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# What's a good salary in public health? A cross-section of 23,000 public health workers' salary and wages in 2014 

## Presentation at Keeneland, 2015

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## Overview for today's talk

- Describe salary ranges at state and local level
- Examine correlates of earnings


## Background

- Workforce shortages have been predicted for decades
- Salary shown as important in recruitment and retention efforts
- Relatively fewer graduates are joining state and local public health ${ }^{1}$
- Especially challenging competition with better-paying clinical sectors
- Limited salary information is available, except for by position type at state level (ASTHO Profiles)
- Questions remain - what drives a good salary?


## Methods

- Nationally-representative sample of State Health Agency central office staff
- Stratified by 5 regions (paired HHS region)
- ~10,250 respondents ( $46 \%$ response rate)
- Advanced statistical weighting used to account for complex sampling
- Large pilot of LHD staff, including members of the Big Cities Health Coalition
- ~13,000 respondents
- Used a variety of fielding/sampling approaches to gather information for a future iteration of PH WINS


## Methods

- In demographics section, respondents were asked about:
- Earnings
- Part-time vs full-time
- Race/ethnicity
- Gender
- Supervisory status
- Program area and role
- Educational attainment
- Tenure in public health
- We present descriptive statistics and results of a linear regression

Approximate, average earnings among fulltime employees (unweighted)

|  | SHA <br> Central Office | sd | LHD/RHD | sd |
| :--- | :---: | :---: | :---: | :--- |
| Non- <br> supervisor | $\$ 52,000$ | $\$ 17,000$ | $\$ 47,000$ | $\$ 16,000$ |
| Team leader | $\$ 59,000$ | $\$ 18,000$ | $\$ 53,000$ | $\$ 17,000$ |
|  |  |  |  |  |
| Supervisor | $\$ 66,000$ | $\$ 20,000$ | $\$ 54,000$ | $\$ 19,000$ |
|  |  |  |  |  |
| Manager | $\$ 78,000$ | $\$ 19,000$ | $\$ 64,000$ | $\$ 19,000$ |
| Executive | $\$ 99,000$ | $\$ 22,000$ | $\$ 79,000$ | $\$ 23,000$ |

## Quick tangent: <br> Comparing state to local SHA employees

Percent of full-time staff earning above $\mathbf{\$ 5 5 , 0 0 0}$, by state and setting


* Difference is statistically significant at $\mathrm{p}<.05$


## National results

## Results

Annualized earnings among full-time employees of SHA central offices


## Results

New England \& Atlantic (HHS 1 \& 2)


## Results


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## Results

## Average earning by area



## Linear regression results

|  | Coefficient | $\mathbf{9 5 \%}$ Confidence <br> interval | p-value |
| :--- | :---: | :---: | :---: |
| Supervisory status |  |  |  |
| Non-supervisor (reference) | $\$ 4,958$ | $(\$ 3,249, \$ 6,667)$ | $<.0001$ |
| Team leader | $\$ 9,469$ | $(\$ 7,792, \$ 11,145)$ | $<.0001$ |
| Supervisor | $\$ 20,843$ | $(\$ 18,808, \$ 22,878)$ | $<.0001$ |
| Manager | $\$ 40,128$ | $(\$ 37,549, \$ 42,707)$ | $<.0001$ |
| Executive |  |  |  |
|  |  |  |  |
| Gender | $-\$ 3,021$ | $(-\$ 4,303,-\$ 1,739)$ | $<.0001$ |
| Male (reference) |  |  |  |
| Female | $\$ 383$ | $(\$ 338, \$ 428)$ | $<.0001$ |
|  |  |  |  |
| Additional earnings per year in public health |  |  |  |
|  |  |  |  |
| Educational attainment | $\$ 7,399$ | $(\$ 5,993-\$ 8,805)$ | $<.0001$ |
| No bachelors degree or higher indicated (reference) | $\$ 23,319$ | $(\$ 18,022-\$ 28,617)$ | $<.0001$ |
| Bachelors only | $\$ 11,653$ | $(\$ 10,270-\$ 13,036)$ | $<.0001$ |
| Bachelors and doctoral degree | $\$ 23,276$ | $(\$ 20,607-\$ 25,946)$ | $<.0001$ |

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|  | Coefficient | 95\% Confidence interval | p-value |
| :---: | :---: | :---: | :---: |
| Paired HHS region |  |  |  |
| New England \& Atlantic (HHS 1 \& 2) (reference group) |  |  |  |
| Mid-Atlantic \& Great Lakes (HHS 3 \& 5) | -\$8,417 | (-\$9,624--\$7,210) | <. 0001 |
| South (HHS 4 \& 6) | -\$15,741 | (-\$16,829--\$14,652) | <. 0001 |
| Mountain/Midwest (HHS 7 \& 8) | -\$16,229 | (-\$17,509--\$14,949) | <. 0001 |
| West (HHS 9 \& 10) | -\$2,375 | (-\$3,865--\$884) | 0.003 |
| Position type |  |  |  |
| Administration (reference) |  |  |  |
| Clinical and Lab | \$4,000 | (\$2,731-\$5,269) | <. 0001 |
| Public Health Science | \$2,694 | (\$1,567-\$3,821) | <. 0001 |
| Race/Ethnicity |  |  |  |
| Non-Hispanic White (reference) |  |  |  |
| Asian | \$65 | (-\$2,591-\$2,721) | 0.9610 |
| Black or African American | -\$3,718 | (-\$5,471--\$1,966) | <. 0001 |
| Hispanic or Latino | -\$3,326 | (-\$4,889--\$1,763) | <. 0001 |
| Paid as |  |  |  |
| Salary (reference) |  |  |  |
| Hourly wage | -\$3,688 | (-\$4,723--\$2,654) | <. 0001 |
| Constant | \$53,028 | (\$51,334-\$54,722) | <. 0001 |

## Disparities

- Further examination of salary differences between individuals of different genders and race/ethnicity show significant salary disparities
- 90-95 cents on the dollar
- Disparities worsen at higher levels of education and supervisory status
- Gaps appear less than private industry, but still significant


## Discussion and implications

- Women account for three quarters of the workforce, but make less than men with the same experience and education
- Similar issues faced by people of color compared to non-Hispanic White staff
- Value of masters vs. bachelors attainment is unclear from an earnings perspective
- Degree may be needed for position type, but earnings differentials are small compared to bachelors
- Clear financial benefit from doctoral degrees


## Questions?

- Data will become available to the public in April
- http://www.astho.org/phwins/

Average earning by position type


