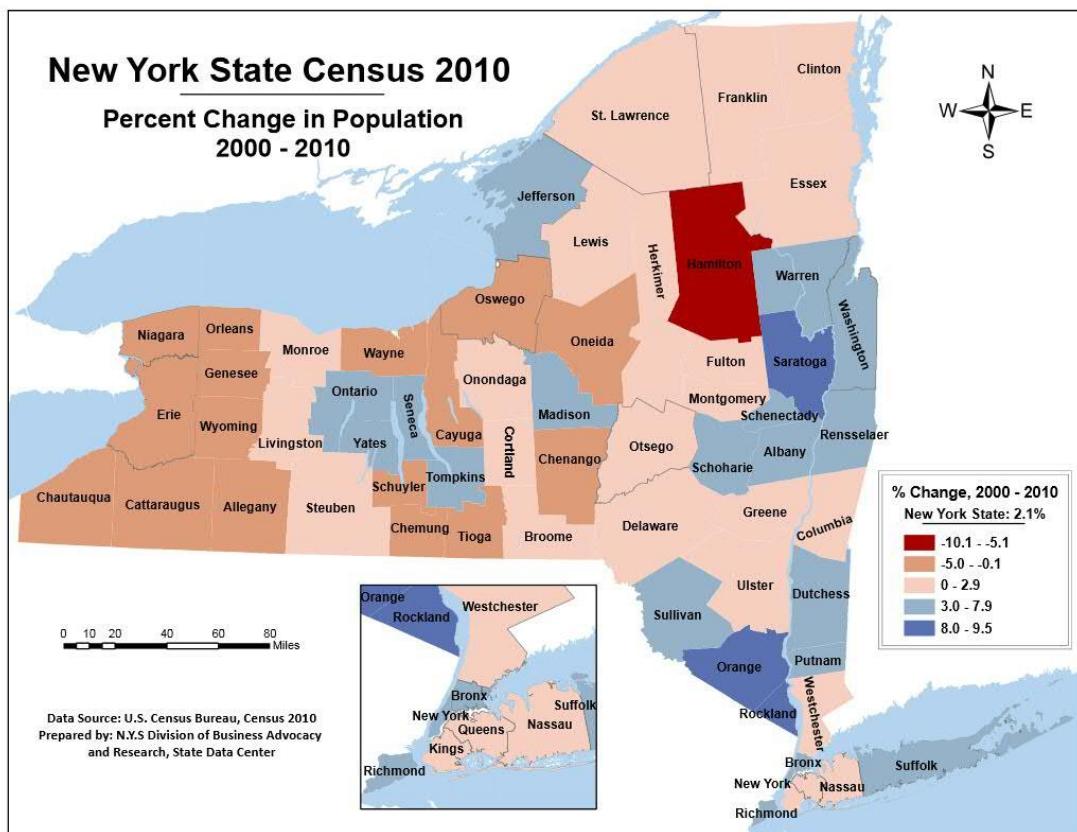


## **Chapter 1 - The Changing New York State Worker Profile: 2000 – 2010**

More than nine million individuals work in New York State (NYS). Every year, thousands of these workers are injured on the job or become ill as a result of their working environments. Because of diversity in the workforce, analyzing the demographics and economics of the population is important in understanding the occupational health status of a state. These data are important because workforce characteristics impact rates of work-related injury and illness.

For the most part, NYS saw an increase in the number of employed residents from 2000-2010. In 2008, NYS hit a record high of 9.1 million employed, a 7.2% increase from 2000.<sup>i</sup> The upward trend in employment ended in 2009-2010 when more than 300,000 individuals left the workforce and employment dropped to an almost five-year low. According to the U.S. Census Bureau, there was a 2.1% increase in the NYS population during the period 2000-2010 (Figure 1.1). The number of older workers (65+ years of age) making up the workforce also increased (3.4% in 2000 to 4.7% in 2010) (Table 1.1). This created a larger civilian labor force competing for jobs in a job market that had not seen similar growth, resulting in an unemployment rate in 2010 (8.5%) that was almost twice the unemployment rate of 2000 (4.6%) (Table 1.1). The civilian labor force is defined as all persons 16 years of age and older, residing in NYS, who are not inmates of institutions or on active duty in the Armed Forces, who are employed or actively seeking employment.<sup>ii</sup>

