

The NEXus Consortium Model:

Expanding a Pipeline to Equitable, Diverse and Inclusive Doctoral Research and Education Programs in Nursing through Collaboration

Pauline Komnenich, PhD, RN

Professor, Edson College of Nursing and Health Innovation, Arizona State University

Ellen D'Errico, PhD, RN

Professor, Loma Linda University School of Nursing

Anne Boerner, BA, NEXus Project Director

Purpose

1. Examine the state of current enrollments in doctoral preparation of nurse educators and researchers through shared *complementary* resources across institutions.
2. Present the NEXus Consortium Model as an important and viable mechanism for expanding and sustaining an equitable, diverse and inclusive pipeline to doctoral and research programs in Nursing through inter-university collaboration.

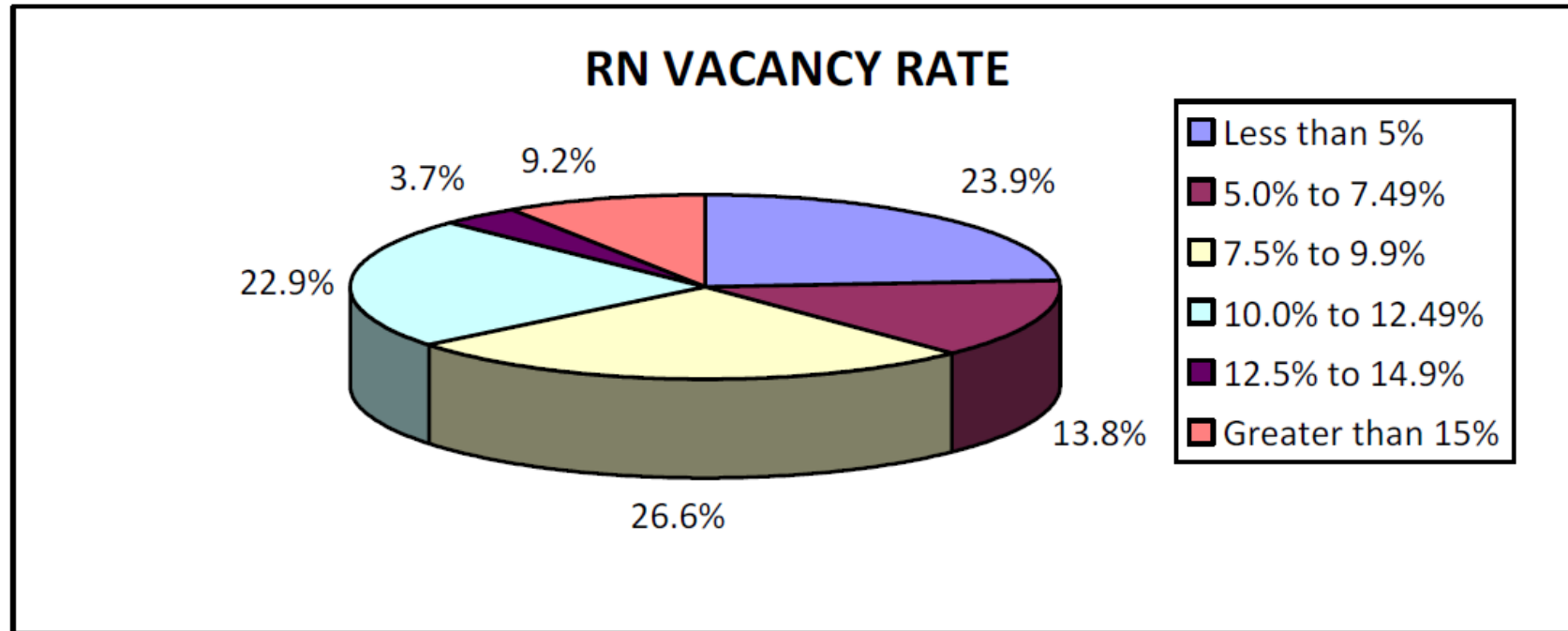
Overview: Through this presentation, attendees will learn about The Nursing Education Xchange (NEXus) as a model for expanding and sustaining a pipeline to doctoral programs in Nursing.

