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#### **EXECUTIVE SUMMARY**

On December 2, 2014, the Chicago City Council voted 44 to 5 in favor of gradually raising the minimum wage to \$13.00 per hour in the city to increase earnings for 410,000 Chicago workers. In its first two years— when the minimum wage increased to \$10.00 an hour and subsequently to \$10.50 an hour— the Chicago Minimum Wage Ordinance has already boosted incomes for at least 330,000 workers in the city.

Overall, the higher minimum wage has been associated with an increase in worker incomes but little to no impact on employment or the number of private business establishments. An assessment of outcomes from 2010 through 2016 against both the Illinois suburbs, where the minimum wage remains \$8.25 per hour, and the Indiana and Wisconsin suburbs of Chicago, where the minimum wage is \$7.25 an hour, reveals that the Chicago Minimum Wage Ordinance has largely achieved its intended purposes.

The Chicago Minimum Wage Ordinance has been associated with:

- A 2.5 percent increase in incomes for Chicago workers, a 1.0 percent reduction in working hours, and no impact on either the unemployment rate or the growth of private business establishments in the city.
- Reduced income inequality, as incomes rose by 2.7 percent for the lowest-paid workers compared to a gain of 2.3 percent for the median worker.
- A larger impact on workers employed in the nonprofit sector, where annual incomes increased by 5.2 percent, than those in the public sector (3.4 percent) and the private sector (2.4 percent).
- Higher demand for teens because employers can pay them \$0.50 below the state minimum wage.
- Higher consumer demand among low-income households, which indirectly created new jobs and offset any direct negative impact on employment.

After the minimum wage hikes, incomes were boosted most for more than 330,000 total workers in low-paying occupations and industries:

- Workers in building and grounds cleaning and maintenance occupations, such as janitors and maids, experienced a 6.1 percent increase in incomes.
- Workers in office and administrative support occupations, such as secretaries and record clerks, experienced a 3.3 percent increase in incomes.
- Workers in the transportation and warehousing industry, such as bus drivers and warehouse workers, experienced a 5.3 percent increase in incomes.
- Workers in the "other services" industry, a miscellaneous group that includes workers at car washes and nail salons, experienced a 10.2 percent increase in incomes.
- However, the Chicago Minimum Wage Ordinance was not statistically associated with higher annual incomes for workers in food preparation and serving occupations in the city.

To raise worker incomes, reduce income inequality, grow Illinois' population, and ensure that workers are paid a wage commensurate with the cost of living, six public policy actions are recommended.

- 1. The City of Chicago should expand coverage of the minimum wage to include more workers.
- 2. The City of Chicago should increase the minimum wage for teen workers.
- 3. The City of Chicago should establish a Department of Labor Standards to improve enforcement.
- 4. The City of Chicago should translate the minimum wage complaint affidavit into Spanish and Polish.
- 5. Cities in suburban Cook County should opt into the Cook County Minimum Wage Ordinance.
- 6. The State of Illinois should raise the statewide minimum wage.

The Chicago Minimum Wage Ordinance has been associated with positive impacts on incomes with little to no effect on employment. Though the minimum wage should be expanded and enforcement should be improved, the minimum wage hikes—by raising standards in the local labor market—have been good for workers in the city.

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#### 1. INTRODUCTION

The minimum wage has been at the forefront of state and local policy action in response to the declining real value of the federal minimum wage. In 2018, seven states— Arizona, California, Colorado, Maine, New York, Oregon, and Washington—have minimum wages of at least \$10.00 per hour that will eventually reach between \$12.00 and \$15.00 an hour once they are fully phased in over the next few years. Similarly, a growing number of cities and counties have elected to increase their minimum wage levels. In 2018, the minimum wage will be at least \$13.00 per hour in Seattle, Los Angeles, San Francisco, New York, and the District of Columbia (NELP, 2017a).

On December 2, 2014, the Chicago Minimum Wage Ordinance was enacted, which gradually raises the minimum wage to \$13.00 per hour in the City of Chicago. Prior to passage, a considerable majority of voters in Chicago and in Illinois supported raising the minimum wage. In 2014, two measures related to the minimum wage were on the ballot in Illinois. One was an advisory referendum in March 2014 asking voters in 103 Chicago precincts whether the city should enact a \$15.00 per hour minimum wage for employers with annual gross revenues in excess of \$50 million. This measure garnered overwhelming support, with 86.7 percent of Chicago voters responding "Yes" (Ballotpedia, 2018a). The other was a November 2014 advisory question to all Illinois voters asking whether they supported increasing the hourly minimum wage to \$10.00 in the state by January 2015. Fully 63.7 percent of Illinois voters responded that the state should increase the minimum wage to \$10.00 per hour (Ballotpedia, 2018b).

Meanwhile, a Chicago Minimum Wage Working Group was appointed in May 2014. The working group was comprised of representatives from community, labor, and business organizations, as well as numerous elected officials. In their final report on July 2014, the Chicago Minimum Wage Working Group voted 14 to 3 (82.4 percent) in favor of recommending a \$13.00 per hour phased-in minimum wage in order to increase earnings for approximately 410,000 Chicago workers (Chicago Minimum Wage Working Group, 2014).

Figure 1: Implementation Timeline of the Chicago Minimum Wage Ordinance, 2015-2020

Effective Date	Non-Tipped Employees	Tipped Employees
Prior to July 1, 2015	\$8.25	\$4.95
July 1, 2015	\$10.00	\$5.45
July 1, 2016	\$10.50	\$5.95
July 1, 2017	\$11.00	Increases with Inflation
July 1, 2018	\$12.00	Increases with Inflation
July 1, 2019	\$13.00	Increases with Inflation
July 1, 2020	Increases with Inflation	Increases with Inflation

Source(s): Chicago Minimum Wage Ordinance (City of Chicago, 2018). \*If the Consumer Price Index (CPI) increases by more than 2.5 percent in any year, then the minimum wage increase shall be capped at 2.5 percent.

In December 2014, the Chicago City Council voted to phase in a new citywide minimum wage to \$13.00 per hour by July 1, 2019. The vote was 44 to 5 (89.8 percent) in favor (Spielman, 2014). The phase-in period, depicted in Figure 1, started in July 2015, when the non-tipped minimum wage became \$10.00 per hour for adult employees. The minimum wage subsequently increased by an additional \$0.50 per hour in July 2016 and again in 2017. On July 1, 2018, the Chicago minimum wage will rise to \$12.00 per hour for non-tipped employees before a final hike to \$13.00 per hour in July 2019. The minimum wage is thereafter indexed to the lesser of the rate of inflation or 2.5 percent (City of Chicago, 2018).

This report, conducted jointly by the Illinois Economic Policy Institute (ILEPI) and the Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign, analyzes the impact of the Chicago Minimum Wage Ordinance through the end of 2016–comprising two minimum wage hikes from \$8.25 per hour to \$10.00 per hour and from \$10.00 per hour to \$10.50 per hour. By investigating impacts within the Chicago-Naperville-Elgin, IL-IN-WI Metropolitan Statistical Area, the report also takes advantage of policy differences between the City of Chicago's higher minimum wage of at least \$10.00 per hour, the \$8.25 per hour minimum wage in the Illinois suburbs of Chicago, and the \$7.25 per hour minimum wage in the Indiana and Wisconsin suburbs of Chicago.

The report includes six chapters. Following the

Raising the minimum wage had overwhelming support from both Chicago voters and the City Council.

Introduction, Chapter 2 summarizes the academic research on the effects of increasing the minimum wage on economic outcomes and presents recent policy reports on the minimum wage in Chicago and Illinois. Chapter 3 presents the

main findings by analyzing the effect that the Chicago Minimum Wage Ordinance has had on annual incomes, hours, unemployment and the occupational mix. Workers employed in low-paying occupations, and teen workers between the ages of 16 and 19 years old are highlighted. Data on the number of private establishments in Chicago are also evaluated. Then, Chapter 4 provides explanations for the results before Chapter 5 offers policy recommendations for elected officials in the Chicago area and the State of Illinois. Finally, Chapter 6 concludes by recapping key findings.

## 2. REVIEW OF THE ECONOMIC RESEARCH ON MINIMUM WAGE EFFECTS

This Chapter assesses the economic research on minimum wage effects. Findings from numerous academic studies pertaining to the impact of higher minimum wages on worker wages, employment and hours, businesses, and prices are presented. Recent policy reports pertaining to Chicago and to Illinois are subsequently discussed. Overall, the preponderance of the economic research concludes that moderate minimum wage hikes increase worker wages, have little to no negative effect on employment or working hours, reduce labor turnover, and have small impacts on prices—leading many policy researchers to endorse a modest increase in Chicago's minimum wage.

#### Minimum Wage Impact on Worker Wages

Economic research is nearly unanimous in concluding that minimum wage hikes are associated with increased wages for workers. In an evaluation of the peer-reviewed research, Professors Dale Belman of Michigan State University and Paul Wolfson of Dartmouth College find that a higher minimum wage was associated with higher wages in 37 of 41 studies (90.2 percent). The authors find that "a very substantial majority" of "bound" workers- or those who were previously earning below the new minimum wage and who the new policy is intended to impact-benefit from increases in the minimum wage (Belman & Wolfson, 2014). Among the most influential recent studies are a series of reports by economists Arindrajit Dube, T. William Lester, and Michael Reich, who analyzed 1.169 border-county pairs interconnected economies with minimal geographic differences. They find that a 10 percent increase in the minimum wage raises the average earnings of teenagers by 1.6 percent, of restaurant workers by 2.1 percent, and of the aggregate accommodation-food-retail sector by 0.8 percent (<u>Dube et al., 2011</u>; <u>Dube et al., 2010</u>). A recent report on the impact of Seattle's minimum wage ordinance finds that a 10 percent increase in the minimum wage is statistically

associated with a 1.0 percent increase in the wage earnings of workers in the food services and drinking places industry (Reich et al., 2017).

Research has also revealed that those who were previously earning more than the new minimum wage also see an increase in incomes due to the spillover effect of boosting demand

spillover effect of boosting demand for better-skilled and better-paid employees. Daniel Aaronson, Sumit Agarwal, and Eric French from the Federal Reserve Bank of Chicago, for example, find that minimum wage increases raise the incomes of workers earning between 120 percent and 300 percent of the minimum wage (<u>Aaronson et al., 2011</u>). In total, 8 out of 10 studies find evidence of a spillover effect on higher-paid workers (<u>Belman & Wolfson, 2014</u>).

Additionally, economic research has notably discovered that minimum wages have a greater impact on women than men. Up to 20 percent of all women are directly impacted by increases in the minimum wage, compared to around 10 percent of all men (Belman & Wolfson, 2014). Similarly, the 50-10 inequality ratio— or the median worker's wage compared to the poorest 10 percent of all earners— is significantly impacted by the minimum wage. Studies estimate that the declining real value of the minimum wage due to inflation has accounted for between 35 and 57 percent of the rise in 50-10 inequality in America (Autor et al., 2010; Mishel, 2013). This loss in value of the minimum wage has been the leading cause of inequality among female workers (Gordon & Dew-Decker, 2008; Mishel, 2013).

## Minimum Wage Impact on Employment and Hours

One of the most common arguments against raising the minimum wage is that employers will respond by reducing demand for low-skilled

90% of economic

studies find that a

higher minimum

wage increases

worker wages.

workers, ultimately constricting opportunity in the low-wage labor market and blunting the desired effect of reducing economic hardship. However, a mounting body of research on the impact of minimum wage laws on employment has failed to substantiate this argument. In

1994, two prominent labor economists, David Card and Alan Krueger, published a landmark study on fast-food establishments in counties in New Jersey and bordering Pennsylvania both before and after the minimum wage was increased in New Jersey. Card and Krueger found that the increase had no statistically significant disemployment effect. In fact, there was evidence that the minimum wage hike increased demand in the economy and created between 2 and 3 fulltime equivalent jobs per establishment (Card & Krueger, 1994). In previous surveys, 73 percent of fast-food firms reported that they did not have to cut employees, shifts, or fringe benefits as a result of higher minimum wages (Katz & Krueger, 1992). After some scrutiny of Card and Krueger's study, the authors later re-evaluated the policy's impact using new payroll and survey data and once again found no effect on employment (Card & Krueger, 1998). Card and Krueger's study ushered in a wave of new minimum wage research based on data and statistical analysis, rather than classical economic theory.

