



Trends in the Conferral of Graduate Public Health Degrees: A Triangulated Approach



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WEBINAR



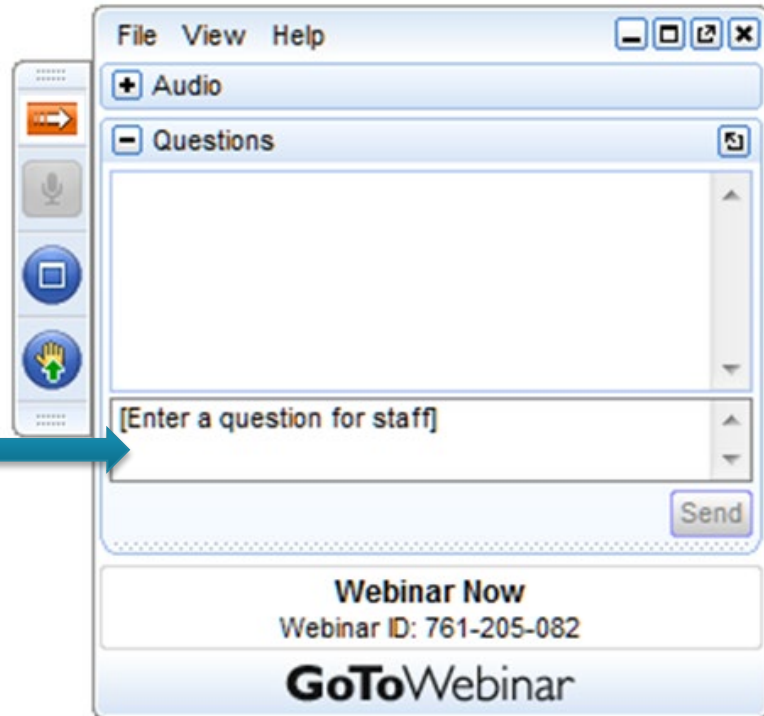
UNIVERSITY OF
LOUISVILLE.
SCHOOL OF PUBLIC HEALTH
& INFORMATION SCIENCES

JP Leider Research
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Moderator



Craig H. Blakely, PhD, MPH

Dean, School of Public Health and
Information Sciences, University of Louisville;
and chair, ASPPH Data Advisory Committee

Presenters



Jonathon P. Leider, PhD
Owner, JP Leider Research
& Consulting



Christine M. Plepys, MS
Director of Data Analytics,
ASPPH

Learning Objectives

- Describe trends in U.S. graduate public health degree conferrals.
- Compare U.S. graduate public health degree conferrals using a variety of demographic and other metrics.
- Identify employment sectors of recent public health graduates.

Agenda

1 Introduction

2 Methodology & Results

3 Employment Results from ASPPH

4 Questions & Answers

Trends in the Conferral of Graduate Public Health Degrees: A Triangulated Approach

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Introduction

Trends in the conferral of public health degrees provide a lens into the public health workforce. As the needs of workforce development grow and change, it is imperative to accurately characterize trends in degree conferrals to estimate the future size and composition of the public health workforce. The challenging task of enumerating public health degree conferrals aligns with the equally challenging task of enumerating the public health workforce, for which the “methodology used needs further improvements in standardization, specificity, data storage, and data availability.”¹ Although a 2015 study characterized the growth of the undergraduate public health major in the United States,² our study focused on graduate-level public health education trends in the United States.

The impetus for public health education in the United States to have its own identity and academic institutions was established in 1915 with the release of the *Welch-Rose Report*.³ The standardization of public health education began in 1919, with a meeting of the Committee of Sixteen. This committee was formed by the American Public Health Association (APHA) to standardize professional public health training.⁴ From the beginning, collecting and analyzing institutional data on education in public health presented challenges. A 1950 report by the APHA Committee on Professional Education presented information on the complexities of the definitions used and issues in providing comparable data on public health degree conferrals, showing, for example, that “where both sanitary engineers and public health nurses may receive the degree of MPH [master of public health] through the school of public health, there is sometimes confusion as to the category in which these degrees should be reported.” The report also stated that “this material does not lend itself completely to neat, unequivocal classification.”⁵

The Committee of Sixteen first collected information in 1920 from 20 US and Canadian institutions on the education provided to future public health workers. The results showed various degrees, from certificates to doctorates, and

differences in requirements for the same degrees. For example, the committee observed that some institutions awarded doctorate degrees in public health for a course of a few weeks’ length, whereas others awarded doctorate degrees after several years of coursework.⁴ Informed by this initial effort to catalog public health education, the Committee of Sixteen provided in its final opinions some of the first standardizations of public health education, including that the “first degree in Public Health should be a Certificate in Public Health, a Master of Science in Public Health, or Master of Public Health, to be granted for one or two years postgraduate work” and that “the highest degree in Public Health should be a [Doctor of Public Health], to be granted for not less than two years of work in academic residence.”⁴

After the initial work of the Committee of Sixteen, the APHA Governing Council formed a Committee on Public Health Training to make recommendations about public health education. The Committee on Public Health Training released its first report in 1922, which included a list of public health degree offerings, the number of students enrolled, and the number of degrees conferred. The 1922 Committee on Public Health Training report showed more uniformity in the first degrees in public health, as well as doctorate degrees, than the report from the Committee of Sixteen. In 1922, 7 types of public health degrees were granted by 10 US institutions, from certificates to doctoral degrees, that were in either public health or hygiene.⁶ After this initial report, various

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Standardization of Public Health Education

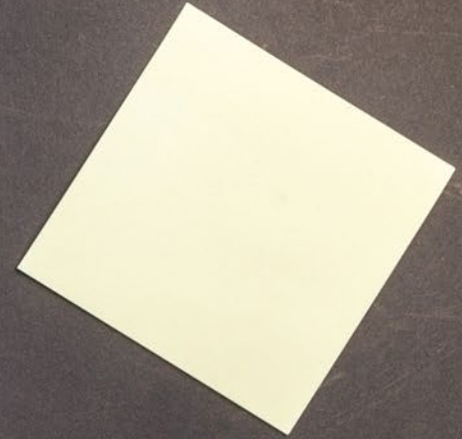
“This material does not lend itself completely to neat, unequivocal classification.”

American Public Health Association report by the
Committee on Professional Education

Methodology and Results



Jonathan P. Leider, PhD
Owner, JP Leider Research
& Consulting



ASPPH Data

ASPPH ASSOCIATION OF SCHOOLS & PROGRAMS OF PUBLIC HEALTH

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Data Center

The source for public health education data

Explore data on education for public health through interactive data visualizations, infographics, and publications and reports. Data Administrators and Users can access the ASPPH Data Center Portal via the login button below.

Login

Degree Level	Percentage
Master's	47%
Bachelor's	39%
Doctoral	14%

2017
61,655 Students

The ASPPH Data Center is a valuable resource for conducting analysis on data from CEPH-accredited ASPPH members and other sources.

A Brief History

The ASPPH Data Center was formed in 1974 to implement an annual data collection system that would gather data from CEPH-accredited ASPPH members which could be evaluated, analyzed, and reported as uniform, accurate information. Since 1974, reporting has increased from 21 institutions to over 100, and the data collection strategies have moved from paper-and-pencil to online data analytics.

Data Sources

ASPPH analyzes both ASPPH and publicly available data sources. The ASPPH Data Center's annual data collection includes faculty data, operating budgets including federal grants and contracts, and admissions, student, graduate, and employment data. SOPHAS, the centralized application service for members, is a rich source of data on applicants. In addition, the ASPPH Data Center uses data from the National Center for Education Statistics to track general trends in education in public health.

National Center for Education Statistics Data

Improved NAEP Data Explorer Now Available

Create accounts, custom tables, charts, maps and reports for current NAEP results.

The National Center for Education Statistics (NCES) is the primary federal entity for collecting and analyzing data related to education.

