

# THE STATE OF WORKING ILLINOIS 2013

## Labor in the Land of Lincoln

*[A Report by the University of Illinois Labor Education Program]*

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# The State of Working Illinois 2013: Labor in the Land of Lincoln

## ILEPI Economic Commentary A.1

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### INTRODUCTION

On July 9, 2013, the Labor Education Program of the School of Labor and Employment Relations at University of Illinois at Urbana-Champaign released *The State of Working Illinois 2013: Labor in the Land of Lincoln*.<sup>1</sup> ILEPI's Policy Director, Frank Manzo IV, co-authored the report with distinguished labor professor Robert Bruno and served as its principal investigator. Many of the findings and policy recommendations of that University of Illinois report are pertinent to the Illinois Economic Policy Institute and, of course, to the State of Illinois.

This ILEPI Economic Commentary is a reprint of that report for interested residents, policymakers, and lawmakers. What follows is the report in full. Over time, ILEPI will produce similar reports for the Illinois economy, for particular industries, and for specific public policies of strategic interest.

The author wishes to thank the University of Illinois Labor Education Program for its support, for its blessing, and for the experience to work and learn from an extraordinary group of individuals.

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### ENDNOTES

<sup>1</sup> Manzo IV, Frank and Robert Bruno. (July 9, 2013). *The State of Working Illinois 2013: Labor in the Land of Lincoln*. University of Illinois at Urbana-Champaign, Labor Education Program, at [http://www.ler.illinois.edu/labor/images/State%20of%20Working%20Illinois\\_Final%20LEP%20Version.pdf](http://www.ler.illinois.edu/labor/images/State%20of%20Working%20Illinois_Final%20LEP%20Version.pdf).

July 9, 2013

# The State of Working Illinois 2013



## LABOR IN THE LAND OF LINCOLN

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## Labor Education Program – July 9, 2013

# The State of Working Illinois 2013

## Labor in the Land of Lincoln



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## Executive Summary

In the wake of the Great Recession, the Illinois economy has sluggishly improved. In most cases, working Illinois outcomes have yet to return to pre-recession levels. Nevertheless, there is reason for optimism. The labor market has made progress by almost all metrics since the lowest depths of the economic downturn. Still, much work needs to be done. Public policies should be altered or enacted to speed up economic growth, promote high-quality job growth, raise wages, reduce both demographic and societal income inequality, eliminate poverty, and improve the incentive for employers to provide workers with good benefits.

### Economic Outlook

- Real GDP contracted by 5.3 percent from 2008 to 2010. Economic growth has since rebounded, growing by 3.0 percent in 2010 and 1.3 percent in both 2011 and 2012. Real GDP is expected to expand by 2.3 percent in 2013.
- The Illinois economy is very diverse and generally mirrors the larger American economy, with comparative advantages in the manufacturing and the transportation, warehousing, and utilities industries.
- The labor force participation rate for the able-bodied, working-age population has fallen by 5.8 percentage points since 2000 to a rate of 73.8 percent.
- The working-age population has become markedly older, less white, and less US-born over time.
- The Illinois population is becoming more highly-educated. In 1995, 21.3 percent of Illinois residents had a bachelor's degree or higher but that percentage has ascended to 28.1 percent today.
- Caucasian Illinoisans earn 10.2 percent more than their non-white counterparts. A woman earns just \$0.84 for every dollar a man earns on average in Illinois.

### Work

- The unemployment rate in 2013 for the working-age population is still 4.2 percentage points higher than its pre-recession levels, at 9.1 percent.
- The working-age unemployment rate is 10.2 percent for men and 8.1 percent for women.
- The working-age unemployment rate is 11.1 percent for nonwhite workers and 7.8 percent for white non-Latino workers.
- The youth unemployment rate (i.e., for workers aged 16 to 25) is 17.6 percent.
- Almost one-fifth of working-age Illinois residents with less than a high school degree are unemployed (18.0 percent) compared to 11.4 percent with a high school degree, 4.7 percent with a bachelor's degree, and just 1 unemployed worker per 100 with a professional or doctorate degree.
- 36.8 percent of the Illinois employed workforce holds a bachelor's degree or higher.
- In a usual workweek, the average Illinois employee worked between 37 and 39 hours from 1995 to 2007, but currently works only a 36.1 hours.
- The share of workers who work part-time has risen from 15.5 percent in 1995 to almost one-fifth (19.2 percent) of the workforce today.
- Compared to working at a private organization, self-employed workers earn 13.7 percent less on average and federal government employees earn 12.6 percent more on average per year. There has been no wage premium for working in the state and local government sector compared to the private sector since 2000. However, in more recent years there has been a wage and salary *penalty* for state and local government workers.

## Income

- In 2012, average real wage and salary income for workers in Illinois was \$44,076 per year. This is up from the \$42,045 low point during the recession, but still \$2,205 less than the pre-recession levels.
- An average worker's real wage did not grow by any statistically significant amount from 2000 to 2012, all else equal, indicating a phenomenon of wage stagnation in Illinois since the turn of the millennium.
- In Illinois, education pays. Controlling for important factors, an employee who holds a bachelor's degree earns 33 percent more per year than a worker with a high school degree. Master's degree holders make more than 50 percent and professional and doctorate degree holders each earn over 60 percent more than someone with a high school degree.
- On average, the working-age population in Illinois earns 7.9 percent more than their equivalents in the rest of the continental United States. However, those with associate's degrees and without a high school degree earn less than their equivalents in the rest of the continental United States.

## Wage Inequality

- The top 1 percent in Illinois earns \$250,088 or more every year in wage and salary income, at least 635 percent more than the median employed worker.
- From 2011 to 2012, the average working-age employee saw his or her wage jump up by 4.8 percent in real terms. Growth, however, was stagnant for the middle class. The largest year-to-year gains have been experienced by the top 1 percent and top 10 percent of earners.
- Since 2000, the only income groups to see their inflation-adjusted wages rise substantially are the top 10 and top 1 percenters.
- In Illinois, the rich have gotten richer while the poor and middle classes have suffered from income deterioration.

## Poverty and Social Welfare

- In 2000, the percentage of the Illinois population below the poverty line was 7.8 percent but the poverty rate in 2013 is 12.7 percent.
- Since 2007, the fraction of Illinois residents receiving food stamp assistance has more than doubled, rising from 5.4 percent then to 12.1 percent today.
- 14.7 percent of Illinois residents receive Social Security benefits averaging \$13,062 per year while 5.5 percent receive other retirement income averaging \$18,844 per year.
- Just 5.7 percent of the working-age civilian labor force received unemployment insurance in 2012 even though the average unemployment rate for this group of Illinois residents was 9.1 percent.

## Unionization, Health Insurance, and Pensions

- Union membership rates in Illinois are on a general downward trend. Since peaking at 20.6 percent in 2002, union membership for working-age Illinoisans has fallen to 17.2 percent.
- Workers who are members of unions in Illinois fare better on average than workers who are not union members, earning an annual average of \$2,031 more in real dollars over the past two decades.
- After controlling for other important factors (including same job and same industry), being a member of a union is statistically associated with a 5.7 percent annual increase in wage and salary income on average.
- As expected, union wages are far more compressed and evenly distributed than nonunion wages in Illinois. The decline of unionization has contributed to the rise in income inequality in Illinois.
- The fraction of residents who have health insurance has fallen by 5.8 percentage points since 1995, down to 82.9 percent today.
- Just 43.1 percent of nonunion working-age Illinoisans in the civilian labor force have a retirement plan compared to 68.8 percent of equivalent union workers.



- The decline in unionization is likely associated with an increased strain on public resources, as those without health insurance and retirement plans rely on the safety net of government programs.

## **Income Taxes**

- In 2007, the average working Illinois resident paid out \$1,360 in income taxes to the state. In 2012, an average worker's state tax bill rallied above its pre-recession level for the first time, increasing substantially to \$2,074. This increase is partially the result of real wage growth but is principally due to a legislated temporary increase in the flat income tax rate from 3 to 5 percent.
- Illinois workers pay more federal income taxes on average than the residents of any other state (excluding Hawaii and Alaska). The majority (53.0 percent) of Illinois residents in the civilian labor force were in either the 10 percent, 15 percent, or 25 percent marginal tax bracket in 2012.

## **Conclusions, Implications, and Policy Solutions**

While the economy is no longer in free fall, much work needs to be done before workers in Illinois will experience a robust labor market. As the economy has only slowly improved, many labor market outcomes still remain in worse shape than they were just before the recession. While the economy will likely continue on a positive path over the next few years, urgent policy action should nevertheless be taken to accelerate the recovery, stimulate employment, and raise worker incomes.

Recommended policy prescriptions include, but are not limited to:

- increasing investments in children— particularly for college and early childhood education programs
- investing in public infrastructure to create jobs and spur economic activity
- providing tax incentives for employers in growing high-wage industries
- fostering effective worker retraining programs
- expanding the state's Earned Income Tax Credit
- reforming the tax code to make it more progressive
- raising the minimum wage so that it can support a family
- enacting municipal living wage ordinances for private companies that receive public funds
- cracking down on wage theft
- mandating that employers post a "protected concerted activities" notice in Illinois workplaces
- avoiding harmful policies which will weaken the labor force and deplete real wages (i.e., passing a right-to-work law which lowers wages but has only a mixed impact on employment growth, laying off public sector employees which tends to remove workers from high-quality full-time jobs, etc.).

Only once effective policy steps have been taken will Illinois workers begin to realize their full economic potential.

## I. Introduction

In the wake of the Great Recession, the Illinois economy has finally started improving. After the Wall Street collapse damaged Main Street in Illinois by elevating unemployment, submerging wages, lifting the poverty rate, and contracting the economy, Illinois workers were left in a state of uncertainty and vulnerability. The last *State of Working Illinois*, published jointly by the Center for Tax and Budget Accountability and Northern Illinois University in March of 2009, echoed this tumultuous sentiment. In their conclusions, the authors asserted that the downward economic spiral had become self-reinforcing: “financial insecurity works to reduce aggregate demand, which leads to more layoffs and losses of income, which then feed back to increase the overall levels of financial insecurity. ... The current contraction is now in its fifteenth month with no sign that the bottom of the downturn has been reached” (Kleppner & Kaslow, 2009).

Four years later, in the middle of 2013, there are clear labor market signals that the bottom of the downturn was reached in 2010. But the Illinois economy is experiencing sluggish improvement with only somewhat more financial security and slightly higher prospects for finding a job. In most cases, working Illinois outcomes have yet to return to pre-recession levels. Indeed, the daunting list of labor market outcomes which are still weaker than in 2007 include, but are not limited to, real wages, labor force participation rates, the working-age unemployment rate, hours worked per week, full-time employment status, the poverty rate, and the percentage of Illinois residents with health insurance. Nevertheless, there is reason for optimism. On virtually all of these metrics and many others, the labor market has made progress since the darkest days of the economic collapse.

That said, much work still needs to be done. Public policies should be altered or enacted to speed up economic growth, promote high-quality job growth, raise wages, reduce both demographic and societal income inequality, eliminate poverty, and improve the incentive for employers to provide workers with good benefits. Only once these goals are achieved will the state of working Illinois be satisfactory. The state needs responsible, accountable economic development.

This report is a comprehensive look at the state of working Illinois. The seven sections which follow respectively contain findings on the state’s economic outlook, work trends, income trends, wage inequality, poverty and social welfare, union membership and benefits, and income tax burden. A concluding section recaps key findings and offers policy recommendations.