### Figure 1.1. New York State, Percent Change in Population, 2000-2010\*



**Table 1.1. Employment Status and Change and Worker Characteristics: 2000-2010 in New York State (NYS), New York City (NYC) and Upstate New York (Upstate)**

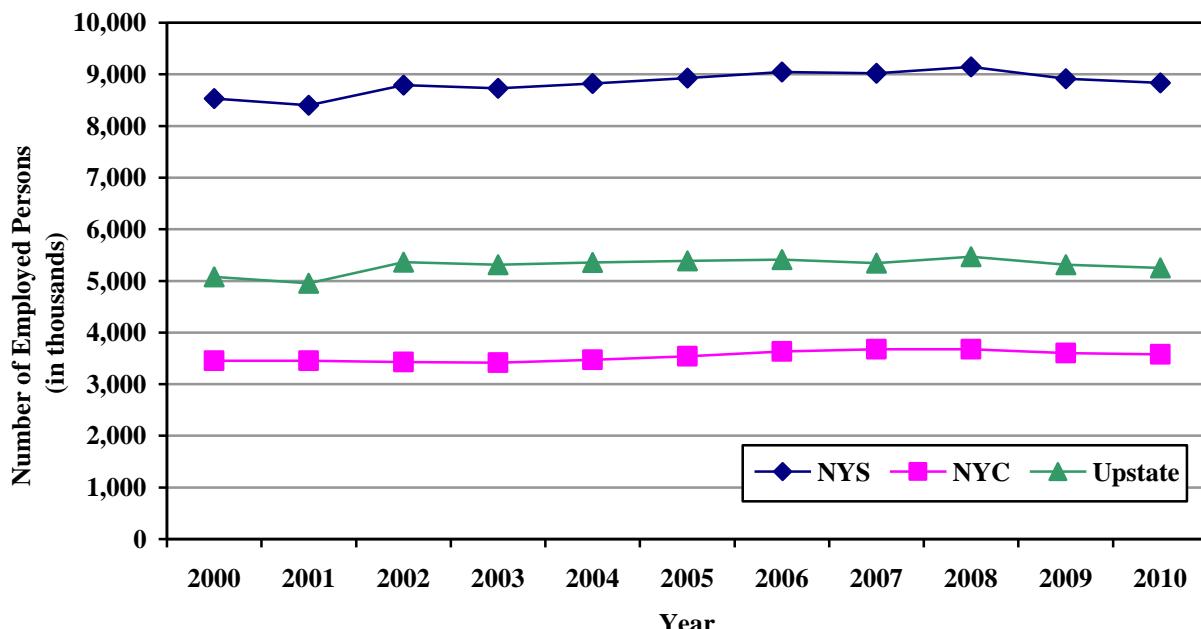
	2000			2010			Difference between all of NYS (p-value)
	NYS	NYC	Upstate	NYS	NYC	Upstate	
Unemployed	4.6%	5.8%	4.1%	8.5%	9.7%	8.5%	0.07
Self-employed	6.2%	6.0%	6.4%	5.9%	6.0%	5.8%	0.39
Part-time	16.8%	13.0%	20.5%	17.9%	12.9%	22.9%	0.29
Hours/week							
<40	35.3%	27.9%	33.6%	35.9%	34.4%	37.3%	0.91
40	37.7%	44.3%	33.5%	43.2%	47.5%	39.2%	0.006*
41+	26.9%	24.4%	28.5%	20.8%	19.9%	21.7%	0.0006*
Gender							
Male	52.8%	52.7%	52.9%	52.0%	52.3%	48.2%	0.46
Female	47.2%	47.3%	47.1%	48.0%	51.9%	47.8%	0.51
Age							
16-17	1.6%	0.7%	2.4%	0.9%	0.5%	1.2%	0.08
18-64	94.9%	96.7%	94.0%	94.5%	95.6%	93.5%	0.63
65+	3.4%	2.5%	3.4%	4.7%	4.4%	5.0%	0.0001*
Race							
White	78.7%	59.9%	90.6%	76.8%	58.2%	82.1%	0.003*
Black	15.0%	28.0%	6.7%	14.7%	25.1%	8.9%	0.39
Other	6.4%	12.1%	32.7%	8.5%	14.9%	4.2%	0.0003*
Hispanic	12.5%	22.9%	5.8%	14.7%	24.7%	7.9%	0.0007*

\*Statistically significant difference between years 2000 and 2010

Data source: U.S. Bureau of Labor Statistics. Current Population Survey. Geographic Profiles of Employment and Unemployment.

