Licensure Examination (NCLEX) pass rates above the national average.

**2.9 Endowed chair**

To provide leadership in these efforts, the UC CON hired Dr. Ann Gakumo in 2021 as the first Greer Glazer Endowed Chair in Diversity, Equity, and Inclusive Excellence. In this role, Dr. Gakumo directs diversity and inclusion efforts at the College and conducts research on diversity in the nurs-

ing profession. Additionally, the UC CON received HRSA Nurse Workforce Development funding in 2021 to support the Cultivating Undergraduate Nursing Resilience and Equity (CURE) project which aims to improve the climate of the educational environment and broaden learning experiences to contribute to the expansion and preparation of a nursing workforce that is reflective of and responsive to an increasingly diverse patient population. This four-year project aims to support diversity in student enrollment, training in the social determinants of health, and the hiring of additional faculty from underrepresented and diverse backgrounds.

### 2.10 Program development

The UC CON has developed a strategic plan for the recruitment and retention of diverse nursing faculty. The NFLP Director (PD) contributes to the achievement of these recruitment goals by working collaboratively with UC's Office of Equity, Inclusion & Community Impact to promote open positions and reach potential faculty candidates from underrepresented backgrounds. The PD is a member of the College's Committee for Equity and Inclusive Excellence (CEIE) which is developing initiatives, such as ongoing faculty and staff training in anti-racism and equity issues, to foster a welcoming and inclusive environment by examining and rooting out structural racism within the College.

The Undergraduate Research Scholars program aims to cultivate interest in advanced education and provide exposure to a career as nursing research faculty, with the goal that some of these scholars may advance their education and apply to our PhD program to become educators and researchers. The nursing programs at the UC CON incorporate training in the social determinants of health and cultural competency frameworks and provide students with clinical learning opportunities with vulnerable and underserved patient populations in the local region and internationally. The UC CON offers a Doctor of Nursing Practice (DNP) degree in Public Health Nursing and recently partnered with the UC College of Pharmacy to develop a new graduate certificate program in Caring for the Underserved. Our DNP program is ranked among the top 65 in the U.S. by *U.S. News & World Report*.

The UC CON is a nationally recognized leader in diversity initiatives as a nine-time recipient of the INSIGHT into Diversity Health Professions Higher Education Excellence in Diversity (HEED) Award, a recipient of the AACN Diversity Award (2018), and a three-time recipient the Best Schools for Men in Nursing Award from the American Association for Men in Nursing. In addition, our commitment to innovative and quality nursing education was recognized with two AACN awards in 2019: the AACN Exemplary Academic-Practice Partnership Award and the Innovations in

Professional Nursing Education Award, which recognizes the outstanding work of AACN member schools to re-envision traditional models for nursing education and lead program change. In 2020 the UC CON was designated as a National League for Nursing Center of Excellence in Nursing Education, recognizing the College's commitment to enhance student learning and professional development. In 2024 the UC CON was renewed as a National League of Nursing Center of Excellence in Nursing Education.

## 3. RESULTS

### 3.1 Financial resources

The UC CON has been actively working to address the nurse faculty shortage at the College in support of the larger nurse workforce needs. The UC CON has obtained funding from multiple national initiatives to support the development of our students into future nurse faculty, including the HRSA NFLP, the Jonas Center's Scholars Program, and the Robert Wood Johnson Foundation's Future of Nurse Scholars Program. NFLP funding has enabled the UC CON to support a diverse group of MSN, DNP, and PhD students over the past twelve years of continuous NFLP participation. These resources complement our Nurse Educator certificate program and strengthen our ability to recruit and support more nursing students on the path to careers as nurse faculty. The ability to offer forgivable loans to future nurse faculty via NFLP reduces the financial burden on students and provides them with more flexibility in their career path upon graduation. Without the burden of educational debt, graduates drawn to education may feel less pressure to seek a higher paying clinical position and be more inclined to follow a nurse educator track.

