Refining the Workforce Taxonomy

Presentation at Keeneland, 2015

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PH WINS

- Public Health Workforce Interests and Needs Survey
- Partnership between the de Beaumont Foundation and ASTHO
- Answering long-standing call for better data on public health workforce
- First use of taxonomy in a large scale survey

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Design

- Representative sample of individual state health agency workers
- Pilot in local health departments (over 50 LHDs)
  - Washington
  - Wisconsin
  - South Carolina
  - Arkansas
  - Georgia
  - Mississippi
- Big City Health Coalition (14 big cities)

Methods

- Fielded online September – December 2014
  - Staff lists (states)
  - Staff lists or email from leadership (locals)
- Approximately 53,000 survey invitations (25,000 central)
- Promoted via workforce champions

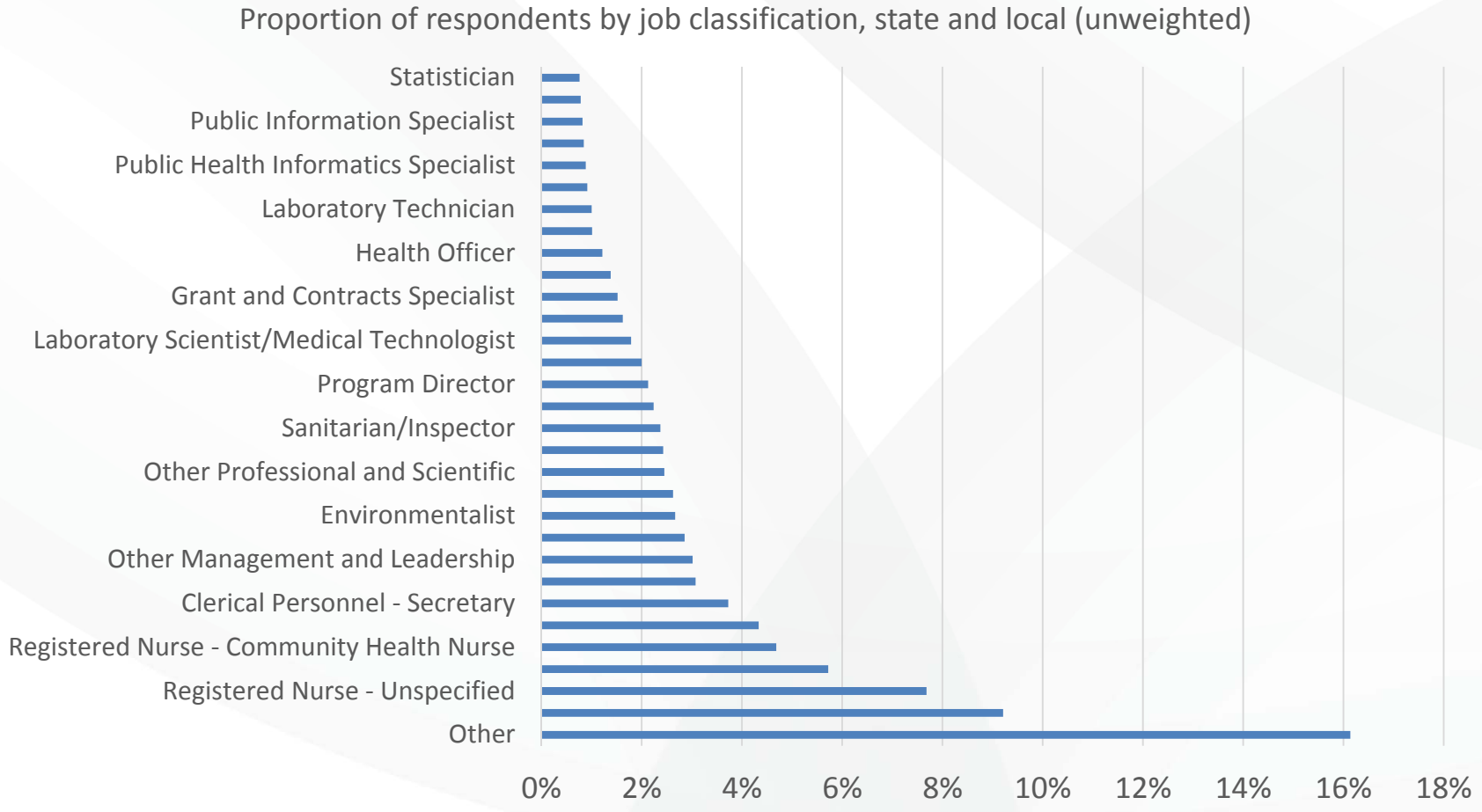
Response

- Survey closed in December
- Over 23,000 responses
- More than expected from LHDs
- Overall response rate approximately 45%

Taxonomy Use

- Occupation
- Setting
- Employer
- Program area
- Certification
- Education
- Demographics (gender, race/ethnicity, age)

Occupation



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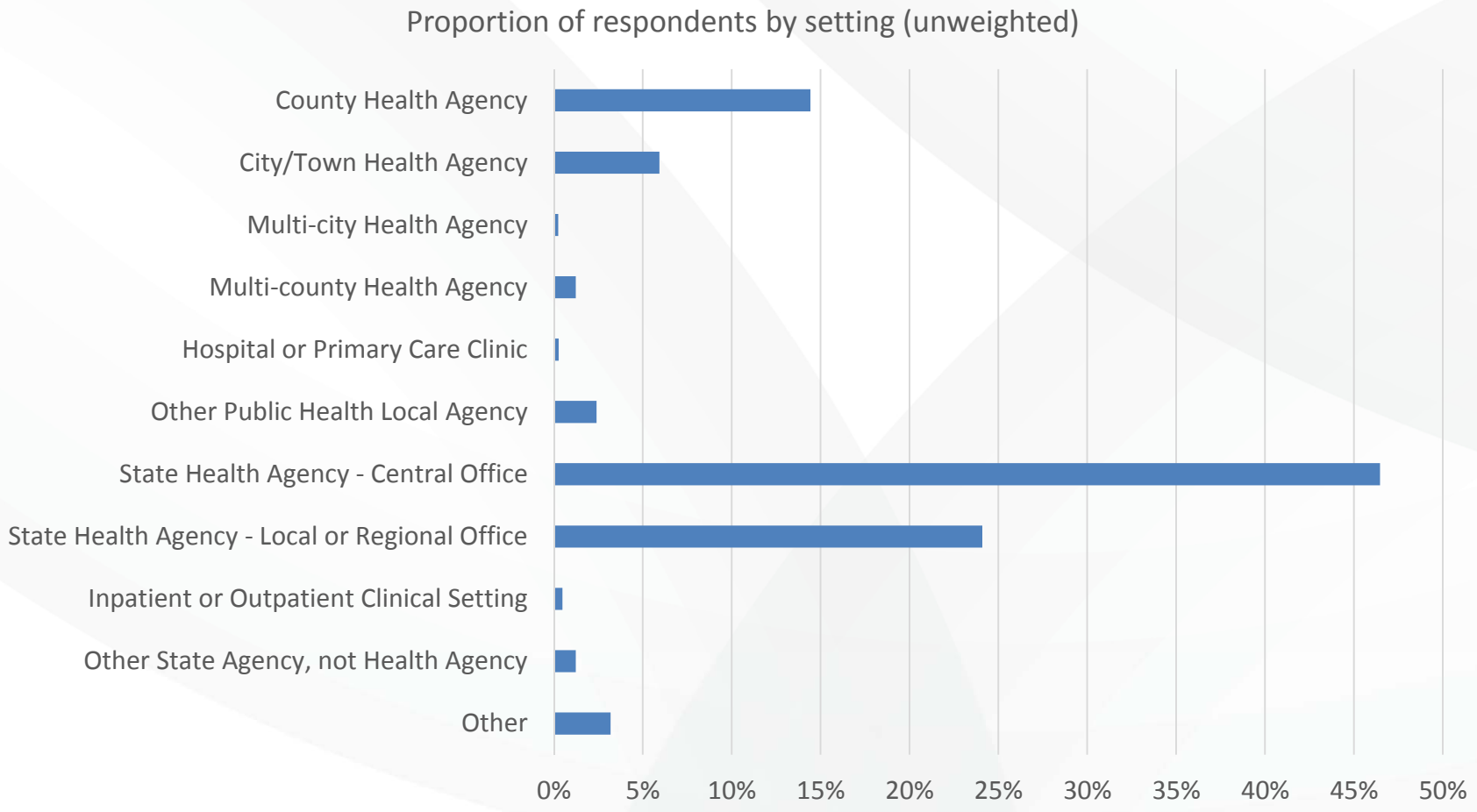
Setting