- ▶ **RATIONALE**
- ▶ **HISTORY**
- ▶ **ACCESS**
- ▶ **RESULTS**

Rationale

Shortage of Registered Nurses

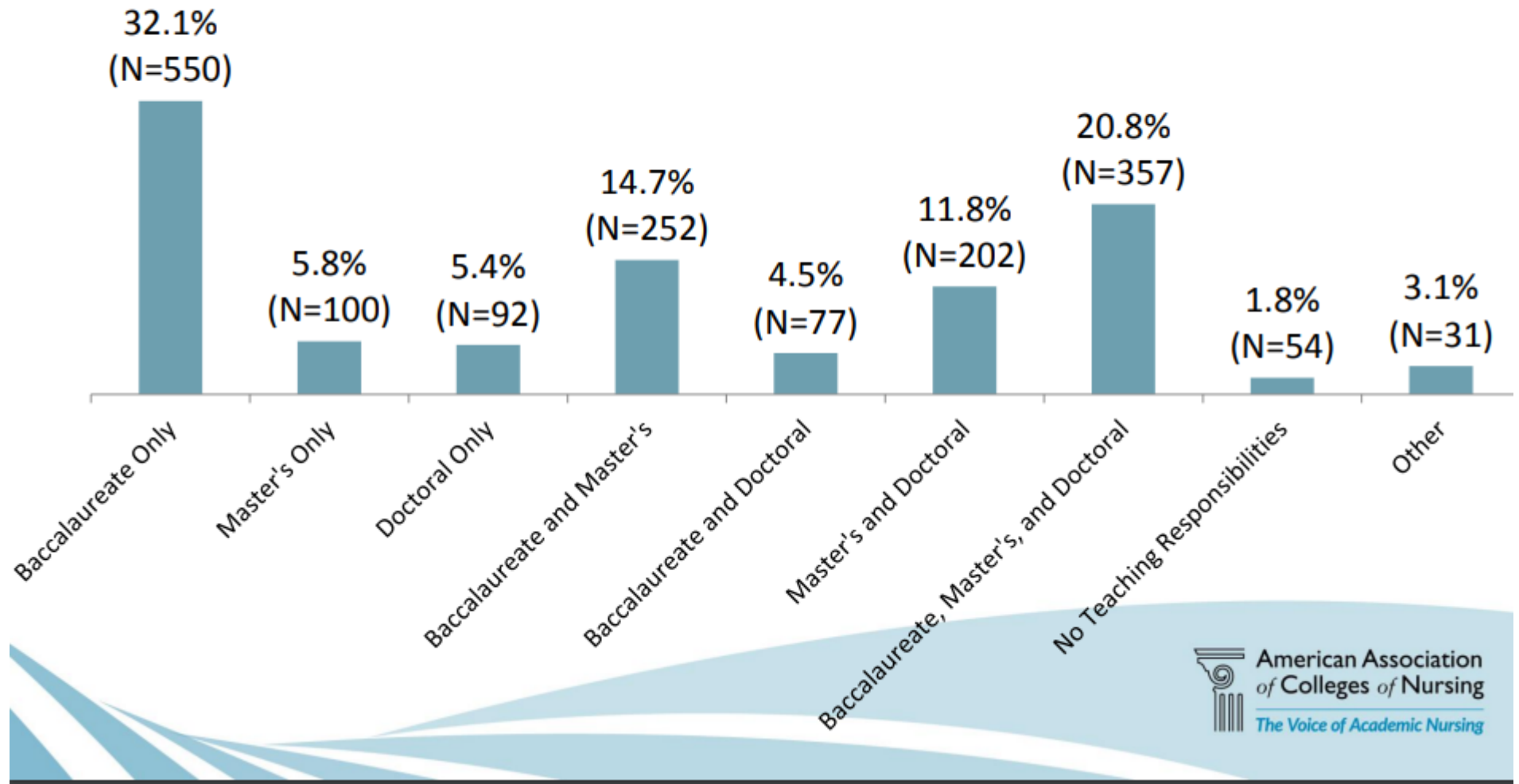
| RN VACANCY RATE | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------|-------|-------|-------|-------|-------|
| Less than 5% | 18.2% | 15.8% | 21.9% | 19.3% | 23.9% |
| 5.0% to 7.49% | 31.8% | 30.5% | 22.8% | 18.2% | 13.8% |
| 7.5% to 9.9% | 27.3% | 28.4% | 31.6% | 30.7% | 26.6% |
| 10.0% to 12.49% | 9.1% | 12.6% | 12.3% | 15.9% | 22.9% |
| Greater than 12.5% | 13.6% | 12.7% | 11.4% | 15.9% | 12.9% |



