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## Understanding the Relationship between Access to Health Insurance and Job Growth in Health Care

Prepared by the Center for Health Workforce Studies  
<http://chws.albany.edu/>

### INTRODUCTION

Between 1999 and 2009, health care jobs in the United States have grown by more than 27%, including a 33% increase in ambulatory care jobs. Despite the economic downturn and subsequent general job loss in the last two years, health care employment continues to grow, adding one million jobs between 2006 and 2009, while overall non-farm<sup>1</sup> jobs declined by more than 4 million, or 3%, during the same period.

There are many factors which influence job growth in health care, including:

- population growth;
- the increasing percentage in the population of older adults who require more ambulatory and inpatient services;
- overall job growth;
- the settings and types of health services provided; and
- health care utilization patterns.

The Center for Health Workforce Studies analyzed national and state-specific employment and population data to determine the potential impact of federal health care reform efforts to increase the number of people with health insurance on health care employment in the U.S. To understand the impact of various factors on the growth of jobs in health care, the Center assessed the relationship in individual states between the number of health care jobs per capita and potential influences.

### KEY FINDING

- **States with higher percentages of residents with health insurance have more health care jobs.**

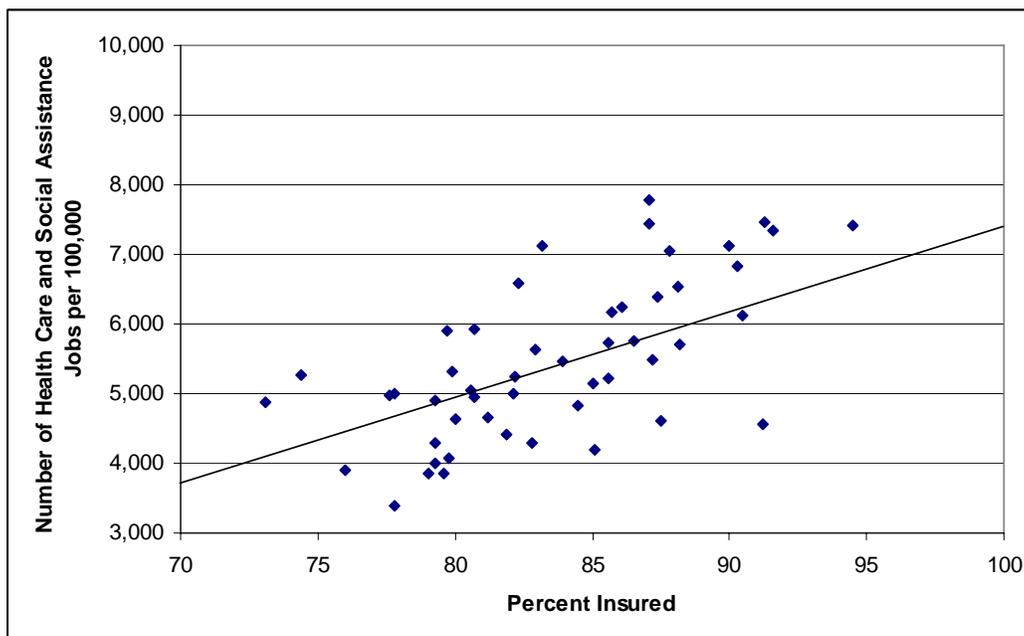
As depicted in the following graph, there is a positive association between the percent of a state's population with health insurance and the number of health care jobs in the state. For every 1% increase in the number of individuals who are insured, there are about 129 to 154<sup>2</sup> additional health care jobs per 100,000 people.

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<sup>1</sup> The largest employment category used by the U.S. Department of Labor, Bureau of Labor Statistics for which data are available.

<sup>2</sup> This analysis included all jobs in the NAICS category of health care and social assistance. Since health care comprises about 84% of jobs in this category, a range for the number of new jobs is presented.

## Percent of State Residents Insured By Per Capita Health Care Employment, 2009



Source: Gallup-Healthways Well-Being Index; U.S. Census Bureau; U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics

However, some of this increase is attributed to other factors that influence growth in health care jobs, such as population growth, the percent of the population age 45 and older, and growth in total employment. When controlling for these factors, a 1% increase in the number of individuals with health insurance results about 87 to 107<sup>3</sup> more health care jobs per 100,000 population.