Recent research utilizes innovative statistical approaches and finds little to no significant impact of minimum wage laws on employment. In analyzing 1,169 border-county pairs from 2001 to 2008, Dube, Lester, and Reich find that a 10 percent increase in the minimum wage reduces

teen employment by a small 0.4 percent and restaurant employment by 0.6 percent (<u>Dube et al., 2011</u>). However, the authors also find that an increase in the minimum wage has no statistically significant impact on employment in the aggregate accommodation-food-retail sector or on manufacturing employment (<u>Dube et al., 2010</u>). A comparable study for the restaurant-and-bar sector in the United Kingdom also found no evidence that increasing the minimum wage reduced employment, after accounting for long-term sectoral trends (Addison et al., 2008).

The empirical evidence on the effect of minimum wage laws on hours of employment is inconclusive. Some economists contend that, even if a higher minimum wage does not reduce total employment (i.e., headcount), employers respond to a minimum wage increase by reducing workers' hours to offset rising payroll costs (Schmitt, 2013). Examining studies published between 2008 and 2011, Professors Belman and Wolfson find that there may be a negative impact on hours worked for teenagers (Orrenius & Zavodny, 2008; Sabia, 2009). However analyses that control for more variables show no statistically significant impact on the hours worked of teen workers (Allegretto et al., 2011). Research has also found that any negative impact on hours associated with a higher minimum wage dissipates over time (Belman & Wolfson, 2010).

Two 2017 economic studies assessing the impact of Seattle's minimum wage increases from \$9.47 in 2014 to as much as \$13.00 per hour in 2016 reported conflicting results. One study by researchers at the University of Washington found that the minimum wage increase from \$9.47 per hour in 2014 to \$13.00 per hour in 2016 reduced hours worked in low-wage jobs by around 9 percent, leading to a drop in worker earnings of \$125 per month on average (Jardim et al., 2017). One critique of this analysis is that, due to the limitations of their dataset, the researchers excluded workers in businesses with more than one location, such as fast-food restaurant chains

like McDonald's and large retail stores like Wal-Mart, removing 48 percent of Seattle's low-paid workforce from the study and limiting the reliability of the findings (Reich, 2017). Another study by researchers at the University of California, Berkeley found that the minimum wage resulted in higher earnings for affected workers and no negative impact on employment (Reich et al., 2017). While this study only looked

at workers in the food services and drinking places industry, the sector has a high share of minimum wage workers where any dis-employment effects should have been detectable.

The minimum wage has little to no negative effect on employment and hours.

Ultimately, Belman and Wolfson conclude that the "evidence suggests that there may be no effect or a very small negative effect" on employment and hours from a higher minimum wage (Belman & Wolfson, 2014). Their meta-analysis of 64 studies finds that a 10 percent increase in the minimum wage is statistically associated with a small 0.5 to 1.8 percent drop in employment or hours. However, when evaluating only studies focused on the United States, the research shows that higher minimum wages have no effect on employment or hours. "If negative effects on employment are present," write Belman and Wolfson, "they are too small... to have meaningful consequences in the dynamically changing labor markets of the United States."

#### Minimum Wage Impact on Businesses

While a higher minimum wage does not have a discernible impact on employment or hours, it might impact businesses in other ways. Some economists contend that the minimum wage may act as an "efficiency wage," incentivizing employers to be more diligent in their hiring practices and encouraging employees to work

hard to keep their jobs (Schmitt, 2013). In fact, there is some evidence that worker turnover falls following a minimum wage hike. For example, while the number of new job hires declines after an increase in the minimum wage, so too does the number of job separations through layoffs or quits (Dube et al., 2011). For teen workers and restaurant establishments, a 10 percent increase in the minimum wage has been found to reduce labor turnover by between 2.0 and 3.9 percent, changes that do not diminish over time (Dube et al., 2014). These effects increase job stability for employees and reduce the costs of turnover for employers.

# Higher minimum wages are associated with lower worker turnover.

It is also often argued that a higher minimum wage will lead firms to substitute capital for labor, automating jobs while keeping sales

constant. Daniel Aaronson and Brian Phelan of the Federal Reserve Bank of Chicago studied the short-run impact of minimum wage laws on the automation of low-wage jobs. They find that minimum wage hikes do cause employment declines in "cognitively routine occupations" such as cashiers and ushers but lead to employment gains in other non-routine low-wage occupations such as bartenders and food preparation workers. These changes offset each other, resulting in no net drop in employment (Aaronson & Phelan, 2015). In part, this phenomenon occurs because machines are not just substitutes for low-wage workers, but also complements to human labor. To date, automation and computerization have created far more jobs than they have replaced in the U.S. economy (Autor, 2014).

Employers may also accept lower profits in response to a higher minimum wage. In the United Kingdom, for example, an increase in the national minimum wage was found to have no impact on employment or firms being forced out of business but a 3.1 to 4.2 percent decrease in

profitability (<u>Draca et al., 2011</u>). However, economic studies on financial markets in the United States and New Zealand show that firms do not pass on the cost of higher minimum wages in the form of lower profits (<u>Belman & Wolfson, 2014</u>). In the case of Seattle's minimum wage hike, there has been no evidence of a rise in "business failure rates," which would provide indirect evidence of declining profitability. Instead, business closings in Seattle have been more than offset by an increase in business openings since the minimum wage ordinance went into effect (<u>Seattle Minimum Wage Study Team, 2016</u>).

#### Minimum Wage Impact on Prices

One pervasive hypothesis is that businesses simply pass on the higher labor costs associated with an increased minimum wage to consumers through higher prices. Card and Krueger found weak evidence that prices increase as a result of higher minimum wages (Card & Krueger, 1994). However, in reviewing the economic research on minimum wage laws, Belman and Wolfson report that "[i]t is quite clear that restaurant prices rise by a small amount following minimum wage increases" (Belman & Wolfson, 2014). How small? One 2000 study estimated that a \$0.50 increase in the federal minimum wage would cause food prices to go up, but by less than 1 percent (Lee et al., 2000). Another found that a 33 percent increase in the federal minimum wage from \$7.25 to \$10.10 would exert a 3 percent increase in fast-food prices (Basker & Kahn, 2016).

Another study examined the effect of a 2013 minimum wage hike in San Jose, California. Economists Sylvia Allegretto and Michael Reich of the University of California, Berkeley collected menus for 886 restaurants both before and after the minimum wage increase—including 326 restaurants inside San Jose and 558 in the rest of

Santa Clara County. They find that the minimum wage boosted incomes and had no negative impact on employment, but that firms increased their prices modestly. Their results suggest that a 10 percent increase in the minimum wage is associated with a small 1.2 percent increase in restaurant food prices. Allegretto and Reich conclude that the price increases effectively transferred income from consumers with higher earnings, on average, to low-wage workers (Allegretto & Reich, 2016).

The most-recent study concerns the impact of

Minimum wage increases in Seattle have had no effect on supermarket food prices.

Seattle's minimum wage policy on supermarket food prices conducted by environmental seven health. epidemiology, public policy and researchers at the University of

Washington. Using a market basket of 106 foods inside Seattle and in the rest of King County, the researchers find no evidence of a change in supermarket food prices in response to the implementation of Seattle's minimum wage ordinance, both one month and one year following enactment. They write that the lack of a passthrough effect on prices "may be encouraging as the ordinance is designed to improve the lives of low-income households who often struggle to afford high quality diets and have a higher prevalence of chronic disease, such as obesity and type 2 diabetes" (Otten et al., 2017). An earlier analysis also found no evidence of retail, gasoline, or rent price increases in Seattle relative to surrounding areas following enactment of Seattle's minimum wage (Otten et al. in Seattle Minimum Wage Study Team, 2016).

## Recent Policy Studies on the Minimum Wage in Chicago and in Illinois

Drawing on the previous research, a number of studies have evaluated the minimum wage in Chicago and in Illinois. Two important studies were released prior to passage of the Chicago Minimum Wage Ordinance on December 2, 2016. The first, conducted by researchers at the University of Illinois at Urbana-Champaign and the Illinois Economic Policy Institute, was released in March 2014. The researchers found that a \$10.00 per hour minimum wage in the State of Illinois would increase labor income by up to \$2.3 billion for intended beneficiaries, cause a small drop or a small gain in employment, and generate as much as \$192 million in new annual state income tax revenue (Manzo & Bruno, 2014). The second, by the progressive-leaning Center for Popular Democracy, was released in May 2014 and contended that a \$15.00 an hour minimum wage in the City of Chicago would increase wages by \$1.5 billion in the city, stimulate \$616 million in new economic activity, and reduce labor turnover (CPD, 2014).

The Chicago Minimum Wage Working Group subsequently submitted its final report in July 2014. The team of elected officials, advocacy groups, businesses, and labor organizations recommended that the City raise the minimum

wage to \$13.00 an hour. In a review of economic reports, the Chicago Minimum Wage Working Group cited the two previous studies among other academic research. The recommendation estimated that the ordinance would

The Minimum Wage
Working Group
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minimum wage would
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410,000 Chicago
workers.

increase earnings for approximately 410,000 Chicago workers and spur nearly \$800 million in local consumer spending over four years, as well

as increase overall business costs by as much as 2 percent per year (<u>Chicago Minimum Wage Working Group</u>, 2014).

After the Chicago Minimum Wage Ordinance was enacted, two studies pertaining to housing costs were published. In July 2016, researchers at the Midwest Economic Policy Institute found that the hourly wage required to afford a modest onebedroom apartment is at least \$10.00 per hour in 52 out of 102 counties in Illinois (51.0 percent). In Cook County, which includes Chicago, a fulltime wage of \$19.25 an hour is needed to afford a modest one-bedroom apartment (Manzo & Staykova, 2016). Later, a more comprehensive study by researchers at the University of Illinois at Urbana-Champaign and the University of Illinois at Chicago found that a \$15.00 per hour minimum wage in the City of Chicago would reduce the number of homeowners who are costburdened by 9 percent and the number of renters who are housing cost-burdened by 20 percent. A \$10.00 per hour statewide minimum wage would relieve 5 percent of Illinois homeowners and 10 percent of Illinois renters from being burdened by housing costs. In Chicago, the researchers found, a \$15.00 per hour minimum wage would raise wages but result in a marginal 0.2 percent decline in employment (Nolan et al., 2016).

Finally, the National Employment Law Project (NELP) released a report in April 2017 making the case for a \$15.00 per hour minimum wage in Illinois. NELP notes that, by 2022, a single worker will need to earn \$15.47 per hour in rural Illinois just to cover the costs of housing, food, transportation, and other basic costs, and \$17.65 an hour in Chicago. NELP contends that the typical Illinois worker earning less than \$15.00 an hour is currently a full-time working woman over 25 years old. The NELP fact sheet concludes that a \$15.00 per hour minimum wage will save taxpayers \$1.1 billion each year in safety net

benefits provided to low-wage workers who are unable to support themselves (NELP, 2017b).

# 3. AN ANALYSIS OF THE CHICAGO MINIMUM WAGE ORDINANCE'S EFFECTS

This Chapter outlines the key findings of the report. The analysis utilizes seven years of American Community Survey data from 2010 through 2016. The geographic region of analysis the Chicago-Naperville-Elgin, IL-IN-WI Statistical Metropolitan Area (MSA). Metropolitan statistical areas are regions that have closely integrated economic ties, usually centered around a large city. An MSA is typically identified by commuting patterns, with access from the suburbs to the urban core through various modes of transportation such as highways and passenger rail lines. From a research perspective, the interconnected nature of MSAs tends to minimize the concern that unrelated economic, social, and political factors may be influencing a reported outcome, rather than a unique policy change- in this case, a higher minimum wage.

With nearly 9.5 million residents, the Chicago-Naperville-Elgin, IL-IN-WI Metropolitan Statistical Area comprises 12 counties in Illinois, two counties in Indiana, and two counties in Wisconsin (Figure 2). The City of Chicago, where 2.6 million people live as of 2016, is located at the heart of the economic region in Cook County, IL. The Illinois suburbs comprise 6.0 million residents and the Indiana and Wisconsin suburbs, combined, contain a population of about 821,000 people (Ruggles et al., 2017).

The scale of the Chicago metro area allows for assessments of minimum wage effects based on differences across space and changes over time.

<sup>&</sup>lt;sup>1</sup> For additional information, please see the Data and Methodology section in the Appendix.

Figure 2: Counties\* in the Chicago-Naperville-Elgin, IL-IN-WI Metropolitan Statistical Area

Counties (or Portions) in MSA	
Cook County	
Lake County	
DuPage County	
Will County	
McHenry County	
Kane County	
Kendall County	
Grundy County	
Kankakee County	
Boone County	
Dekalb County	
LaSalle County	
Lake County	
Porter County	
Kenosha County	
Racine County	

<sup>\*</sup>Includes counties where only a portion of the county is included in the Chicago MSA.