NYS is comprised of more than 54,000 square miles and is home to more than 19 million people. Because NYS is so large and diverse, not only is there a broad range of industries and occupations such as dairy farming, nanotechnology and manufacturing, there is also a wide spectrum of occupational fatalities, injuries and diseases that occur across the state. This leads to great diversity in the workforce demographics, which is important since worker characteristics can influence the types of injuries and illnesses seen in the working population. It is often useful, for purposes of analysis, to divide the state into two regions: upstate (all regions of the state excluding the five boroughs of New York City) and New York City (NYC). The average annual number of persons employed in NYC over the period 2000-2010 was 3.5 million, while there was an average of 5.3 million workers employed annually in upstate New York (Figure 1.2).

**Figure 1.2. Number Employed, New York State, 2000-2010**

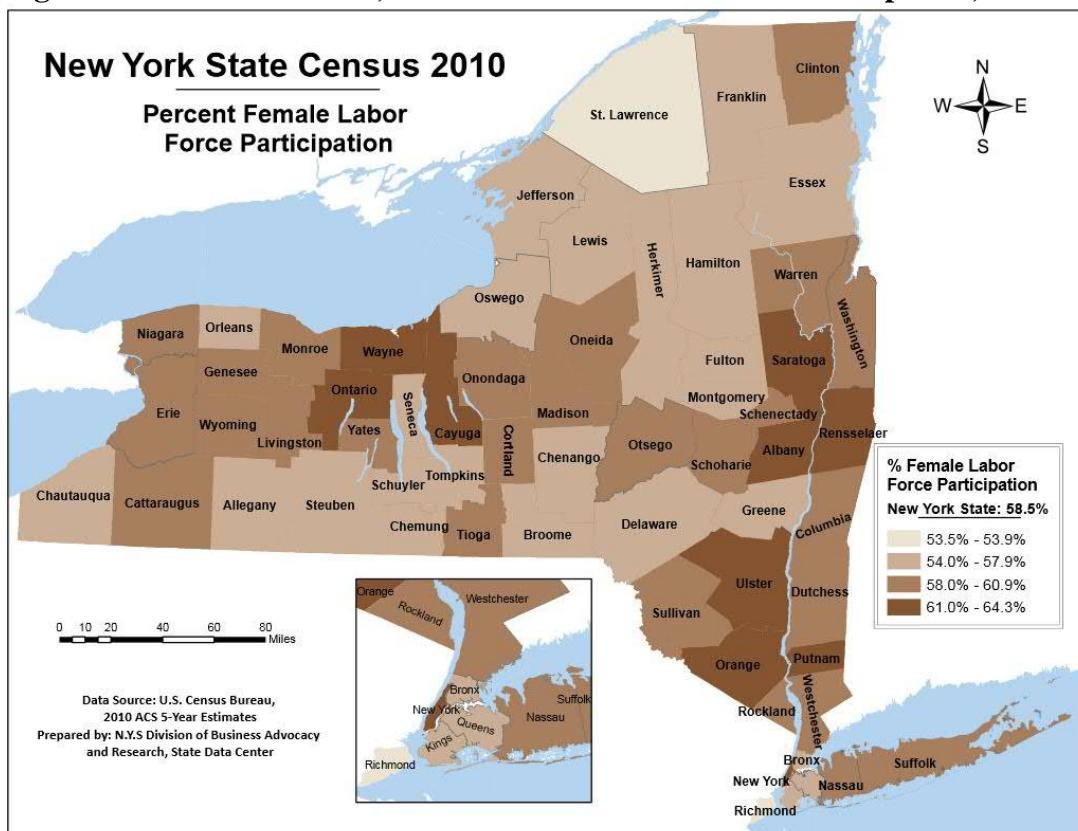


Data source: U.S. Bureau of Labor Statistics. Current Population Survey. Geographic Profiles of Employment and Unemployment.

