EMPLOYMENT POLICIES INSTITUTE

Economic Analysis of a Living Wage Ordinance

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July 1999

Economic Analysis of a Living Wage Ordinance *Executive Summary*

> *"If you get all the facts, your judgement can be right; if you don't get all the facts, it can't be right."*
>
> **Bernard Baruch**

Decisions made without proper information risk serious consequences. Nowhere is this more true than in public policy. Nonetheless, city councils across the country are now making decisions on one of the hottest public policy concepts in memory — the "living wage" — without access to the facts that would form the basis of sound public policy.

The "living wage" movement is active in more than 70 cities and at least 39 states. Typically, living wage advocates push for a super-high minimum wage — between 50% and 150% higher than the federal minimum wage — for city contractors or employers who receive special treatment from a city/county. More than 30 major cities have already implemented a living wage requirement, with passage expected soon in many other jurisdictions.

To date, few economists have had the opportunity to study the living wage. The authors of this report, Dr. George Tolley, Peter Bernstein and Michael Lesage, have blazed a trail that other researchers can now follow. The methodology employed by the authors provides information essential to any informed decision on the living wage.

Findings

This study was originally presented to the Chicago City Council in July 1996. At the time, the Council was considering a "living wage" ordinance calling for a 79% minimum wage hike for employees of city contractors and firms that received municipal tax breaks. The results of this study were alarming:

- The ordinance would cost the city nearly $20 million per year. The city would spend more than 20% of this amount ($4.2 million) on the administrative costs of certification, monitoring, and enforcement of the ordinance. This $20 million cost would require a permanent tax increase on citizens of Chicago.

- Labor costs among affected firms would rise by $37.5 million. This amount does not include additional administrative costs employers would incur in submitting payroll data and other paperwork to the city, or in determining which workers (if any) would be covered by the ordinance. Even firms that already paid more than the wage called for in the ordinance would bear the ongoing costs of

proving their compliance.

- The city could expect at least 1,300 lost jobs as a result of the ordinance.

- On a per-employee basis, the costs of the proposal could total more than $7,000. However, an affected full-time worker supporting a family would see his or her disposable income rise by less than $1,900 under the ordinance. Meanwhile, the federal government would "gain" more than $4,400 (much of it from increased payroll and income taxes), and the state government would "gain" more than $900.

- The living wage ordinance would result in pay increases for about 8,470 workers. However, the authors point out that many of these workers were not in poverty to begin with. Nationwide, more than 70% of workers with wages below $7.50 live in households with incomes well above the poverty line for a family of four. Thus, while more than 8,400 workers in Chicago would get a raise, the number actually pulled out of poverty would be much smaller — despite tens of millions of dollars in new costs to the city. Moreover, the authors note that many of the 1,300 people who would lose their jobs could fall into poverty.

When presented with these facts, the Chicago City Council shelved the living wage proposal. Advocates of the policy later convinced the City Council to accept a less extensive version of the living wage proposal. City officials estimated this second proposal would cost the city as much as $4 million.

Current Perspective

This is perhaps the most comprehensive study of the living wage yet produced. It provides a clear outline of concerns that officials in other municipalities should consider. Among these concerns:

- **Overall cost**: this study suggests that even a modest proposal easily stretches the cost into the millions of dollars.

- **Efficiency of the policy**: this study suggests the living wage is a grossly inefficient use of city resources if the goal is to help family heads increase their income. Analyzing the true impact on family income means incorporating federal and state income taxes, FICA taxes, reductions in the Earned Income Credit, and reduced food stamp and Medicaid benefits.

- **Job loss**: employment reductions among the least skilled can be estimated and should be considered prior to passage of a living wage ordinance.

While the magnitude of these results will vary by locality, there are two reasons why one could reasonably suggest that the numbers in this study *underestimate* the potential impact in many cities. First, depending on how it is enforced, the ordinance could cover many employers who were not covered by this study. The study does not include subcontractors of firms that benefit directly from city assistance. For instance, the study covers building developers who receive city assistance, but not the building management company or janitorial service hired by the developer to maintain the building. Moreover, the study does not include small busi-

nesses located in buildings sold by the city at a discounted price — arguably a form of city assistance. The study does not include manufacturing firms which sell equipment to the city, though the entire assembly lines of such firms could be covered under the 1996 ordinance proposed in Chicago. And the study does not include future reductions in job creation as employers decide whether to expand their operations in, or business with, the city of Chicago. Adding these elements to the analysis would clearly produce substantial increases in the total cost estimates.