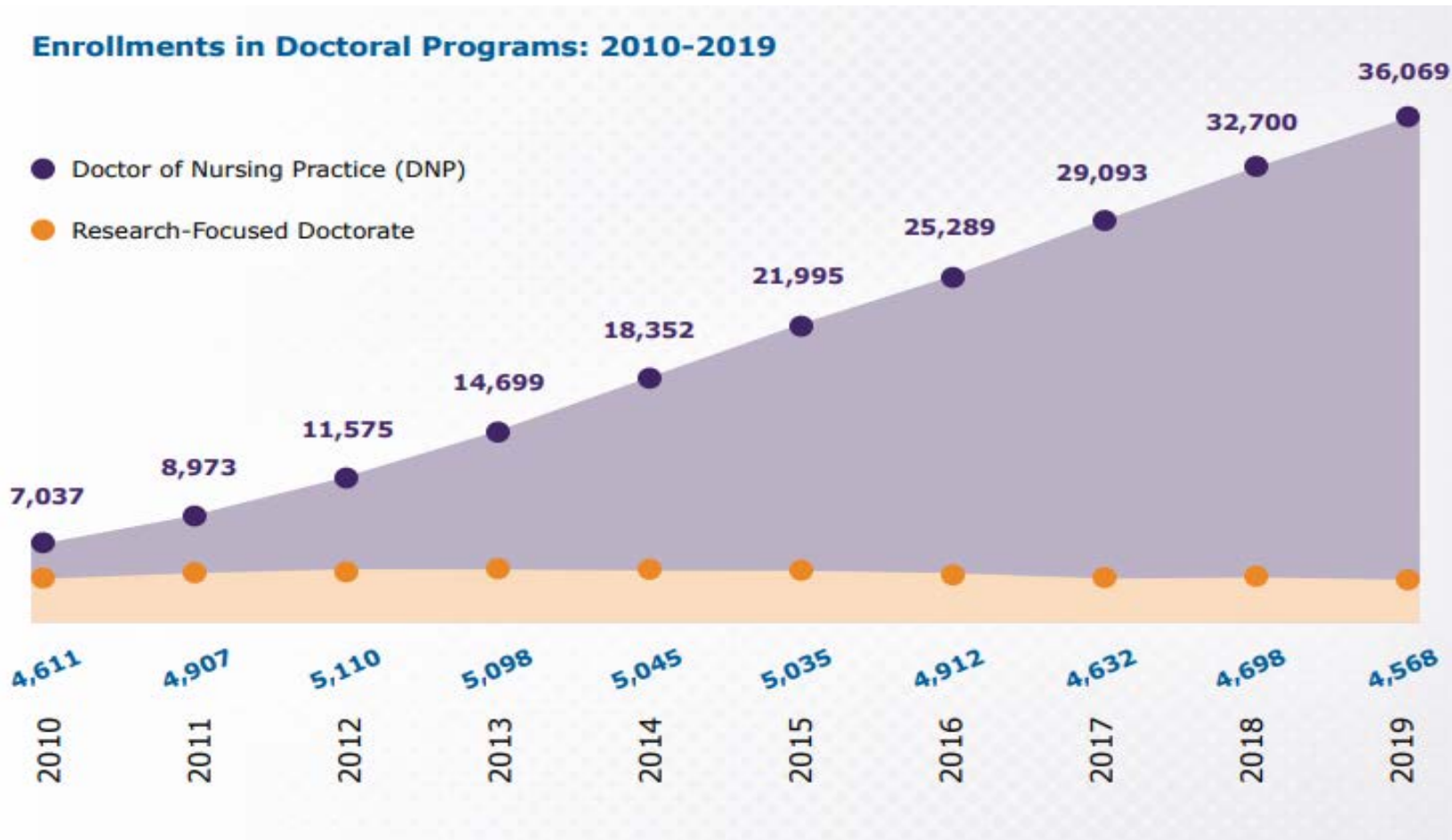
Shortage of Nursing Faculty

Selected Characteristics of Full-Time Vacant Faculty Positions for Academic Year 2018-2019

Level of Teaching (Valid N=1,715)