Since 2012, the UC CON has utilized the NFLP to provide nearly \$4.4 million in loans to students. NFLP recipients are diverse across race, gender, and program (see Table 1). The diversity of NFLP recipients is greater than the diversity of the overall graduate student body. Recipients represent the DNP program and MSN specialties: family, women's health, primary care, neonatal, acute care, adult gerontology, nurse midwifery, pediatric, family psychiatric/mental health, and nursing administration. Typically, there are few PhD applicants for NFLP funds at the UC CON as they often have greater access to other sources of internal and external scholarships. The DNP program had 335 students enrolled in the 2023-2024 academic year. DNP students constitute nearly all our NFLP recipients in recent years. Since receiving DNP accreditation in 2014, the UC CON has increased the proportion of NFLP funds awarded to doctoral students each year and will continue to prioritize their participation in the program as they are more likely to pursue teaching

careers and will be more competitive as faculty candidates than those with a master’s degree. In the current year to date, 95% of the NFLP recipients are pursuing a doctoral degree (see Table 1).

The PD of the NFLP at the UC CON is the director of the UC CON NEDU Program. The UC CON NEDU certificate program has grown in the past ten years, exposing more graduate students to the role and potential career path of nurse educator. The UC CON is currently in the process of establishing more nurse educators in a variety of health care and academic settings.

### 3.2 New MSN program

A full Master of Science in Nursing Education program began in Summer 2024. The CON NEDU program prepares

post-BSN nurses to become educational leaders in academic and practice settings by providing essential knowledge and skills in teaching and learning, program development, curriculum design, assessment, evaluation, and roles of nurse faculty. Current courses align with the core competencies of nursing educators developed by the National League for Nursing.<sup>[4]</sup> Since moving the NEDU courses to an online format in 2012, enrollment in the program has increased 100%. Since 2015, 136 certificates have been awarded, ensuring all coursework is reflected in students’ transcripts. The UC CON also requires NFLP recipients to apply for the Nurse Educator certificate after completion of the course series to enhance their preparation and competitiveness as faculty candidates.

**Table 1.** Demographics of UC CON NFLP Recipients Academic Years FY2013-2023 YTD

HRSA Fiscal Year	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 YTD
Active Recipients	16	22	24	29	25	26	26	22	26	37	39	39
Returning	n/a	16	15	17	17	18	19	17	14	24	30	29
New Awardees	16	6	9	12	8	8	7	5	12	13	9	10
HRSA Fiscal Year	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 YTD
PhD	13%	14%	8%	7%	4%	8%	8%	9%	4%	5%	5%	5%
DNP*	n/a	n/a	4%*	31%	48%	58%	77%	82%	88%	87%	85%	87%
MSN	87%	86%	88%	62%	48%	34%	15%	9%	8%	8%	10%	8%
HRSA Fiscal Year	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 YTD
Black	50%	55%	42%	42%	24%	19%	19%	22%	23%	16%	18%	28%
White	50%	45%	58%	55%	72%	69%	69%	64%	65%	73%	71%	67%
Hispanic	--	--	--	3%	4%	8%	4%	4%	8%	6%	8%	2.5%
Pacific Islander	--	--	--	--	--	4%	4%	5%	--	--	--	--
Native American	--	--	--	--	--	--	4%	5%	--	--	--	--
Multi- Race									4%	5%	3%	2.5%
HRSA Fiscal Year	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 YTD
Male	6%	9%	13%	24%	12%	8%	8%	18%	19%	16%	18%	26%

\*Permission was obtained from the leadership team at the University of Cincinnati College of Nursing to publish aggregate data. The DNP was approved as a new program addition to our NFLP grant in Academic Year 2014.

## 4. DISCUSSION

### 4.1 Identifying future faculty

In the initial years of UC CON participation in the NFLP, there was not a targeted approach to recruiting students and evaluating their commitment and capacity to become nurse faculty. The program’s advertisement was distributed through email and recruitment presentations to students online and in person. Students were considered eligible to apply

if they self-selected based on need and qualifications for the loan. Unfortunately, this resulted in some students applying for and receiving NFLP funds and not pursuing nurse faculty positions post-graduation and many who defaulted on their loans. The UC CON addressed this challenge by taking a more selective approach in identifying qualified applicants and ensuring there is clarity in the program’s expectations. The result has been a substantial reduction in the default rate

and an increase in the proportion of NFLP graduates who have obtained faculty positions.