[Learn more about NCES](#)

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WHAT'S NEW AT NCES

OCT 10 [What High Schoolers and Their Parents Know About Public 4-Year Tuition and Fees in Their State](#)

This Statistics in Brief describes high school student perceptions of the cost of college using data from the High School Longitudinal Study of 2009 (HSL:09). [More info](#)

OCT 2 [32 percent of regular, full-time public school teachers hold summer jobs outside of their teaching positions](#)

This Data Point describes regular, full-time public school teachers' jobs during the summer. [More info](#)

SEP 17 [2015 Survey Questionnaires Results: Students' Computer Access and Use](#)

As part of the National Assessment of Educational Progress (NAEP), students, teachers, and school administrators answer survey questionnaires. [More info](#)

AUG 28 [Mobile Digest of Education Statistics, 2017](#)

This publication is a mobile compilation of key statistical information covering education from kindergarten through graduate school. [More info](#)

THE CONDITION OF EDUCATION



Browse key indicators on the condition of education in the United States at all levels, from prekindergarten through postsecondary, as well as labor force out and international comparisons. The indicators summarize important developments and trends in latest statistics, which are updated throughout the as new data become available.

[The Condition of Education homepage](#)
[Download the latest report](#)

LATEST POSTS FROM THE NCES BLOG

IPEDS

Integrated Postsecondary Education Data System

Use the Data

Access IPEDS data submitted to NCES through our data tools or download the data to conduct your research



IPEDS Survey Components

Learn more about the individual IPEDS survey components; view training videos, infographics, answers to frequently asked questions, survey forms, and more.



Data Trends

Use the Trend Generator to view trends on most frequently asked subject areas including: Enrollment, Completions, Graduation Rates, Employees and Staff, Institutional Revenues, and Financial Aid.



Look Up an Institution

Look up information for one institution at a time. Data can be viewed in two forms: institution profile (similar to College Navigator) and reported data (institution's response to each survey question).



Data Feedback Report

Download, print, or customize an institution's Data Feedback Report, a report that graphically summarizes selected institutional data and compares the data with peer institutions.



Statistical Tables

Create simple descriptive statistics (e.g., total, count, average, median, standard deviation, percentiles) on selected IPEDS institutions and variables.



Compare Institutions

Download IPEDS data files for more than 7,000 institutions and up to 250 variables. Data files are provided in comma separated value (*.csv) format.



Survey Data

Data are available starting with the 1980-81 collection year for the *Complete data files* and *Custom data files* functions, which zip the data into comma separated value (*.csv). Beginning with the 2006-07 collection year, data for each collection year are compiled into an *Access database*.

Select download option ▼



Shortcuts

Use these shortcuts to expedite the research process if you are a frequent or returning data user.

Select your shortcut ▼

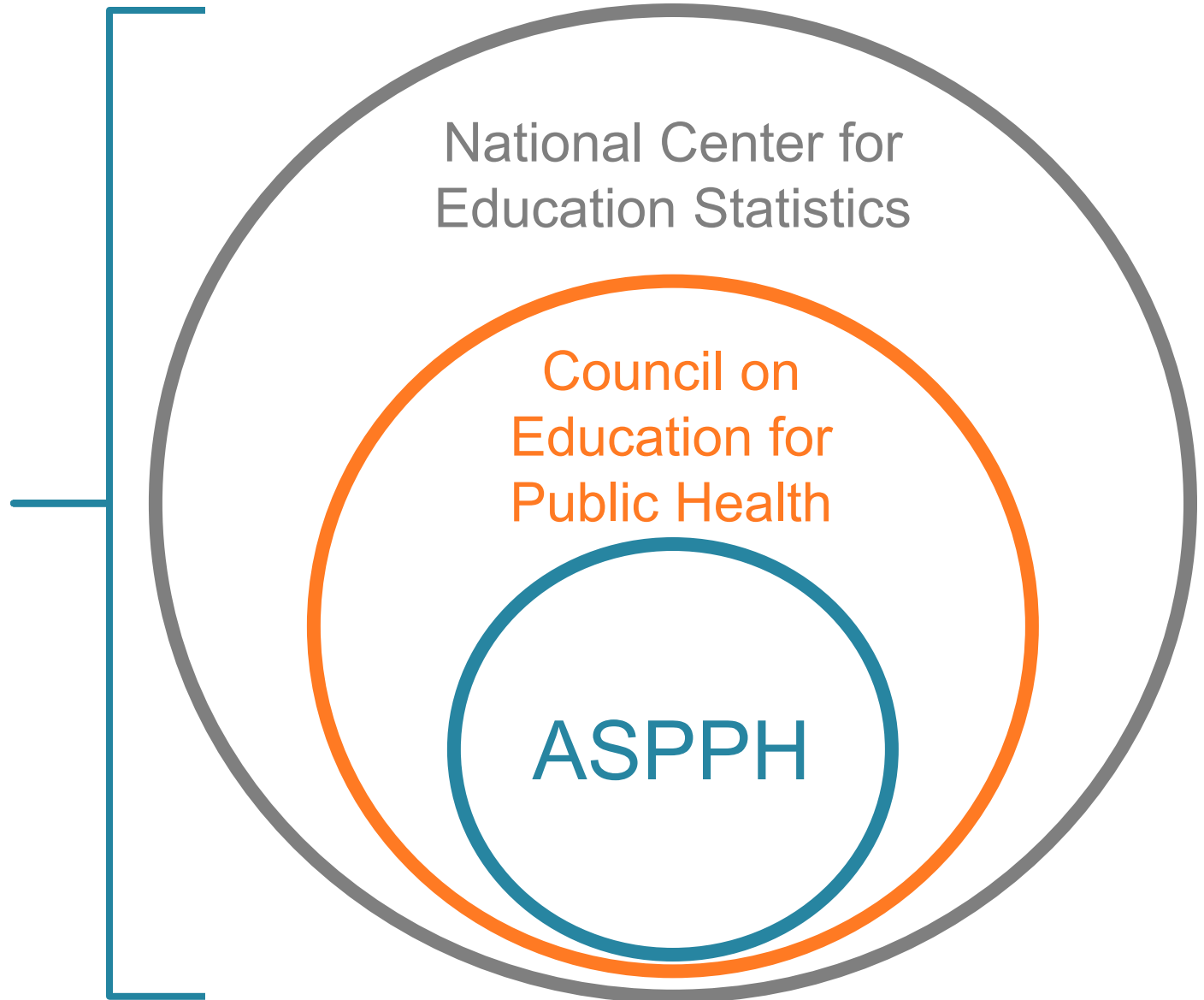


Publications and Products

Review publications using IPEDS data including First Looks, Web Tables, methodology reports, and Digest Tables.

Research Question

How many graduate public health degrees are conferred in the U.S.?



Defining Public Health: Program Areas

NCES Enacted 2012	ASPPH Enacted 2011
Biostatistics (26.1102)	Biostatistics (BIOSTAT)
Occupational Health and Industrial Hygiene (51.2206)	Environmental Sciences/Health (ENV SC)
Environmental Health (51.2202)	Environmental Sciences/Health (ENV SC)
Epidemiology (26.1309)	Epidemiology (EPID)
Public Health, General (51.2201)	General Public Health studies (GENERAL)
Behavioral Aspects of Health (51.2212)	Health Education/Behavioral Sciences (HED/BS)
Public Health Education and Promotion (51.2207)	Health Education/Behavioral Sciences (HED/BS)
Health Policy Analysis (44.0503)	Health Services Administration/Health Policy (HSA)
Health Services Administration (51.2211)	Health Services Administration/Health Policy (HSA)
International Public Health/International Health (51.2210)	International Health (INTHLTH)
Maternal and Child Health (51.2209)	Maternal/Child Health (MCH)
Public Health, Other (51.2299)	All other (OTHER)
Community Health and Preventive Medicine (51.2208)	Public health practice/management (PHP/PM)

Dataset Development

- NCES Data: 1992-2016
- ASPPH Data
 - Schools of Public Health: 1992, 1996-2016
 - Programs of Public Health: 2014-2016
- Linked datasets by:
 - Year
 - NCES School ID
 - ASPPH Program area
 - Degree level (master's or doctoral)