After the Chicago Minimum Wage Ordinance went into effect on July 1, 2015, there were three different levels of minimum wage in the Chicago area. The highest, \$10.00 per hour at the time, was in Chicago. The \$10.00 per hour initial minimum wage was a 21.2 percent rise from the previous \$8.25 per hour minimum wage in the City of Chicago. The State of Illinois minimum wage of \$8.25 per hour was binding in the Illinois suburbs of Chicago. Meanwhile, the lowest wage floors in the region were in the Indiana and Wisconsin suburbs, which were tied to the federal minimum wage of \$7.25 an hour (Figure 3).

In assessing impacts of higher minimum wages on workers in the Chicago metro area, this analysis focuses on different groups of workers. First, impacts are measured for all workers to explore effects on the average Chicago area employee. Impacts are also evaluated across the income distribution to determine whether the Chicago Minimum Wage Ordinance had larger effects on certain workers. Effects are also assessed by sector, including the private for-profit sector, the nonprofit sector, the public sector, and selfemployed individuals.

2015-2016 Minimum Wages Map Key City of Chicago: \$10.00-\$10.50 Illinois suburbs: \$8.25 Indiana and Wisconsin suburbs: \$7.25

Figure 3: Approximate Map of Minimum Wage Differences in the Chicago Metro Area, 2015-2016

Finally, three occupations and three industries with high shares of minimum-wage workers are evaluated.

- "Food preparation and serving occupations" include fast-food workers, bartenders, waiters, and waitresses.
- "Building and grounds cleaning and maintenance occupations" include janitors, hotel maids, and housekeeping cleaners.
- "Office and administrative support occupations" include secretaries, receptionists, and record clerks.
- The "transportation and warehousing industry" comprises bus drivers, postal workers and letter carriers, and warehouse workers.
- The "other services industry" is a miscellaneous group that includes workers at car washes and nail salons but also workers at social, civic, advocacy, religious, political, business, and labor organizations.
- The "manufacturing industry" comprises workers at factories, breweries, and bakeries.

Teen workers ages 16 to 19 are another group of workers considered in this analysis.<sup>2</sup> Under Illinois law, youth under 18 can be paid a wage that is \$0.50 below the hourly minimum wage, or \$7.75 per hour. The Chicago Minimum Wage Working Group recommended that the city include this exemption because teens "are unlikely to be heads of household with families to support" and because they did not want the minimum wage hike to "have a negative impact on youth employment" (Chicago Minimum Wage

Working Group, 2014). The Chicago City Council heeded this advice and allowed employers to pay young workers \$0.50 less per hour than the state minimum wage (City of Chicago, 2018). Once the Chicago Minimum Wage Ordinance is fully phased in, the adult minimum wage of \$13.00 per hour will be 67.7 percent higher than the permissible teen minimum wage of \$7.75 an hour, unless there is a policy change.

#### **Background Information**

Figure 4 provides a breakdown of employed workers in the Chicago metro area from 2010 through 2016 by geographic location. Over the seven-year period of analysis, there were an average of 4.5 million workers employed annually in the Chicago area labor market–including 1.2 million in Chicago, 2.9 million in the Illinois suburbs of Chicago, and about 370,000 in the Indiana and Wisconsin suburbs of Chicago (Figure 4).

The labor market in the City of Chicago differs from the rest of the metro area across a few characteristics (Figure 4). Workers in Chicago are about 3 The City of Chicago workforce is 41% white, 23% African American, and 27% Latino or Latina.

years younger on average than their counterparts in the suburbs, are slightly more likely to be women, and are less likely to be white Caucasian. African Americans account for 23.3 percent of Chicago workers compared to just 8.8 percent in the Illinois suburbs and 13.5 percent in the Indiana and Wisconsin suburbs. Similarly, 27.4 percent of Chicago workers are Latino or Latina compared to 17.5 percent in the Illinois suburbs and 13.5 percent in the Indiana and Wisconsin

<sup>&</sup>lt;sup>2</sup> The *American Community Survey* only reports employment data for respondents 16 years of age or older. Data were included up to 19 years old to increase sample size (n= 8,091).

Characteristic	Total	City of Chicago	Illinois Suburbs	Indiana and Wisconsin Suburbs
Total observations	265,193	72,282	172,311	20,600
<u>Workers</u>				
Total employment (annual average)	4,545,804	1,248,814	2,926,526	370,464
Average age	41.5	39.2	42.5	42.2
Women	47.4%	48.4%	47.0%	47.3%
White (non-Latino) Caucasian	59.1%	41.0%	65.4%	70.5%
African Americans	13.2%	23.3%	8.8%	13.5%
Latinos and Latinas	19.9%	27.4%	17.5%	13.5%
Teen workers (ages 16-19)	3.0%	1.9%	3.4%	3.4%

Figure 4: Descriptive Statistics of Labor Market Data in Chicago and Neighboring Suburbs, 2010-2016

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017). All samples are weighted using sample weights provided by the Census Bureau (perwt).

suburbs. Teen workers comprise a smaller share of the Chicago workers (1.9 percent) than the Illinois suburbs and the Indiana and Wisconsin suburbs (both 3.4 percent).

#### Evaluation of Market Trends

The Chicago Minimum Wage Ordinance was enacted during an upswing in the business cycle. Following the Great Recession, which lasted from December 2007 to June 2009, the United States has experienced eight years of economic expansion and counting (NBER,

Accordingly, the seven-year period of analysis from 2010 through 2016 was a period of economic growth and falling unemployment.

Figure 5 presents data on the average inflationadjusted annual income from wages for workers in the City of Chicago, in the Illinois suburbs, and in the Indiana and Wisconsin portions of the Chicago metro area. For comparability, income growth is represented as a percentage of the average for workers in 2010, which is the first year in the dataset. Thus, Chicago's 2016 value of 107.1 percent indicates that annual wages in the city have grown by 7.1 percent since 2010, after adjusting for inflation.

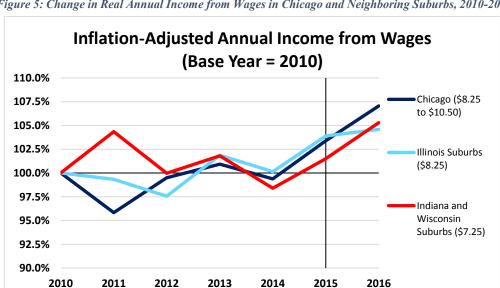


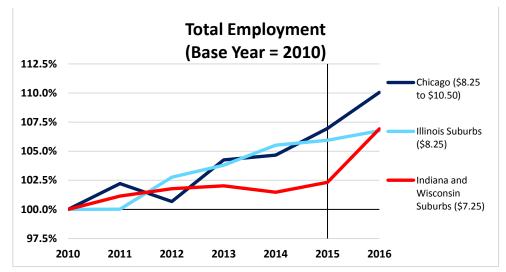
Figure 5: Change in Real Annual Income from Wages in Chicago and Neighboring Suburbs, 2010-2016

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017). All samples are weighted using sample weights provided by the Census Bureau (perwt).

wages have grown faster in Chicago than in surrounding suburbs, especially since the minimum wage hikes have gone into effect (Figure 5). In the City of Chicago, the average worker in 2014 actually earned less than the average worker did in 2010 after adjusting for inflation. However, in 2015 and 2016, incomes grew significantly in

Inflation-adjusted

Figure 6: Change in Total Employment in Chicago and Neighboring Suburbs, 2010-2016



Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017). All samples are weighted using sample weights provided by the Census Bureau (perwt).

Chicago, surpassing income growth in the neighboring Illinois suburbs and Indiana and Wisconsin suburbs.

Similarly, Figure 6 illustrates the growth in total employment in Chicago, the Illinois suburbs, and the Indiana and Wisconsin suburbs. Except for a drop in total employment in 2012, the City of Chicago experienced positive job growth from

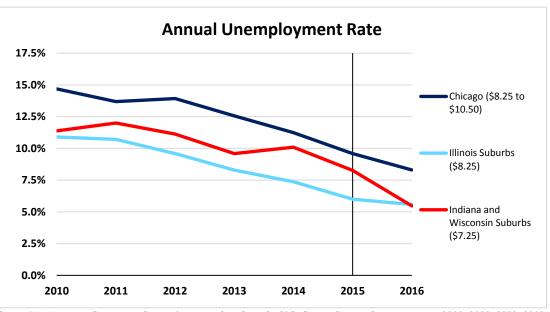
2010 through 2016. The city had 10.1 percent more workers in 2016 than at the of start the decade: the number of workers in the suburbs grew by just under percent. While employment growth slowed in the Illinois suburbs and accelerated in the Indiana and Wisconsin

suburbs from 2015 onward, there was no apparent decrease employment in the City of Chicago, where the minimum wage was increased twiceto \$10.00 per hour and then to \$10.50 per hour.

Unemployment rate trends continued in the Chicago metro area after the urban core enacted its minimum wage ordinance (Figure 7). Note that Figure 7 is based on the actual

unemployment rate and is not adjusted to the 2010 level. With few exceptions, the unemployment rate consistently fell in Chicago, the Illinois suburbs, and the Indiana suburbs from 2010 through 2016. There was no noticeable change in unemployment following the raise in the minimum wage to at least \$10.00 an hour in the City of Chicago.

Figure 7: Change in the Annual Unemployment Rate in Chicago and Neighboring Suburbs, 2010-2016



Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017). All samples are weighted using sample weights provided by the Census Bureau (perwt). Data are for employed workers only.

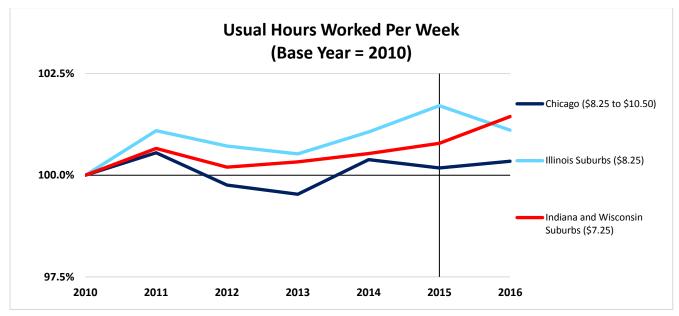


Figure 8: Change in Usual Hours Worked per Week in Chicago and Suburbs, Employed Workers, 2010-2016

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017). All samples are weighted using sample weights provided by the Census Bureau (perwt). Data are for employed workers only.

Finally, Figure 8 displays the change in the usual weekly hours worked by employees in the City of Chicago and the neighboring suburbs. Hours worked, which are adjusted to 2010 levels, have generally grown slower in the City of Chicago than in the neighboring suburbs. Since 2014, hours of employment have slightly decreased in the city, gone up in Indiana and Wisconsin suburbs, and—despite a temporary rise in 2015—stayed relatively constant in the Illinois suburbs.

Overall, an evaluation of market trends reveals that the Chicago Minimum Wage Ordinance had little to no effect on employment in the city. While hours worked have grown slower in the city than in the suburbs, unemployment did not increase and employment growth has remained strong—contrary to the more embellished claims of minimum-wage opponents. Moreover, inflation-adjusted wages have grown faster in Chicago than in surrounding suburbs. The next section begins to unpack how much these market outcomes were

influenced by the rising minimum wage in the City of Chicago.

#### Differences in Chicago Since the Ordinance Took Effect

To assess potential changes in the labor market due to the Chicago Minimum Wage Ordinance, a simple difference-in-differences approach is used (Figure 9).<sup>3</sup> The two years when Chicago had a minimum wage exceeding the state level (\$10.00 per hour in 2015 and \$10.50 per hour in 2016) are compared to the two years prior to the increase. Then, this difference over time is compared to the analogous change in the Illinois, Indiana, and Wisconsin suburbs of Chicago, which did not see an increase in the minimum wage. During this period, the minimum wage increased by an average of 24.3 percent in the City of Chicago.

<sup>&</sup>lt;sup>3</sup> For more on "difference-in-differences," please see the Data and Methodology section in the Appendix.