#### 4.2 Recruitment and interest

Our recruitment approach is to market NFLP to students who express a strong intent to become nurse faculty, giving priority to doctoral students. DNP and PhD students are more likely to pursue an academic career and are also more competitive on the job market. The PD continues to work closely with the DNP and PhD program directors on student recruitment and attend quarterly webinars and in-person meetings with the doctoral students. The PD conducts informational webinars which are also posted on the UC CON website for future review. To maximize attendance, the NEDU Director holds separate workshops for each target population at a time when students will be on campus for their respective programs. This is typically once a year for PhD students in the fall and twice a year for DNP students (once in the fall and once at the beginning of the spring semester). The NFLP interest survey is also worded carefully in order to distinguish between students interested in an educator path and those who are interested solely in financial aid. The NFLP purpose and terms of the loan are clearly stated in the program information.

#### 4.3 Impact on shortage

Since 2012, the UC CON has supported 115 individual graduate-level nursing students with NFLP funds. As of 6/07/24, 73 UC CON degrees have been awarded to 72 NFLP recipients (one student was NFLP-funded for both master's and DNP degrees). Many of these graduates are now in full-time or in multiple part-time faculty positions. Several prior recipients are working as nurse faculty, some at rural and community colleges where the nurse faculty shortage is most acute. Six of the NPs who received NFLP funds and graduated are working in medically underserved and/or rural areas across the U.S.

The UC CON has established a new Public Health certificate program for our DNP students that focuses on the care of vulnerable populations. The first admissions for this certificate program began in Fall 2022. The UC CON can leverage NFLP funds to recruit students to this program and support those pursuing a career path centered on understanding and addressing the needs of vulnerable, disadvantaged patient populations and the social determinants of health in the curriculum. The number of NFLP recipients who are actively teaching has increased dramatically with the inclusion of DNP students in 2014 and improvements to our recruitment and selection process that have been implemented over the past several years.

#### 4.4 Sustainability

The UC CON is committed to supporting the development of future nursing faculty as evidenced by the support and resources in place that complement its longstanding participation in NFLP. The UC CON, in partnership with the UC Bursar's and Collections Offices, has created a sustainable process by which loan funds are managed, disbursed, and tracked. This process has been in place for NFLP at the UC CON since 2012.

In the absence of future HRSA NFLP funding, the UC CON would maintain these successful strategies for nurse educator student recruitment, support, and career preparation, which are already integrated into the College, to continue to encourage and support students in pursuit of a career track as nurse faculty. Undergraduate students can gain insight into the nurse faculty career path and advanced nursing education through the Undergraduate Research Scholars program, opportunities to work with faculty on grant-funded research projects, and mentorship opportunities. Graduate students who have an interest in becoming nurse faculty can also gain exposure to this pathway and experience as graduate assistants to faculty at the college. The NEDU certificate is an option for all graduate students at the UC CON to learn specialized skills development and prepare for future roles as nursing faculty. The PD/NEDU Director provides career guidance and job search assistance to students completing the NEDU certificate courses.

The UC CON will continue to identify and pursue other sources of financial assistance to support the education of future nursing faculty and ease the financial burden on students. Students will be informed of loan repayment programs and scholarship opportunities for which they are eligible. The UC CON will continue to apply for financial support for students from future faculty initiatives like the Robert Wood Johnson Foundation.

#### 5. CONCLUSION

A new grant submission was submitted in February 2024 and was funded in June 2024 to fund more doctoral students and Master of Science in Nursing Education Students. The UC CON couples the financial incentive of the loans with additional components (e.g., nurse educator development, professional development, and job search support) to strengthen recipients' preparation and marketability for nurse faculty roles in all areas, including rural and underserved areas. The UC CON continues to enhance students' education regarding social determinants of health and include student-learning outcomes in all courses to address equity and inclusion. The UC CON will contribute to the diversity of the nurse faculty workforce by recruiting diverse graduate students and faculty



through collaboration and coordination with ongoing UC CON diversity initiatives and the UC CON's Committee for Equity and Inclusive Excellence (CEIE).

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### AUTHORS CONTRIBUTIONS

Dr. Kroger-Jarvis and Mr. Kelly were responsible for obtaining up-to-date data for this manuscript. Dr. Kroger-Jarvis, Mr. Kelly, and Mrs. Cheon were responsible for outlining, editing, and proofreading the manuscript. All authors approved the final manuscript.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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No additional data are available.

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