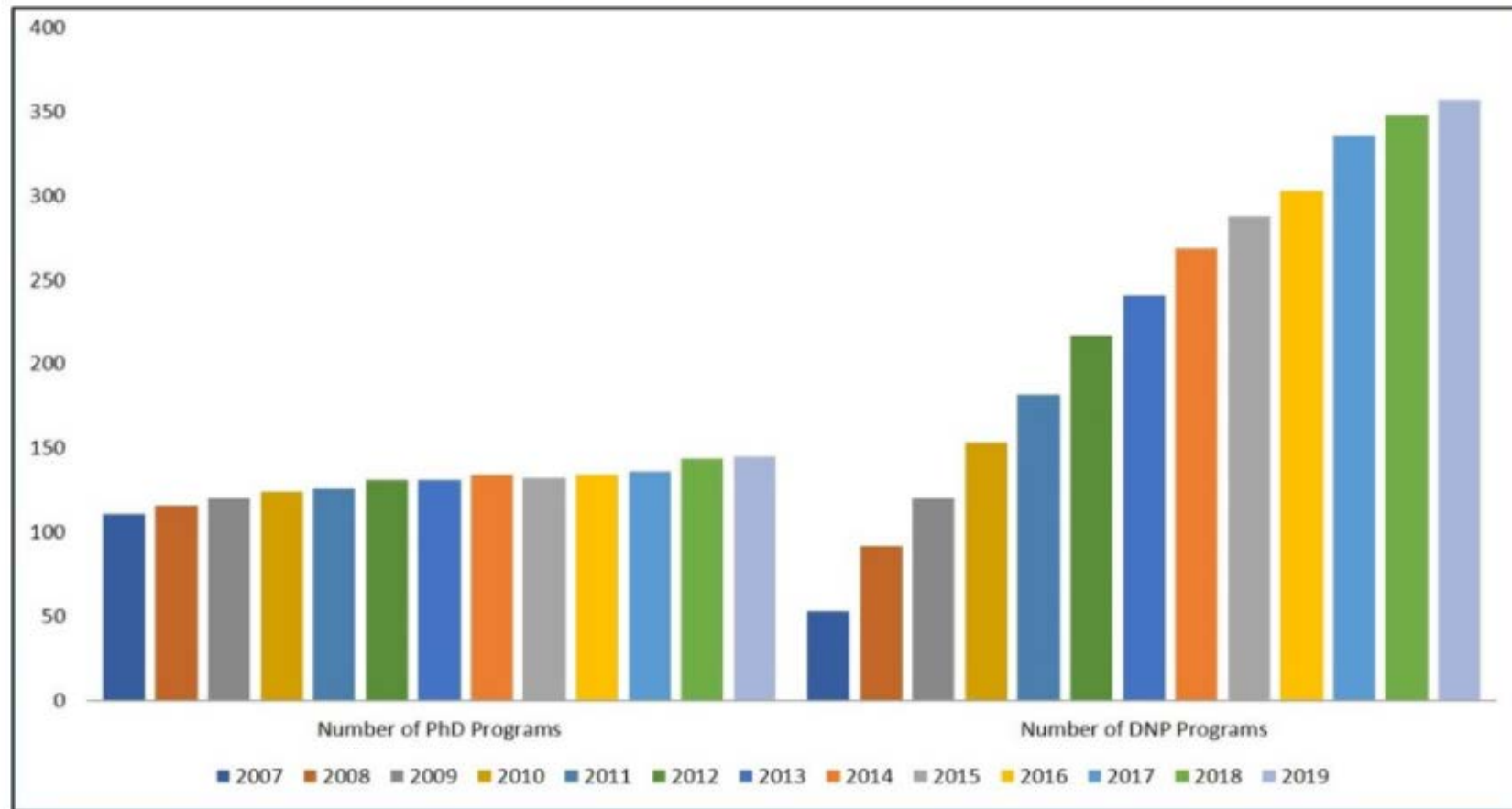
Acute Need for PhD Prepared Nurses



DNP Programs Outpace PhD (2009-2018)

<https://www.aacnnursing.org/Policy-Advocacy/PhD-Pathway>

Growth in Practice- and Research-Focused Doctoral Programs: 2007-2019



<https://www.aacnnursing.org/News-Information/Fact-Sheets/DNP-Fact-Sheet>

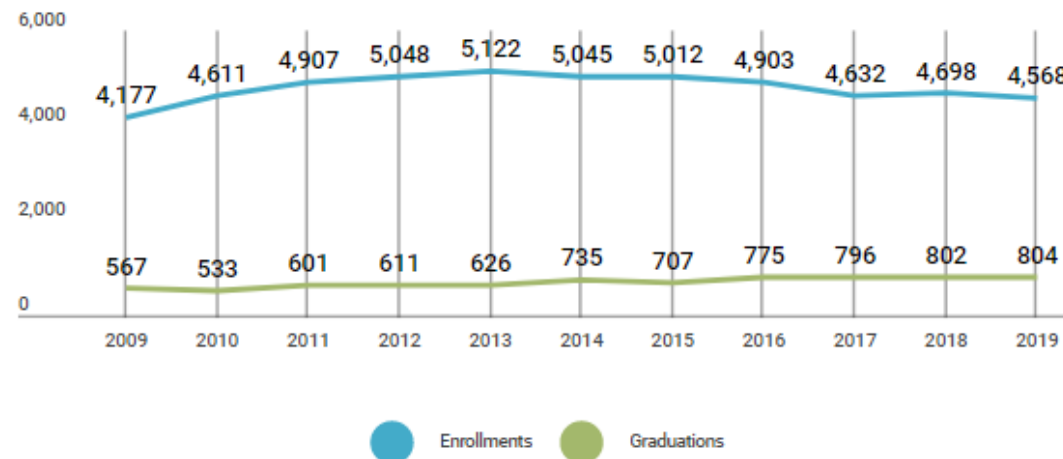
Since 2013 PhD Enrollments Declined and Do Not Meet the Demand

“Despite the critical need for nursing scientists and the increase in PhD nursing programs over the past decade, the number of PhD-prepared nurses has not increased proportionally to societal demand or to the increase in PhD programs.”

Source: AACN, The Research-Focused Doctoral Program in Nursing: Pathways to Excellence

The PhD Landscape (2009-2019)

Enrollments & Graduations



PhD enrollments have increased over the last ten years by 9.4%. Although enrollments have been declining since 2013, PhD graduations have climbed 41% since 2009.