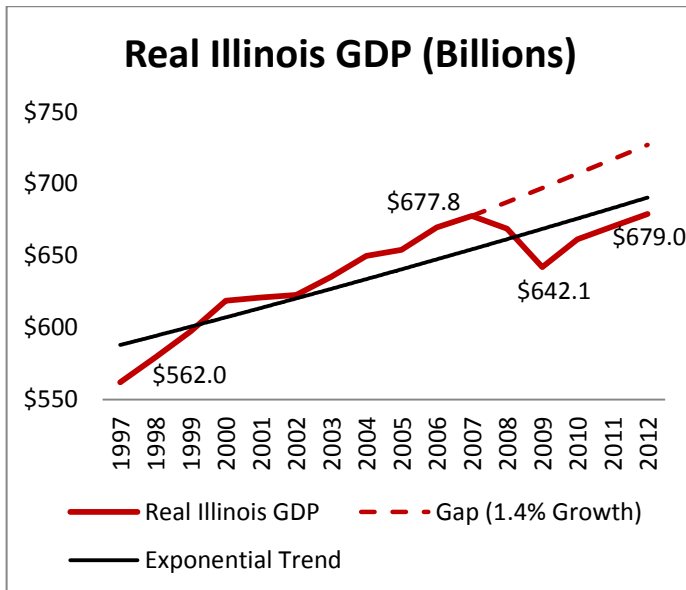
As an informative methodological matter, this report primarily utilizes Census microdata from the Current Population Survey from 1995 to 2012. Survey data is gathered in March of every year. The advantages of using data from this survey, which contains 5,596,374 observations of United States residents and 87,826 unique Illinois respondents, are that the data are at the individual-level, that there are hundreds of variables which can be analyzed or controlled for and are tied to each individual worker, and that the sample sizes are remarkably large. The disadvantages to this dataset are that the survey is voluntary and not based on payroll data, thus subjecting the data to a very small degree of self-selection and of potential human deceit in responses.

## II. Economic Outlook

### Macroeconomic Conditions

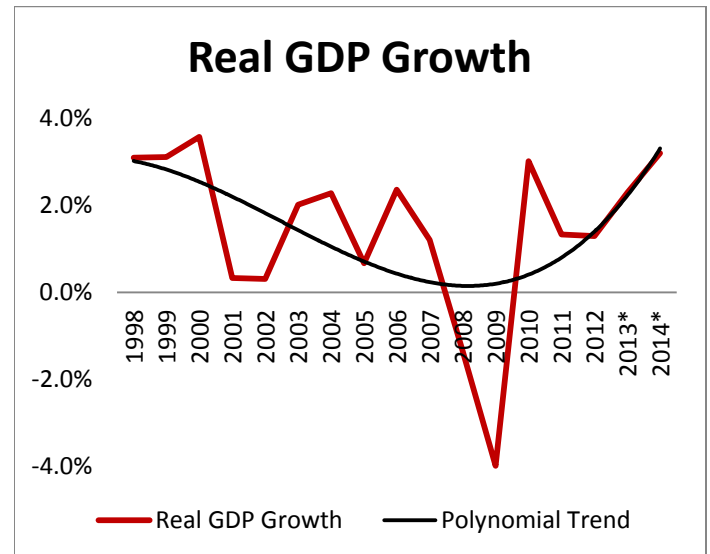
In the wake of the deep recession which began in late 2007, the Illinois economy has finally started to rebound. After real Gross Domestic Product (GDP) grew by 20.6 percent between 1997 and 2007 to \$677.8 billion, economic output contracted by 5.3 percent over two years to \$642.1 billion at its trough in 2009 (Figure 1). Economic growth has since recovered, growing by 3.0 percent in 2010 and 1.3 percent in both 2011 and 2012 (Figure 2). There was, however, still an \$11 billion divergence in Illinois GDP from its long-run growth trend as of 2012, shown in Figure 1 as the distance between the exponential trend line and real Illinois GDP. Moreover, if the economy had continued along its pre-recession path, Illinois' economic output would be far larger today. In fact, assuming that the economy should have grown by a modest 1.4 percent each year, as it did on average from 2005 to 2007, the GDP gap is actually \$48 billion. Fortunately, the worst appears to be over, with Figure 2's cyclical trend line suggesting that the state is in the beginning stages of a positive swing in the business cycle. Real GDP is projected to expand by 2.3 percent in 2013 and 3.4 percent in 2014.

Figure 1: Illinois Gross Domestic Product, 1997-2011



Source: Author's analysis of Federal Reserve Economic Data, Federal Reserve Bank of St. Louis. Data in constant 2012 dollars. The assumed 1.4% rate is the average of GDP growth for the three years (2005–2007) prior to the recession.

Figure 2: Illinois GDP Growth, 1998-2011



Source: Author's analysis of Federal Reserve Economic Data, Federal Reserve Bank of St. Louis. Asterick (\*) denotes Labor Education Program estimates based on the trend, which align precisely with those of Chase and J.P. Morgan. ("Regional Perspectives: Illinois Economic Outlook," 2013).

The Illinois economy is very diverse and generally mirrors the larger American economy (Figure 3). There are 6 million workers employed in Illinois, and the majority of this workforce is employed in the service sector. At least 51.7 percent of Illinois residents are employed by service industries (the latter six categories in Figure 3); that share rises to as much as 59.2 percent if the financial industry is also included. Relative to the national economy, Illinois specializes in the manufacturing, transportation/warehousing, financial, wholesale trade, and professional/scientific industries. Each of these respective industries has a location quotient of more than 1.0 in Illinois.<sup>1</sup> This economic development metric suggests that these industries enjoy a comparative advantage in Illinois compared to the nation as a whole, making the state an attractive business location (Sentz, 2011).

<sup>1</sup> The location quotient is the share of Illinois workers employed in the particular industry divided by the share of total U.S. workers employed in the industry. A location quotient greater than 1.0 indicates relative regional specialization (i.e., the state provides unique economic opportunities for the industry).

Illinois offers firms in these industries access to large and integrated markets, raw materials, and a highly-educated workforce with the skills and know-how to be productive in associated jobs. On the other hand, in three industries (the agricultural industry, the construction industry, and the public administration industry), there is noticeably less concentration of workers in the state than in the larger American workforce.<sup>2</sup>

*Figure 3: Illinois Industry Composition, 2011*

Industry	Illinois Total	Illinois Percentage	US Percentage	Location Quotient
Agriculture, forestry, fishing, hunting, and mining	62,988	1.1%	1.9%	0.58
Construction	311,902	5.2%	6.4%	0.81
Manufacturing	742,023	12.5%	10.4%	1.20
Wholesale trade	187,105	3.1%	2.8%	1.11
Retail trade	649,260	10.9%	11.6%	0.94
Transportation, warehousing, and utilities	344,720	5.8%	5.0%	1.16
Information	127,775	2.1%	2.2%	0.95
Finance, insurance, real estate, and rental and leasing	448,681	7.5%	6.7%	1.12
Professional, scientific, and management, and administrative and waste management services	655,921	11.0%	10.6%	1.04
Educational, health care, and social assistance services	1,361,005	22.9%	23.1%	0.99
Arts, entertainment, recreation, accommodation and food services	532,910	9.0%	9.2%	0.98
Other services, except public administration	287,290	4.8%	5.0%	0.96
Public administration	236,087	4.0%	5.0%	0.80
Civilian employed population 16 years and over	5,947,667	100.0%	100.0%	1.00

*Source: Author's analysis of 2011 American Community Survey, three-year estimates, for the civilian labor force, workers aged 16 and over. There are an estimated 140,145,661 workers in the civilian labor force ages 16 and older in America.*

## Labor Force Characteristics

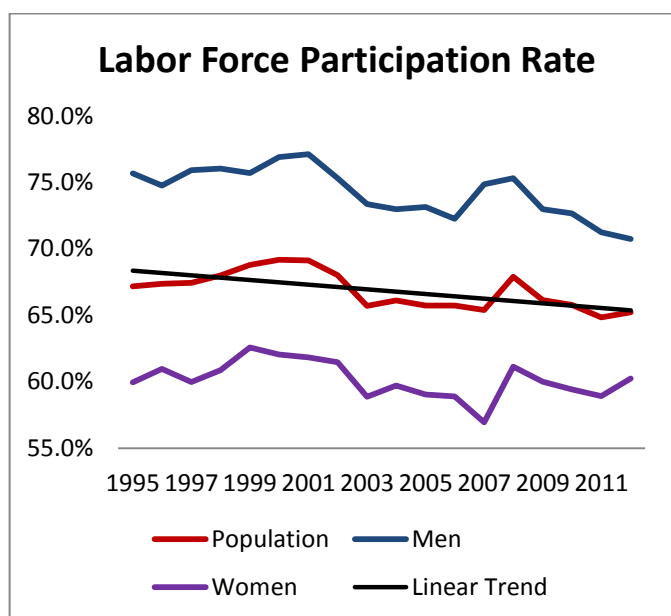
As with the rest of the United States and much of the industrialized world, there has been a general downward trend in the labor force participation rate for the Illinois population (Figure 4). Male labor force participation, in particular, has experienced a sharp decline, from a peak of 77.1 percent in 2001 to 70.7 percent in 2012, its

<sup>2</sup>. For location quotients and industry opportunities specific to Chicago, see World Business Chicago's March 2012 report, *A Plan for Economic Growth and Jobs*. The report is available at <http://www.worldbusinesschicago.com/files/downloads/Plan-for-Economic-Growth-and-Jobs.pdf>.

lowest level in the past two decades. On the other hand, there has been a slight increase in the female participation rate, from 60.0 percent in 1995 to 60.2 percent in 2012. The female participation rate in 2012 is the highest it has been since the recession's early stages in 2008 but far below its peak of 62.6 percent in 1999. This decline could potentially be understood as the result of an overall aging population in Illinois. However, there is a worrisome comparable trend for the able-bodied, working-age population (i.e., workers ages 16 to 64 years old). For working-age Illinois residents, labor force participation has fallen by 5.8 percentage points since 2000 to a rate of 73.8 percent (Figure 5).

*Figure 4: Labor Force Participation Rate, 1995-2012*

In addition to the decline in labor force participation rate, the Illinois working-age population has changed in other ways. Figure 5 provides data on the changing composition of the prime-age population in Illinois, documenting instances of statistically significant differences over time. The working-age population has become markedly older, less white, and less US-born. There have also been dips in the percentages of the Illinois working-age population who are military veterans and who are married. Finally, more working-age Illinois residents report that they are “in school” than in either 2000 or 2007, exiting the labor force to acquire new human capital skills or because their job prospects are low in the current economy (Figure 5). Half of the drop in working-age labor force participation can be attributed to this move back to school. Furthermore, the Illinois population (i.e., residents of all ages) is clearly and increasingly becoming more highly educated. In 1995, 21.3 percent of Illinois residents had a bachelor's degree or higher but, as of 2012, that percentage has risen to 28.1 percent (Figure 6).



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data include 87,826 total observations, or 4,879.22 respondents per year.

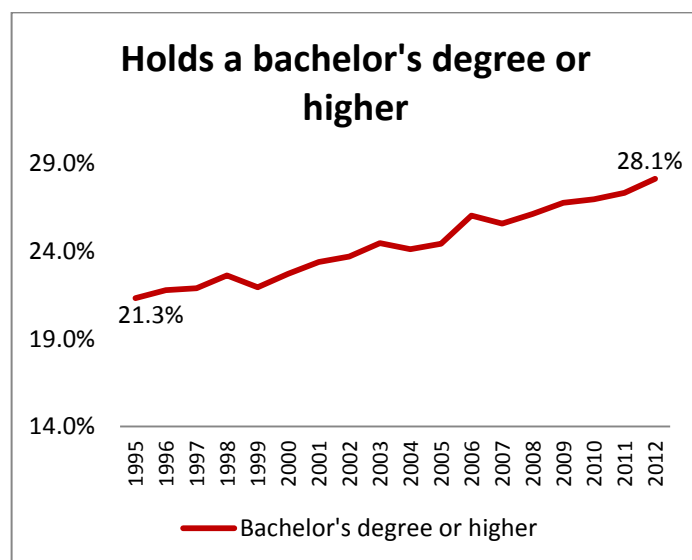
*Figure 5: Demographic Composition of the Working-Age Population, 2000-2012*

Demographic Variable	2000	2007	2012	Since 2000
Age	37.6 years	38.4 years	38.7 years	+1.0 years**
Male	49.0%	48.0%	47.8%	-1.2%
Female	51.0%	52.0%	52.2%	+1.2%
White non-Latino	64.5%	61.3%	57.6%	-6.9%**
Immigrant	18.6%	21.6%	21.1%	+2.4%**
Veteran	6.8%	5.4%	4.4%	-2.4%**
Married	53.8%	54.3%	49.8%	-4.0%**
Has disability	5.6%	6.1%	5.9%	+0.3%
In school	10.4%	12.2%	13.4%	+2.9%**
In the labor force	79.5%	74.4%	73.8%	-5.8%**

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data. Data include 74,461 observations of residents aged 16 to 64. Full dataset includes 87,826 total observations. Two asterisks (\*\*) denote that the 2012 estimate is statistically significantly different from the 2000 estimate at the 0.05-level, using a simple t-test. One asterisk (\*) denotes significance at the 0.10-level.