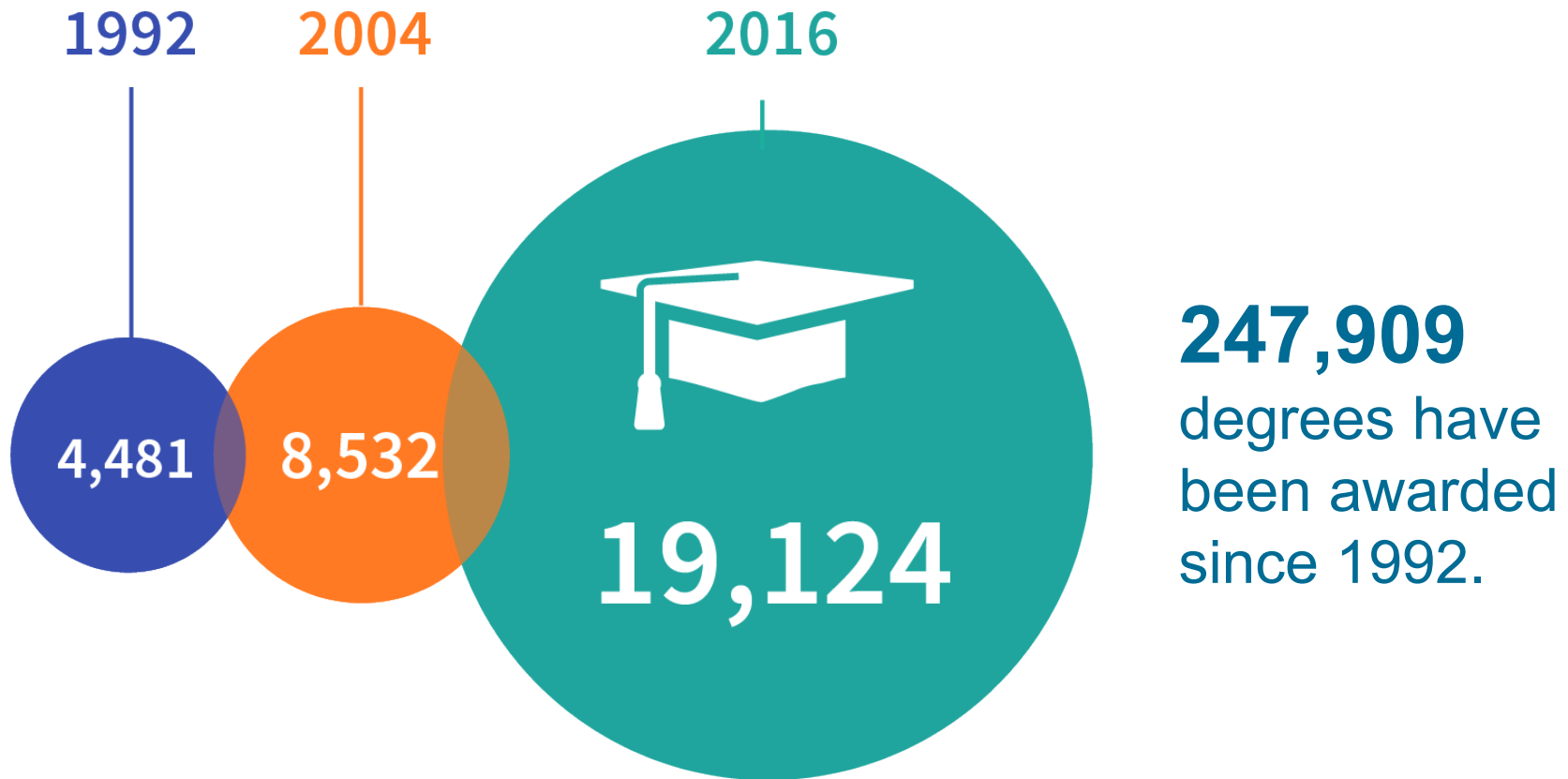
Composite Estimate

Take the higher number of NCES or ASPPH degree conferral counts.

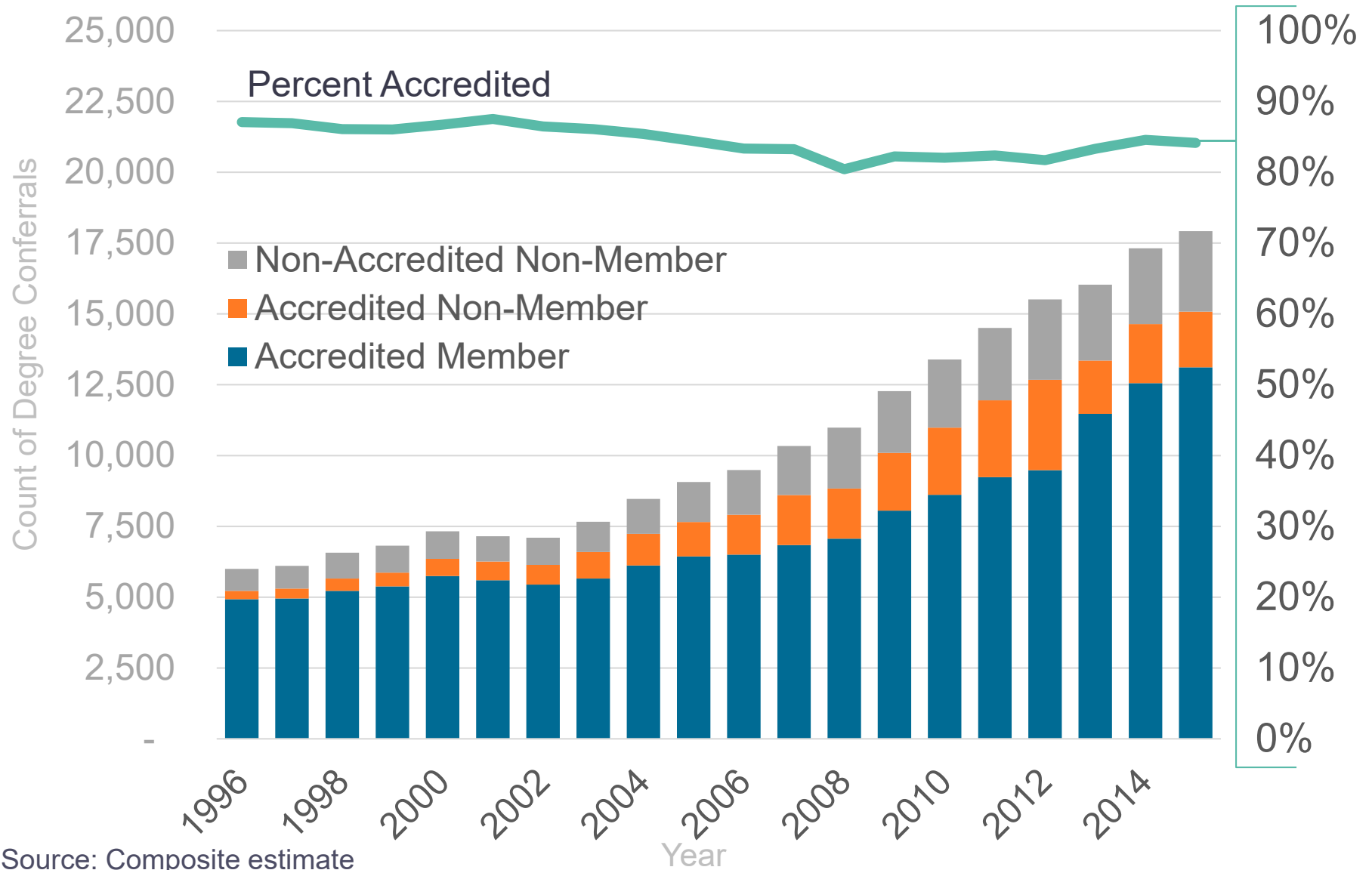
Example:

Institution	NCES Count	ASPPH Count	Composite Estimate
University A	100	110	110
University B	50	40	50
University C	100	150	150