<https://www.aacnnursing.org/News-Information/Research-Data-Center/PhD>

Enrollment

Current PhD Program and Enrollment Summary Data (2019)

PhDs at a Glance

Data is based on AACN's latest survey on Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing.

PROGRAMS

135 PhD

4 Doctor of
Nursing Science

4 EdD (Doctor of
Education)

1 PhD/DNP

ENROLLMENT

 **4,568**

GRADUATIONS

 **804**

APPLICATIONS

2,328 Completed
Applications

1,661 Applications
Meeting
Admission
Requirements

167 Qualified
Applicants
Turned Away

PhD Programs: Costly to Run without External Funding

| | Weighted salary | Administrative units ^a | | Estimated cost (salary/hour × hours) | |
|--------------------------------------|-----------------|-----------------------------------|------|---|--------------------|
| | | Median | Mean | Median | Mean |
| Didactic training | | | | | |
| Course director | \$128,091 | 10 | 15.5 | \$221,918 | \$343,972 |
| Lecture time | \$131,488 | 4 | 5 | \$1,366,820 | \$1,708,522 |
| Lab rotations | \$136,552 | 15 | 23.6 | \$122,897 | \$193,358 |
| Total didactic training costs | | | | \$1,711,635 | \$2,245,852 |
| Research training | | | | | |
| Primary mentor | \$146,854 | 11 | 29.9 | \$133,270 | \$362,252 |
| Nonprimary mentor | \$142,550 | 14 | 20.4 | \$329,290 | \$479,823 |
| Mentoring ^b | \$146,854 | 4 | 5.4 | \$2,423,091 | \$3,271,173 |
| Mentoring, training only 50% | \$146,854 | 4 | 5.4 | \$1,211,546 | \$1,635,587 |
| Total research training costs | | | | \$1,674,106 | \$2,477,662 |

Source: Smolka, A.J., Halushka, P.V., Garrett-Mayer, E. (2015). The faculty costs to educate a biomedical sciences graduate student CBE Life Sciences Education 14: 1-8

TIME TO LEVERAGE RESOURCES

AACN Recommendation:

“Develop consortia and partnerships among PhD programs to maximize faculty and program expertise”

AACN The Research-Focused Doctoral Program in Nursing: Pathways to Excellence, Draft, October 14, 2021

The Nursing Education Exchange: History

WHY ESTABLISHED

- ▶ Address nursing, nurse educator and nurse scientist shortage
- ▶ Facilitate doctoral students in completing programs via distance learning
- ▶ Collaborate across organizational systems to impact change in education, research and practice

MEET ADDITIONAL GOALS

- ▶ Reduce cost of creating online courses
- ▶ Increase course offerings for students
- ▶ Overcome administrative barriers of shared courses
- ▶ Collaborate to promote change in education, research and practice

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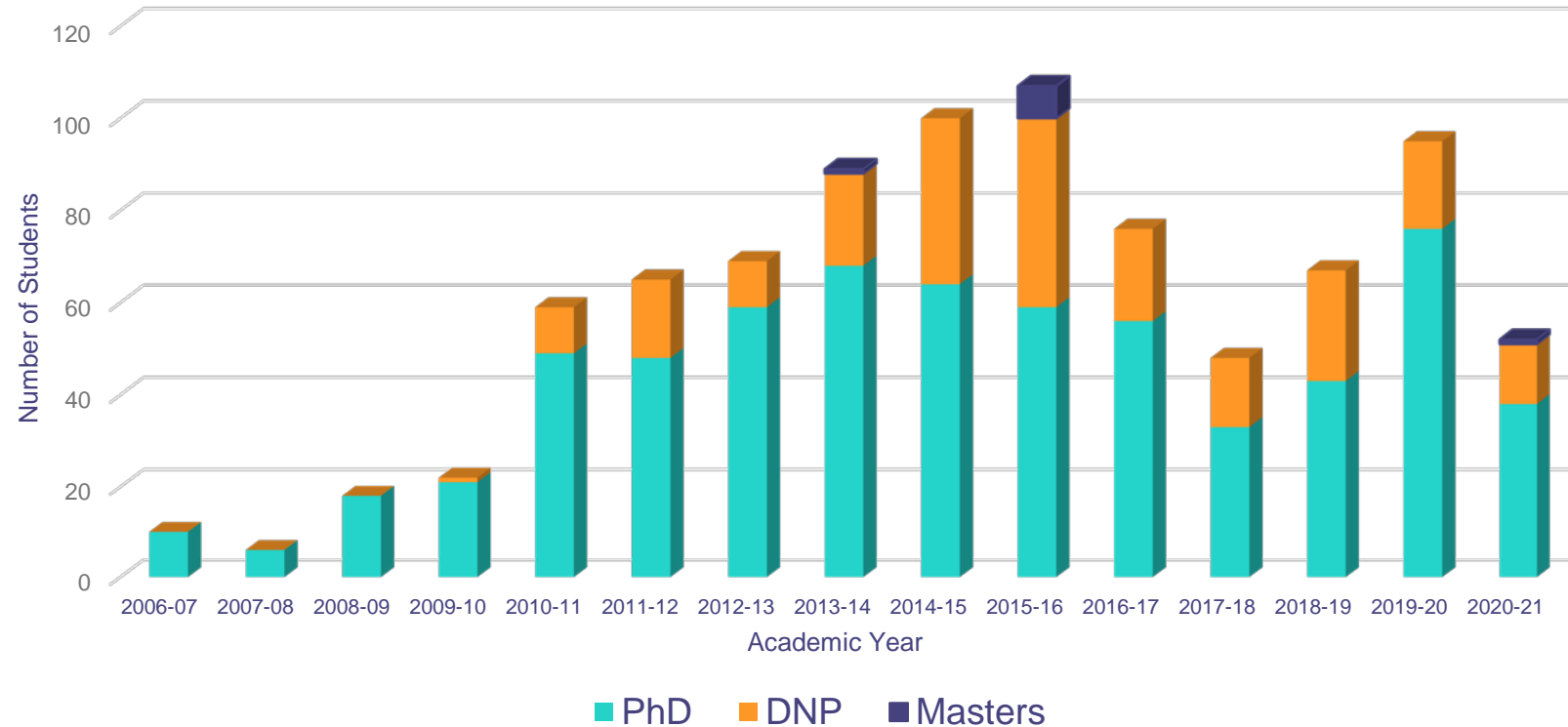
Clusters/Areas of Study