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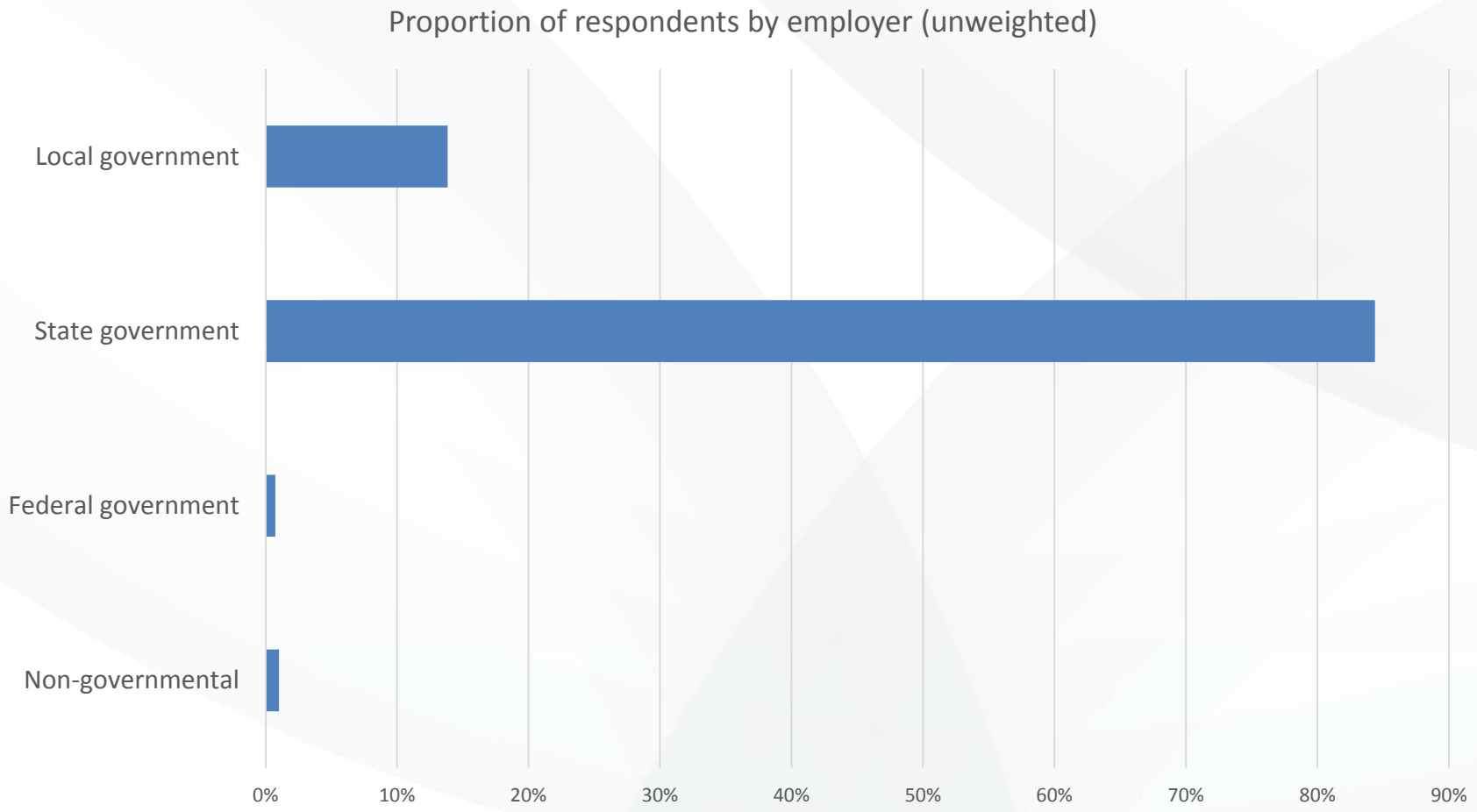
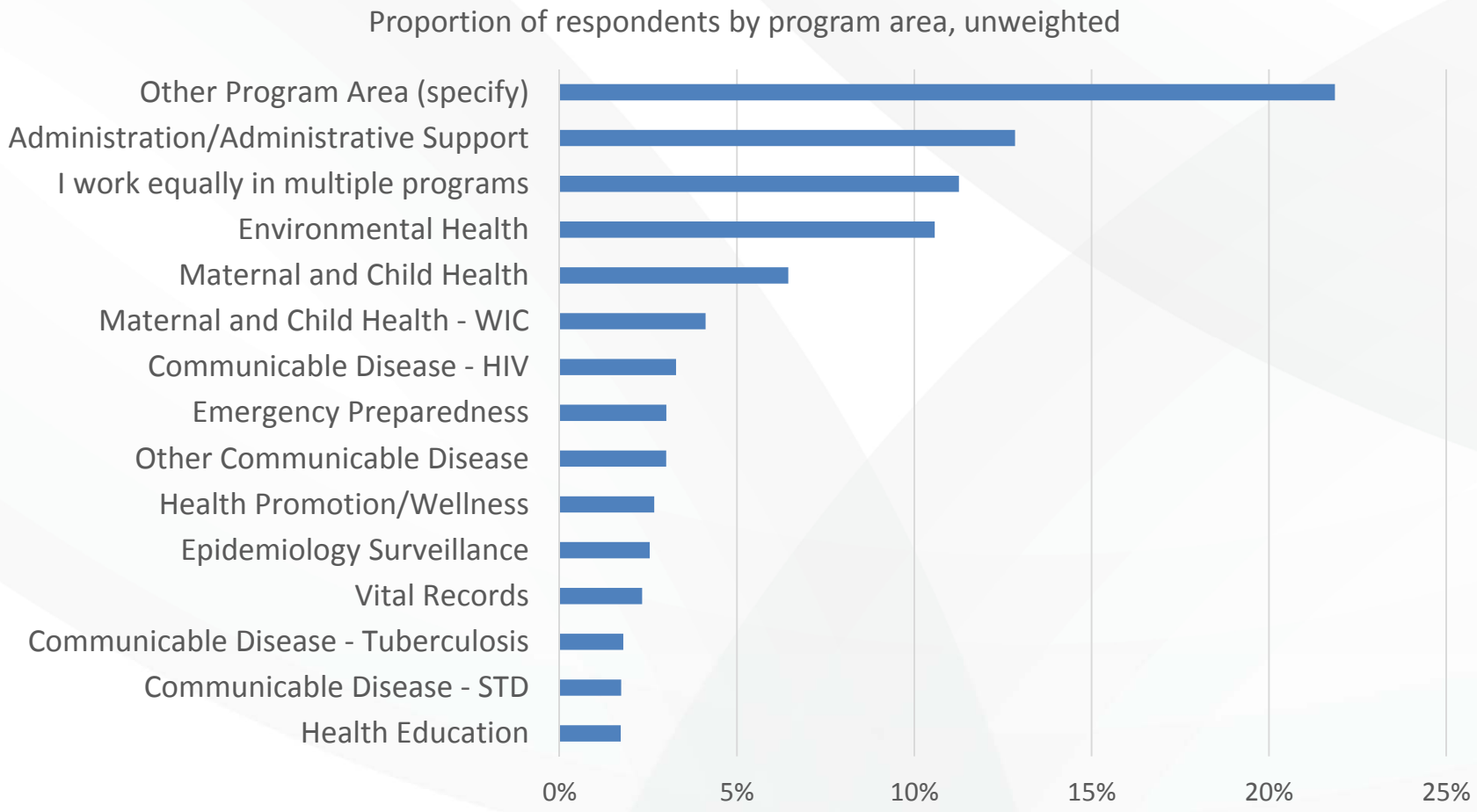