Formania Data	Treatmer	Treatment Group: City of Chicago			Control Group: Suburbs of Chicago		
Economic Data	2013-2014	2015-2016	Difference	2013-2014	2015-2016	Difference	
Total observations (unweighted)	20,906	21,642		56,318	56,771		
Minimum wage (average)	\$8.25	\$10.25*	+24.3%	\$8.14**	\$8.14**	0.0%	
Real income from wages	\$44,719	\$46,996	+5.1%	\$47,944	\$49,482	+3.2%	
Usual hours worked	39.1	39.2	+0.3%	38.9	39.1	+0.6%	
Unemployment rate	11.9%	8.9%	-3.0%	7.8%	5.8%	-2.1%	
Teen workers (ages 16-19) share	1.7%	2.0%	+0.3%	3.3%	3.4%	+0.1%	
<u>Difference-in-Differences:</u>				<u>Chicago vs. Suburbs:</u>			
		Minimum w	age (average)		+24.3%		
	e from wages		+1.9%				
	hours worked		-0.3%				
	oloyment rate		-0.8%				
	16-19) share		+0.2%				

Figure 9: Labor Market Changes After Minimum Wage Hike in Chicago, 2013-2014 vs. 2015-2016, Difference-in-Differences

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017). All samples are weighted using sample weights provided by the Census Bureau (perwt).

The results suggest that the increase in the minimum wage was associated with higher wages and mixed employment outcomes (Figure 9).

Since Chicago raised its minimum wage to at least \$10.00 an hour, inflation-adjusted incomes from wages grew by 5.1 percent, employee hours worked increased by 0.3 percent, and the unemployment rate declined by 3.0 percentage points in the City of Chicago. Conversely, in the rest of the Chicago metro area, real incomes grew by just 3.2 percent, usual hours worked increased by 0.6 percent, and the unemployment rate fell by 2.1 percentage points. As a result, the minimum wage hike was associated with a 1.9 percent increase in the average worker's income. The unemployment rate fell 0.8 percentage points more in the City of Chicago than it did in the suburbs, though it started at a higher level (11.9 percent) in Chicago. Meanwhile, weekly hours worked grew 0.3 percentage point slower in the City of Chicago. Additionally, the share of teen workers marginally increased in the city relative to the suburbs (+0.2 percentage point).

Many other factors, however, influence income and employment outcomes. To understand the actual causal impact of a higher minimum wage on workers, it is critically important to consider these other variables. Accordingly, the next sections use regression analyses to parse out the unique and independent effect of the Chicago Minimum Wage Ordinance.<sup>4</sup>

#### Effect on Annual Incomes from Wages

Results from statistical analyses on the impact of increased minimum wage levels on annual incomes of Chicago workers are reported in Figures 10 through 13. These evaluations specifically assess the effect of the first two years of the Chicago Minimum Wage Ordinance—when the hourly wage floor was first increased to \$10.00 and then to \$10.50. After accounting for observable factors— such as level of educational attainment, age, racial identification, immigration status, marital status, and veteran status—Chicago's minimum wage hikes were statistically

<sup>\*</sup>The \$10.25 reported minimum wage is based on the weighted average by total employment in the City of Chicago in 2015 and 2016.

<sup>\*\*</sup>The \$8.14 reported minimum wage is based on the weighted average by total employment in the Illinois suburbs, where the minimum wage is \$8.25, and the Indiana and Wisconsin suburbs, where the minimum wage is \$7.25. Neither area experienced a minimum wage change over this time.

<sup>&</sup>lt;sup>4</sup> For more on "ordinary least squares (OLS) regressions" and "probit regressions," please see the Data and Methodology section in the Appendix.

associated with a 2.5 percent increase in the annual incomes of workers in the city (Figure 10).

Coincident with the higher minimum wage, the City of Chicago experienced a reduction income inequality. Figure 10 evaluates impacts across the income distribution, investigating effects for lowest-earners workforce (the bottom percentile), 25<sup>th</sup> median worker (the 50<sup>th</sup> percentile), and the best-

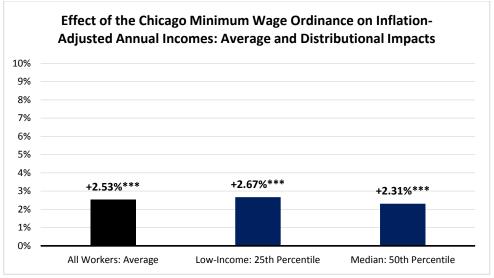
paid workers in Chicago (the top 25<sup>th</sup> percentile).<sup>5</sup> The results suggest that the minimum wage hikes benefited low-income workers most. Annual incomes increased by 2.7 percent for the 330,009 lowest-earning workers in the city and by 2.3 percent for the median worker– indicating that the minimum wage increase may have had a positive spillover effect, or "trickle-up" effect, on the

middle class (Figure 10).

The Chicago
Minimum Wage
Ordinance was
associated with a
2.5% increase in
annual incomes and
lower levels of
inequality in the city.

The higher minimum wage did not affect all sectors equally. After accounting for other observable factors, incomes increased by 3.4 percent for public sector workers, 2.4 percent for private

Figure 10: OLS Regression Results of the Effect of an Increased Minimum Wage (\$10.00-\$10.50), Average and Distributional Impacts, 2010-2016



Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017).

NOTES: \*\*\*p<[0.01]; \*\*p<[0.10]. All samples are weighted using sample weights provided by the Census Bureau (*perwt*). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

sector workers, and 5.2 percent for employees of nonprofit organizations after the implementation of the minimum wage (Figure 11).

Particular occupations with high shares of workers earning at or around the minimum wage generally experienced income gains (Figure 12).<sup>6</sup> Following the minimum wage increase, building and grounds cleaning workers, such as janitors and hotel maids, experienced a significant earnings boost of 6.1 percent and the earnings of workers in office and administrative support occupations increased by 3.3 percent. However, the minimum wage hikes were not statistically associated with higher annual incomes for workers in food preparation and serving jobs in the city.

<sup>&</sup>lt;sup>5</sup> The inflation-adjusted annual incomes were \$16,588 for the 25<sup>th</sup> percentile worker, \$32,254 for the median worker, and \$57,020 for the 75<sup>th</sup> percentile worker in the City of Chicago from 2010 through 2014– the years prior to the Chicago Minimum Wage Ordinance. This distributional analysis includes both full-time and part-time workers.

<sup>&</sup>lt;sup>6</sup> The *American Community Survey* categorizes workers by occupation and industry according to the source of employment that accounted for the most hours worked during the previous week. Workers with multiple sources of employment, which might be in different industries or occupations, are categorized according to their main source of employment.

Effect of the Chicago Minimum Wage Ordinance on Inflation-Adjusted Annual **Incomes: Impacts by Sector** 10% 9% 8% 7% 6% +5.24%\*\*\* 5% 4% +3.43%\*\* +2.53%\*\*\* 3% +2.37%\*\*\* 2% No 1% **Effect** 0% Private: For-Profit Self-Employed All Workers: Average Public Nonprofit

Figure 11: OLS Regression Results of the Effect of an Increased Minimum Wage (\$10.00-\$10.50), Impacts by Sector, 2010-2016

NOTES: \*\*\*p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (*perwt*). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

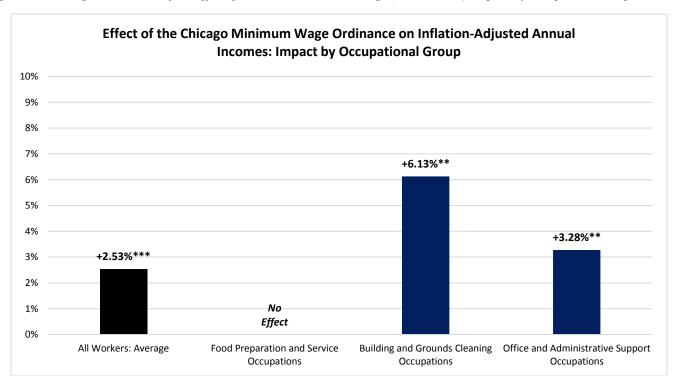


Figure 12: OLS Regression Results of the Effect of an Increased Minimum Wage (\$10.00-\$10.50), Impacts by Occupational Group, 2010-2016

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017).

NOTES: \*\*\*p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (*perwt*). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

Effect of the Chicago Minimum Wage Ordinance on Inflation-Adjusted Annual **Incomes: Impact by Industry Group** +10.23%\*\*\* 11% 10% 9% 8% 7% +5.31%\*\* 6% 5% 4% +2.53%\*\*\* 3% 2% No 1% Effect 0% All Workers: Average Transportation and Warehousing "Other Services" Industry Manufacturing Industry Industry

Figure 13: OLS Regression Results of the Effect of an Increased Minimum Wage (\$10.00-\$10.50), Impacts by Industry Group, 2010-2016

NOTES: \*\*\*p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (*perwt*). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

An evaluation of industries— rather than occupations- demonstrates that workers in transportation and warehousing and employees of low-paying services benefited substantially from the Chicago Minimum Wage Ordinance (Figure 13). While there was no discernible impact on the employees annual incomes of in the manufacturing industry, workers in Chicago's warehousing transportation and experienced a 5.3 percent increase in incomes due to the minimum wage hikes. Incomes were boosted the most among workers in Chicago's "other services" industry, a miscellaneous group that includes those employed at car washes, beauty salons, and various social, political, and religious organizations. In this low-paying industry, annual incomes increased by an average of 10.2 percent after the Minimum Wage Ordinance.

The occupational groups and the industries that experienced positive income effects from the Chicago Minimum Wage Ordinance represent a large share of Chicago's workforce (Figure 14). Building and grounds cleaning workers account for 4.1 percent of the total employment in

Chicago, office and administrative support workers represent 11.8 percent, employees in the transportation and warehousing industry make up 6.6 percent, and individuals working in other services such as car washes and barber shops account for 5.0 percent.

These workers are not mutually exclusive. For example, a worker whose main job is as a janitor

Figure 14: Share of Total Employment in the City of Chicago, Occupations and Industries Benefiting from the Chicago Minimum Wage Ordinance, 2016

Occupational or Industry Group	Share of Total Employment in the City of Chicago: 2016
Building and Grounds Cleaning Occupations	4.06%
Office and Administrative Support Occupations	11.75%
Transportation and Warehousing Industry	6.60%
"Other Services" Industry	5.01%
Combined Share of Total Chicago Employment	25.24%

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017).

NOTES: The combined share is less than the sum of the two occupations and two industries because the workers are not mutually exclusive (e.g., a janitor working in a warehouse is not double-counted in the combined share).

Figure 15: OLS Regression Results of the Effect of an Increased Minimum Wage (\$10.00-\$10.50), Impact on Teen Workers, 2010-2016

Effect of the Minimum Wage on: Inflation-Adjusted Annual Incomes	Effect of the Chicago Minimum Wage Ordinance (\$10.00-\$10.50)		
All Workers: Average	+2.53%***		
Teen Workers: Ages 16-19	No Effect		

NOTES: \*\*\*p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (*perwt*). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

in a warehouse would be captured in both the building and grounds cleaning occupation and the transportation and warehousing industry. The combined share thus removes any worker who may be double-counted. As a result, the Chicago Minimum Wage Ordinance produced income gains in occupations and industries that represent 25.2 percent of all workers in the city, or 333,118 total workers.

Finally, there was no relationship between the Chicago Minimum Wage Ordinance and the annual incomes of teen workers (Figure 15). Teen

workers are not only exempt from the Chicago minimum wage, but they can be paid \$0.50 below the state minimum wage, or \$7.75 an hour. Because the Chicago minimum wage hike has been associated with higher annual incomes for the average worker (+2.5 percent) but had no statistical impact on teen workers ages 16 to 19, the implication is that the positive income effect associated with the Chicago Minimum Wage Ordinance was concentrated amongst the lowest-paid adult workers in the City of Chicago.

#### Effect on Usual Weekly Hours Worked

The Chicago Minimum Wage Ordinance had small negative effects or no impact on the usual weekly hours worked by employees in the city (Figure 16). After accounting for other observable factors, Chicago's minimum wage hikes have been statistically associated with a 1.0 percent

average decrease in the weekly hours worked of all employees in the city. The higher wage floor reduced weekly hours worked by 0.4 percent for the lowest-earning workers and by 0.2 percent for the median worker. However, the small drop in hours worked that accompanied the minimum wage hikes only occurred in Chicago's private sector. The Chicago Minimum Wage Ordinance reduced hours for private sector workers by a small 1.0 percent while having no effect on working hours for employees in nonprofit organizations or the public sector (Figure 16).