250+ Annual Courses

- ▶ **Diverse and Vulnerable Populations**
- ▶ **Child, Parents and Family**
- ▶ **Chronic & Disabling Conditions & Palliative Care**
- ▶ **Systems Leadership, Informatics and Policy**
- ▶ **Scholarship & Writing**
- ▶ **Nurse Education/Interprofessional Collaboration**
- ▶ **Gerontology**
- ▶ **Research Methodologies/Statistics/Knowledge Development**

Historical Enrollments

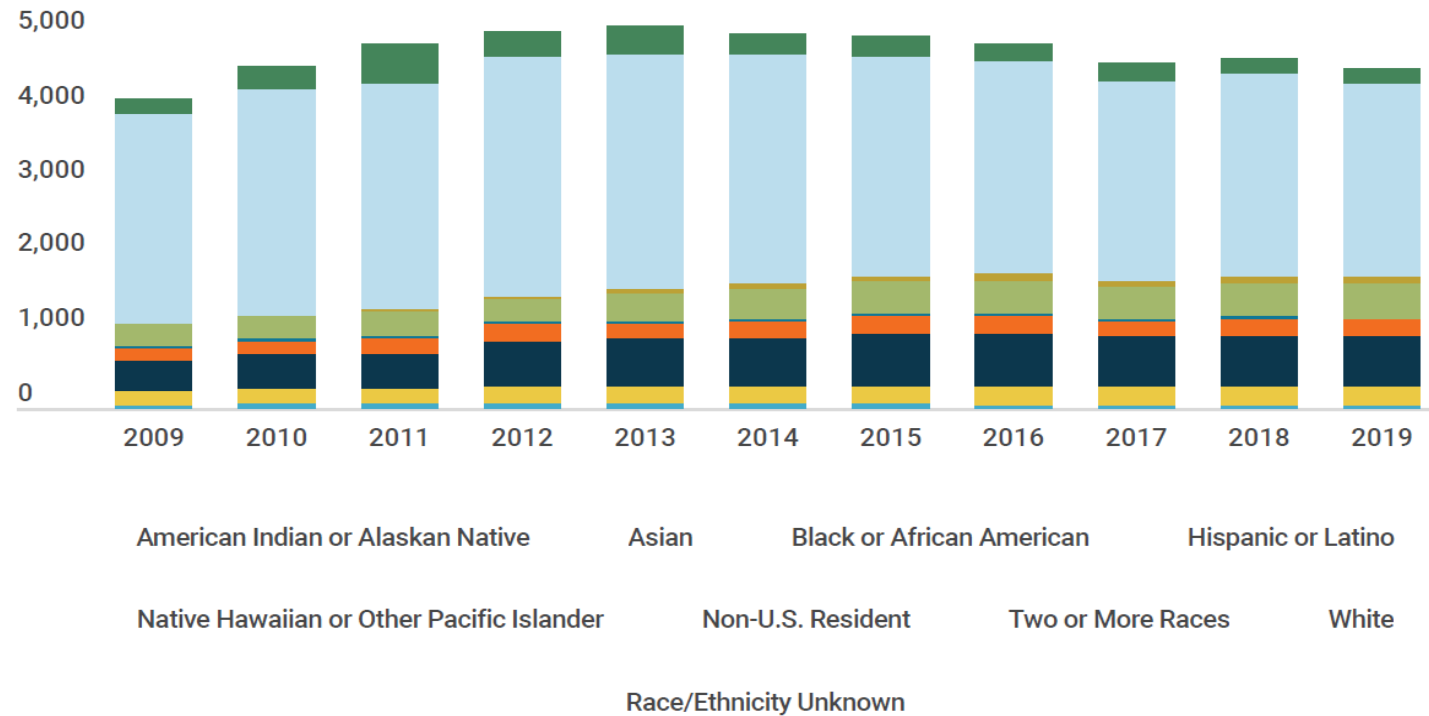
NEXus Enrollments by Type of Student



| STUDENTS | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | TOTAL |
|---------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|
| PhD | 10 | 6 | 18 | 21 | 49 | 48 | 59 | 68 | 64 | 59 | 56 | 33 | 43 | 76 | 38 | 648 |
| DNP | 0 | 0 | 0 | 1 | 10 | 17 | 10 | 20 | 36 | 41 | 20 | 15 | 24 | 19 | 13 | 226 |