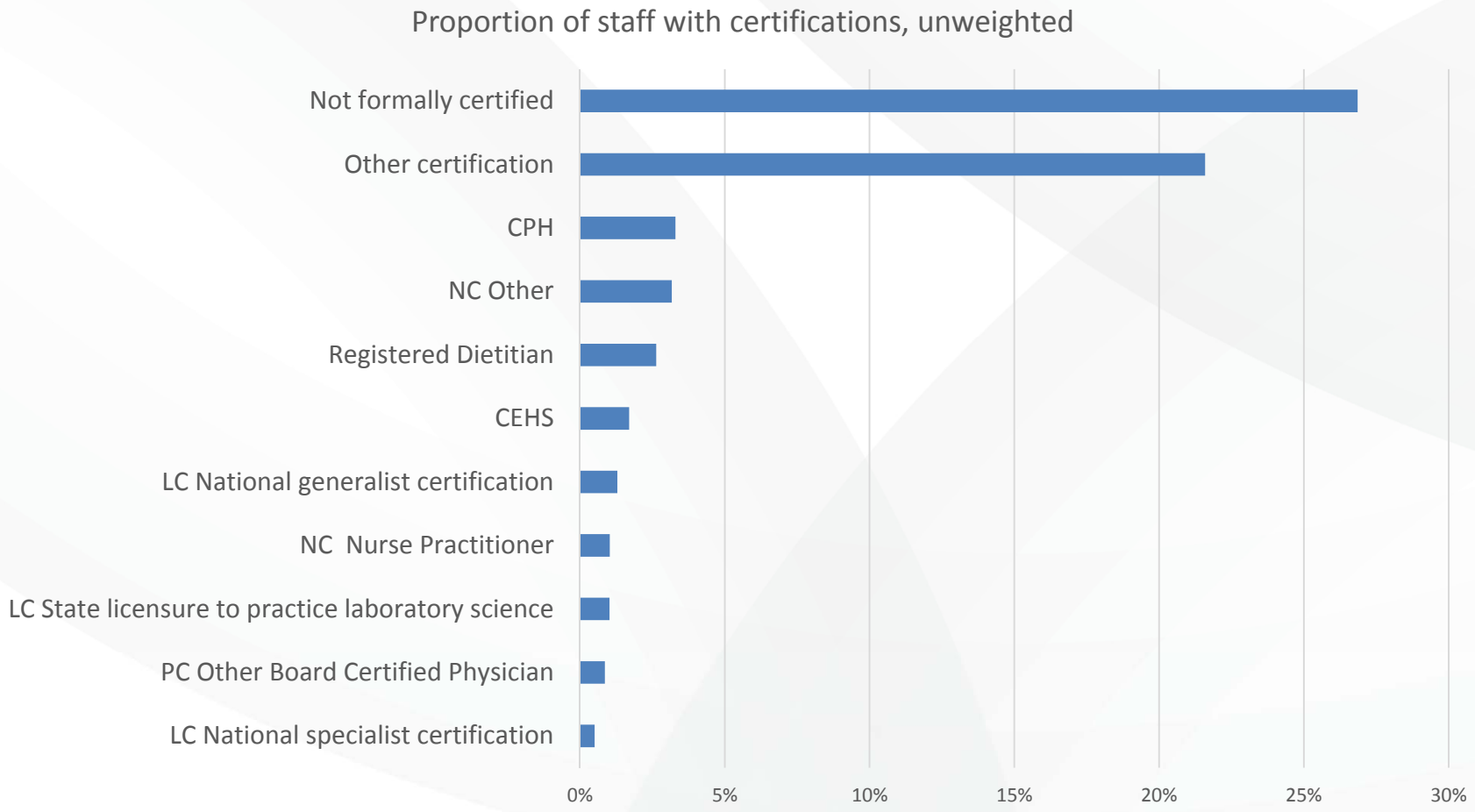
Employer