Figure 16: OLS Regression Results of the Effect of Minimum Wage Increase on Usual Weekly Hours Worked by Employees, 2010-2016

Effect of the Minimum Wage on: Usual Weekly Hours Worked	Effect of the Chicago Minimum Wage Ordinance (\$10.00-\$10.50)
All Workers	-0.98%***
Income Distribution	
Bottom 25 <sup>th</sup> Percentile	-0.41%***
Median Worker: 50th Percentile	-0.15%***
Top 25 <sup>th</sup> Percentile	-0.38%**
<u>Sector</u>	
Private: For-Profit	-1.03%**
Nonprofit	No Effect
Self-employed	No Effect
Public	No Effect
<u>Occupation</u>	
Food Preparation and Serving	No Effect
Building and Grounds Cleaning	No Effect
Office and Administrative	No Effect
Support	
<u>Industry</u>	
Transportation and Warehousing	No Effect
"Other Services"	No Effect
Manufacturing	No Effect
<u>Other</u>	
Teen Workers: Ages 16-19	-8.20%**

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017).

NOTES: \*\*\*p<[0.01]; \*\*p<[0.05]; \*p<[0.10]. All samples are weighted using sample weights provided by the Census Bureau (perwt). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

The Chicago Minimum Wage Ordinance also had no effect on weekly hours worked in low-paying occupations and industries. Workers in food preparation and serving occupations, building and ground cleaning occupations, and office and administrative support occupations did not have their hours cut. Likewise, there was no statistical impact on working hours in the manufacturing, transportation and warehousing, or "other services" industries. Consequently, because the Chicago Minimum Wage Ordinance is associated with increased incomes in most of these jobs without a negative effect on working hours, the policy achieved its intended effects for these workers.

The effect of a higher minimum wage on the hours worked by teenagers in the Chicago area is suggestive of an income-hours worked tradeoff. The Chicago Minimum Wage Ordinance was associated with an 8.2 percent drop in hours for teen workers (Figure 16). However, there was no comparable impact on the inflation-adjusted annual incomes for teen workers (see Figure 15). This means that the average teen worker in

A higher minimum wage may allow employees to work fewer hours but earn higher incomes.

Chicago worked fewer hours but earned the same level of income that he or she did prior to the ordinance.

While the minimum wage is associated with a small drop in usual hours worked for all workers, there is *no impact* on the lowest-paying occupations, such as fast-

food preparers, janitors, receptionists, and car wash employees. It is possible that employers responded to minimum wage increases by cutting back on the hours of *other* employees who already earn more than the minimum wage in order to absorb the higher labor costs of low-wage workers. The first two years of the Chicago Minimum Wage Ordinance increased the annual incomes of all Chicago workers by 2.5 percent but reduced their hours worked by 1.0 percent.

Consequently, a higher minimum wage may allow employees to work fewer hours but earn higher overall incomes. Fewer hours translates into more leisure time. More income and more leisure for workers may improve life satisfaction, boost employee morale, and contribute to higher worker well-being. On the other hand, fewer hours also means less time on the job, which can have negative impacts on overall productivity in the region and on firm profitability. Businesses can offset these potential consequences if the higher wage makes it easier to recruit and retain workers, reducing turnover costs (Schmitt, 2013).

#### Effect on Employment and Occupational Mix

Minimum wage hikes have had little to no effect on employment levels in Chicago. Figure 17 depicts outputs from statistical analyses on the impact of the Chicago Minimum Wage Ordinance on the share of the labor force that has a job (i.e., individuals who are not unemployed); the of certain employment shares sectors, occupations, and industries; and the share of all jobs occupied by teen workers. After accounting for demographic, educational attainment, and other factors, the higher minimum wage had zero effect on the unemployment rate in the City of Chicago (Figure 12).

Additionally, the higher minimum wage had very little impact on the sectoral composition of the local labor market (Figure 17). The Chicago Minimum Wage Ordinance was statistically associated

A higher minimum wage had zero effect on the unemployment rate in the City of Chicago.

with a 0.9 percentage-point decrease in the private for-profit share of total employment. However, this drop is offset by a 0.6 percentage-point increase in the nonprofit share of total employment. The higher minimum wage had no effect on employment in the public sector. There

is suggestive but statistically insignificant evidence that the share of workers who are self-employed increased following the minimum wage hikes.<sup>7</sup>

The Chicago Minimum Wage Ordinance also had little to no impact on occupational and industrial composition (Figure 17). The \$10.00 per hour and \$10.50 per hour minimum wage did not reduce the share of workers employed in food preparation and serving occupations, building and grounds cleaning jobs, and office and administrative support jobs. The higher minimum wage also had no effect on the manufacturing share of total employment. The findings suggest that the higher minimum wage reduced the share of workers employed in the "other services" industry in Chicago, but the results are not statistically significant. However, the Chicago Minimum Ordinance Wage was associated with statistically 0.5

percentage-point increase in the share of workers employed in the transportation and warehousing industry. This could be an indication that the higher minimum wage boosted consumer spending either on travel or on imported goods from other areas in the United States or globally.

A notable finding is the effect on the teen share of the workforce (Figure 12). The Chicago Minimum Wage Ordinance was associated with a 0.4 percentage-point rise in the teen share of employment. Compared to a baseline average teen share of 3.0 percent in the Chicago area economy, this 0.4 percentage-point growth equates to a 14.1 percent actual increase in teen workers due to the ordinance. While teen hours decreased, the teen employment share increased. This teen employment effect is most likely caused

<sup>7</sup> Employment shares are the portion of total employment for a particular sector, occupation, industry, or group and must always equal 100 percent. As a result, negative changes in employment shares in one area must always be offset by positive changes in other areas. Thus, the rise in the self-employment share (+0.43%,

Figure 17: Probit Regression Results of the Effect of Minimum Wage Increase on the Probability of Employment, 2010-2016

Effect of the Minimum Wage on: Employment Rate and Occupational Shares	Effect of the Chicago Minimum Wage Ordinance (\$10.00-\$10.50)
All Workers	No Effect
<u>Sector</u>	
Private: For-Profit	-0.93%**
Nonprofit	+0.55%**
Self-employed	No Effect
Public	No Effect
<u>Occupation</u>	
Food Preparation and Serving	No Effect
Building and Grounds Cleaning	No Effect
Office and Administrative	No Effect
Support	
<u>Industry</u>	
Transportation and Warehousing	+0.51%**
"Other Services"	-0.43%*
Manufacturing	No Effect
<u>Other</u>	
Teen Workers: Ages 16-19	+0.42%**

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017).

NOTES: \*\*\*p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (perwt). Please see the Appendix for more information, contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

by the fact that employers in the city are allowed to pay employees under 18 years of age \$0.50 below the state minimum hourly wage (City of Chicago, 2018). In 2016, the legal adult minimum wage of \$10.50 per hour was 35.5 percent higher than the permissible teen minimum wage (\$7.75 per hour). With no policy to increase the minimum hourly compensation of teen workers, escalations in the adult minimum wage will only widen the pay gap, incentivizing employers to hire teens for low-skill positions instead of adults.

Ultimately, the Chicago Minimum Wage Ordinance essentially had no net impact on overall employment in the city. The minimum wage increases had zero effect on the unemployment rate and on the employment of workers in low-paid occupations, such as fast-

but significant at only the 85-percent level of confidence) is the most likely explanation for the 0.38 percent difference between the drop in the private for-profit share and the gain in the nonprofit share.

<sup>&</sup>lt;sup>8</sup> For more, see Appendix Table C.

food preparers, janitors, and receptionists. One discernible change was a rise in the demand by employers for teen workers who are allowed to be paid less than the state minimum wage—implying a commensurate fall in demand for low-skilled adult workers

#### Change in Private Business Establishments

In December 2017, the Illinois Department of Employment Security (IDES) released Where Workers Work. which reported March administrative data collected under the Illinois Unemployment Insurance Act for the City of Chicago, Cook County, DuPage County, Kane County, Lake County, McHenry County, and Will County. Data for the other counties that comprise Chicago-Naperville-Elgin, IL-IN-WI the Metropolitan Statistical Area- including DeKalb County, Kendall County, and Grundy County in Illinois as well as the Indiana and Wisconsin suburbs outside of IDES' jurisdiction- are not reported in the IDES report. Additionally, IDES recently implemented a new unemployment insurance (UI) tax system that changed how the number of establishments were counted in March

2017 and noted that the number of establishments reported in March 2017 is not comparable to prior years.

Figure 18 thus presents IDES private establishment data for March 2013, March 2014, March 2015, and March 2016 in the City of Chicago and six suburban counties in Illinois. In the first three years, the minimum wage was \$8.25

per hour across the Illinois portion of the metro area. Then, the first phase of the Chicago Minimum Wage Ordinance went into effect in July 2015. Accordingly, the March 2016 IDES data offers the first glance at private changes in establishments in the City of Chicago due to the Chicago Minimum Wage Ordinance. The adult minimum wage was \$10.00 per hour in

There was no difference in the growth of private business establishments in the City of Chicago after the minimum wage increase to \$10.00 per hour.

Chicago and \$8.25 per hour elsewhere in March 2016 (Figure 18).

There was no noticeable difference in the growth of private business establishments in the City of

Figure 18: Change in the Number of UI-Covered Private Establishments After Minimum Wage Hike in Chicago Area in Illinois\*, March 2013-March 2016

Location of UI-Covered	March	March	March	Average 2013-	March 2016	Percent
Private Establishments	2013	2014	2015	2015 (\$8.25)	(\$10.00)	Change
City of Chicago	71,410	73,857	72,047	72,438	73,044	+0.84%
Illinois Suburbs of Chicago*	177,548	181,781	177,483	178,937	180,462	+0.85%
Cook County (Excluding Chicago)	79,861	81,723	80,046	80,543	81,322	+0.97%
DuPage County	37,669	38,512	37,570	37,917	38,248	+0.87%
Lake County	22,310	22,823	22,040	22,391	22,288	-0.46%
Kane County	13,572	13,897	13,548	13,672	13,808	+0.99%
Will County	15,417	15,932	15,685	15,678	16,055	+2.40%
McHenry County	8,719	8,894	8,594	8,736	8,741	+0.06%

Source(s): Where Workers Work report by the Illinois Department of Employment Security (IDES, 2017).

<sup>\*</sup>This data differs from previous Figures because it does not include information for Dekalb County, Kendall County, and Grundy County in Illinois and does not include the Indiana or Wisconsin suburbs of the Chicago-Naperville-Elgin, IL-IN-WI Metropolitan Statistical Area.

<sup>&</sup>lt;sup>9</sup> Note that this analysis uses a different data source, timeframe, and geography than the previous impact assessments on wages, hours, and employment.

Chicago after the increase to \$10.00 per hour (Figure 18). From March 2013 through March 2015, the average number of UI-covered private establishments was 72,438 in the City of Chicago. By March 2016, the number of establishments in Chicago was 73,044, a 0.84 percent increase over the three-year average. Meanwhile, in the Illinois suburbs, the number of establishments grew from a three-year average of 178,937 to 180,462 in March 2016, an increase of 0.85 percent. Some counties in the Illinois suburbs had faster business growth than the City of Chicago- particularly Will County, which experienced a 2.40 percent increase over the three-year average. On the other hand, some counties grew slower (e.g., the number of establishments grew by 0.06 percent in McHenry County) or even lost establishments (e.g., establishments fell by 0.46 percent in Lake County). Ultimately, there is no evidence that the Chicago Minimum Wage Ordinance- at least when it was increased to \$10.00 per hour- hurt business growth in Chicago. The growth in the number of private-sector establishments in the City of Chicago was on par with growth in the Illinois suburbs.

#### Summary of Economic Effects

Overall, the Chicago Minimum Wage Ordinance has been good for workers. For the average Chicago worker, the modest increases in the minimum wage from \$8.25 per hour in 2014 up to \$10.50 per hour in 2016 increased wages by 2.5 percent, reduced hours by 1.0 percent, and had no impact on total employment or the growth of private business establishments. The increase in earnings has more than offset the small drop in Additionally, hours worked. the Chicago minimum wage hikes were associated with a 2.7 percent increase in the annual incomes of the lowest-earning workers compared to a gain of 2.3 percent for the median worker, indicating that the minimum wage reduced income inequality in the city.

Workers in the nonprofit sector in Chicago benefited most from the higher minimum wage. The ordinance increased annual incomes at nonprofit organizations by 5.2 percent, had no effect on their working hours, and boosted the nonprofit share of the local labor market by 0.6 percentage points. For workers in the public sector, the minimum wage hikes increased incomes by 3.4 percent but had no effect on hours worked or employment. Workers in the private (for-profit) sector experienced a 2.4 percent increase in incomes but a 1.0 percent drop in hours.

Workers in building and grounds cleaning occupations and in office and administrative support occupations also benefited substantially from the Chicago Minimum Wage Ordinance. The hikes to \$10.00 an hour and subsequently to \$10.50 per hour raised the annual incomes of janitors, hotel maids, and similar workers by 6.1 percent while having no negative effect on hours worked or employment. Similarly, the increases

in the wage floor raised the annual incomes of secretaries, receptionists, and records clerks by 3.3 percent while having no negative effect on hours worked or employment.