Finally, in terms of wage and salary income, the Illinois economy seems to favor certain demographic groups over others. Holding constant such variables as industry, occupation, firm size, full-time status, public or

*Figure 6: Increasing Educational Attainment of the Illinois Population, 1995-2012*



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data include 87,826 total observations.

private sector status, union membership, educational attainment, and regional and statewide trends over time, Caucasian working-age Illinoisans earn 10.2 percent more than their non-white counterparts and a woman earns just \$0.84 for every dollar a man earns, on average (Figure 7). Additionally, a Latino or Latina worker earns 8.4 percent more than persons of all other non-white racial or ethnic backgrounds (still 1.8 percentage points less than a white worker), but the premium disappears if the individual is an immigrant in the United States. Lastly, veterans do not earn less than non-veterans by any statistically significant amount while persons with any kind of mental or physical work disability face a significant wage and salary penalty, all else equal (18.4 percent) (Figure 7).

These findings foreshadow Sections IV, V, and VI which further investigate income trends, distributions, and factors. Also note that the full regression analysis is reported in the Appendix.

*Figure 7: OLS Regression of Ln(Wage) on Demographic Characteristics, 2000-2012*

Illinois Wage and Salary OLS Regression Model Dependent Variable: Natural Log of Real Wage, 2012 Dollars		Coefficient Estimate	Robust Standard Error
Age		0.04884***	(0.00240)
Age squared		-0.00050***	(0.00003)
Male		0.15987***	(0.00799)
White		0.10223***	(0.00928)
Latino/a		0.08436***	(0.01250)
Immigrant		-0.08956***	(0.01055)
Veteran		0.02462	(0.01521)
Has disability		-0.18337***	(0.02456)
Observations		41,663	
R <sup>2</sup>		0.6731	

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. See Appendix for full regression analysis. Three asterisks (\*\*\*) denote significance at the 0.01 confidence level. Two asterisks (\*\*) denote significance at the 0.05 confidence level. One asterisk (\*) denotes significance at the 0.10 confidence level.

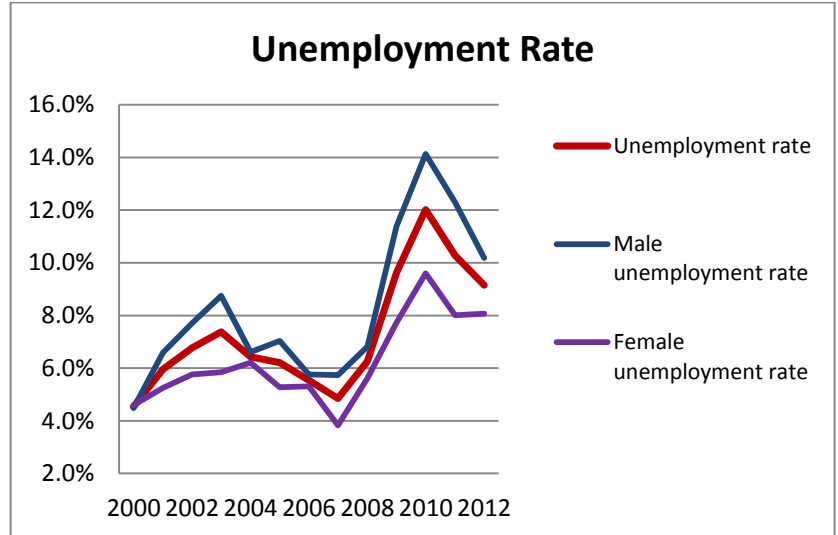
### III. Work

#### Unemployment Trends

Just as the Illinois economy faces a \$48 billion output gap, workers in Illinois are experiencing an unforgiving yet attenuating employment gap. At the turn of the millennium, working-age Illinois residents in the civilian labor force benefited from a vigorous, entrepreneurial labor market, resulting in a 4.5 percent working-age unemployment rate (Figure 8). Prior to the Great Recession, in 2007, that unemployment rate stood at a relatively healthy 4.9 percent. Unfortunately, today the unemployment rate for the working-age population is still 4.2 percentage points higher than its pre-recession level, at 9.1 percent. The good news, though, is that Illinois has seen a gradual decline since its peak unemployment rate of 12.0 percent in 2010 for the working-age population.

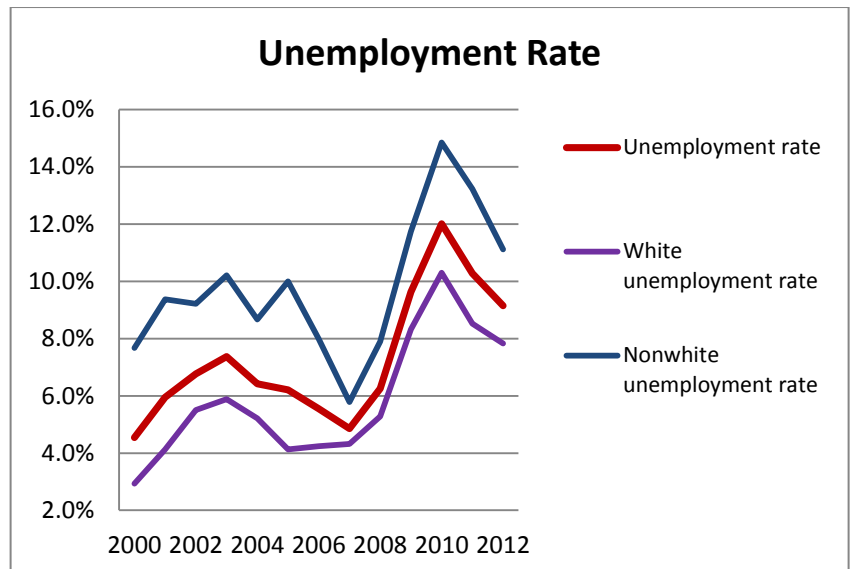
The rising tide caused by the economic disaster lifted all unemployment boats, but not all equally. While unemployment rates jumped for everyone, the unemployment rate for working-age men was 14.1 percent in 2010 and 10.2 percent today compared to respective rates of 9.6 percent and 8.1 percent for women (Figure 8). But a gender story is not the only tale to be told. In Illinois, white workers fared far better than their non-white counterparts and continue to do so. The working-age white non-Latino unemployment rate was 4.3 percent prior to the Great Recession, peaked at 10.3 percent in 2010, and is now 7.8 percent. Each of these numbers compares favorably to their respective non-white parallels of 5.8 percent, 14.8 percent, and 11.1 percent (Figure 9). Finally, the youth unemployment rate (i.e., for workers aged 16 to 25) was 10.4 percent in 2000, spiked to 17.6 percent in 2010, and remains at 17.6 percent today.

*Figure 8: Illinois Working-Age Unemployment Rate by Gender, 1995-2012*



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois samples. Data include 56,676 observations of workers in the civilian labor force, aged 16 to 64. Full dataset includes 87,826 total observations.

*Figure 9: Illinois Working-Age Unemployment Rate by Racial Status, 1995-2012*



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data include 56,676 observations of workers in the civilian labor force, aged 16 to 64. Full dataset includes 87,826 total observations.



As expected, a breakdown of the working-age unemployment rate by education reveals that lower levels of education are associated with higher propensities to be jobless (Figure 10). Almost one-fifth of working-age Illinois residents with less than a high school degree are unemployed (18.0 percent) compared to 11.4 percent with a high school degree, 4.7 percent with a bachelor's degree, and just 1 unemployed worker per 100 with a professional (law, medical, etc.) or doctorate degree. Additionally, the Illinois working-age unemployment rate (9.1 percent) is higher than for workers in eight neighboring states, including Ohio, Michigan, Indiana, Kentucky, Missouri, Iowa, Minnesota, and Wisconsin (7.7 percent). The working-age unemployment rate for all the other 47 continental states (8.3 percent) is also lower than the Illinois rate. Compared to working-age residents in neighboring states and in the mainland states besides Illinois, the unemployment rate is higher in the Land of Lincoln across all educational attainment levels except professional and doctorate degrees.

*Figure 10: Working-Age Unemployment Rate by Education, Rates for Each Level, 2012*

Degree or Equivalent	Illinois	Neighboring States	Continental USA, Excluding IL
Less than a high school	18.0%	17.6%	17.4%
High school	11.4%	9.9%	10.4%
Some college	11.8%	8.8%	8.8%
Associate's	6.5%	5.4%	6.2%
Bachelor's	4.7%	3.5%	4.1%
Master's	3.4%	2.2%	3.1%
Professional/Doctorate	1.1%	1.4%	2.3%
<b>Average</b>	<b>9.1%</b>	<b>7.7%</b>	<b>8.3%</b>

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64. Neighboring States include Ohio, Michigan, Indiana, Kentucky, Missouri, Iowa, Minnesota, and Wisconsin. Data include 3,062 Illinois observations, 14,534 neighboring state observations, and 89,448 continental USA (excluding Illinois, Alaska, and Hawaii) observations of workers in the civilian labor force, aged 16 to 64.

*Figure 11: Educational Makeup of the Employed and the Unemployed, Share, 2012*

Degree or Equivalent	Illinois Employed	Illinois Unemployed
Less than a high school	9.6%	21.1%
High school	26.3%	33.5%
Some college	17.8%	23.6%
Associate's	9.4%	6.4%
Bachelor's	23.1%	11.4%
Master's	10.3%	3.6%
Professional	1.9%	0.1%
Doctorate	1.5%	0.2%

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, all workers. Data include 3,062 Illinois observations.

Another way to visualize the inverse relationship between education and unemployment is to analyze workers of a particular education level as a *share* of the employed and the unemployed. Figure 11 reports these numbers, displaying a decomposition of employed workers in Illinois by educational attainment on the left juxtaposed by a similar breakdown of unemployed workers to the right. The numbers show that 36.8 percent



of the Illinois *employed* workforce holds a bachelor's degree or higher. In stark contrast, 84.6 percent of the working-age population who is *unemployed* in Illinois has less than a bachelor's degree (Figure 11).

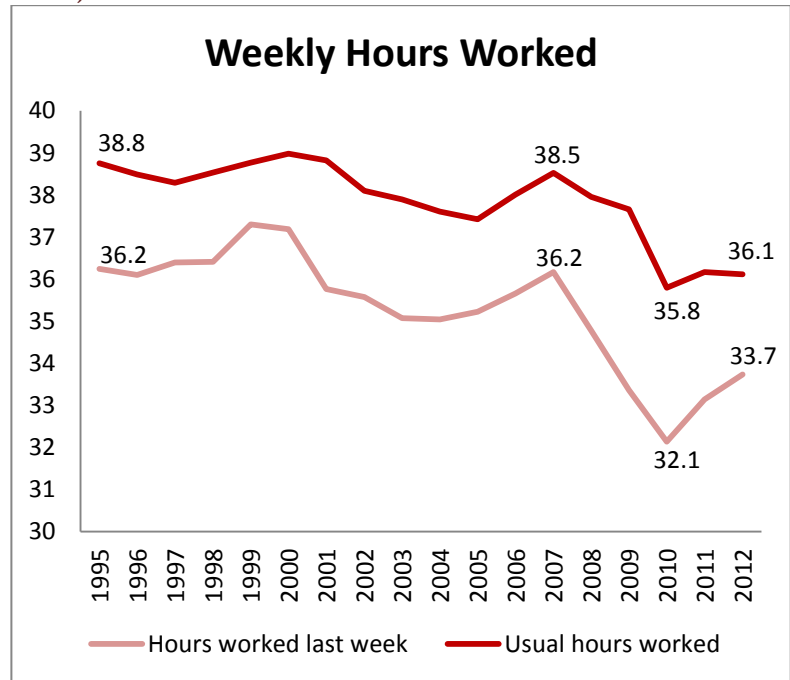
## Work Characteristics

The workweek for Illinois workers is slowly rising but still represents a long-term downward trend. The Current Population Survey reports data from two questions it asks of workers related to their labor-leisure tradeoff: how many hours the survey respondent worked last week and how many hours that individual usually works each week. The two metrics, highly correlated with one another, yield similar results (Figure 12). To isolate usual hours worked—which is based on respondent estimates but helps correct for unusual workweeks at the time of the survey (i.e., shortened hours due to weather, illness, injury, vacation, etc.)—a person of working age in the civilian labor force worked between 37 and 39 hours in a typical week back in 1995 and as late as 2007. But typical weekly work hours plummeted to 35.8 in 2010. Since then, hours worked has seen only minimally incremental gains. An Illinois worker currently has a usual workweek lasting 36.1 hours.

