Trends in the Conferral of Graduate Public Health Degrees: A Triangulated Approach
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• Simply type them in the “Questions” field on the right side of your screen.
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

Jonathon P. Leider, PhD1, Christine M. Plepys, MS2, Brian C. Castrucci, MA3, Emily M. Burke, MPH2, and Craig H. Blakely, PhD, MPH4

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.”

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. 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. 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.”

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. 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.”

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 doctorette 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 doctorates, that were in either public health or hygiene. After this initial report, various

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4. School of Public Health and Information Sciences, University of Louisville, Louisville, KY, USA

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“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

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.

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.
How many graduate public health degrees are conferred in the U.S.?
## Defining Public Health: Program Areas

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

• NCES Data: 1992-2016

• ASPPPH Data
  • Schools of Public Health: 1992, 1996-2016
  • Programs of Public Health: 2014-2016

• Linked datasets by:
  • Year
  • NCES School ID
  • ASPPPH Program area
  • Degree level (master’s of doctoral)
Composite Estimate

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

Example:

<table>
<thead>
<tr>
<th>Institution</th>
<th>NCES Count</th>
<th>ASPPH Count</th>
<th>Composite Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>University A</td>
<td>100</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>University B</td>
<td>50</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>University C</td>
<td>100</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>
Number of graduate public health degree conferrals increased more than 300% between 1992 and 2016. Since 1992, 247,909 degrees have been awarded.

Source: Composite estimate
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.
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
- 25% in 1992
- 47% in 2016

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

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

Source: ASPPH Annual Data
Employment sectors vary by degree level

Health Care Organization (Master's: 12.8%, Doctoral: 25.7%)
Academic Institution (Doctoral: 38.9%)
Government Agency (Doctoral: 16.3%)
For-Profit Organization (Master's: 16.2%, Doctoral: 11.6%)
Non-Profit Organization (Master's: 13.5%, Doctoral: 9.0%)
Self-employed (Master's: 0.9%, Doctoral: 1.6%)
Other (Master's: 2.0%, Doctoral: 1.1%)
Unknown (Master's: 8.1%, Doctoral: 8.7%)

Source: ASPPH Annual Data
Employment in government agencies

- U.S. Federal Government: 11.5% Master's, 23.1% Doctoral
- U.S. Federal HHS: 11.9% Master's, 24.3% Doctoral
- State Government: 10.9% Master's, 9.8% Doctoral
- State Health Department: 8.3% Master's, 14.5% Doctoral
- Local Government: 1.7% Master's, 8.3% Doctoral
- Local Health Department: 4.2% Master's, 11.0% Doctoral
- Military: 5.2% Master's, 4.2% Doctoral
- Non-U.S. Government: 10.1% Master's, 10.4% Doctoral

Source: ASPPH Annual Data
Employment in for-profits

- Consulting: 44.6% (n=1,514)
- Pharmaceutical, Biotech, or Medical Device: 45.1% (n=1,514)
- Health IT: 10.8% (n=1,514)
- Health Insurance: 10.2% (n=1,514)
- Marketing, PR, Communications: 4.0% (n=1,514)
- Other: 11.4% (n=1,514)

Other: 0% (n=133)
“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
Submit your Questions/Comments

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- Article
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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
Coming Attractions

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