The Chicago
Minimum Wage
Ordinance has been
good for workers.

Workers in lower-paying industries generally better off after the first two years of the Chicago Minimum Wage Ordinance. While the higher minimum wage had no impact on the earnings, working hours, or employment share of manufacturing workers in Chicago, it did produce positive outcomes for workers in transportation and warehousing industry and the "other services" industry. Bus drivers, public transportation workers, postal workers, and warehouse employees experienced a 5.3 percent increase in annual incomes due to the minimum wage hikes. The Chicago Minimum Wage Ordinance also boosted annual incomes for car wash employees, barbers, and workers at civic,

social, political, business, and labor organizations by 10.2 percent.

The Chicago Minimum Wage Ordinance increased the demand for teen workers, who can be paid less than the minimum wage. The minimum wage hike to \$10.50 per hour had no impact on the annual incomes of teen workers and reduced teen hours by 8.2 percent but increased teen employment by 14.1 percent. <sup>10</sup> For any given teen, he or she worked fewer hours but earned the same level of income as prior to the ordinance. For businesses, the number of teens on staff increased by more than the drop in the hours worked by teens. This net increase in employer demand for teen workers is most likely caused by the fact that businesses in the city are allowed to pay employees under 18 years of age \$0.50 below the state minimum hourly wage, or \$7.75 per hour (City of Chicago, 2018). With no policy to increase the minimum wage for teen workers, escalations in the adult minimum wage will only widen the pay gap between adults and teens and further incentivize employers to hire teens.

## 4. EXPLANATIONS FOR THE MINIMUM WAGE EFFECTS

Why has the Chicago Minimum Wage Ordinance generally been associated with positive impacts on wages with little to no effects on employment? Many opponents of minimum wage laws, including some economists and social scientists, argue that raising the minimum wage has unintended consequences that result in higher unemployment and no or even negative effects on the lowest-income workers whom the policy is intended to help. This analysis of data from before and after the minimum wage hikes in the City of Chicago fails to support this argument. The effect

of the Chicago Minimum Wage Ordinance has largely been one of *intended* consequences.

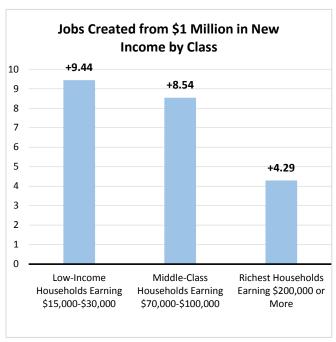
## Adjustments by Employers, Workers, and Consumers

One reason why the minimum wage has generally worked, discussed in Chapter 2, is that employers have "channels of adjustment" to respond to a minimum wage hike (Schmitt, 2013). Instead of cutting hours or reducing employment, employers may absorb higher labor costs through lower profits, may raise prices, or may compress wages by delaying or limiting raises or bonuses for higher-skilled workers. However, the Chicago Minimum Wage Ordinance has no clear negative impact on the growth in UI-covered private establishments in the city, which would seem to suggest no or very minor impacts on profits and potentially prices. In addition, annual incomes for all workers, including high-skilled employees, increased by 2.5 percent on average in the City of Chicago- indicating that the wage compression channel of adjustment is unlikely to have been a large factor.

Other channels of adjustment involve efficiency improvements (Schmitt, 2013). The higher minimum wage may have boosted the morale of low-wage employees, improving productivity. Because the higher pay increased the relative cost to workers if they lose their jobs, the higher minimum wage may have induced greater work effort from employees. On the employer side, managers may have responded to a higher minimum wage by raising performance standards such as requiring better attendance records or requiring employees to take on additional job tasks. The higher wage floor may also have made it easier for employers to recruit and retain employees, allowing employers to be more

<sup>&</sup>lt;sup>10</sup> A 0.4 percentage-point rise in the teen share of employment compared to the baseline of 3.0 percent (Figure 10 and Appendix Table C).

Figure 19: Number of Jobs Created or Saved by \$1 Million in Income to Households by Income Distribution in Chicago MSA, Illinois Counties Only, 2018



Source(s): Implan economic simulation (Implan, 2018). NOTES: The "output multiplier" is 1.41 for the low-income households, 1.33 for the middle-class households, and 0.63 for the richest households.

diligent in their hiring practices. Reduced costs for recruiting and retaining "absorb about 15 percent of the increased payroll costs" (Reich et al., 2017). These "efficiency wage" responses cannot be ruled out as playing a role in the effects of Chicago's minimum wage hikes.

Figure 19 shows the impact on the Chicago area economy from a \$1 million increase in income for low-income, middle-class, and the richest households in the region (Implan, 2018). Every \$1 million in income earned by households making between \$15,000 and \$30,000 per year in the Chicago area economy saves or creates 9.4 jobs. For middle-class households in Chicagoland making between \$70,000 and \$100,000 per year, every \$1 million in income saves or creates 8.5 jobs. Meanwhile, for the richest households in the region earning \$200,000 or more, every \$1 million in income only saves or creates 4.3 jobs on average. Because the Chicago Minimum Wage Ordinance directly helps to raise incomes of the lowest-paid workers in the city, the stimulating

effect on consumer spending likely created new jobs in the economy, offsetting other potentially negative impacts on the demand for labor.

#### The Relatively Strong Chicago Area Economy

A final explanation for the positive effects of Chicago's minimum wage hikes could be the relatively strong Chicago metro area economy. This would echo the research surrounding the Seattle minimum wage hikes. One study noted that "unobserved factors, such as Seattle's hot labor market... may have positively affected Seattle's low-wage employment" (Reich et al., 2017); another was bolder in saying that "low-wage workers did relatively well after the minimum wage increased, but largely because of the strong regional economy" (Seattle Minimum Wage Study Team, 2016).

Figure 20 tells the story of the relatively strong Chicago metro area economy during this period. Using data from the Quarterly Workforce Indicators (QWI) compiled by the U.S. Census Bureau, Figure 20 shows employment growth based on actual payroll records from the third quarter of 2010 to the third quarter of 2016 (Census, 2018). The third quarter comprises July, August, and September and thus includes data after the July 1, 2016 minimum wage increase to

\$10.50 an hour in Chicago. While the data cannot be explored for the City of Chicago, information is available for the Illinois portion of the Chicago metro area and the Indiana and Wisconsin suburbs.

The City of Chicago and the Illinois suburbs grew from 2010 to 2016 (Figure 20). The Illinois

In the Chicago metro area, every \$1 million earned by low-income households creates 9 jobs while every \$1 million earned by the richest households creates just 4 jobs.

Total Employment	2010	2016	Change	Percent Change
Chicago MSA: City of Chicago and Illinois Suburbs	3,819,839	4,230,353	+410,514	+10.7%
Rest of Illinois	1,596,681	1,608,638	+11,957	+0.7%
Chicago MSA: Indiana and Wisconsin Suburbs	309,213	330,380	+21,167	+6.8%
Rest of Indiana and Wisconsin	5,292,272	5,786,269	+493,987	+9.3%
Seattle MSA (Comparison)	1,623,041	1,905,706	+282,665	+17.4%

Figure 20: Change in Total Employment in Selected Geographic Locations, Third Quarter, 2010-2016

Source(s): Quarterly Workforce Indicators from the Longitudinal Employer-Household Survey by the U.S. Census Bureau (Census, 2018).

Figure 21: Change in Food Services and Drinking Places Employment in Selected Geographic Locations, Third Quarter, 2010-2016

Food Service and Drinking Places Employment	2010	2016	Change	Percent Change
Chicago MSA: City of Chicago and Illinois Suburbs	268,873	329,143	+60,270	+22.4%
Rest of Illinois	123,804	132,181	+8,377	+6.8%
Chicago MSA: Indiana and Wisconsin Suburbs	27,414	21,305	+3,891	+14.2%
Rest of Indiana and Wisconsin	403,985	459,115	+55,130	+13.6%
Seattle MSA (Comparison)	111,946	141,448	+29,502	+26.4%

Source(s): Quarterly Workforce Indicators from the Longitudinal Employer-Household Survey by the U.S. Census Bureau (Census, 2018).

counties in the Chicago-Naperville-Elgin, IL-IN-WI Metropolitan Statistical Area added more than 410,000 jobs over that time, an employment growth of 10.7 percent. The Indiana and Wisconsin suburbs grew by a modest 6.8 percent. Employment growth in the Chicago and Illinois suburbs (10.7 percent) was higher than in the rest of Indiana and Wisconsin (9.3 percent) and significantly greater than in the rest of Illinois (just 0.7 percent).

Similarly, Figure 21 shows the change in employment in the "food services and drinking places" sector of the economy. Between 2010 and 2016, Chicago and the Illinois suburbs added over 60,000 jobs at restaurants and bars, a growth of 22.4 percent (Figure 16). This growth rate exceeded the Indiana and Wisconsin suburbs

faster in the Chicago metro area than it did in Indiana, Wisconsin, and the rest of Illinois. (14.2 percent), the rest of the Indiana and Wisconsin (13.6 percent), and the rest of Illinois (just 6.8 percent).

The employment data detail how the recovery

from the Great Recession has reflected a bifurcated state. Though not growing as fast as the flourishing Seattle metro area, the Chicago region in Illinois has had a faster job growth than neighboring Indiana and Wisconsin. At the same time, the rest of Illinois has been stagnant. Of the 422,000 jobs created in Illinois from the third quarter of 2010 to the third quarter of 2016, just 2.8 percent of them (about 12,000 jobs) have been outside of the Chicago region (Figure 20). Only 12.2 percent of the employment increase at restaurants and bars in Illinois occurred outside of the Chicago region (Figure 21).

The Chicago area economy grew faster than the rest of Illinois and both Indiana and Wisconsin. As a result, this tightening labor market may have been able to embrace higher minimum wages for low-income workers. Alternatively, the positive impact on consumer demand from an increase in the minimum wage to over \$10.00 an hour also likely *contributed* to the higher employment growth in the Chicago area. In any case, the strong Chicago area economy— especially in the Illinois counties of the region—during the period may be related to the effects of the Chicago Minimum Wage Ordinance.

#### 5. POLICY RECOMMENDATIONS

Several policy recommendations follow from this analysis. Chicago's minimum wage hikes in 2015 and 2016 were good for workers- particularly low-wage workers such as janitors and hotel maids- and had stimulating effects on the economy, resulting in no negative impact on employment or business establishments. the However, Chicago Minimum Wage Ordinance only applies to employees who work within the city boundaries, and even then exempts many workers from coverage. To raise worker incomes, reduce income inequality, grow Illinois' population and ensure that workers are paid a wage commensurate with the cost of living, six public policy actions are recommended.