There is also a trend away from good, well-paying, full-time jobs with benefits towards more part-time jobs in spot labor markets with lower average compensation packages across the United States. The state of Illinois has not been shielded from this trend (Figure 13). The fraction of Illinois workers enjoying a status of full-time employment, once 81.5 percent in 1995, has fallen to 78.8 percent today. More conspicuously, the share of workers who work part-time has risen in that time from 15.5 percent to 19.2 percent, nearly one-fifth of the workforce.<sup>3</sup>

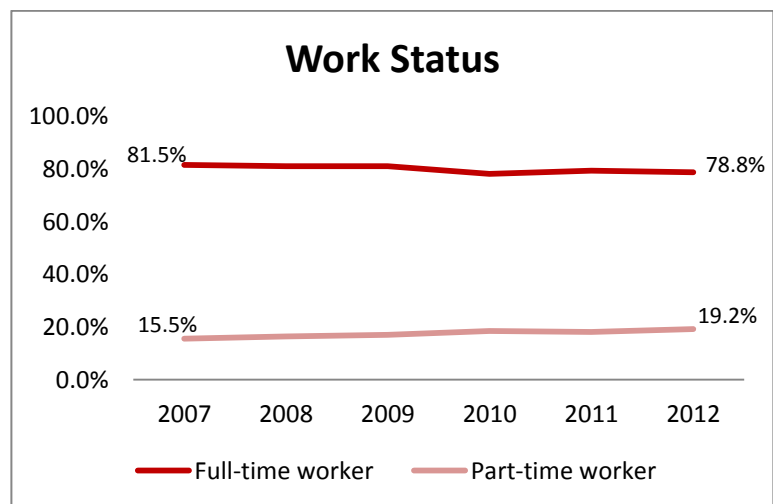
<sup>3</sup>. Note that “no response” and other types of work arrangements (ex: internship) complete the summations to 100 percent.

Figure 12: Illinois Working-Age Average Hours Worked Per Week, 1995-2012



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data include 56,676 observations of workers in the civilian labor force, aged 16 to 64. Full dataset includes 87,826 total observations

Figure 13: Full-time and Part-time Work Status, 1995-2012



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data include 56,676 observations of workers in the civilian labor force, aged 16 to 64.

These aforementioned trends in work characteristics matter. Once again analyzing wage and salary income for the working-age population in Illinois, work characteristics have logical effects on an individual worker's total wage and salary income over the year. Figure 14 shows partial results from a full regression model, holding constant such variables as industry, occupation, union membership, demographic factors, educational attainment, and regional and yearly trends. The results indicate that full-time employment status raises a worker's wage and salary income by 28.3 percent on average. A one-hour increase in annual hours worked is also strongly statistically associated with a 0.07 percent increase in a worker's total yearly wage and salary income on average. Put differently, working 50 hours more in a year (perhaps by working an extra week with some overtime), tends to raise a worker's annual total wages by 3.5 percent on average.

Furthermore, compared to working at a for-profit or non-profit private firm, statistical significance tests show that self-employed workers earn 13.7 percent less on average and federal government employees earn 12.6 percent more on average, all else equal. In contrast, there is no statistically significant difference between the wages of those working in the private sector compared to those in the state and local government sector, although the data for 2000-2012 are suggestive of a wage penalty of about 3 percent. This finding reaffirms a previous study that the Labor Education Program authored which used a slightly different dataset over more-recent years but found that "Illinois public servants earn an average compensation package expected for a highly-educated workforce in a high-wage state" (Bruno & Manzo, 2013). Indeed, in the post-recession period from 2010 to 2012, real wages for Illinois state and local government employees were actually a statistically significant 13.5 percent less on average than their private sector counterparts.<sup>4</sup> Finally, compared to "medium-sized" firms with 26 to 499 employees, a worker in a larger firm earns a statistically significant 6.0 percent more and a worker in a small firm earns 10.0 percent less per year in total wages and salaries on average, holding all else constant.

Again, these findings foreshadow the succeeding sections. The full regression output is in the Appendix.

*Figure 14: OLS Regression of Ln(Wage) on Work Characteristics, 2000-2012*

Illinois Wage and Salary OLS Regression Model Dependent Variable: Natural Log of Real Wage, 2012 Dollars	Coefficient Estimate	Robust Standard Error
Annual hours worked	0.00071***	(0.00000)
Full-time employee	0.28304***	(0.01223)
Self-employed	-0.13737***	(0.01794)
State government employee	-0.03274	(0.02246)
Local government employee	-0.03723	(0.06935)
Federal government employee	0.12621***	(0.02738)
Large firm, 500 or more employees	0.05989***	(0.00814)
Small firm, 25 or less employees	-0.10013***	(0.02462)
Observations	41,663	
R <sup>2</sup>	0.6731	

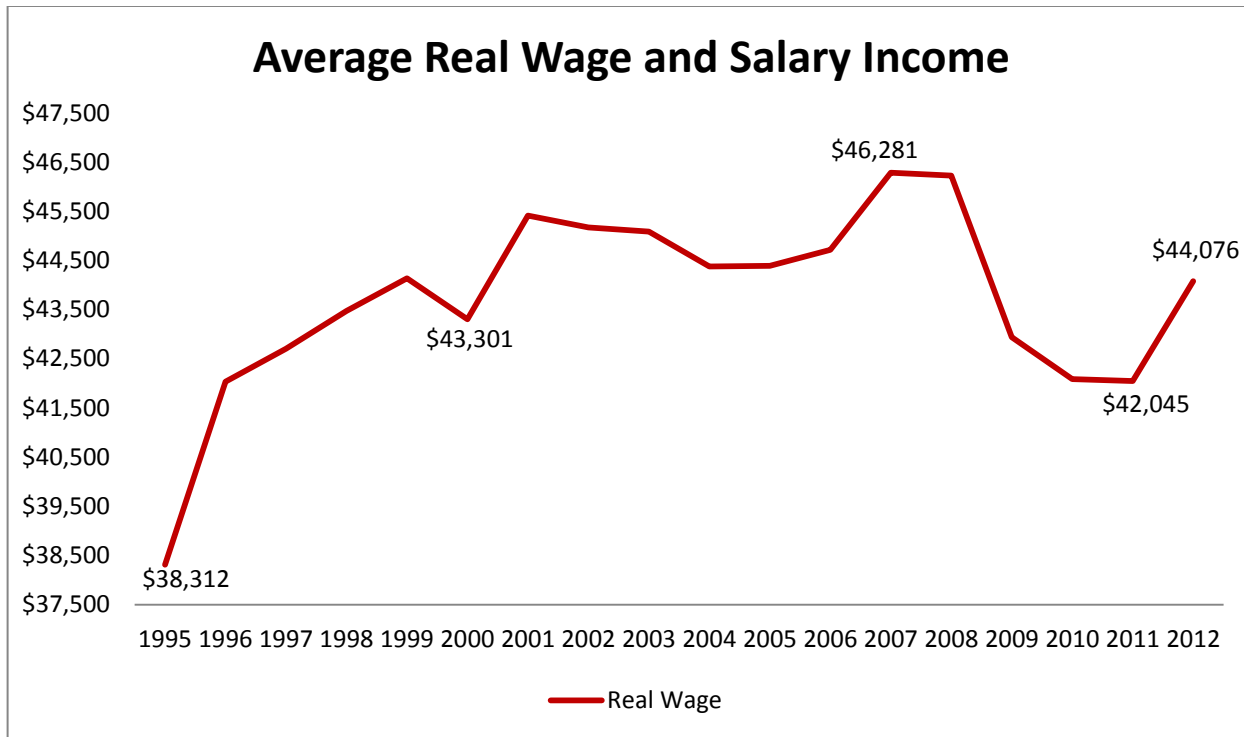
Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. See below for full regression analysis. Three asterisks (\*\*\*) denote significance at the 0.01 confidence level. Two asterisks (\*\*) denote significance at the 0.05 confidence level. One asterisk (\*) denotes significance at the 0.10 confidence level.

<sup>4</sup>. That study, *Working in Illinois' Public Interest: A Comparison Study on Earnings, Benefits, and Impacts*, is available online at [http://www.ler.illinois.edu/labor/applied\\_research.html](http://www.ler.illinois.edu/labor/applied_research.html).

## IV. Income

Consistent with the common theme throughout this report that conditions are improving but still below normal levels, the average real wage (i.e., inflation-adjusted income from wages and salaries) for working-age Illinois residents in the civilian labor force is increasing but has not returned to pre-recession levels (Figure 15). In 2012, average wage and salary income for working Illinoisans was \$44,076 per year. This is up substantially from the \$42,045 trough a year before in 2011, but still \$2,205 less than the peak of real wages in 2007.

*Figure 15: Average Real Wage and Salary Income for Working-Age Civilian Labor Force, 1995-2012*



*Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample in constant 2012 dollars. Data include 56,676 observations of workers in the civilian labor force, aged 16 to 64, from 1995 to 2012. Full dataset includes 87,826 total observations.*

While there has been a noticeable increase in average real wage and salary income since 1995 (a \$5,764 gain over 18 years in constant 2012 dollars), growth has been minimal since the turn of the millennium. Since 2000, there has been only a \$775 increase in inflation-adjusted wages for the average Illinois worker in the civilian labor force (Figure 15). Indeed, a full regression analysis for 2000 to 2012 which controls for demographic factors, educational attainment, work characteristics, industry, occupation, and regional fixed effects shows that in the year 2012 there was no discernible difference in terms of increases or decreases in real wage and salary income compared to 2000 (Figure 16). In other words, an average worker's real wage did not grow by any statistically significant amount from 2000 to 2012, all else equal, indicating a phenomenon of wage stagnation in Illinois since 2000.

A decade of static wage growth, however, does not alter the reality that education pays in Illinois (Figure 17). Not only do workers with higher levels of education experience lower unemployment rates, they also earn higher wages and salaries on average. Without controlling for other factors, workers with less than a high school degree face a 53.4 percent wage and salary penalty compared to those with a high school or equivalent degree. Workers who have completed a four-year bachelor's degree earn 86.0 percent more each year than those with a high school degree. On the upper end of the spectrum, those with a doctorate degree and

professional degree such as doctors and lawyers respectively bring in incomes over three and five times the amount that a person with a high school degree makes.

*Figure 16: OLS Regression of Ln(Wage) on Year Indicator Variables, 2000-2012*

Illinois Wage and Salary OLS Regression Model Dependent Variable: Natural Log of Real Wage, 2012 Dollars	Coefficient Estimate	Robust Standard Error
2000-2012 trend	0.01606	(0.02785)
Observations	41,663	
R <sup>2</sup>	0.6731	

*Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. See below for full regression analysis. Three asterisks (\*\*\*) denote significance at the 0.01 confidence level. Two asterisks (\*\*) denote significance at the 0.05 confidence level. One asterisk (\*) denotes significance at the 0.10 confidence level.*

While still substantial, controlling for demographic, work, region, and time factors provides a more conservative and accurate estimate of the benefits of education. Figure 17 also reports estimates from a full regression analysis in the far right column. An employee who holds a bachelor's degree earns around one-third more per year than a worker with a high school degree. Master's degree holders make more than 50 percent and professional and doctorate degree holders each earn over 60 percent more than someone with a high school degree. Regardless of evaluation method, each level of education above a high school degree experiences increasing wage premiums.