Clearly, there is a strong positive relationship between the percent of individuals insured and the number of health care jobs per capita, after controlling for other factors that influence health care job growth. The potential impact of mandating health insurance coverage makes this finding even more striking. While other factors have an effect on health care job growth, insuring the vast majority of Americans would have a much larger effect on the number of health care jobs per capita.

## DATA AND METHODS

### Data Sources

The employment data used in this research were taken from the U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics, 1999 through 2009. Data were selected using the North American Industry Classification System (NAICS) industry categories of total non-farm, health care and social assistance, health care, ambulatory health care services, offices of physicians, home health care services, and hospitals. Data were not seasonally adjusted and included each month for the

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year as well as an annual average through 2008. The annual average was not available for 2009 so the months available (through November for national data and through October for state data) were averaged to derive a 2009 estimate. Ultimately, total non-farm and health care and social assistance employment were used because data were not available for all of the states in the other health care NAICS subcategories such as health care, ambulatory health care services, or offices of physicians.

Population estimates were taken from the U.S. Census Bureau and included total population estimates by state, by year, and the percent of individuals age 45 and older by state for 2009. The information on the uninsured was from the January through June 2009 survey of individuals in the U.S. from the Gallup-Healthways Well-Being Index. In 2009, the Gallup Poll conducted a survey on well-being and estimated the percent of uninsured nationally and for each state. Over 175,000 people nationwide responded to the survey. Data on Medicaid expenditure and inpatient days were for 2007 and were from the State Health Facts at the Kaiser Foundation.

### Analytic Approach

All data were standardized based on state population and reported per capita, or as a percent of change, or a percent of the total. The number of jobs per 100,000 population was calculated for total non-farm and health and social assistance jobs. Additionally, the change in the number of jobs, the number of jobs per capita, and the total population were calculated for 1999 to 2009, 1999 to 2006, and 2006 to 2009. Other data were collected based on the percent represented in the state or per capita.

Based on preliminary research of potential factors influencing health care jobs and the availability of data for certain years, the following data elements were selected for analysis:

- 2007 Medicaid expenditures per capita;
- Change in health care employment per 100,000 population, 2006 - 2009;
- Change in total employment 2006 - 2009;
- Change in total population, 1999 - 2009;
- Inpatient days per 1,000 population, 2007;
- Jobs in health care and social assistance per 100,000 population, 2009;
- Percent insured, 2009;
- Percent of the population age 45 and older, 2009;
- Percent of the population age 65 and older, 2009;
- Percent of the workforce with union affiliations, 2008; and
- Percent working in a government job, 2009.

First, bivariate correlations were run to determine which variables to include in further analysis and which variables to exclude. Based on that analysis, the following variables were included in a multiple linear regression, with the number of health and social assistance jobs per 100,000 population as the dependent variable:

- Change in total employment, 2006 to 2009;
- Change in total population, 1999 to 2009;
- Inpatient days per 1,000 population;
- Percent insured, 2009;

- Percent of the population age 45 and older, 2009; and
- Percent of the workforce with union affiliations, 2008.

Using stepwise regression analysis, five models were created. The percent insured exerted the strongest bivariate effect. For every 1% increase in the number of individuals who are insured, between 129 and 154 additional health care jobs would be needed per 100,000 population. When the other variables were factored in, this effect was somewhat attenuated, so that for every 1% increase in the number of individuals who are insured, between 87 and 107 additional health care jobs would be needed per 100,000 population.

### Limitations

The lack of specific health care sector data at the state level for all states was a limitation of this analysis, though more than 84% of jobs nationally under the NAICS category of “health care and social assistance” are in health care. There are other factors that may influence health care in an individual state which were not addressed in the regression, including the education level of the population, state spending on health care, and trends in the rate of individual uninsured. Additionally, due to the limitations of data, we did not assess some of the factors, such as percent insured or the percent of the population age 45 and older, across multiple years.

### **CONCLUSION**

This analysis found a strong positive association between health insurance status and health care jobs, after controlling for many other factors that are known to influence health care employment. States with higher percentages of people with health insurance have more jobs in health care per capita. As health reform increases access to health insurance, the increased demand for health services will translate into more health care jobs.

## **The Center for Health Workforce Studies**

This brief was prepared by the Center for Health Workforce Studies at the School of Public Health, University at Albany, State University of New York. The Center’s mission is to provide timely, accurate data and conduct policy-relevant research about the health workforce.