- 1. The City of Chicago should expand coverage of the minimum wage to workers. include more Currently. occupations such as private security guards, recreation and fitness workers, and animal trainers are exempt from the Chicago Minimum Wage Ordinance. According to the city, these professions are regulated solely by the state and thus are exempt from home rule. This follows, according to Commissioner Rosa Escareno of the Chicago Department of Business Affairs and Consumer Protection (BACP), "a long history of the state having considerable authority over labor law... for certain occupations" (Moreno & Trotter, 2017). Although the state statute only regulates licensing in order to ensure public safety, the city's expansive interpretation of these home rule preemptions results in lower standards and encourages wage theft.
- 2. The City of Chicago should increase the minimum wage for teen workers, setting it at \$2.00 below the adult minimum wage. The Chicago Minimum Wage Ordinance increased the demand for workers under 18 years of age, who can be

- paid \$0.50 less than the state minimum wage- or \$7.75 per hour. On July 1, 2018, the adult minimum wage will increase to \$12.00 per hour in the city, which is 54.8 percent higher than the permissible teen minimum wage. This widening of the gap will only incentivize employers to hire more teens for low-skill positions. Raising the youth minimum wage and tying it to \$2.00 below the adult minimum wage would increase consumer demand in the economy while maintaining an incentive for employers to hire teen workers, providing them with essential job experience.
- 3. The City of Chicago should establish a Department of Labor Standards to improve enforcement of the minimum wage ordinance. The Department of **Business Affairs and Consumer Protection** (BACP) is tasked with processing and investigating minimum wage violations in Chicago. But the BACP has no mention of this in their mission or on their website. In 2017, there were only four investigators assigned to minimum wage complaints (Moreno & Trotter, 2017). An inquiry into the BACP in early 2017 found that only 1in-4 complaints received from July 2015 to December 2016 were investigated, mostly because workers did not correctly submit the required affidavits (Sanchez, 2017). By contrast, the City of Seattle created a new Office of Labor Standards in 2015 when it passed its minimum wage ordinance. In 2017, the \$5.7-million Office of Labor Standards had 23 full-time employees to enforce labor standards in the City of Seattle (Seattle City Budget Office, 2017).
- The City of Chicago should translate the minimum wage complaint affidavit into Spanish and Polish. The minimum wage complaint affidavit is currently only available in English and Korean. Together,

Latinos and Latinas comprise one of the largest racial groups in the City of Chicago, accounting for 29.7 percent of the overall population as of 2016. Fully 25.1 percent of households in the City of Chicago speak Spanish. The next-highest foreign language is Polish, spoken in 1.7 percent of Chicago homes (Census, 2017). The complaint affidavits have yet to be translated into either of these languages, even though a report by the Center for Urban Economic Development at the University of Illinois at Chicago found that foreign-born workers are 1.5 times more likely than native-born workers to experience minimum wage violations (Theodore et al., 2010).<sup>11</sup>

5. Cities in suburban Cook County should opt into the Cook County Minimum Wage Ordinance. On October 26, 2016, the Cook County Board of Commissioners voted to raise the minimum wage. For nontipped workers, the county minimum wage became \$10.00 an hour on July 1, 2017 and will statutorily increase by \$1.00 each year until it reaches \$13.00 an hour on July 1, 2020. It is annually adjusted for inflation after that. However, 107 out of 133 municipalities in Cook County (80.5 percent) have used their home rule power to opt out of requiring businesses in their town to pay the minimum wage. 12 Results from this analysis demonstrate that increasing the minimum wage from \$8.25 per hour to the \$10.00 per hour rate currently in effect in the Cook County ordinance would raise incomes by 2.5 percent and raise consumer demand while having little to no effect on employment or business establishments for municipalities that reverse course and decide to opt in.

6. The State of Illinois should raise the statewide minimum wage. In 2017, under Republican Governor Bruce Rauner, the Illinois Department of Revenue and the Illinois Governor's Office forecasted the fiscal impact of increasing Illinois' minimum wage to \$11.00 an hour on July 1, 2019 (Vielma & Zigmund, 2017). The study found, by 2020, raising the minimum wage to \$11.00 an hour would increase personal income by \$6.6 billion annually, increase state income tax revenues by \$33.5 million per year, increase annual state sales tax revenue by \$6.5 million, and grow the state's population by nearly 52,000 net economic migrants, due to "an improved consumption access index" in Illinois (Vielma & Zigmund, 2017). The study also predicted employment losses and higher prices from a higher minimum wage, but those projections contrast with the findings in this analysis. Figure 22 uses Regional Price Parities- expressed as a percentage of the national average—by the Bureau of Economic Analysis (BEA) at the U.S. Department of Commerce to show what the minimum wage would need to be in other regions in Illinois to match the \$13.00 an hour rate in the City of Chicago by July 1, 2019 in cost-of-living-adjusted terms. In general, an \$11.00 per hour state minimum wage would ensure that all lowincome workers achieve the same standard of living as a \$13.00 per hour minimum wage in the Chicago area, while minimizing economic distortions in lowcost areas of the state (Suh, 2016).

<sup>&</sup>lt;sup>11</sup> The Illinois Economic Policy Institute (ILEPI) has translated the form to Spanish and forwarded it to Commissioner Escareno of the BACP, but has not received a response as of June 2018. The translated form is available at the end of the Appendix.

<sup>&</sup>lt;sup>12</sup> For a list of Cook County municipalities that have opted in and opted out of the Cook County Minimum Wage Ordinance, please see the Appendix. Note that this list is subject to change.

\$13.08

Region of Illinois: Metropolitan Statistical Area	2015 RPP vs. the US average	\$13.00 in the City of Chicago	\$15.00 in the City of Chicago
Chicago-Naperville-Elgin, IL-IN-WI	104.6	\$13.00	\$15.00
Bloomington, IL	94.1	\$11.70	\$13.49
Cape Girardeau, MO-IL	82.7	\$10.28	\$11.86
Carbondale-Marion, IL	83.9	\$10.43	\$12.03
Champaign-Urbana, IL	93.9	\$11.67	\$13.47
Danville, IL	81.2	\$10.09	\$11.64
Davenport-Moline-Rock Island, IA-IL	90.5	\$11.25	\$12.98
Decatur, IL	87.6	\$10.89	\$12.56
Peoria, IL	91.7	\$11.40	\$13.15
Rockford, IL	90.6	\$11.26	\$12.99
St. Louis, MO-IL	90.6	\$11.26	\$12.99

Figure 22: Comparing Purchasing Power in Illinois Regions Based on \$13.00 an Hour and \$15.00 an Hour Minimum Wage Rates in Chicago by July 2019, Regional Price Parities (RPPs)

Source(s): Regional Price Parities by MSA and state portion the U.S. Department of Commerce (BEA, 2018).

#### 6. CONCLUSIONS

Springfield, IL

In its first two years— when the minimum wage increased to \$10.00 an hour and subsequently to \$10.50 an hour— the Chicago Minimum Wage Ordinance was associated with a boost to worker incomes but little to no effect on employment or the number of private business establishments. In particular, the poorest workers, workers in building and grounds cleaning occupations, and workers in low-paying services such as car washes experienced a significant increase in incomes but virtually no negative effect on hours or employment. Due to an exemption in the ordinance, the higher minimum wage increased the demand for teen workers in Chicago.

These findings generally align with previous academic research. About 90 percent of all economic studies find that a higher minimum wage increases worker wages. Meanwhile, moderate increases in the minimum wage have very small or no impacts on employment and hours. One reason is that a higher minimum wage tends to stimulate higher consumer demand, offsetting any potential negative impacts.

The findings of this report lead to several policy implications. The City of Chicago should expand coverage of the ordinance to include more workers, increase the minimum wage for teen workers, establish a Department of Labor

Standards to improve enforcement, and translate forms into Spanish and Polish. Because the modest minimum wage increase raises incomes at little cost to local businesses, cities in suburban Cook County should opt in to the Cook County Minimum Wage Ordinance. Finally, the State of Illinois should raise its minimum wage.

The Chicago Minimum Wage Ordinance has been associated with increased incomes for workers and reduced inequality without having a negative impact on the unemployment rate or reducing the number of business establishments in the city. A higher minimum wage has allowed some employees to work fewer hours while earning higher incomes. Though the minimum wage should be expanded to include more employees and enforcement should be improved, the Chicago Minimum Wage Ordinance—by raising standards in the local labor market—has been good for workers in the city.

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#### **APPENDIX**

#### Data and Methodology

This research report utilizes data from the *American Community Survey* (ACS), which is collected and released by the U.S. Census Bureau. Each year, the Census Bureau surveys approximately one percent of the entire U.S. population. In addition to demographic, geographic, education, housing, and social characteristics, the records include economic information on annual incomes, usual hours worked, industry of employment, and occupation. Industry and occupation are based on a respondent's main source of work by hours worked in the previous week; thus, it may distort estimates for workers who have changed jobs recently or who work a second job in a different industry or occupation. An analytic weight (*perwt*) is provided by the Census Bureau to match the sample to the actual total U.S. population, adjusting the influence of an individual respondent's answers based on the overrepresentation or underrepresentation of specific groups. The data was extracted from the user-friendly Integrated Public Use Microdata Series (IPUMS-USA) from the Minnesota Population Center from the University of Minnesota (Ruggles et al., 2017).

The seven-year dataset from 2010 through 2016 captures information on 559,713 individuals aged 0 to 95 in the Chicago-Naperville-Elgin, IL-IN-WI Metropolitan Statistical Area (Chicago MSA). A total of 265,193 respondents were employed with at least one job, including 72,282 in the City of Chicago (27.3 percent), 172,311 in Illinois outside of Chicago (65.0 percent), 17,406 in Indiana (6.6 percent), and 3,194 in Wisconsin (1.2 percent). This sample size allows for assessments of minimum wage effects based on differences across space and changes over time.

The analysis uses three common statistical techniques to measure the early impact of the Chicago Minimum Wage Ordinance. The three methods are called "difference-in-differences," "ordinary least squares regressions," and "probit regressions." In the regressions, statistical significance tests are used to assess the "power" of the findings. A statistically insignificant result implies that any measured correlation is due to chance and not causal.

The difference-in-differences approach is an intuitive technique utilized in both social sciences and the medical field to isolate the impact of a change in one group (the "treatment group") from a similar group (the "control group"). In the language of a scientific experiment, the City of Chicago would be considered the "treatment group" as a geographic area that experienced a change, while the suburbs would be considered the "control group." The difference-in-differences approach compares how much change has occurred within the treatment group to the degree of change within the control group to determine the effect of the treatment.

Ordinary least squares (OLS) regressions are used to parse out the actual and unique impact that certain variables— such as a higher minimum wage— have on construction market outcomes at the individual-level. The technique describes "how much" the variable is responsible for a change. For example, an OLS regression can help determine how much the higher minimum wage raises or reduces annual incomes for workers in food preparation and serving occupations, after accounting for other observable factors.

In addition to difference-in-differences and OLS regressions, this analysis also uses probabilistic models called probit regressions. Probits help in calculating how much a certain factor increases the chance of achieving a binary outcome. For example, there are a number of factors that influence whether an individual is employed, including educational and demographic factors. Probits control for these other variables and separate out the effect that the higher minimum wage has on the likelihood that a given workers is employed.

#### Limitations and Future Research

There are limitations to the analysis. First, though the *American Community Survey* provides the most comprehensive individual-level data in U.S. social science research, it is based on survey data rather than administrative payroll reports. There is the potential for respondents to be untruthful in their answers. Certain individuals such as undocumented workers are also likely to be underreported in the dataset. On the other hand, payroll data is also not perfect, and can provide incomplete or "noisy" data for areas smaller than a county.

Second, this analysis does not employ new techniques that are becoming more common in new minimum wage research. In two recent studies on the effects of Seattle's minimum wage ordinance, research teams both use "synthetic control estimation," comparing what actually happened in Seattle to a "synthetic" Seattle based on a weighted average of donor counties with similar characteristics that did not raise their minimum wage. The University of California, Berkeley team mainly uses counties outside of Washington, "ensur[ing] that wage spillovers from Seattle do not contaminate" the results (Reich et al., 2017). The University of Washington team draws only from areas in the State of Washington (Jardim et al., 2017).

This analysis uses a more traditional local case-study method of evaluating impacts that is closest to the landmark Card and Krueger study (<u>Card & Krueger</u>, <u>1994</u>) and similar to the border-county pairs approach by Dube, Lester, and Reich (<u>Dube et al., 2011</u>; <u>Dube et al., 2010</u>). Built into the analysis is the assumption that the integrated regional economy helps to minimize economic, social, geographic, and locational variations that constrain other minimum wage research. The approach assumes that one of the only major policy differences between the City of Chicago and neighboring suburbs is the minimum wage level.

A final consideration is that this analysis has only investigated modest changes in Chicago's minimum wage. The change from \$8.25 per hour to \$10.00 per hour represents a 21.2 percent increase in the minimum wage, with the hike to \$10.50 adding an additional 6.1 percent from the \$8.25 baseline. The early effects of Chicago's minimum wage hike—positive impacts on incomes with little to no effect on hours or employment—are generally comparable to the findings of the first study by the University of Washington researchers (Seattle Minimum Wage Study Team, 2016). In that analysis, researchers evaluated the effect of a hike from \$9.47 per hour to \$11.00 per hour (16.2 percent) and found that the minimum wage had no effect on business closures, very slightly reduced the employment rate of low-wage workers, and increased the wages of low-wage workers by \$0.73 per hour (7.3 percent) from the \$9.96 average at the time of passage.

However, the second study by the University of Washington reported negative minimum wage effects on both hours worked and earnings, based on the \$13.00 an hour minimum wage (Jardim et al., 2017).

The \$13.00 minimum wage, one of the highest in the United States at the time, represented a 37.3 percent increase over the initial \$9.47 state minimum wage. Although these findings have been called into question, it could be the case that Seattle's minimum wage has "gone too far" (Reich, 2017; Casselman & Casteel, 2017). While moderate minimum wage increases in the United States have resulted in increased earnings with little to no effect on employment, there is some evidence that the higher minimum wages in European countries have yielded negative effects (Belman & Wolfson, 2014). If those studies and the second University of Washington study—both of which have faced criticisms—are correct, then the policy question becomes one of the "optimal level" of the minimum wage. Intuitively, larger increases to \$25.00 per hour or \$100.00 per hour would, in addition to being inflationary, hurt overall employment and result in a substantial black market for labor. What then is the "right" level for the minimum wage, at which point the benefits experienced from modest minimum wage hikes no longer exceed the costs? Is it more than \$10.50 per hour in Chicago? Is it less than \$13.00 hour in Seattle? Is it \$15.00 per hour nationally? Should it be adjusted by Regional Price Parities or other local labor market factors? Additional research will be required to shed light on these questions.