Second, the authors studied a proposed 79% increase in the minimum wage for certain employers in Chicago. Some current living wage initiatives call for wage increases that are larger. In California, the city of San Jose recently passed a living wage ordinance that carries a wage rate 87% higher than the state's current minimum wage and 109% above the federal minimum wage rate. In San Francisco, living wage proponents originally sought a wage rate that was 152% higher than the applicable minimum wage. Almost all of the 70+ living wage ordinances proposed so far call for wage rates that are *at least* 41% above the current federal minimum wage.

While living wage proposals vary on specific points, the structure of the Chicago proposal studied here is not uncommon. Similar initiatives are being considered in or have passed in areas as diverse as Los Angeles, CA; Montgomery County, MD; Madison, WI; Detroit, MI; Hartford, CT; and Oakland, CA.

Conclusion

The authors provide a comprehensive model for other cities to utilize in determining the potential local impact of a living wage in their respective cities. City officials currently considering a living wage ordinance should employ a credible method to weigh these potential costs against the arguments of living wage advocates before making their decisions. The Employment Policies Institute has worked with George Tolley, Peter Bernstein and Michael Lesage to publish this report so that policy makers across the nation will have access to at least one proven model for studying this issue and developing critical information that will support sound public policy.

Economic Analysis of a Living Wage Ordinance

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I. Introduction

A. Purpose of Report

The purpose of the present report is to estimate the costs of the "Chicago Jobs and Living Wage Ordinance," (hereafter "Ordinance"), proposed before the Chicago City Council on May 9, 1996. The proposed Ordinance would require firms that receive assistance from the city of Chicago to pay their workers an hourly wage of $7.60. The proposal would affect city contractors, subcontractors, and concessionaires, as well as recipients of subsidized loans, tax increment financing (TIF) funds, tax abatements, and other beneficiaries from city government. The Ordinance would not affect workers employed in construction, or employees under the age of 19 who were hired as part of the city's summer job program.[1]

B. Benefits and Costs of the Living Wage

While raising wages bestows benefits on workers whose wages are raised and who stay employed, it also imposes many costs. Each dollar that is paid to a worker in additional earnings must come from someone else. A city contractor, for example, may respond to the higher labor costs by passing those costs along to the city in the form of a higher contract price. By paying more for goods and services, the city, and ultimately taxpayers, would bear the cost of the living wage.

In other cases, firms may respond to the higher costs of the living wage by raising their prices, thereby passing the costs along to consumers. Still other firms would respond to the increase in labor costs by reducing employment. In that case, the cost of the living wage would be borne by workers who lose their jobs. Finally, the higher labor costs of the proposal may reduce employer profits, making the city a less attractive place to do business, leading some firms to leave the city and discouraging other firms from expanding their business within the city. Furthermore, firms and the city government would face additional administrative costs necessitated by the proposal.

C. Outline of This Report

Section II of the report develops an estimate of the additional labor cost that would result from the proposed Ordinance. A survey was conducted of contractors, delegate agencies, airport concessionaires, recipients of TIF funds, and subsidized loan recipients. Using the results of the survey, an estimate was made of the cost of raising the wage of each worker to $7.60/hour. The survey results were then converted to obtain a citywide estimate of the cost of the proposed Ordinance. Note that this report relies on a narrow interpretation of which companies would be covered by the proposal. If the Ordinance were interpreted to cover a wider range of firms, the estimated cost of the Ordinance would be higher, perhaps by a vast amount.

Section III of the report examines the responses of employers to the increase in labor

costs resulting from the Ordinance. Some employers would pass the entire cost of the Ordinance through to city government, as in the case of a contractor who increases the price of supplying goods and services to the city. In this case, the cost of the Ordinance is borne by taxpayers who must pay higher taxes to fund the increase in the cost of city government. In other cases, employers would respond to the increase in wages by dismissing low-skill workers. In still other cases, the proposal may reduce profits and cause companies to leave the city as a result of the Ordinance. Employer responses are estimated based on the survey data and application of results of previous economic studies.

Section IV analyzes the benefits and costs of the proposed Ordinance. The impact of raising a worker's wage from $4.25/hour (the federal minimum wage in May of 1996) to $7.60/hour is examined, considering the effect on the employer, the worker's family and taxpayers at various levels of government. Included in the analysis is the impact on the worker's household income of changes in wages, taxes and government benefits.

Section V examines the overall impact of the proposed Ordinance on Chicago. Employment in Chicago is reduced because some employers would dismiss workers when faced with an increase in labor costs. Taxes in the city of Chicago would be increased because some employers pass their costs to the city. Included in the analysis of Section V is the impact of the proposed Ordinance on poverty in Chicago and a discussion of the economic effects if the city does not raise taxes.

A summary of the report's key findings is presented in Section VI. An epilogue to the report presents a discussion of the political history of the Living Wage Ordinance in Chicago from 1996 to 1998.