Number of graduate public health degree conferrals increased more than 300%

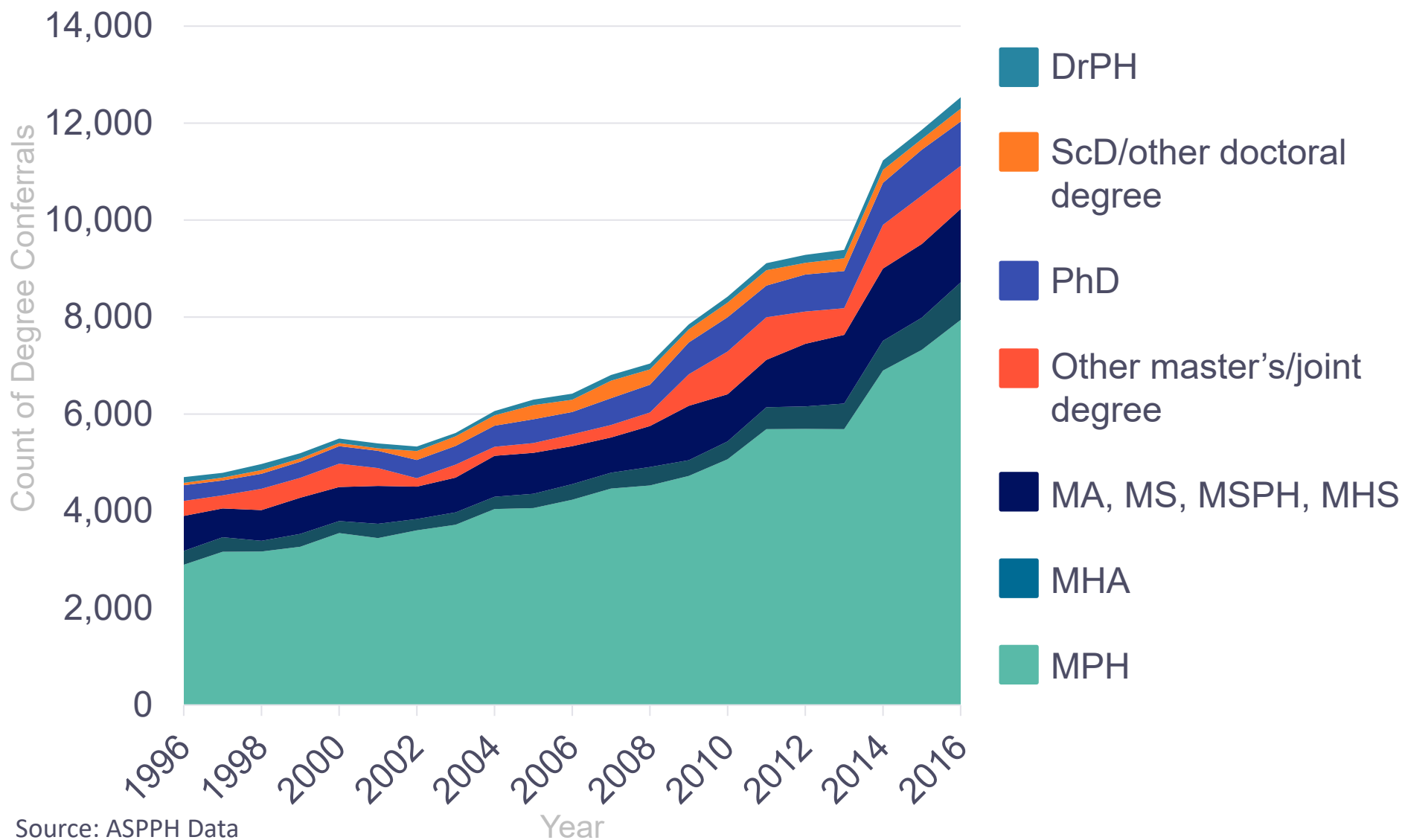


Fluctuation in graduate public health degree conferrals from institutions with CEPH-accredited schools/programs



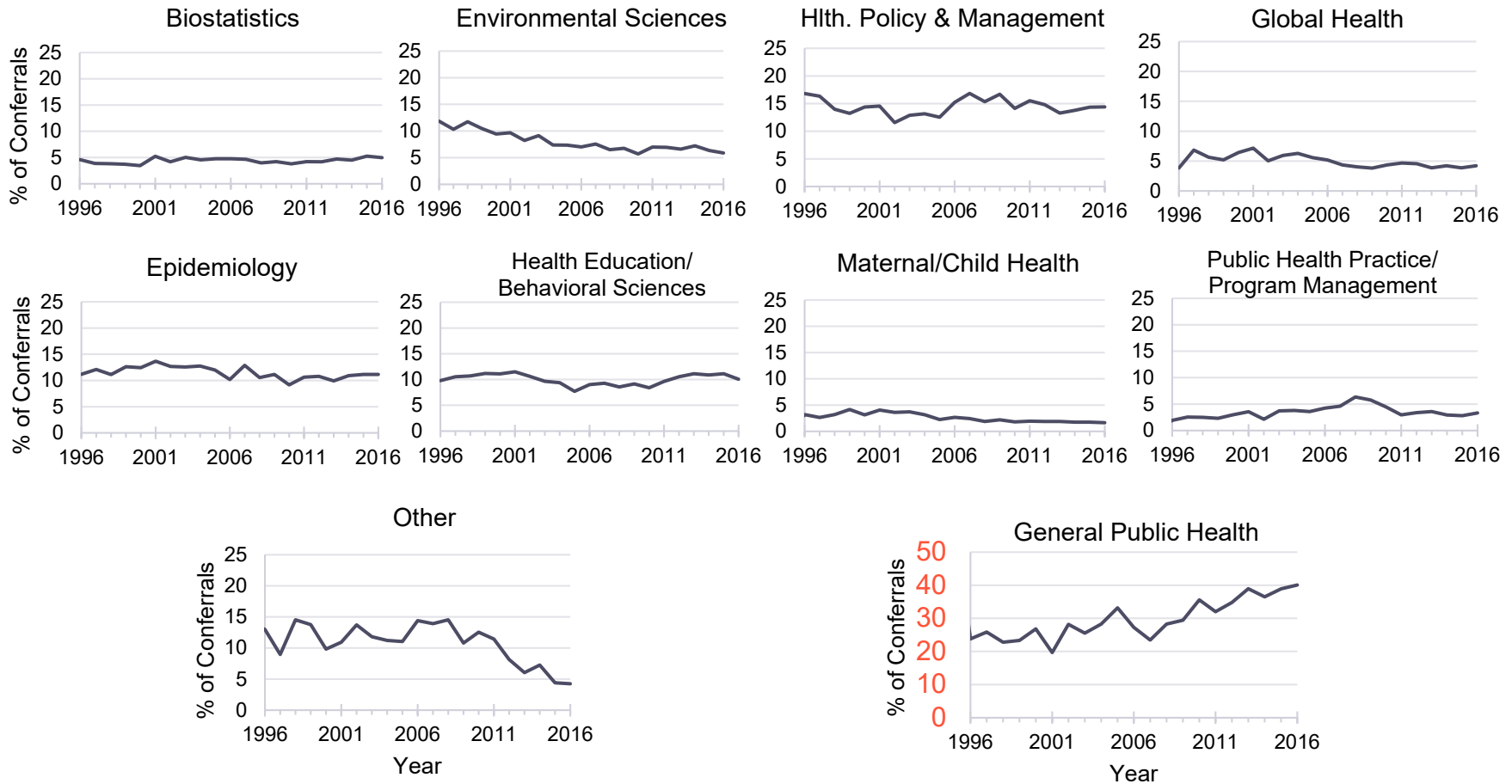
Source: Composite estimate

From 1996-2016, 72% of all master's degrees were the MPH and 62% of all doctoral degrees were the PhD