Future research on the Chicago Minimum Wage Ordinance should attempt to replicate the approach taken by the University of California, Berkeley and University of Washington research teams that have studied Seattle's minimum wage hike. Future research, which can and should include more years than this analysis, should use payroll data and the synthetic control method or another advanced statistical technique to assess impacts. Little is also known about business closures and openings in the City of Chicago due to the minimum wage changes, particularly for restaurants and retail stores. One confounding factor in all future research will be the introduction of the Cook County Earned Minimum Wage Ordinance in suburbs nearest to the City of Chicago that have not opted out—roughly 20 percent of the surrounding municipalities (Cook County Commission on Human Rights, 2017).

Like minimum wage hikes across the United States, the Chicago Minimum Wage Ordinance provides economists and policymakers with a prominent experiment to test the positive and negative effects of this important policy tool used to combat poverty, reduce inequality, and stimulate consumer demand. A robust and credible understanding of the effect on the Chicago area economy will require additional research once more data becomes available.

#### **APPENDIX TABLES**

Table A: OLS Regression - Effect of Minimum Wage on Natural Log of Real Annual Income, Examples

Factor	All Workers		Food Preparation and Serving Occupations		Building and Grounds Cleaning and Maintenance Occupations		Teen Workers: Ages 16-19	
Ln(minimum wage)	0.308*** (0.022)		0.287*** (0.084)		0.598*** (0.110)		0.227 (0.147)	
\$7.25 minimum wage		-0.083*** (0.005)		-0.122*** (0.019)		-0.149*** (0.025)		-0.081*** (0.028)
\$10.00+ minimum wage		0.025*** (0.006)		-0.009 (0.022)		0.061** (0.029)		-0.023 (0.044)
Employment variables								
Usual hours worked	0.034*** (0.003)	0.034*** (0.003)	0.034*** (0.000)	0.034*** (0.000)	0.040*** (0.001)	0.040*** (0.001)	0.044*** (0.001)	0.044*** (0.001)
Weeks worked dummies	Y	Υ	Υ	Υ	Y	Υ	Υ	Y
<u>Dummy variables</u>								
Demographic	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Educational attainment	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Occupation	Υ	Υ	N	N	N	N	N	N
Industry	Υ	Υ	N	N	N	N	N	N
Trends and baselines								
Chicago baseline	0.013***	0.021***	0.030**	0.039***	-0.062***	-0.051***	0.003	0.021
•	(0.003)	(0.003)	(0.013)	(0.014)	(0.017)	(0.017)	(0.025)	(0.026)
Annual trend	-0.004***	-0.002***	-0.003	-0.002	-0.007*	-0.002	-0.001	-0.002
	(0.001)	(0.001)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)
Constant term	4.761***	5.401***	5.016***	5.610***	4.389***	5.644***	5.716***	6.192***
	(0.053)	(0.028)	(0.180)	(0.050)	(0.242)	(0.077)	(0.323)	(0.101)
Observations	254,103	254,103	12,302	12,302	7,746	7,746	7,962	7,962
Adjusted R <sup>2</sup>	0.685	0.685	0.700	0.701	0.623	0.624	0.666	0.667

Source(s): American Community Survey 1 percent data from the U.S. Census Bureau for seven years: 2010, 2011, 2012, 2013, 2014, 2015, and 2016 (Ruggles et al., 2017).

Note(s): In all regressions, controls include: age, age<sup>2</sup>, racial identification (white non-Latino, African-American, and Latino or Latina), marital status, veteran status, immigration status, and educational attainment (less than high school degree, high school diploma or GED, and some college but no degree). Age and age<sup>2</sup> are not included in the regression for teen (ages 16-19) workers. For full regressions in .txt format, please contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

<sup>\*\*\*</sup>p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (perwt).

Table B: OLS Regression - Effect of Minimum Wage on Natural Log of Weekly Hours Worked, Examples

OLS Regression: Effect of Minimum Wage Level on Natural Log of Usual Weekly Hours Worked, 2010-2016									
Factor	All Workers		Food Preparation and Serving Occupations		Building and Grounds Cleaning and Maintenance Occupations		Teen Workers: Ages 16-19		
Ln(minimum wage)	-0.069*** (0.013)		-0.069 (0.058)		0.068 (0.082)		-0.265** (0.120)		
\$7.25 minimum wage		0.015*** (0.003)		0.015 (0.013)		0.000 (0.019)		0.017 (0.023)	
\$10.00+ minimum wage		-0.010*** (0.003)		-0.005 (0.016)		0.021 (0.022)		-0.082** (0.036)	
Employment variables									
Weeks worked dummies	Y	Y	Y	Y	Y	Y	Y	Y	
<u>Dummy variables</u>									
Demographic	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	
Educational attainment	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	
Occupation	Υ	Υ	N	N	N	N	N	N	
Industry	Y	Υ	N	N	N	N	N	N	
<u>Trends and baselines</u>									
Chicago baseline	0.033*** (0.002)	0.032*** (0.002)	0.061*** (0.009)	0.059*** (0.009)	-0.023* (0.013)	-0.023* (0.013)	0.031 (0.021)	0.037* (0.021)	
Annual trend	0.002*** (0.000)	0.002*** (0.000)	0.005*** (0.002)	0.005** (0.002)	0.001 (0.003)	0.001 (0.003)	0.010*** (0.003)	0.011*** (0.003)	
Constant term	2.882*** (0.031)	2.737*** (0.016)	2.275*** (0.125)	2.131*** (0.035)	2.266*** (0.180)	2.410*** (0.056)	3.285*** (0.264)	2.725*** (0.082)	
Observations	264,961	264,961	12,408	12,408	8,467	8,467	8,082	8,082	
Adjusted R <sup>2</sup>	0.244	0.244	0.285	0.285	0.128	0.128	0.169	0.169	

Note(s): In all regressions, controls include: age, age<sup>2</sup>, racial identification (white non-Latino, African-American, and Latino or Latina), marital status, veteran status, immigration status, and educational attainment (less than high school degree, high school diploma or GED, and some college but no degree). Age and age<sup>2</sup> are not included in the regression for teen (ages 16-19) workers. For full regressions in .txt format, please contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

<sup>\*\*\*</sup>p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (perwt).

Table C: Probit Regression - Effect of Minimum Wage on Probability of Employment, Examples

Probit Regression: Effect of Minimum Wage Level on the Probability of Employment, 2010-2016									
Factor	Chance Employed	Workers of Being Given Being bor Force	Prepara	e: Food Share: Building and ation and Grounds Cleaning and Occupations Maintenance Occupations		Cleaning and	Share: Teen Workers (Ages 16-19)		
Ln(minimum wage)	0.000 (0.011)		-0.028*** (0.014)		-0.005 (0.007)		0.030*** (0.006)		
\$7.25 minimum wage		-0.000 (0.003)		0.009*** (0.002)		-0.001 (0.000)		-0.006*** (0.001)	
\$10.00+ minimum wage		-0.000 (0.003)		-0.001 (0.002)		0.000 (0.002)		0.004** (0.002)	
<u>Dummy variables</u>									
Demographic	Υ	Υ	Υ	Υ	Y	Υ	Υ	Υ	
Educational attainment	Y	Y	Y	Y	Y	Υ	Y	Y	
<u>Trends and baselines</u>									
Chicago baseline	-0.008*** (0.002)	-0.008*** (0.002)	0.014*** (0.001)	0.014*** (0.001)	0.002 (0.001)	0.002 (0.001)	-0.018*** (0.001)	-0.017*** (0.001)	
Annual trend	0.010*** (0.000)	0.010*** (0.000)	0.001** (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	
Constant term	0.905*** (0.001)	0.905*** (0.001)	0.054*** (0.001)	0.054*** (0.001)	0.036*** (0.000)	0.036*** (0.000)	0.030*** (0.000)	0.030*** (0.000)	
Observations	291,590	291,590	265,193	265,193	265,193	265,193	265,193	265,193	
Pseudo R <sup>2</sup>	0.087	0.087	0.125	0.125	0.112	0.112	0.327	0.327	

Note(s): In all regressions, controls include: age, age<sup>2</sup>, racial identification (white non-Latino, African-American, and Latino or Latina), marital status, veteran status, immigration status, and educational attainment (less than high school degree, high school diploma or GED, and some college but no degree). Age and age<sup>2</sup> are not included in the regression for teen (ages 16-19) workers. For full regressions in .txt format, please contact study author Frank Manzo IV at fmanzo@illinoisepi.org.

<sup>\*\*\*</sup>p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. All samples are weighted using sample weights provided by the Census Bureau (perwt).

Table D: Municipalities Opting in and out of the Cook County Minimum Wage Ordinance, As of Jan. 2018

26 Municipalities Opting In	107 Municipalities Opting Out					
Barrington Hills	Alsip	Golf	Orland Park			
Berwyn	Arlington Heights	Hanover Park	Palatine			
Countryside	Barrington	Harvey	Palos Heights			
Deerfield	Bartlett	Harwood Heights	Palos Hills			
Dixmoor	Bedford Park	Hazel Crest	Palos Park			
Dolton	Bellwood	Hickory Hills	Park Forest			
Elmhurst	Bensenville	Hillside	Park Ridge			
Evanston	Berkeley	Hinsdale	Posen			
Ford Heights	Blue Island	Hodgkins	Prospect Heights			
Frankfort	Bridgeview	Hoffman Estates	Richton Park			
Glencoe	Broadview	Hometown	River Forest			
Homer Glen	Brookfield	Homewood	River Grove			
Kenilworth	Buffalo Grove	Indian Head Park	Riverside			
Markham	Burbank	Inverness	Rolling Meadows			
McCook	Burnham	Justice	Roselle			
Northfield	Burr Ridge	La Grange	Rosemont			
Oak Brook	Calumet City	La Grange Park	Sauk Village			
Oak Park	Calumet Park	Lansing	Schaumburg			
Olympia Fields	Chicago Heights	Lemont	Schiller Park			
Orland Hills	Chicago Ridge	Lincolnwood	South Barrington			
Phoenix	Cicero	Lynwood	South Chicago Heights			
Riverdale	Country Club Hills	Lyons	South Holland			
Robbins	Crestwood	Matteson	Steger			
Skokie	Deer Park	Maywood	Stickney			
University Park	Des Plaines	Melrose Park	Stone Park			
Winnetka	East Dundee	Merrionette Park	Streamwood			
	East Hazel Crest	Midlothian	Summit			
	Elgin	Morton Grove	Thornton			
	Elk Grove Village	Mount Prospect	Tinley Park			
	Elmwood Park	Niles	Westchester			
	Evergreen Park	Norridge	Western Springs			
	Flossmoor	North Riverside	Wheeling			
	Forest Park	Northbrook	Willow Springs			
	Forest View	Northlake	Wilmette			
	Franklin Park	Oak Forest	Worth			
	Glenview	Oak Lawn				



Spanish Translation of the Chicago Minimum Wage Complaint Affidavit

#### |La Ciudad de Chicago | Departamento de Asuntos de Negocios y Protección al Consumidor |

2350 W. Ogden Avenue, Segundo Piso Chicago, IL 60608 Tel. 312.743.5185 Fax. 312.743.1841 www.cityofchicago.org/bacp

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### El Afidávit de Quejas de Salario Mínimo y El Permiso Por Enfermedad

#### **Instrucciones**

Por favor, complete TODA la información solicitada debajo. Si la información no es completa, es posible que rechazan o retrasan su queja. Después de completar, por favor firma y fecha este afidávit. Además, si su queja no es legible ni firmado, no procesan tu queja.

Informaci	ón de En	npleado							
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Nombre(s)			de	Ciudad	Estado		igo Postal )/Supervisor(es):		

#### INFORMACION SOBRE SU TRABAJO

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Enviar por correo: Department of Business Affairs and Consumer Protection (BACP)

Attn: Minimum Wage Intake 2350 W. Ogden Avenue, Second Floor Chicago, IL 60608

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Enviar por correo electrónico: BACPconsumer-fraud@cityofchicago.org

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Fax a: 312.743.1841

Nota: Si envía este formulario, incluye una hoja de cubierta de fax.