*Figure 17: Educational Attainment and Average Wage and Salary Income, 2012*

Degree or Equivalent	Illinois	Premium above High School	Regression Premium Estimate
Less than a high school	\$15,179	-53.4%	-22.0%
High school	\$32,550	+0.0%	0.0%
Associate's	\$37,352	+14.8%	+13.7%
Bachelor's	\$60,538	+86.0%	+33.3%
Master's	\$75,070	+130.6%	+51.3%
Professional	\$167,147	+413.5%	+65.1%
Doctorate	\$111,813	+243.5%	+62.6%

*Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. Data include 3,062 Illinois observations of workers in the civilian labor force, aged 16 to 64. All regression estimates are significant at the 0.01 confidence level.*

Workers in the Land of Lincoln benefit from Illinois' status as a high-wage state. On average, the working-age population in Illinois earns 7.9 percent more than their equivalents in the rest of the United States, excluding Hawaii and Alaska (Figure 18). Across nearly all education levels, workers earn more in Illinois than they do in eight neighboring Midwest states or in the continental United States excluding Illinois. Compared to their equivalents in the other 47 continental states, workers with a high school degree, bachelor's degree, master's degree, doctorate degree, and professional degree earn appreciably more working in Illinois. This is particularly so for professional degree holders, (+40.1 percent premium) and those with a high school degree (+10.6 percent premium). For those with a high school degree, much of this differential can be attributed to the union wage effect, which is 2.0 to 7.3 percentage points stronger than for college-educated workers (Mishel, 2012).

On the other hand, individuals with an associate's degree earn about 3 percent less than their equivalents in neighboring states or the rest of the continental United States (Figure 18). Lower-skilled workers without a high school degree face a 6.3 percent wage penalty by working in Illinois. Low-wage workers face poor working conditions, an increasingly interchangeable commodification of their labor, and unfavorable compensation packages in Illinois. The people in most need continue to struggle to get by in this high-wage, high cost-of-living state.

*Figure 18: Comparisons of Average Wage and Salary Income by Education, 2012*

Degree or Equivalent	Illinois	Neighboring States	Continental USA, Excluding IL	Wage Premium, IL to Continental
Less than a high school	\$15,179	\$13,506	\$16,197	-6.3%
High school	\$32,550	\$29,725	\$29,430	+10.6%
Associate's	\$37,352	\$38,052	\$38,530	-3.1%
Bachelor's	\$60,538	\$54,851	\$56,354	+7.4%
Master's	\$75,070	\$67,500	\$73,653	+1.9%
Professional	\$167,147	\$125,295	\$119,298	+40.1%
Doctorate	\$111,813	\$97,332	\$103,472	+8.1%
<b>Average</b>	<b>\$44,076</b>	<b>\$39,329</b>	<b>\$40,862</b>	<b>+7.9%</b>

*Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. Neighboring States include Ohio, Michigan, Indiana, Kentucky, Missouri, Iowa, Minnesota, and Wisconsin. Data include 3,062 Illinois observations, 14,534 neighboring state observations, and 89,448 continental USA (excluding Illinois) observations of workers in the civilian labor force, aged 16 to 64.*

## V. Wage Inequality

### Income Inequality: Causes and Costs

Income inequality in America is at levels not seen at any time since 1929 because a confluence of economic and policy changes have caused the distribution of income to grow more unequal over time. Structural economic transformations such as increased globalization and trade with low-wage countries (Pavcnik, 2011), the shift away from a manufacturing-based to a service-based economy (Dunn, 2012), increased polarization of jobs into low- and high-skilled occupations (Autor, 2011), technological changes which amplified demand for high-skilled workers (Harris & Sammartino, 2011), and a trend toward exorbitantly escalating executive compensation packages (Mishel & Sabadish, 2012) have each contributed to rising income inequality.

Meanwhile, the United States experienced an era of privatization and deregulation which saw changes in public policy such as right-to-work laws leading to lower rates of unionization (Mishel, 2012), increasingly lax employment laws leading to rampant experiences of wage theft amongst low-income workers (Bernhardt et al., 2009), and the expansion of tax cuts and loopholes which have most benefited the well-off (Huang & Frenzt, 2012). These changes further increased inequality in wages and salaries. The declining real value of the minimum wage, which is not pegged to inflation, and stagnant middle class earnings have also been contributors (U.S. Congress Joint Economic Committee, 2010). Additionally, there is little to no evidence that economic development incentives to entice firms to open and employ workers in distressed areas have been

an effective policy to advance the economic prospects of the poorest workers (Peters & Fisher, 2004). Finally, with state, county, and municipal governments in Illinois facing budget shortfalls, decreases in the employment of public sector workers are very likely increasing income inequality in Illinois (Bruno & Manzo, 2013). Ultimately, structural and global economic changes, a failure of trickle-down economic growth policies, and political calamities have all driven America to its present state of extreme wage and salary inequality.

Inequality is not necessarily bad in and of itself. Workers need incentives to work hard, to invest in themselves, and to be willing to take on entrepreneurial endeavors which contribute to the economic growth and general progress of societal wellbeing. At some threshold, however, the marginal benefit from these incentives is less than the marginal costs in terms of psychological costs, social unrest, diminished equality of opportunity, declining wages, and the like.

Accordingly, extreme income inequality can have real economic repercussions (Stiglitz, 2013). While Barro (1999) suggested that there is a tradeoff in developed countries between more redistributive equality and more economic output growth, recent research has suggested that income inequality may be harmful to economic growth and raises the probability of financial crises (Berg & Ostry, 2011). Research on economic growth and personal satisfaction has found that an increase in national income is strongly associated with increased national happiness, but that greater inequality actually reduces aggregate wellbeing. Since the ultimate goal of economic policy is to maximize happiness (or “utility”), the authors suggest that societies may thus be able to become more efficient through redistribution (Stevenson & Wolfers, 2008).

Potentially the biggest threat to economic growth derived from economic inequality is declining equality of opportunity. With such great income disparity, opportunity is polarized, and the poor have fewer resources to invest in education or entrepreneurial activity (Berg & Ostry, 2011; Kruger, 2012; Stiglitz, 2013). Unfortunately, those with less access to opportunities or who are credit-constrained are inherently disadvantaged as class mobility stagnates and the talents of many go unrealized, increasing economic inefficiency (Kruger, 2012; Stiglitz, 2013).

There are also important social and political costs associated with extreme income inequality. Many health scientists and economists believe that increased income inequality is strongly related to more health problems and higher health costs due to the polarized quality of care. Income inequality has been shown to be statistically significantly correlated with lower life expectancy and higher mortality rates (Deaton, 2003). Aside from health concerns, recent evidence suggests a significant negative effect of income inequality on the level of crime (Chintrakarn & Dierk, 2012). Finally, the recent *Citizens United v. Federal Election Commission* Supreme Court decision has significantly altered the landscape of political elections in the United States. More and more campaign funds are coming from corporations and opaque wealthy interest groups, perpetuating an increasingly unequal, unrepresentative, plutocratic political order (MacColl, 2011).

## Inequality Trends in Illinois

Today in Illinois there is harmful and inefficient income inequality. Figure 19 reports the distribution of income from wages and salaries for working-age residents in the civilian labor force (i.e., those who are employed and those who are looking for work). The results, which do not control for education or other factors, reveal that the top 1 percent in Illinois earns \$250,088 or more every year in wage and salary income, 733 percent more than the median worker in the labor force and 635 percent more than the median employed worker. Utilizing the “90/10 ratio,” the poorest person of the richest 10 percent of employed workers earns 23 times as much as the richest person of the poorest 10 percent of employed workers. The ratio of income inequality for the labor force shows that the top decile of the state’s residents earns at least 300 times as much as the bottom



decile. In both breakdowns, the *average* income is roughly two-fifths higher than the *median* income, further indicating an income distribution skewed to the top.

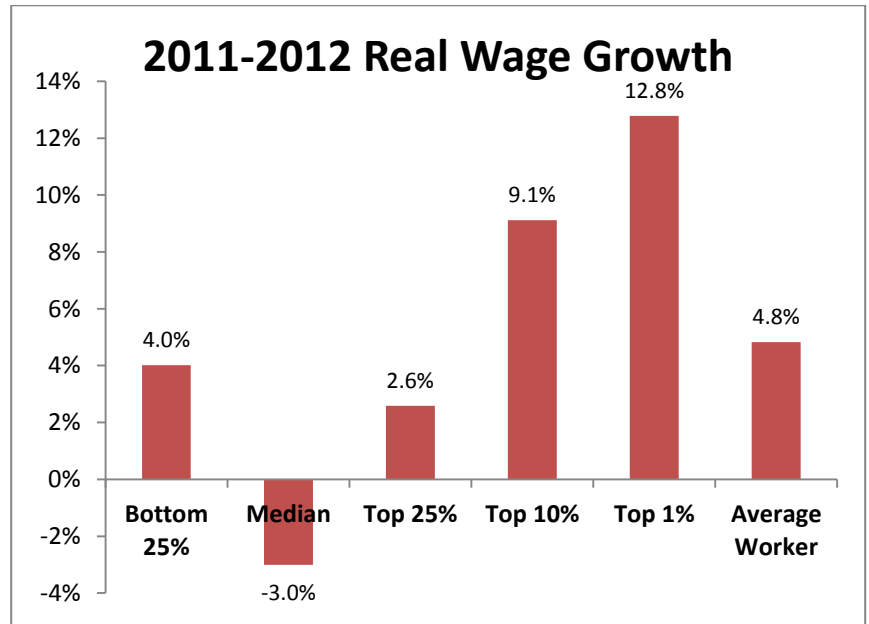
*Figure 19: Illinois Distribution of Income, Wage and Salary Income Cutoffs for Each Class, 2012*

Level of Distribution	Labor Force	Employed Only
Top 1 Percent	\$250,088	\$250,088
Top 10 Percent	\$90,032	\$93,033
Top 25 Percent	\$55,019	\$60,021
Median	\$30,011	\$34,012
Bottom 25 Percent	\$12,874	\$15,605
Bottom 10 Percent	\$300	\$4,001
90/10 Ratio	300.0	23.3
Average	\$44,076	\$47,158

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. 2012 Data include 3,062 observations of workers in the civilian labor force, aged 16 to 64.

In the past year, as real wages have rebounded, all income groups have generally benefited, but not all groups have progressed equally (Figure 20). From 2011 to 2012, the average working-age employee saw his or her work income jump up by 4.8 percent in real terms, with low-income earners experiencing a similar gain. Growth, however, was stagnant for the middle class, with the top 25 percent of earners seeing their wage and salary income tick up by just 2.6 percent while the median worker's salary actually fell by 3.0 percent. The largest year-to-year gains have been experienced by the top 1 percent and top 10 percent of earners. All of this data reveals a degree of growing inequality, with incomes of the lower and middle classes being further compressed while the richest residents accrue even higher gains.