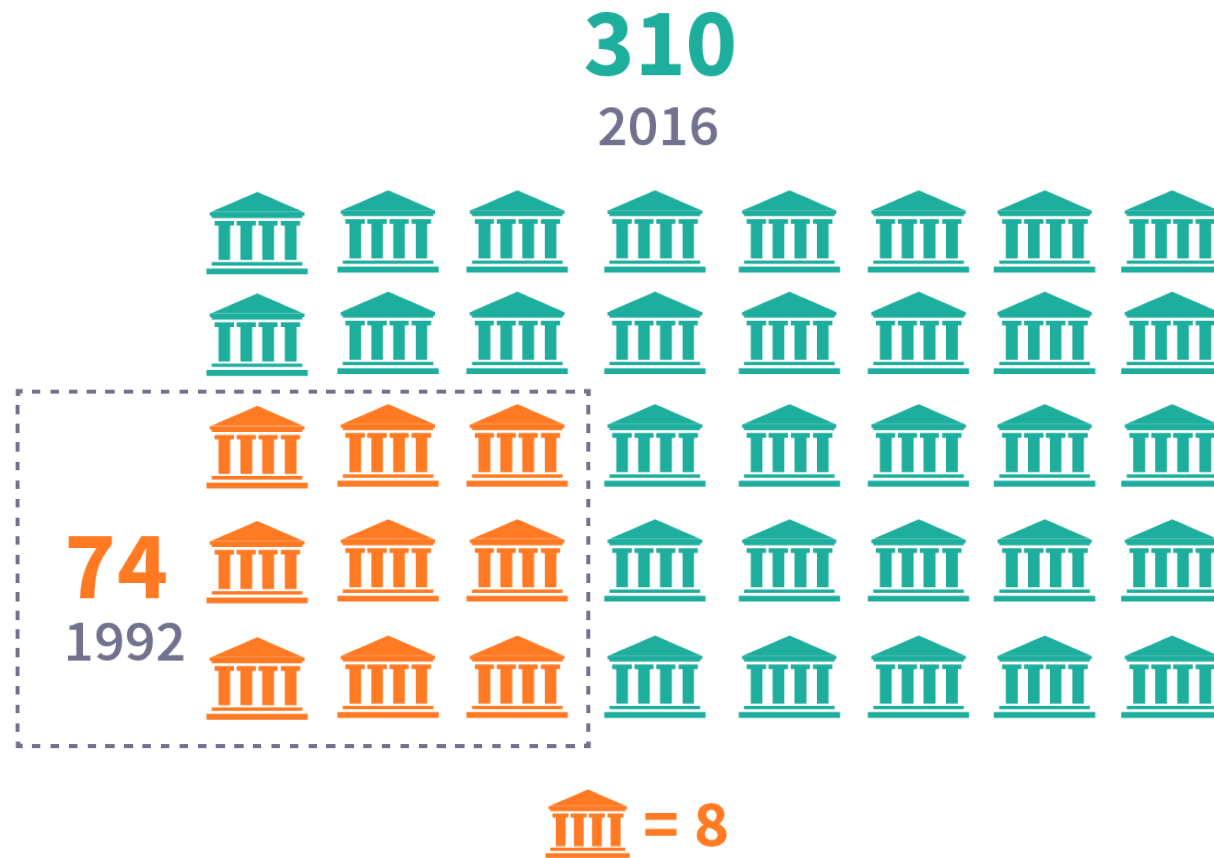
Source: ASPPH Data

From 1996-2016, fairly consistent proportion of degree conferrals by program area



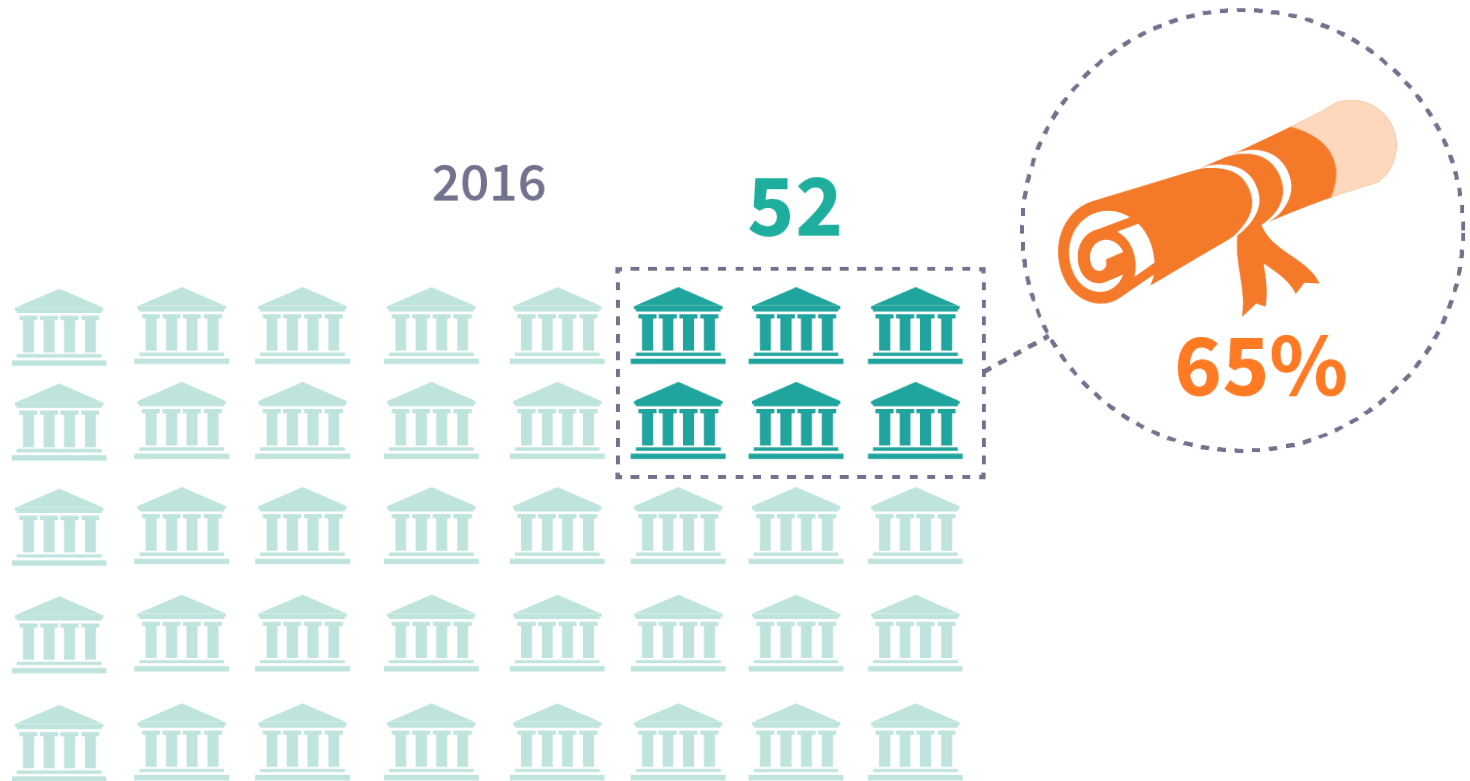
Source: Composite estimate

Number of institutions awarding at least one graduate public health degrees quadrupled



Source: Composite estimate

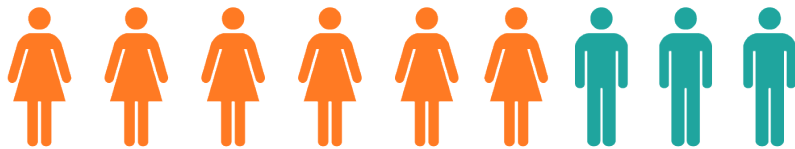
65% of degrees are awarded by just 17% of all institutions awarding degrees