| Masters | | | | | | | | 1 | | 7 | | | | | 1 | 9 |
| TOTALS | 10 | 6 | 18 | 23 | 59 | 65 | 69 | 89 | 102 | 107 | 76 | 47 | 67 | 96 | 52 | 886 |

Diverse student increases: Access is crucial

Trends in Student Diversity, Race and Ethnicity



The number of PhD students from underrepresented groups* in nursing has increased from 1,141 in 2009 to 1,781 in 2019 (a 56% increase). In contrast, the number of white PhD students has decreased by 8%, from 2,806 in 2009 to 2,582 in 2019.

<https://www.aacnnursing.org/News-Information/Research-Data-Center/PhD>

Evaluation Comments about Diversity

(Open Ended Questions)

“I appreciated the diversity and exposure to other doctoral teaching methods”

STUDENT

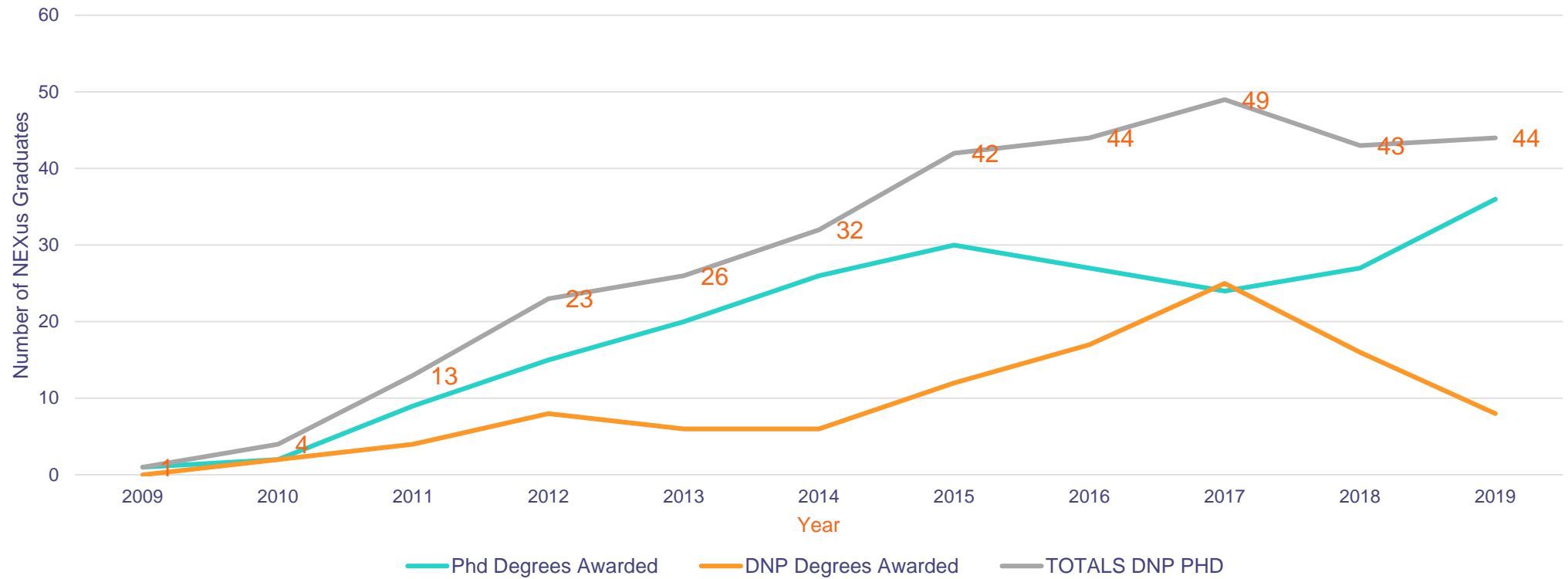
“Having this more widely distributed group of students adds depth and value”