*Figure 20: Illinois Growth in Real Wages by Level of Distribution, 2011-2012*

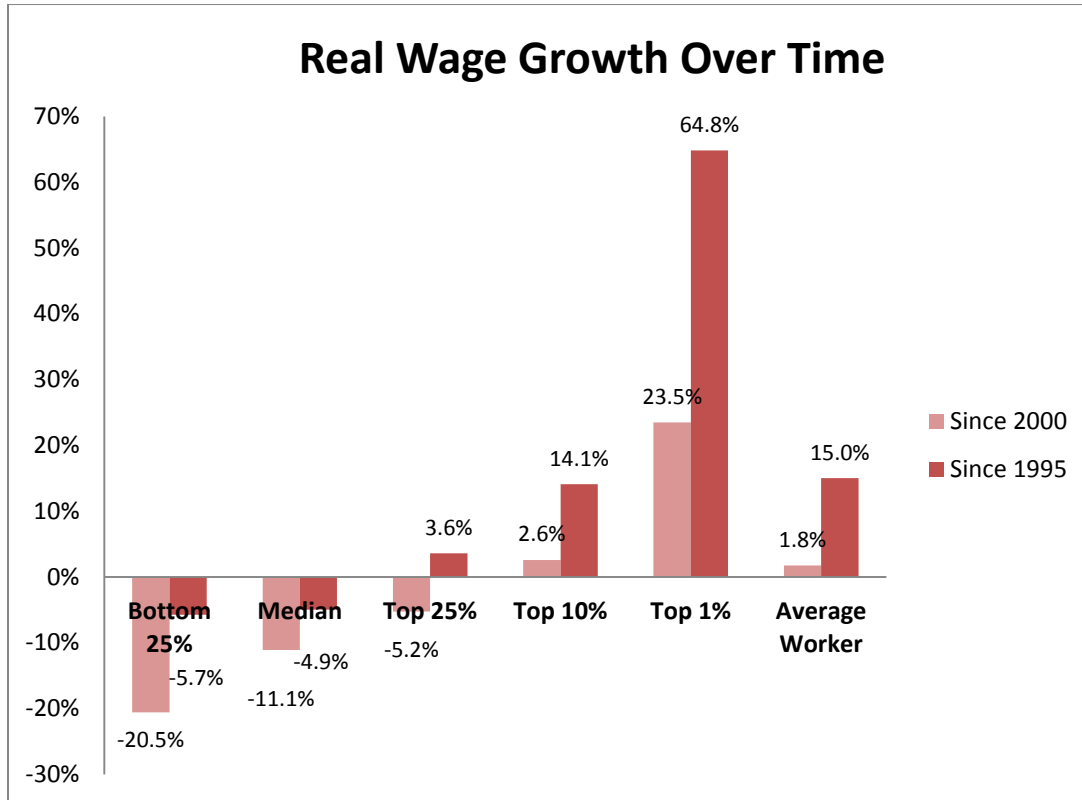


Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. 2012 Data include 3,062 observations of workers in the civilian labor force, aged 16 to 64. Full Illinois dataset includes 87,826 total observations

Going back over a longer period of time, a detrimental expansion of wage inequality is even more visible (Figure 21). No matter how the data is presented, the top 1 percent and the top 10 percent of working-age Illinois residents have seen their wages rise over time in Illinois while the lower ends of the distribution have seen their wages fall. While real wage and salary income for the average worker is 15.0 percent higher than it was in 1995, it has stagnated since 2000. Indeed, since 2000, the only income groups to see their inflation-

adjusted work incomes rise substantially are the top 10 and top 1 percenters. In Illinois, as in the rest of the country, the rich have gotten richer while the poor and middle classes have suffered from income deterioration.

*Figure 21: Illinois Long-term Growth in Real Wages by Level of Distribution, Since 1995 and 2000*

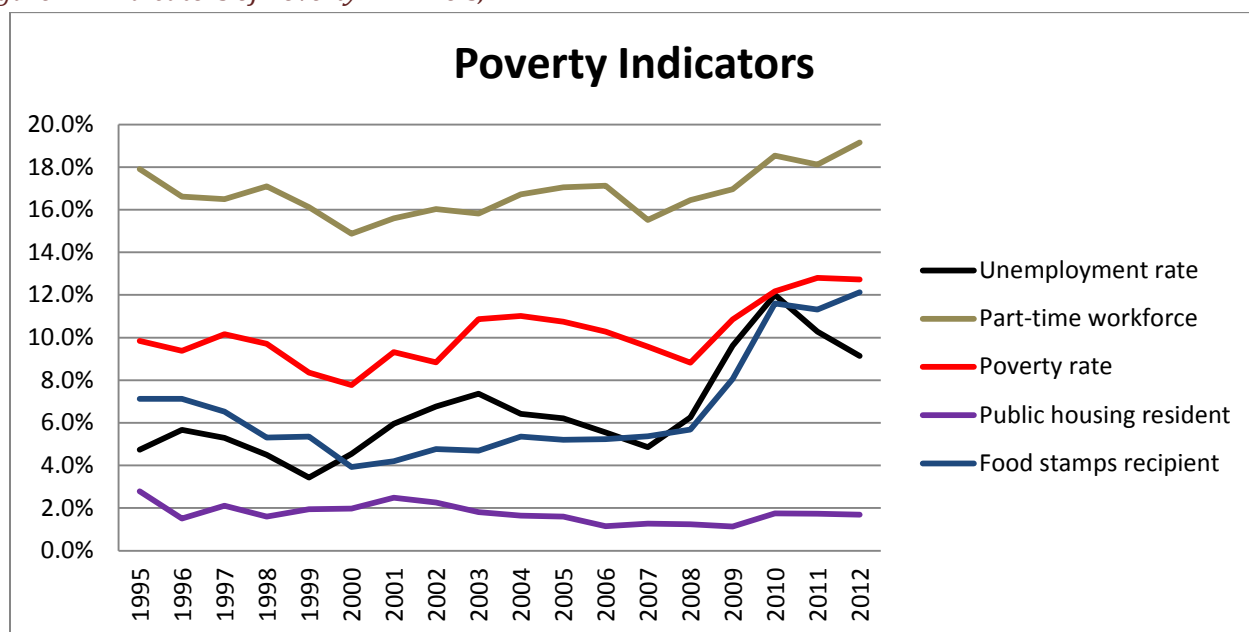


*Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. 2012. Full Illinois dataset includes 87,826 total observations.*

## VI. Poverty and Social Welfare

There are social costs associated with such income inequality in Illinois (Figure 22). Most worryingly, the poverty rate has jumped in the state. In 2000, the percentage of the Illinois population below the poverty line was 7.8 percent. Since then, wage corrosion and two recessions have caused the poverty rate to increase to 12.7 percent today. Furthermore, since 2007, the fraction of Illinois residents receiving food stamp assistance has more than doubled, rising from 5.4 percent then to 12.1 percent today. Additionally, there has been a very slight bump in the percentage of Illinois residents who live in public housing. It is noteworthy that while the unemployment rate has seen a downward trend since 2010, no other poverty indicator has experienced a comparable trend, suggesting that increases in poverty may be influenced by an array of other structural, long-term factors other than being unemployed (i.e., the move away from good full-time jobs to part-time jobs with low wages in spot labor markets, as an example).



*Figure 22: Indicators of Poverty in Illinois, 1995-2012*

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012. 2012 Unemployment data and part-time worker status are for the civilian labor force aged 16 to 64 while the poverty rate, public housing resident, and food stamp recipient status are for the full population. Full Illinois dataset includes 87,826 total observations

Figure 23 presents the average income from social programs and work benefits for all Illinois residents, and for those of working age in the civilian labor force. On retirement, 14.7 percent of Illinois residents receive Social Security benefits averaging \$13,062 per year while 5.5 percent receive other retirement income averaging \$18,844 per year. The average benefit an Illinois veteran is rewarded for his or her service to the country is \$15,191 per year (Figure 23).

*Figure 23: Income from Social Programs and Work Benefits, Illinois Residents, 2012*

Source of Income	Percent Receiving Benefit	Average Benefit of Recipient
Social Security	14.7%	\$13,062
Retirement Income	5.5%	\$18,844
Unemployment Insurance	4.1%	\$7,831
Earned Income Tax Credit	10.5%	\$2,300
TANF Benefits	0.4%	\$2,100
Workers Compensation	0.4%	\$9,391
Veteran's Benefits	0.7%	\$15,191
Survivor's Benefits	0.7%	\$10,069
Disability Benefits	0.6%	\$12,590

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year. Data include 4,921 observations. Full dataset includes 87,826 Illinois residents.

Focusing just on the working-age population in the civilian labor force in Figure 24, the most frequent benefit received is the Earned Income Tax Credit (EITC). An estimated 14.6 percent of those in the civilian labor force,

16 years old to 64 years old, receive \$2,253 per year on average from the credit. Another 5.7 percent of this subpopulation received unemployment insurance in 2012, averaging \$7,757 in benefits over the year. It is worth noting that the average unemployment rate for this group of Illinois residents was 9.1 percent, indicating that only approximately 62.5 percent of those who are unemployed actually are eligible for, file for, and receive unemployment benefits (Figure 24).

*Figure 24: Income from Social Programs and Work Benefits, Working-Age in Labor Force, 2012*

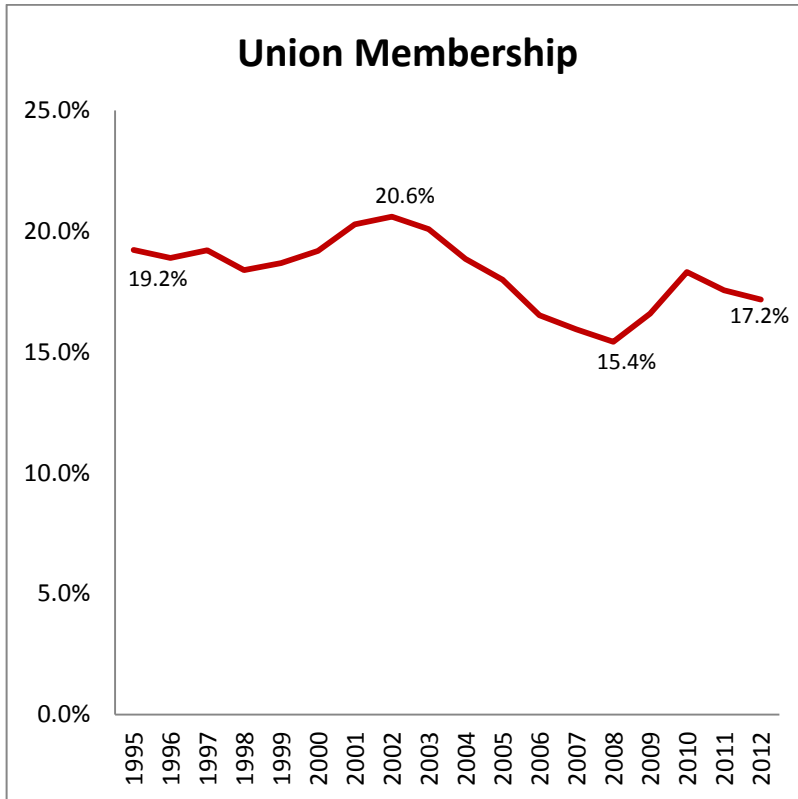
Source of Income	Percent Receiving Benefit	Average Benefit of Recipient
Social Security	1.1%	\$8,165
Retirement Income	1.0%	\$24,752
Unemployment Insurance	5.7%	\$7,757
Earned Income Tax Credit	14.6%	\$2,253
TANF Benefits	0.4%	\$2,132
Workers Compensation	0.4%	\$7,541
Veteran's Benefits	0.4%	\$12,471
Survivor's Benefits	0.2%	\$23,207
Disability Benefits	0.2%	\$16,519

*Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. 2012 Data include 3,062 observations of workers in the civilian labor force, aged 16 to 64, and 4,921 total observations in 2012. Full Illinois dataset includes 87,826 total observations.*

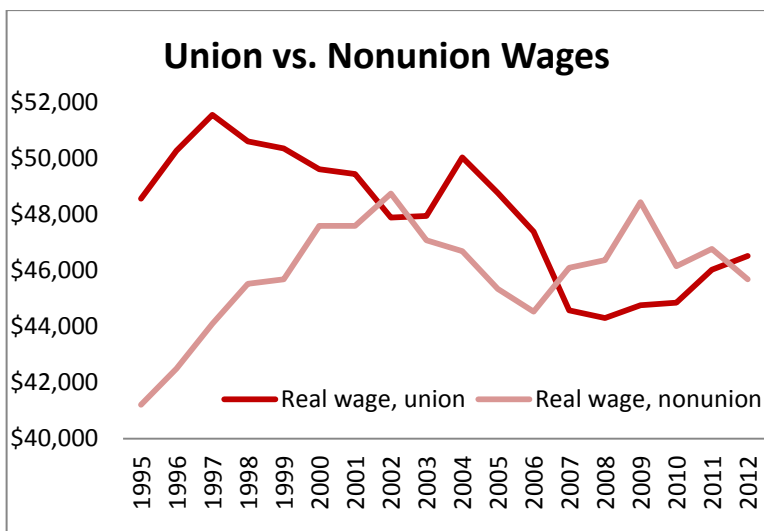
## VII. Unionization, Health Insurance, and Pensions

### Unionization Rates

Union membership rates in Illinois are on a general downward trend (Figure 25). Union membership for working-age Illinois residents in the civilian labor force was 19.2 percent in 1995, peaked at 20.6 percent in 2002, and then fell 3.4 percentage points to 17.2 percent today. However, membership is up from its 2008 low point of 15.4 percent. For the whole labor force, total private sector unionization is just 9.3 percent in the state today, down from 15.1 percent in 2002. Union membership remains high for the public sector, private construction industry, and private manufacturing industry with respective rates of 49.8 percent, 38.2 percent, and 13.5 percent in 2012 (Hirsch & Macpherson, 2013).