The number of part-time workers (those persons at work less than 34 hours per week) in NYS has increased over the decade (not statistically significant). Similarly, during 2000-2010, involuntary part-time work has been on the rise throughout most of the U.S.<sup>iii</sup> (data not shown). Fewer workers overall worked part-time in the NYC area; the percentage of part-time workers remained around 13% over the 11-year time period, while in the rest of NYS, the percentage of part-time workers increased from 21% in 2000 to 23% in 2010 (not statistically significant).

Better understanding the gender and age of the working population, is essential to developing effective occupational health and safety prevention programs. Both gender and age can influence the risk of occupational injury and illness. For example, data has shown that men are more likely to be employed in high injury/illness occupations than females.<sup>iv</sup> As seen in Table 11., the gender of workers in NYS has remained relatively constant over time and did not vary greatly by geographic location. Figure 3 shows the percent female labor force participation by county during 2010. Conversely, the age of NYS workers has shifted over time. There has been a statistically significant increase in older workers, while there has been a decrease in younger workers. This increase in older workers reflects the nationwide trends in the workforce.<sup>v</sup> The percentage of workers between the ages of 18-64 has remained relatively stable during the 11-year time period. The age trends were the same for the NYC area and rest of NYS (excluding NYC); although a smaller percentage of NYC workers were 16-17 years old and older than 65 years old, as compared to the rest of NYS. The labor force participation rate for older workers has been rising since the late 1990s. Since 2000, the number of employed teens has been on a downward trend.

**Figure 1.3. New York State, Percent Female Labor Force Participation, 2010\***



Race and ethnicity also influence the risk of occupational injury and illness in workers. Some studies have attributed higher rates of injury and illness among minority workers with the greater likelihood of these workers being employed in more hazardous occupations.<sup>vi</sup> It is important to identify at-risk worker populations to reduce the risk of injury and illness. The general trend among NYS workers during 2000 through 2010 has been a statistically significant decrease in the percentage of white workers and a slight decrease in black workers, while there has been a statistically significant increase in those workers included as 'other' race (American Indian or Alaska Native, and Native Hawaiian or Pacific Islander) (Table 1.1). The percentage of workers with Hispanic ethnicity has increased significantly over the past decade (Table 1.1). There was a higher percentage of minority workers in the NYC area, although the NYC data showed the same overall trend as the NYS data. The trends in the working population reflect the general trend in New York's population during the same time period. New York's racial and ethnic minorities continued to increase as a percentage of its total population between 2000-2010.<sup>vii</sup>

As explained earlier, New York workers are engaged in diverse jobs and face very different risks, depending on their industries. It is important to understand the industrial makeup of a job market to better understand the health and safety challenges and risks facing the workforce. For example, workers in the battery manufacturing industry are primarily concerned about exposure to lead while falls cause injuries and fatalities among construction workers. The services industry employs almost half of NYS workers. Within the services industry, more than a quarter of workers are employed in education and health services, with another 8.9% employed in leisure

and hospitality. Education and health services had the largest job gains from 2000 to 2010 (data not shown). The retail and wholesale trade employs on average another 13.5% of the workforce although the percentage of retail workers has decreased slightly over time. Manufacturing and transportation, communication and utility industries have undergone significant changes during the eleven year time period. More than eleven percent (11.4%) of workers were employed in manufacturing industries in 2000, while only 6.4% were employed in manufacturing in 2010. The transportation, communication and utilities industries employed 10.3% of the workforce in 2000 and only 8.7% in 2010. Similarly, the agriculture industry in New York has also decreased over time; 1.3% of workers were employed in agriculture in 2000 and only 0.6% were employed in agriculture in 2010. Census data shows that although farm businesses are increasingly consolidating into larger farm units in New York, small part-time farms have actually increased over the past decade.<sup>viii</sup> The construction industry employs around 6.5% of NYS workers and that percentage has not varied greatly during the time period. Both public administration and financial industries have remained stable over time, at approximately 4.9%, and 8.3%, respectively, on average.

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<sup>1</sup> Geographic Profile of Employment and Unemployment. U.S. Department of Labor Statistics. Bureau of Labor Statistics. <http://www.bls.gov/opub/gp/laugp.htm>. Updated August 2013. Accessed March 2014.