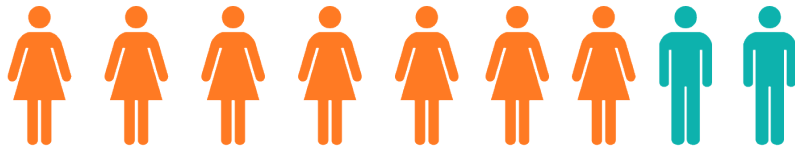
Source: Composite estimate

Academic public health graduate demographics continue to change

Percentage of Women Graduates

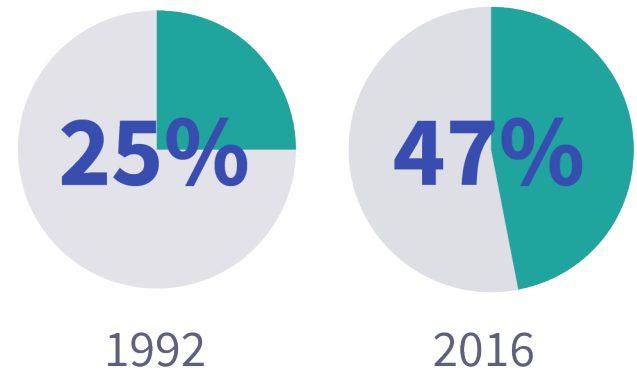


63% in 1992

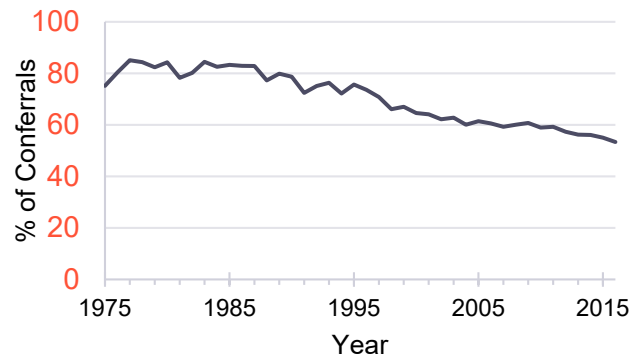
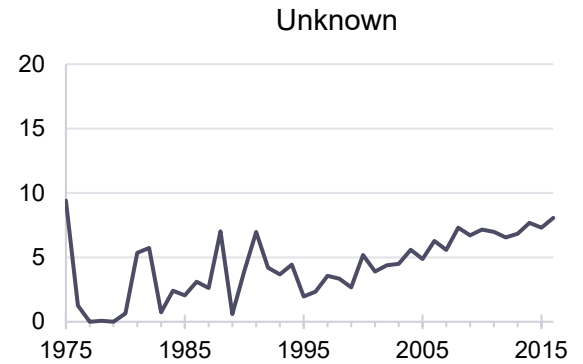
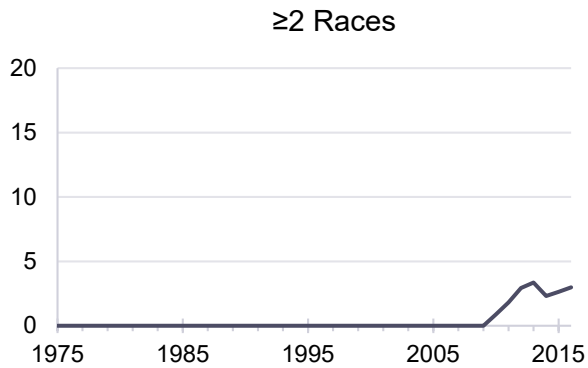
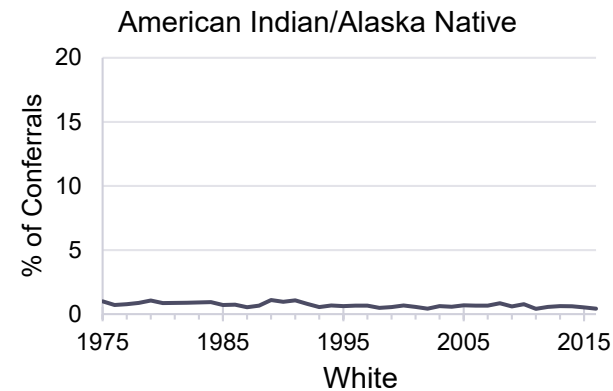
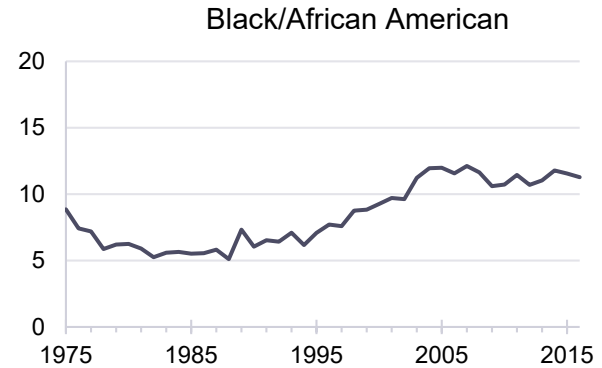
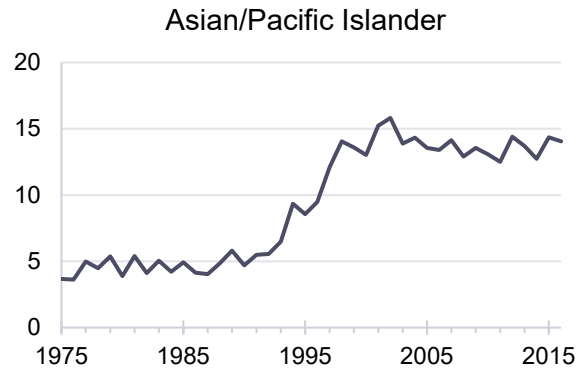
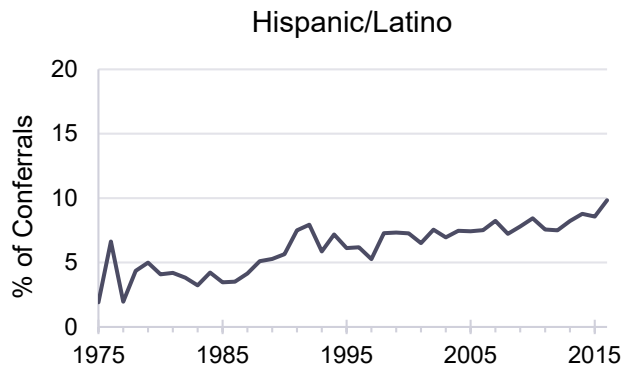


73% in 2016

Percentage of Non-White Graduates



Hispanic/Latino, Asian/Pacific Islander, Black/African American and student percentages increased



Source: ASPPH data for U.S. citizens only.

Questions Raised

- How trustworthy are the data sources?
- Why are students studying public health?
- How long will these trends continue?
- Are there jobs for “all of these” graduates?