*Figure 25: Working-Age Union Membership Rate, 1995-2012*

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data are based on three-year moving averages to reduce outlying fluctuations and include 56,676 observations of workers in the civilian labor force, aged 16 to 64, from 1995 to 2012. Full dataset includes 87,826 total observations.

*Figure 26: Diminishing Union Wage Premium, 1995-2012*

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample in constant 2012 dollars. Data are based on three-year moving averages to reduce outlying fluctuations and include 52,910 observations of employed workers in the civilian labor force, aged 16 to 64, from 1995 to 2012. Full dataset includes 87,826 total observations.

## The Advantage of Being a Union Member

Workers who are union members in Illinois fare better on average than workers who are not union members. Over the 18-year sample from 1995 to 2012, the union wage premium averaged \$2,031 in constant 2012 dollars, or a positive 4.8 percent wage and salary benefit to being in a union for the employed working-age population (Figure 26). However, from 2007 to 2011, employed workers in a nonunion setting actually earned more on average than employed unionized workers each year. In 2012, the union wage premium recuperated and yielded an \$835 advantage.

The apparently diminishing and fluctuating union wage gap is likely a function of many factors which may affect surface-level averages for employed union and nonunion workers, such as the shift to a service economy (i.e., the minimally-unionized financial, retail, and healthcare sectors are fast growing in the new economy, as an example). To address this concern, the full regression analysis accounts for demographic factors, educational attainment, regional factors, statewide trends over time, and work factors—including same job and same industry. The results show that being a member of a union is statistically associated with a 5.7 percent annual increase in a worker's wage and salary income on average (Figure 27). Therefore, the union wage premium remains strong in Illinois.

*Figure 27: OLS Regression of Ln(Wage) on Union Member Status, 2000-2012*

Illinois Wage and Salary OLS Regression Model Dependent Variable: Natural Log of Real Wage, 2012 Dollars		Coefficient Estimate	Robust Standard Error
Union member		0.05694**	(0.01961)
Observations		41,663	
R <sup>2</sup>		0.6731	

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. See below for full regression analysis. Three asterisks (\*\*\*) denote significance at the 0.01 confidence level. Two asterisks (\*\*) denote significance at the 0.05 confidence level. One asterisk (\*) denotes significance at the 0.10 confidence level.

The decline in unionization has also likely contributed to the growing income inequality in Illinois. Figure 28 shows the distributions of income *among* nonunion members and *among* union members. For the Illinois working-age population who has a job, the median union employee earns \$10,682 more each year than the median nonunion employee (Figure 28). Union wages are higher than nonunion wages for low-income residents, helping to prevent workers from descending into poverty. In addition, unionization promotes a middle-class lifestyle, with the bottom 25 percent, median, and top 25 percent of earners all earning more than their equivalent levels of the distribution among nonunion workers—generating premiums of between \$4,192 and \$11,935 per year. The two income classes for which union employees earn less than nonunion employees are for the top 1 percent and top 10 percent of earners in each category. Indeed, in order to be in the top 1 percent of nonunion earners, a worker must earn at least \$300,105 annually, compared to a \$115,004 entry level for the top 1 percent of union members. In sum, as evidenced by the much smaller 90/10 ratio for employed union workers (5.3 compared to 24.8), union wages are far more compressed and evenly distributed than nonunion wages in Illinois.

*Figure 28: Union vs. Nonunion Distribution of Income, Class Cutoffs, 2010-2012*

Level of Distribution	Nonunion Employed	Union Employed
Top 1 Percent	\$300,105	\$115,004
Top 10 Percent	\$91,783	\$78,149
Top 25 Percent	\$57,692	\$61,884
Median	\$33,005	\$43,687
Bottom 25 Percent	\$15,471	\$27,406
Bottom 10 Percent	\$3,701	\$14,685
90/10 Ratio	24.8	5.3
Average	\$46,225	\$45,935

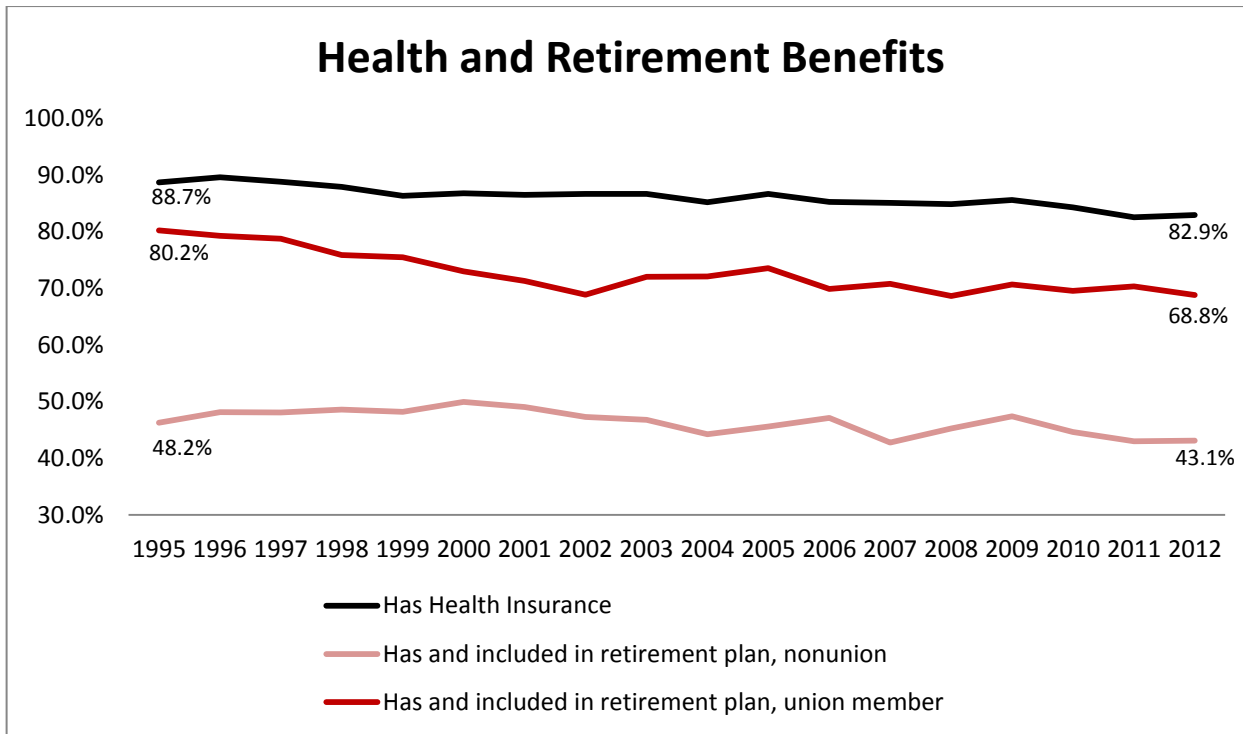
Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. Data are three-year real averages to reduce outlying fluctuations for employed workers in the civilian labor force, aged 16 to 64. Full dataset includes 87,826 total observations.

## Health Insurance and Pension Benefits

Working in Illinois today does not produce the same generous health and retirement benefits of years past (Figure 29). For the entire Illinois population, the fraction of residents who have health insurance has fallen by 5.8 percentage points since 1995, to 82.9 percent today. On the retirement plan side of worker benefits, only

43.1 percent of nonunion workers in the civilian labor force has and is included in a retirement plan at their job, down from 48.2 percent in 1995. Unionization, on the other hand, substantially elevates the chance that a worker has access to and is included in a retirement plan in his or her occupation. While the percentage of union workers in Illinois in the civilian labor force who are included in a retirement plan at work has fallen from 80.2 percent in 1995 to 68.8 percent today, the latter finding is still 25.7 percentage points higher than the nonunion equivalent. The decline in unionization is thus likely associated with an increased strain and drain on public resources, as those without health insurance and retirement plans need to rely on the safety net of government programs.

*Figure 29: Health and Retirement Benefits, 1995-2012*



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample. Data for retirement plans include 56,676 observations of workers in the civilian labor force, aged 16 to 64, from 1995 to 2012. Health insurance data are for the entire sample of 87,826 total observations.

## VIII. Income Taxes

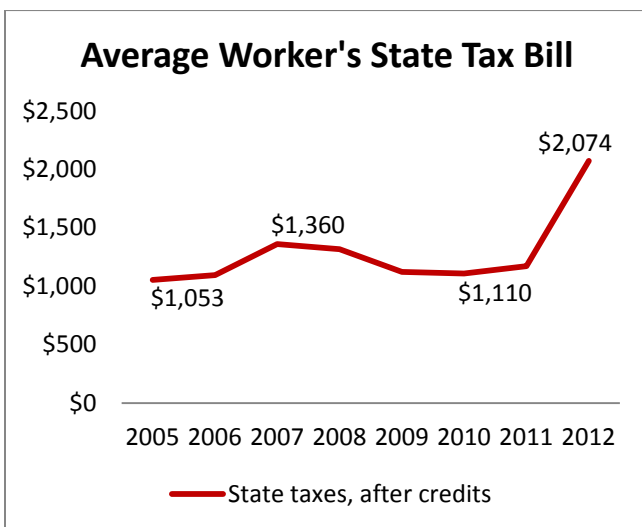
The Illinois fiscal situation is well known. Mismanagement by state politicians and government officials has contributed to a scenario in which the state has the nation's highest unfunded pension liability and billions of dollars in unpaid obligations. While the financial recession caused revenues to plunge, Illinois' situation has primarily been caused by questionable state borrowing to finance operations which the state was unwilling or unable to generate the taxes to support.

The decline in tax revenues (in nominal dollars) is shown in Figure 30, a graphical representation of the average after-credit tax bill for a working-age individual in the civilian labor force in Illinois. In 2007, a worker in Illinois paid \$1,360 in income taxes to the state on average. This payment bottomed out in 2010, when the average worker paid \$1,110. In 2012, however, an average worker's state tax bill rallied above its pre-recession level for the first time, increasing substantially to \$2,074. This increase is partially the result of a 4.8 percent increase in average real wages in 2012 but is principally due to a legislated temporary increase in the flat

income tax rate from 3 to 5 percent. While this law is a promising sign that the state is serious about fixing its budgetary challenges and is willing to pay for government programs, the increase disproportionately affected low-income earners because a flat tax does not factor in the economic rule of diminishing marginal utility of income (i.e., an extra \$1,000 of income means more to a person who earns \$10,000 each year than it does for someone making \$1,000,000 per year because the former must spend a larger proportion of his or her income on necessities than the latter.)