Proportion of respondents by employer (unweighted)
Local government
State government
Federal government
Non-governmental
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%

Program Area



Certification



PH WINS "Other" Analysis – Purpose

- To determine the ability of the public health workforce taxonomy to categorize state and local public health workers based on open-text responses to three questions:
  1) Please identify the classification that best represents your role in the organization (**Occupation Axis**)
  2) Please indicate which credentials you have obtained. Check all that apply. (**Certifications Axis**)
  3) Please specify your primary program area (**Program Area Axis**)

- The main goals of the analysis are:
  - To reduce the number of individuals classified as "Other" by recoding responses into taxonomy categories
  - To determine potential missing categories to recommend to the taxonomy development advisory committee

Methods

- Qualitative data associated with “Other” responses were coded independently by two research teams:
  - University of Michigan Center of Excellence in Public Health Workforce Studies
  - NORC at the University of Chicago

- For each axis, responses were first classified into three main categories:
  1) Existing taxonomy category
  2) Taxonomy category in another axis (e.g. licensure)
  3) Remain “Other”

- An additional code was assigned to responses that matched suggestions from the focus groups conducted by NORC with HR Directors and ASTHO affiliate representatives

- Results presented represent NORC’s analysis

Results – Occupation

- **84%** (n=19,258) of the respondents who completed the question related to their organizational role were able to categorize themselves within one of the existing taxonomy categories
- **16%** (n=3,706) of respondents selected the "Other" response, of which **85%** (n=3,145) provided qualitative data

Classification		Frequency (Percent of those providing "Other" responses)
Classified into taxonomy category	Existing PH WINS category	496 (16%)
	Updated taxonomy category since fielding of PH WINS	675 (21%)
	More specific "Other" (i.e. "Other Professional and Scientific")	1,367 (43%)
Remain "Other"		607 (20%)

Results – Occupation

- Within the responses coded into more specific “Other” categories, a code was assigned when the response matched a category mentioned in the NORC focus groups

- **22%** (n=678) of the qualitative responses aligned with focus group categories. Some examples of focus group categories include:
  - Regulatory Staff, including Surveyors, Investigators, Inspectors (**n=293**)
  - Supervisor (**n=70**)
  - Planner (**n=54**)
  - Disease Intervention Specialist or Communicable Disease Investigator (**n=41**)
  - Adult Protective and Community Workers (**n=34**)
  - Emergency Medical Services Personnel (**n=22**)

Results – Program Area

- **78%** (n=5,882) of the respondents who completed the question related to primary program area were able to categorize themselves into a taxonomy program area category

- **22%** (n=4,424) of the respondents selected the "Other program area" answer, of which **77%** (n=3,839) provided qualitative data

Classification	Number (Percent of those providing "Other" responses)
Existing program area category	694 (18%)
Remain "Other Program Area"	1,569 (41%)
Aligns with Focus Group Categories	1,386 (36%)
Exclude	190 (5%)

Results – Program Area

- Some examples of categories mentioned in the focus groups that appeared in the survey responses include:
  - Regulation, Licensing, and Certification (n=**909**)
  - Laboratory/Scientific (n=**157**)
  - Informatics/Information Technology (n=**117**)
  - Quality Assurance (n=**72**)
  - Emergency Medical Services (n=**67**)
  - Family Planning (n=**28**)
  - School Health (n=**24**)

Discussion

- Overall, the taxonomy was successful in categorizing the majority of the public health workforce in terms occupation and program area. After recoding:
  - **95%** of respondents could be classified by occupation
  - **82%** of respondents could be classified by program area
- The first attempt to use the taxonomy as a framework for an individual level survey has shown the potential for successful use of the taxonomy, in addition to some of the challenges associated with wording questions and answer choices
- A crosswalk or standard set of questions that align with the taxonomy would be helpful

Thank You!

NORC at the UNIVERSITY of CHICAGO

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