FACULTY

Graduation Data

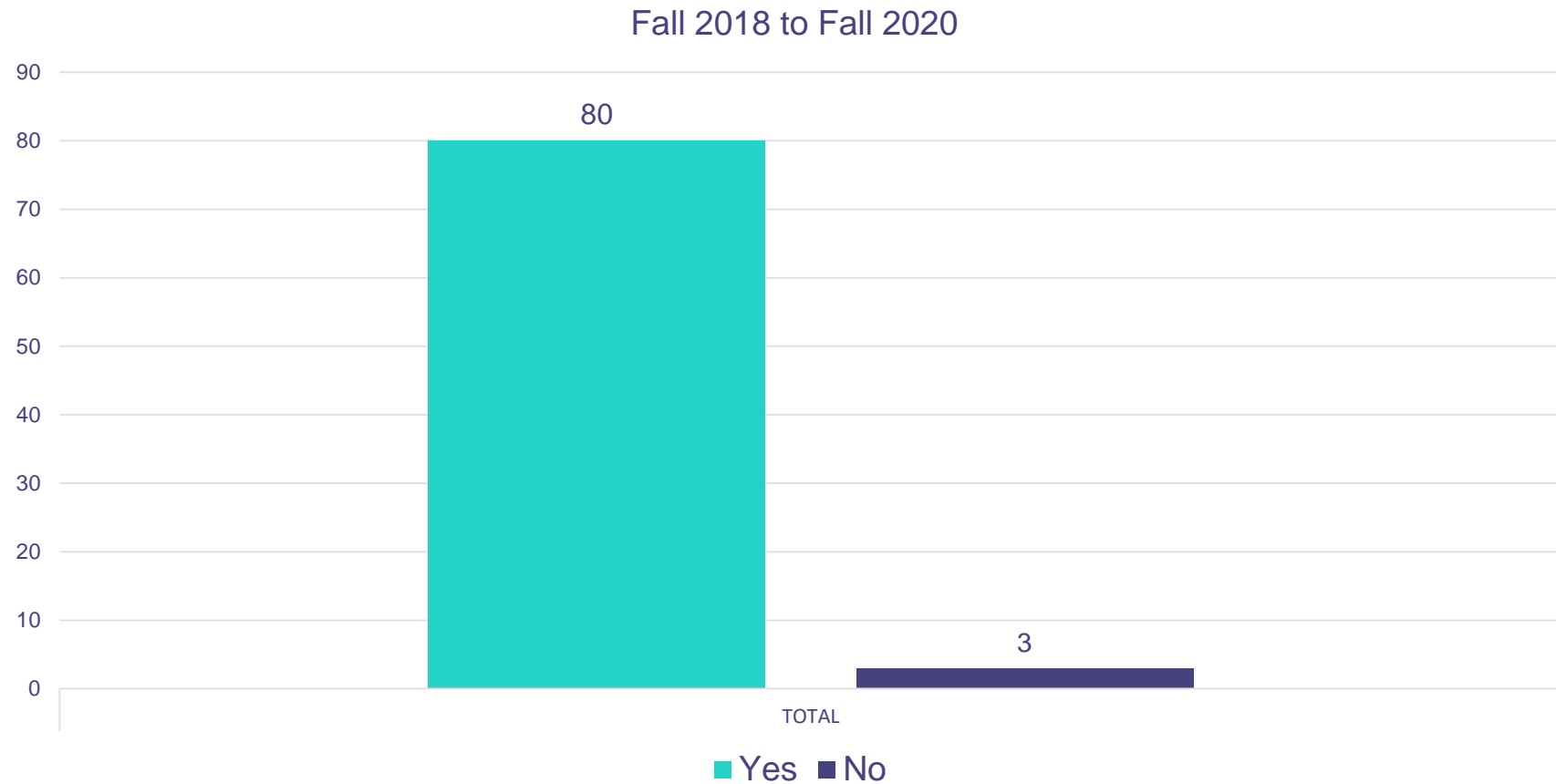
321 Graduates have taken a NEXus Course

NEXus Doctoral-level Graduates by Calendar Year



Student Course Evaluations

QUESTION: Did the NEXus course facilitate your remaining “on time” in your program of study? **96% Answered Yes**



CONCLUSIONS

- ▶ NEXus facilitates collaboration in nursing education and the potential for collaborative research at the doctoral level as well as eases faculty shortages and ultimately the nursing shortage
- ▶ NEXus supports timely progression for PhD pipeline
- ▶ Increases access to wide variety of unique courses not available in home school
- ▶ NEXus keeps students “on track” and at their local/regional university