Employment Results from ASPPH



Christine M. Plepys, MS
Director of Data Analytics



ASPPH Annual Data Graduate Outcomes, Academic Years 2014-15 & 2015-16

26,328 Graduate Public Health Completions Reported

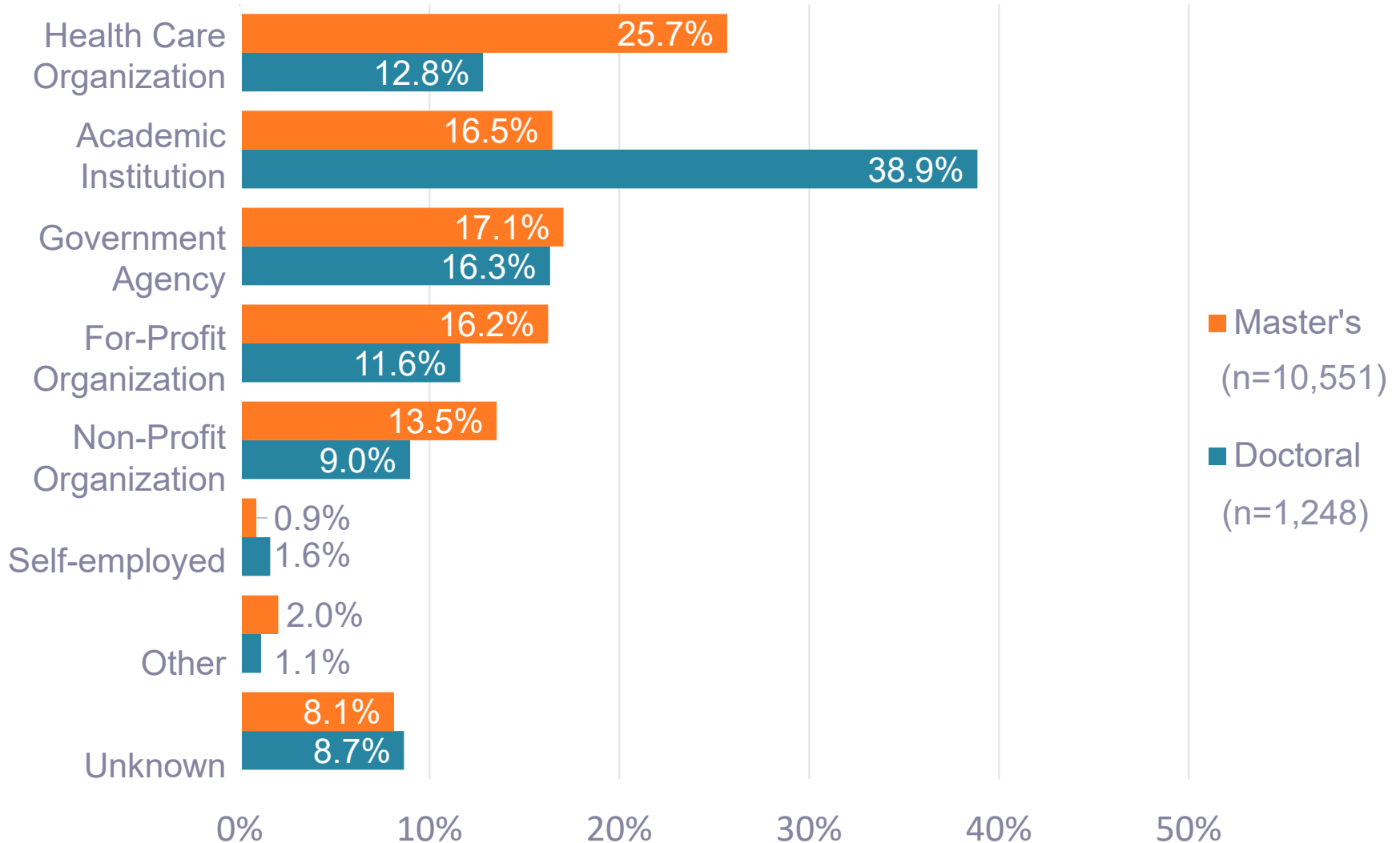
16,894 Outcomes Reported
(64%)

11,799 Employed
(71%)

The flowchart starts with a dark blue box at the top containing the text '26,328 Graduate Public Health Completions Reported'. A white box below it is connected by a vertical line. From the bottom of this white box, a vertical line goes down to a teal box containing '16,894 Outcomes Reported (64%)'. Below this teal box is another white box, also connected by a vertical line. From the bottom of this white box, a vertical line goes down to a teal box containing '11,799 Employed (71%)'. A large teal arrow points from the right side of the white box below '16,894 Outcomes Reported' to a table on the right side of the slide.

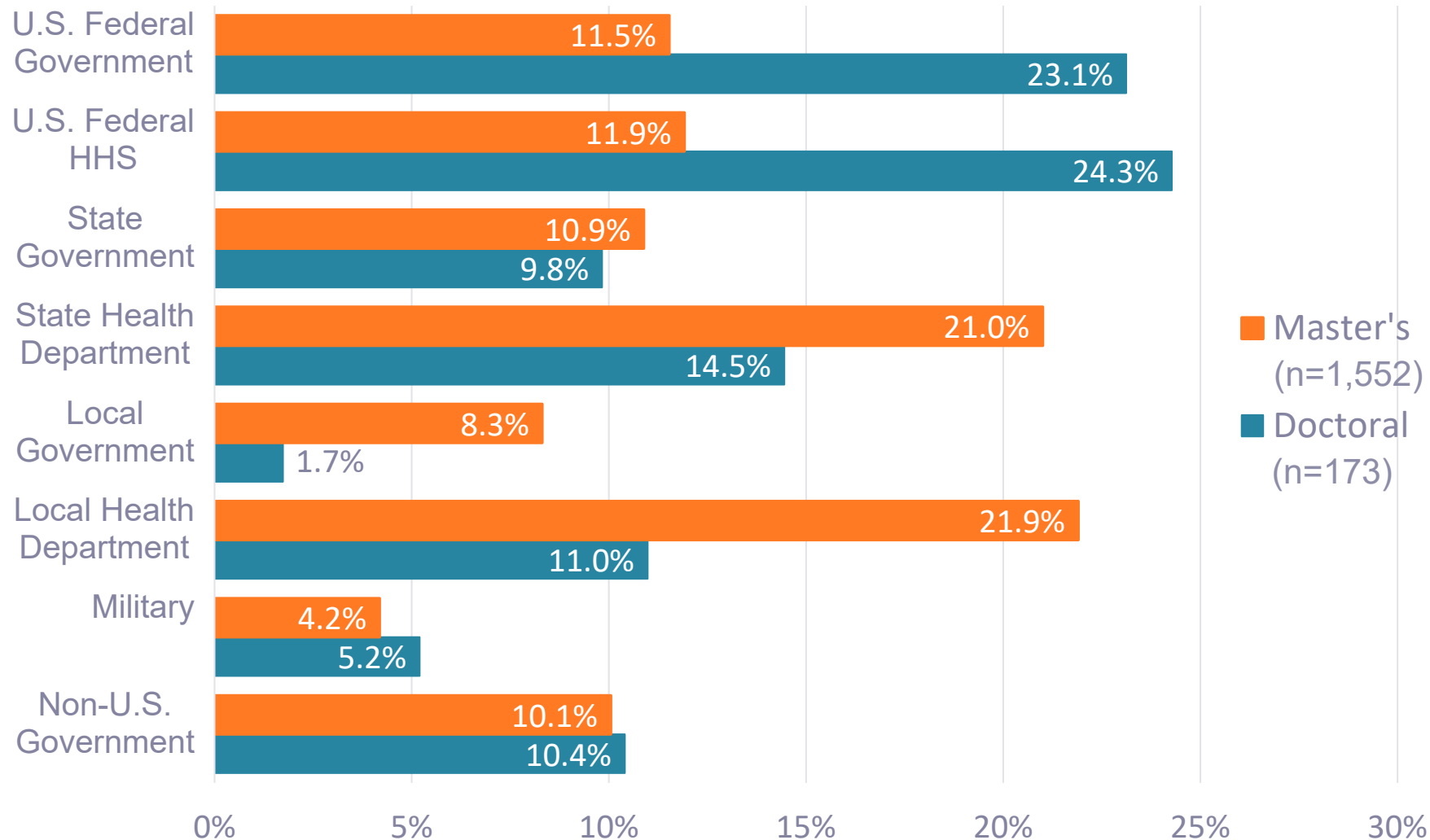
Continuing Ed	9%
Fellowship	6%
Seeking	3%
Not Seeking	0.6%
Volunteer	0.2%
Unknown	10%