Illinois workers also pay more federal income taxes on average than the rest of the continental United States (Figure 31). The majority (53.0 percent) of Illinois residents in the civilian labor force were in either the 10 percent, 15 percent, or 25 percent marginal tax bracket in 2012. Contrarily, 41.7 percent of Illinoisans in the civilian labor force paid no federal income taxes, compared to 42.9 percent of the rest of mainland America. It is noteworthy that just 0.6 percent of Illinois residents and 0.4 percent of similar residents from continental states excluding Illinois find themselves in the 35 percent marginal tax bracket. While there is understandable concern about the number of small businesses that may face this rate, less than 1 in 100 individuals are actually in the highest bracket. In the end, working Illinois faces higher marginal tax rates than the rest of Americans on average because Illinois is a high-wage state.

*Figure 30: Average Worker's State Tax Bill, 2005-2012*



Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the Illinois sample in nominal dollars. Data for retirement plans include 24,880 observations of workers in the civilian labor force, aged 16 to 64, from 2005 to 2012. Full dataset includes 87,826 total observations.

*Figure 31: Comparison of Civilian Labor Force Marginal Tax Bracket Composition, 2012*

Tax Bracket	Illinois	Continental USA, Excluding IL
35%	0.6%	0.4%
33%	1.7%	1.1%
28%	3.1%	3.1%
25%	15.1%	14.8%
15%	26.7%	27.2%
10%	11.2%	10.4%
No tax liability	41.7%	42.9%

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data. 2012 Data include 3,209 observations of workers in the civilian labor force, all ages. 96,912 observations of workers in the civilian labor force, all ages.

## IX. Conclusions, Implications, and Policy Recommendations

### Macroeconomic and Work Trends

Illinois GDP is still at least \$48 billion below its full employment level and labor force participation continues to decline. The working-age unemployment rate remains far above its natural rate, at 9.1 percent, but lower than its 2010 peak. Male and nonwhite workers in particular are experiencing high rates of unemployment. Combined with the fact that the workweek is still shorter for workers than it was prior to the recession, it is evident that there is still much slack in the Illinois labor market. Additionally, the percentage of Illinois workers

in lower-quality part-time jobs has risen to almost one-fifth of the workforce. On a more encouraging note the percentage of Illinois residents with a bachelor's degree or higher keeps rising.

To stimulate sustainable, long-term economic growth, the state of Illinois needs to escalate internal investment. By increasing merit-based grants to its youth and otherwise committing to keeping the costs of college tuition low at the state's public universities, the state would incentivize more and more Illinois residents to enroll in college and acquire the human capital skills necessary for the modern economy (Autor, 2010). Additional public investments to update and improve the efficiency of the state's deteriorating infrastructure would help spur private economic development, generate more well-paying construction jobs, and increase consumer demand in local economies.<sup>5</sup>

Illinois legislators and policymakers must promote policies which amplify employment levels. If public monies are to be used to attract business activity, the state government and local governments in Illinois should direct their economic development coffers to subsidizing employers in growing, high-wage, high-quality industries. Providing incentives to subsidize jobs in the healthcare, information technology, and advanced manufacturing industries would help raise the level of employment and real wages of Illinois workers. Fostering an economic cluster around the latter industry would capitalize on both the state's comparative advantage in manufacturing and highly-educated workforce (Helper et al., 2012). Furthermore, expanding retraining programs that have proven to be effective for middle-aged men and for minority workers would help match employers to the workers they need, lowering the high unemployment rates for these groups (Holzer, 2009). At the very least, the state needs to refrain from continuing its trend of laying off public sector workers— a budgetary practice that has the unintended consequences of higher unemployment rates, removing workers from well-paying jobs, lowering consumer demand, and raising minority and gender income inequality.

## **Income Trends, Rising Inequality, Poverty Concerns, and Taxation**

Average real wages have stagnated since the beginning of the millennium, and are still \$2,205 less than their peak in 2007. While wage and salary income grew for nearly all subsets of workers in the past year, those at the top of the income distribution benefited most from the economic growth of 2012. Indeed, over the longer-term, wage and salary income has stagnated or declined for the middle class and working class but risen exorbitantly for the top 1 percent and top 10 percent. All of this has occurred as the number of Illinois residents living below the poverty line has risen to heights not seen in the past 20 years.

To improve the long-run labor market prospects of Illinois workers, Illinois should promote policies which increase educational attainment, such as improving high school graduation rates, further subsidizing college education, and investing in early childhood education programs (Holzer & Dunlop, 2013). For more short-term impacts to increase real wages and reduce inequality, the state of Illinois should expand its own Earned Income Tax Credit to a higher percentage of the federal credit (it is presently 5 percent of the federal credit). This credit tends to incentivize work, benefits the lower and middle classes, and lowers poverty (Schmeiser, 2012). At the same time, the state should reform its tax code, adopting a progressive income tax schedule which relieves the burden on lower and middle class earners and taxes the wealthiest Illinoisans a little bit more, reducing the level of inequality in Illinois (Center for Tax and Budget Accountability, 2012). In addition, the state should crack down on wage theft, punishing unscrupulous employers who take money out of the pockets of the most vulnerable workers and create unfair, unlawful competition.<sup>6</sup> The recently passed anti-

<sup>5</sup>. The American Society of Civil Engineers gave Illinois' infrastructure a D+ grade in their 2013 Report Card for America's Infrastructure. The report card is available at <http://www.infrastructurereportcard.org/illinois/illinois/>.

<sup>6</sup>. A Chicago industry with a disappointingly high degree of wage theft is the hand car wash industry, where \$2.5 million is stolen from Illinois workers each year. For more, see Bruno, Dickson Quesada, and Manzo's 2012 study *Clean Cars, Dirty*



wage theft ordinance in the City of Chicago should serve as a model for the entire state (Eidelson, 2013). Finally, to reduce unemployment and wage inequality, the state should raise its minimum wage so that it allows for a worker to support a family and keeps up with inflation (Dube et al., 2008). Localities should also consider enacting ordinances which oblige private firms to pay a living wage if they receive public economic development dollars, with clawback provisions, to promote accountable development and ensure that government money is not spent on poverty-level jobs.

## **Unionization, Health Insurance, and Pension Trends**

The rate of unionization among working-age Illinois residents has fallen over the past two decades, now down to 17.2 percent, despite the fact that workers who are union members earn wage and salary incomes that are on average 5.7 percent higher than equivalent nonunion workers. As unionization has fallen, so too has the fraction of Illinois residents who have health insurance and the share of Illinois workers with a pension or other retirement plan. While the percentage of union members with retirement plans has declined, union members are still far more likely to be included in a retirement plan (by 25.7 percentage points).

The decline of unions in Illinois has very likely contributed to an increase in income inequality, stagnating middle and working class wages, a rising poverty rate, a heightened sense of job insecurity, and weaker benefits packages for workers. The state of Illinois should continue to promote the efforts of workers who want a union to form one. The state should also ensure that workers are informed of their rights by requiring employers to post a notice in their workplace detailing “protected concerted activities,” or collective acts to improve pay, working conditions, and job-related problems that are lawful even if workers are not in a union. In addition, lawmakers should avoid falling prey to the arguments for right-to-work legislation that have influenced neighboring states, as there is evidence that right-to-work laws tend to result in lower earnings for workers but little to no statistically significant findings that the policy effectively improves employment growth (Collins, 2012).

## **Labor in the Land of Lincoln**

While the economy is tepidly growing, much work needs to be done before workers in Illinois will face a robust labor market. Many labor market outcomes remain in worse shape than they were just before the recession. Thus, while the economy will likely continue on a positive path over the next few years, the need for actual policy prescriptions in 2013 remains urgent for the Illinois workforce. The state needs responsible, accountable economic development. Only once effective policy steps have been taken to accelerate the recovery, stimulate employment, and raise incomes will Illinois workers begin to realize their full economic potential.



## Appendix: Full Regression Analysis

*OLS Regression of Ln(Wage) on Labor Market Variables, 2000-2012*

Illinois Wage and Salary OLS Regression Model Dependent Variable: Natural Log of Real Wage, 2012 Dollars	Coefficient Estimate	Robust Standard Error
Union member	0.05694**	(0.01961)
<i>Demographics</i>		
Age	0.04884***	(0.00240)
Age squared	-0.00050***	(0.00003)
Male	0.15987***	(0.00799)
White	0.10223***	(0.00928)
Latino/a	0.08436***	(0.01250)
Immigrant	-0.08956***	(0.01055)
Veteran	0.02462	(0.01521)
Has disability	-0.18337***	(0.02456)
In labor force	0.37936***	(0.02643)
In school	-0.16735***	(0.01773)
Married	0.13331***	(0.00970)
Divorced	0.01623	(0.01373)
Number of children	0.00303	(0.00337)
Head of household	0.07878***	(0.00720)
<i>Educational Attainment</i>		
Less than high school degree	-0.21967***	(0.01235)
Some college	0.08329***	(0.00994)
Associate's degree	0.13707***	(0.01348)
Bachelor's degree	0.33255***	(0.01098)
Master's degree	0.51230***	(0.01534)
Professional degree	0.65135***	(0.03075)
Doctorate degree	0.62627***	(0.03315)
<i>Work Characteristics</i>		
Annual hours worked	0.00071***	(0.00000)
Full-time employee	0.28304***	(0.01223)
Self-employed	-0.13737***	(0.01794)
State government employee	-0.03274	(0.02246)
Local government employee	-0.03723	(0.06935)
Federal government employee	0.12621***	(0.02738)

Large firm, 500 or more employees	0.05989***	(0.00814)
Small firm, 25 or less employees	-0.10013***	(0.02462)
Industry dummies, 16 categories	Yes	
Occupation dummies, 23 categories	Yes	
<i>Region and Year Effects</i>		
Bloomington MSA	0.00239	(0.03212)
Champaign MSA	-0.00989	(0.02970)
Chicago MSA	0.17287***	(0.00968)
Decatur MSA	0.03877	(0.02724)
Kankakee MSA	0.11272***	(0.03203)
Peoria MSA	0.07163***	(0.02149)
Rockford MSA	0.03866*	(0.02103)
Springfield MSA	0.09331***	(0.02671)
Year fixed effects	Yes	
2000-2012 trend	0.01606	(0.02785)
Constant	6.60691***	
Observations	41,663	
R <sup>2</sup>	0.6731	

Source: Author's analysis of Integrated Public Use Microdata Series – CPS (Census) for 1995-2012, one-year data for the civilian labor force, workers aged 16 to 64, in constant 2012 dollars. Data include 41,663 observations of workers aged 16 to 64 from 2000 to 2012. Full dataset includes 87,826 observations. Three asterisks (\*\*\*) denote significance at the 0.01 confidence level. Two asterisks (\*\*) denote significance at the 0.05 confidence level. One asterisk (\*) denotes significance at the 0.10 confidence level.

Industry dummies include: 1. Agriculture, forestry, fishing, and hunting; 2. Mining; 3. Construction; 4. Manufacturing; 5. Wholesale trade; 6. Retail trade; 7. Transportation and warehousing; 8. Utilities; 9. Information and communications; 10. Finance, insurance, real estate, and rental and leasing; 11. Professional, scientific, management, administrative, and waste management services; 12. Educational, health, and social services; 13. Arts, entertainment, recreation, accommodations, and food services; 14. Other services (except public administration); 15. Public administration; 16. Armed forces; and 17. the unemployed.

Occupation dummies include: 1. Management; 2. Business operations specialists; 3. Financial specialists; 4. Computer and mathematical; 5. Architecture and engineering; 6. Life, physical, and social science; 7. Community and social service; 8. Legal; 9. Education, training, and library; 10. Arts, design, entertainment, sports, and media; 11. Healthcare practitioners and technical; 12. Healthcare support; 13. Protective services; 14. Food preparation and serving; 15. Building and grounds cleaning and maintenance; 16. Personal care and service; 17. Sales; 18. Office and administrative support; 19. Farming, fishing, and forestry; 20. Construction trades; 21. Extraction workers; 22. Installation, maintenance, and repair workers; 23. Production; 24. Transportation and material moving; and 25. Military specific.

The 17 industries paired with the 25 occupations plus the unemployed category produce a potential for 425 unique industry-job classifications, providing a high level of control for these factors.

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