<sup>2</sup> U.S. Department of Labor Statistics. Bureau of Labor Statistics. *Frequently Asked Questions (FAQs)*. [http://www.bls.gov/dolfaq/bls\\_ques23.htm](http://www.bls.gov/dolfaq/bls_ques23.htm). Updated May 2003. Accessed March 2014.

<sup>3</sup> Involuntary part-time work on the rise. Issues in Labor Statistics. U.S. Department of Labor. Bureau of Labor Statistics. Summary 08-08. <http://www.bls.gov/opub/ils/pdf/opbils71.pdf>. December 2008. Accessed November 2013.

<sup>4</sup> Steege, A. L., Baron, S. L., Marsh, S. M., Menéndez, C. C. and Myers, J. R. (2014), Examining occupational health and safety disparities using national data: A cause for continuing concern. *Am. J. Ind. Med.*, 57: 527–538. doi: 10.1002/ajim.22297.

<sup>5</sup> Labor Force Participation and Work Status of People 65 Years and Older. American Community Survey Briefs. January 2013. U.S Department of Commerce. Economics and Statistics Administration. U.S.Census Bureau. <http://www.census.gov/prod/2013pubs/acsbr11-09.pdf>. Updated January 2013. Accessed March 2014.

<sup>6</sup> Murray LR. Sick and tired of being sick and tired: scientific evidence, methods, and research implications for racial and ethnic disparities in occupational health. *Am J Public Health*. 2003;93:221–226.

<sup>7</sup> Prevention Agenda 2013-2017: New York State's Health Improvement Plan. Description of Population Demographics and General Health Status, New York State, 2012. [http://www.health.ny.gov/prevention/prevention\\_agenda/2013-2017/docs/general\\_description.pdf](http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/docs/general_description.pdf). Updated September 2013. Accessed November 2013.

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<sup>8</sup> Agriculture-Based Economic Development in NYS: Trends and Prospects. Charles H. Dyson School of Applied Economics and Management. College of Agriculture and Life Sciences. Cornell University. <http://dyson.cornell.edu/outreach/extensionpdf/2012/Cornell-Dyson-eb1211.pdf>. September 2012. Accessed November 2013.

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# Occupational Health Indicators in New York State: 2000-2010

Every year, millions of the 135 million workers in the United States are injured on the job or become ill as a result of exposure to health hazards at work. Work-related injuries and illnesses are preventable. Understanding the problem begins with occupational health surveillance data. Data helps us learn more about work-related injuries and illnesses, identify workers at greatest risk, and establish prevention priorities.

Since 2002, New York State has been compiling the Occupational Health Indicators in collaboration with the Council of State and Territorial Epidemiologists and the National Institute for Occupational Safety and Health.<sup>1</sup> The Occupational Health Indicators are a set of surveillance measures that allow states and territories to define, collect and report occupational illness, injury and risk data.

The following report describes the data collected from the first year of Occupational Health Indicators collection, 2000, through 2010, the most recent year of compiled data. The data will be presented and posted on a chapter-by-chapter basis, to expedite its availability and make the information easier to read.

## Chapter 1: The Changing New York State Worker Profile

The [first chapter](#) describes the changing demographics of the New York State worker profile during the period of 2000-2010 including employment and unemployment rates and the prominent types of industries and occupations that are found throughout the state.

## Chapter 2: Elevated Blood Lead Levels Among Adults

The [second chapter](#) describes lead exposure in adults by gender, race, ethnicity and exposure source for the period 2000-2010.

## Chapter 3: Work-related Hospitalizations in New York State: 2000-2010

The [third chapter](#) describes the trends in work-related hospitalizations for the period 2000-2010. The data are examined by gender, race, and ethnicity, type of injury or illness, and unintentional cause of injury.

## Chapter 4: Work-related Emergency Department Visits in New York State: 2000-2010

The [fourth chapter](#) describes the trend in work-related emergency department visits for the period 2000-2010. The data are examined by gender, race, and ethnicity, type of injury or illness, and unintentional cause of injury.

1. Council of State and Territorial Epidemiologists. [Putting Data to Work: Occupational Health Indicators from Thirteen Pilot States for 2000](#). September 2005. Updated October 2012. Accessed November 2013.

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