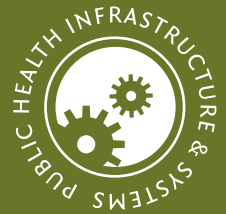


## Changes in Size of Local Health Department Workforce

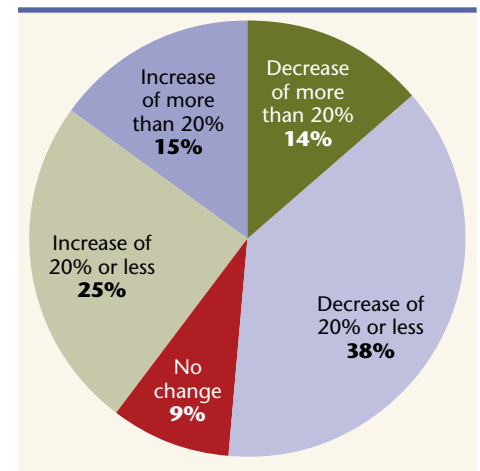
### Longitudinal Analysis of 2008 and 2010 Profile Data



### Background

Cutbacks in state and local government, including local health departments (LHDs), have received considerable media attention in recent years. The National Association of County and City Health Officials (NACCHO) has conducted a series of economic surveillance surveys (beginning in late 2008) to document reductions in budgets, jobs, and services in LHDs across the United States. Based on data collected in a series of five surveys, NACCHO estimated that 29,000 LHD jobs were eliminated through layoffs or attrition in the three-year period between Jan. 1, 2008, and Dec. 31, 2010. These surveys, however, were designed to document job losses, not to assess the net change in the size of the LHD workforce. Data from the 2008 and 2010 National Profile of Local Health Departments (Profile) studies can be used to assess net changes in the size of the LHD workforce. This research brief presents estimates of changes in LHD workforce for the approximately two-year period from the 2008 to 2010 Profile studies.

**FIGURE 1 | Percentage Change in FTEs Employed by LHDs: Longitudinal Analysis of 2008 and 2010 Profile Studies**



the 632 LHDs with net gains added a total of approximately 8,000 employees (7,000 FTEs). The LHDs for which data were available from both Profile studies employed 75 percent of LHD staff. A simple extrapolation (assuming that the experience of other LHDs was the same as this group) produces estimates of a net loss of approximately 12,000 employees (9,000 FTEs) between 2008 and 2010. This net change results from a loss of approximately 23,000 employees (18,000 FTEs) offset by a gain of approximately 11,000 employees (9,000 FTEs).

### Methodology

The Profile questionnaire is distributed periodically to all LHDs in the United States. The 2008 Profile survey was administered from July to October 2008 and had an overall response rate of 84 percent; the 2010 Profile survey was administered from September to November 2010 and had an overall response rate of 82 percent. Additional details about survey methodology are available in the main reports of these studies (available at [www.naccho.org/profile](http://www.naccho.org/profile)). NACCHO conducted a longitudinal analysis to assess changes in LHD employment. A total of 1,917 LHDs completed both the 2008 and 2010 Profile studies. Data on total employees were available for 1,775 LHDs; data on total FTEs were available for 1,687 LHDs.

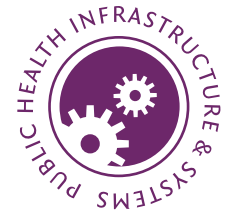
### Results

Longitudinal analysis showed that 52 percent of LHDs experienced a decrease in the total number of full time equivalent staff (FTEs), while 40 percent of LHDs experienced an increase in total FTEs between the 2008 and 2010 Profile studies. Nine percent of LHDs had no change in their staffing in terms of total FTEs.

Longitudinal analysis of total employees and FTEs showed a net decrease of approximately 9,000 employees (7,000 FTEs) between the 2008 and 2010 Profile studies for those LHDs with total employment data in both surveys. Breaking down these numbers into groups of LHDs with net gains and net losses in staff shows that the 891 LHDs with net losses in staff during this time period lost a total of approximately 17,000 employees (14,000 FTEs) and

# [ RESEARCH BRIEF ]

July 2011



**FIGURE 2 } Changes in Total Employees and FTEs Employed by LHDs: Longitudinal Analysis of 2008 and 2010 Profile Studies**

	Number of LHDs	Total Change in Employees or FTEs	Extrapolating Change to all LHDs
<b>Changes in Number of Employees</b>			
LHDs with net losses in total staff	891	-17,366	-23,155
LHDs with net gains in total staff	632	8,256	11,008
LHDs with no change in total staff	252	0	0
Total (net change)	1,775	-9,110	-12,147
<b>Changes in Number of FTEs</b>			
LHDs with net losses in total staff	872	-13,732	-18,309
LHDs with net gains in total staff	667	6,706	8,941
LHDs with no change in total staff	148	0	0
Total (net change)	1,687	-7,026	-9,368

## Discussion

Longitudinal analysis of data from the 2008 and 2010 Profile studies provides valuable information about changes in LHD employment during the Great Recession (officially December 2007 to June 2009) and the immediately following period. Cross-sectional analysis of data from the 2008 and 2010 Profile data shows a net decrease of 6,000 employees (6,000 FTEs) between the two surveys versus net decreases of 12,000 employees (9,000 FTEs) estimated by longitudinal analysis. This discrepancy is not surprising because the large size of the confidence intervals for the best estimates of the total size of the LHD workforce in 2008 and 2010 (+/- 15,000 to 20,000) makes the cross-sectional estimates of change highly uncertain.

The estimate of 23,000 employees lost by LHDs with net decreases in employment is fairly consistent with

the estimate of 29,000 LHD jobs lost generated from NACCHO's economic surveillance surveys. NACCHO expected the longitudinal estimate to understate the number of jobs eliminated in 2008 through 2010 for two reasons. First, the time between the 2008 and 2010 Profile survey administrations did not cover the entire three-year period. Depending on exactly when the LHD submitted the questionnaire, six to 11 months are missing from 2008 and one to three months are missing from 2010. Second, the longitudinal analysis can capture only net changes rather than all positions eliminated. For example, some LHDs may have eliminated certain positions (which would be reported in the economic surveillance surveys) but added other positions, resulting in a net gain (or no change) in employment during this time period. And even some LHDs showing a net reduction in employment may have added some positions during that time period, making the net change in

employment smaller than the number of positions eliminated. Given the program-specific nature of much of the funding received by LHDs, situations where one or more positions are eliminated and different positions are added are highly likely to occur.

Analysis of data from the 2008 and 2010 Profile studies confirms the media reports that this time period was a difficult one for many LHDs. Nearly half of LHDs lost more than three percent of their workforce for a collective net loss of 23,000 positions. Fourteen percent of LHDs lost more than 20 percent of their workforce during this period. But a decrease in capacity was not universal—approximately one-third of LHDs reported increases of three percent or more in their total workforce (14 percent reporting increases of 20% or more). Data from the Profile studies will support further analysis of both the characteristics of LHDs that are most likely to lose capacity and the outcomes associated with the loss of LHD capacity.

## Acknowledgements

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**For more information, please contact:**

**The Profile Study Team**

800-758-6471  
profileteam@naccho.org

# NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health

[www.naccho.org](http://www.naccho.org)



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1100 17th St, NW, 7th Floor, Washington, DC 20036  
P 202-783-5550 F 202-783-1583

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