Employment sectors vary by degree level



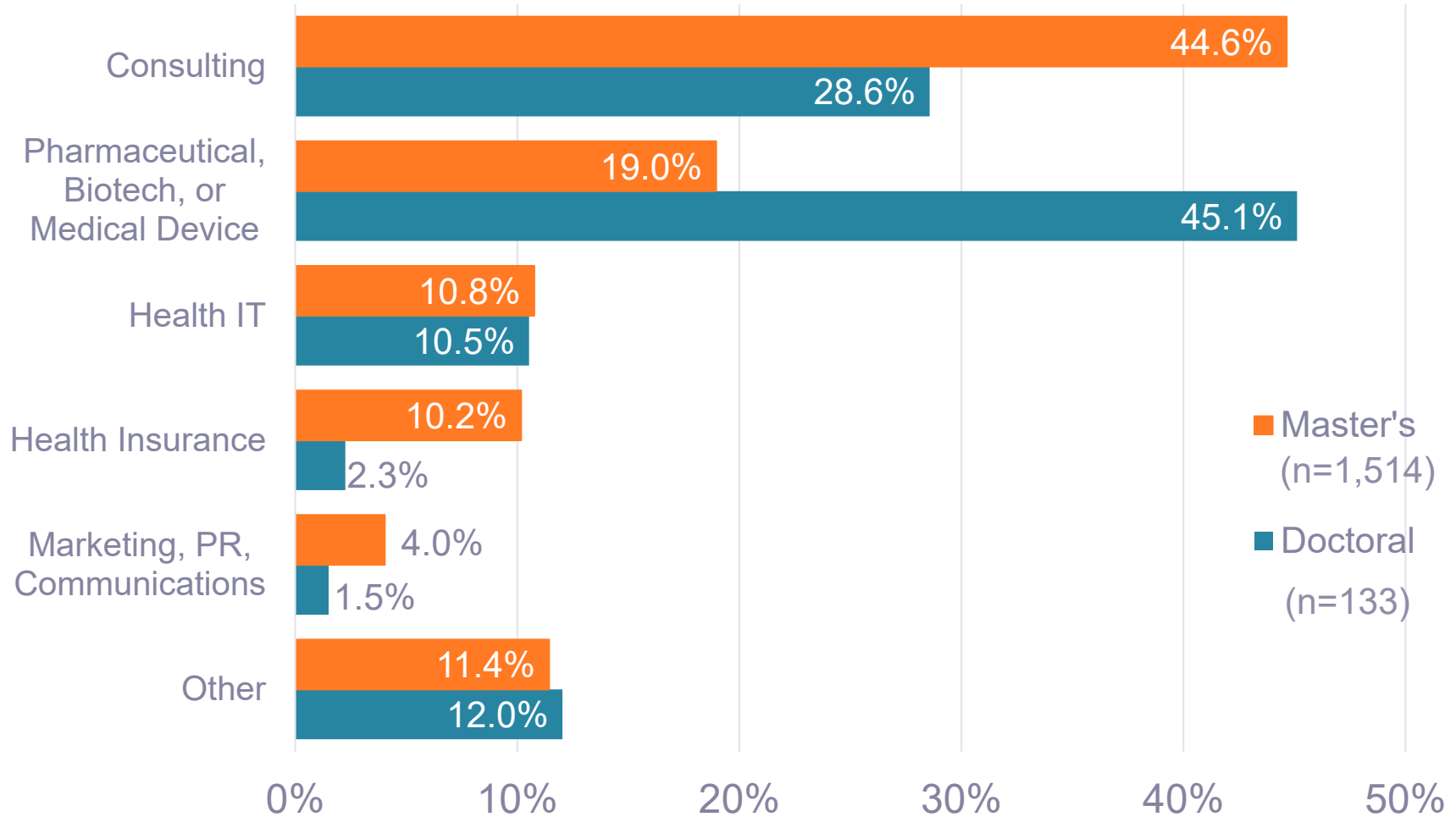
Source: ASPPH Annual Data

Employment in government agencies



Source: ASPPH Annual Data

Employment in for-profits





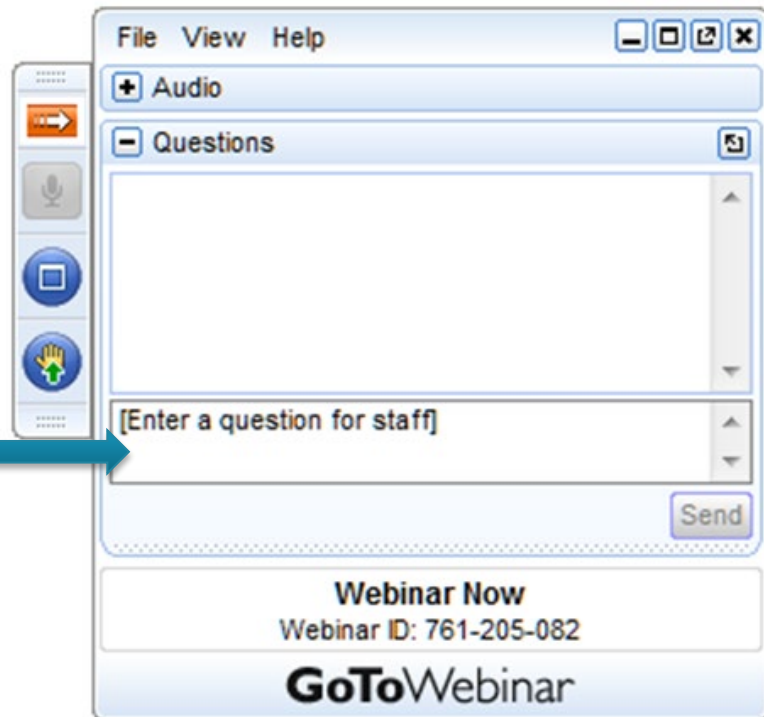
“This growth in students studying public health - at the undergraduate and graduate levels - confirms that students are eager to enter this dynamic and diverse field.”

- Dr. Laura Magaña, president and CEO of ASPPH

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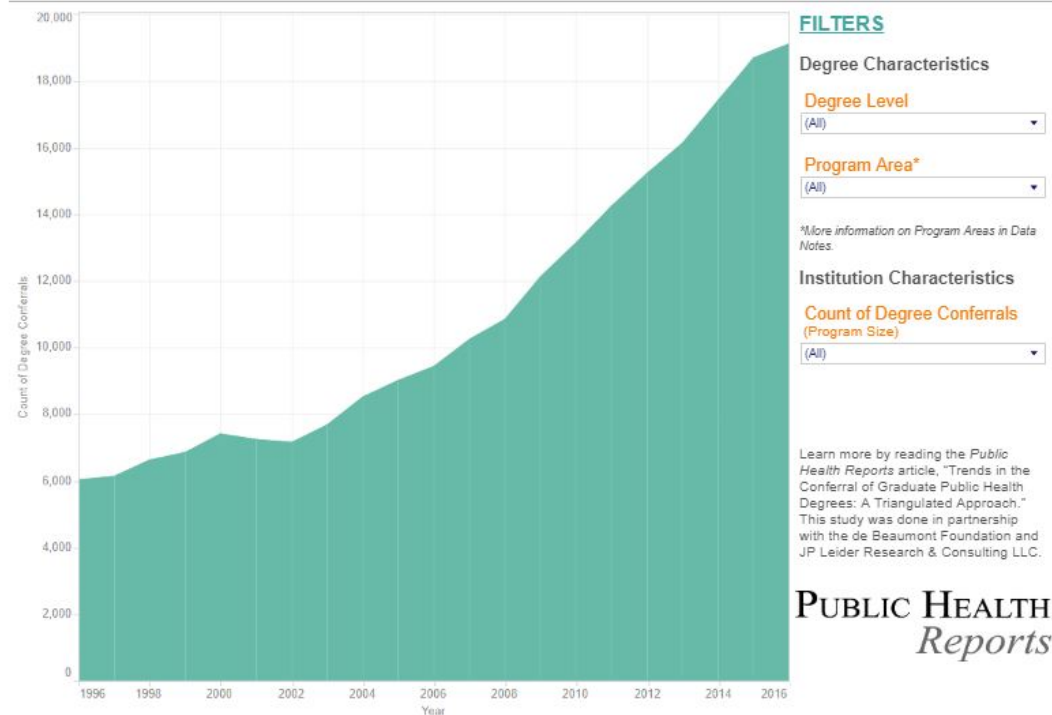
Visit ASPPH Data Center at www.aspph.org/connect/data-center

- Article
- Infographic
- Interactive dashboard

Graduate Public Health Degree Conferral Trends

This chart displays U.S. graduate public health degree conferral growth. Researchers created a composite estimate of master's and doctoral public health degree conferrals by merging degree completions data from ASPPH and the National Center for Education Statistics, Integrated Postsecondary Education Data System. Hover on the chart and use filters on the right to explore the data.

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Thank You!

This webinar has been recorded and will be available on the webinar event page on the ASPPH website soon:

[Link to event page](#)

Contact: sweiner@aspph.org

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