II. Calculation of Wage Cost of Proposed Ordinance

A. Survey of Affected Firms

The first step in analyzing the impact of the proposed Ordinance is to estimate the increase in wages received by affected workers and paid for by affected employers. The estimate of the wage cost was based on surveys of city contractors, delegate agencies, airport concessionaires, recipients of TIF funds and recipients of subsidized loans. A total of 133 firms were surveyed. While there are many other beneficiaries of city assistance, the survey re-

Table 1
Results of Surveys of Firms Affected by the Proposed Ordinance

Category	Number of Firms Surveyed	Covered Employees	Earning $6.00 – $7.50	Earning Under $6.00
Contractors	46	1,072	26	134
Delegate Agencies	46	1,954	229	262
Airport Concessions	16	1,739	321	752
TIF Recipients	9	5,923	1,195	839
Loan Recipients	16	634	110	62
Total	**133**	**11,322**	**1,881**	**2,049**

spondents appear to be representative of affected firms. The list of affected firms was obtained from publicly available documents and the city of Chicago.

Participants in the survey were asked questions concerning their business in Chicago and with the city, their total number of employees, and the percent of their employees who earn between $6.00/hour and $7.50/hour and the percent who earn less than $6.00/hour. Table 1 presents the survey results.

Table 1 shows that the 133 firms that comprised the sample had a total of 11,322 employees that would be covered by the proposed Ordinance. Of the covered employees, 1,881 were earning between $6.00 and $7.50/hour and another 2,049 were earning less than $6.00/hour. Overall, 3,930 of the 11,322 covered employees at the surveyed firms, or 34.7 percent, would be eligible for a wage increase under the proposed Ordinance.

It should be noted that this report uses a rather narrow interpretation of the scope of the Ordinance. Only those employees specifically working on a city contract or at the specific facility that receives assistance are considered covered employees. Part E of this section addresses the impact of a broader interpretation of the proposed Ordinance.

B. Estimation of Additional Labor Cost of Surveyed Firms

Based on the survey results, an estimate was made of the total cost to the employer of raising every covered employee's wage to at least $7.60/hour. It was estimated that employees currently earning between $6.00 and $7.50/hour were earning, on average, $6.75/hour (equal to the midpoint wage between $6.00 and $7.50). An increase in these workers' wage to $7.60/hour equals an $0.85/hour raise. Based on 2000 hours of work per year, the wage cost of raising a single worker's wage is $1,700 per year. In addition to the higher wage cost, the employer would be responsible for additional FICA taxes equal to 7.65 percent of $1,700 per year, making the total cost per worker equal to $1,830.05 per year.

Workers currently earning less than $6.00/hour were estimated to have an average wage of $5.125/hour, equal to the midpoint between $6.00/hour and the federal minimum wage of $4.25/hour. The annual cost of raising one worker's wage from $5.125/hour to $7.60/hour is equal to the wage increase ($2.475/hour), multiplied by 2000 hours of annual work, multiplied by 1.0765 to account for the additional

Table 2
Estimated Additional Labor Cost to Surveyed Employers of Proposed Ordinance

Category	Number of Covered Employees Eligible for Wage Increase	Total Cost of Raising All Covered Employees to $7.60/hour
Contractors	160	$761,624
Delegate Agencies	491	$1,814,233
Airport Concessionaires	1,073	$4,666,197
TIF Recipients	2,034	$6,657,668
Loan Recipients	172	$531,683
Total	**3,930**	**$14,431,405**

FICA taxes owed by the employer. Thus, the total cost of raising the wage of a worker currently earning less than $6.00/hour was estimated to equal $5,328.68 per year.[2]

Table 2 presents the estimated additional labor cost of raising to $7.60/hour the wage of all the covered employees of the surveyed firms.

Table 2 shows that the surveyed firms would incur an additional cost of more than $14.4 million to raise the wage of all employees to at least $7.60/hour.[3] The average additional cost per eligible employee is $3,672 per year ($14,431,405 divided by 3,930 employees), or $3,411 per year not including the employer's additional FICA taxes. Put differently, the average worker at a surveyed firm would be eligible for a wage increase of about $1.70/hour ($3,411/2000 hours), meaning that the average worker's current wage is about $5.90/hour ($7.60 - $1.70).

C. Conversion of Survey Results to Citywide Totals

The results from Tables 1 and 2 need to be converted from survey totals into citywide totals, presented in Table 3. The conversion is done by multiplying the results, by category, to reflect the size of the survey sample relative to the total beneficiaries. For example, as shown in Table 3, a citywide conversion factor of 11 is used for city contractors because it is estimated that the surveyed contractors received 1/11th of the total dollar amount of non-construction contracts awarded by the city.[4] Thus, as Table 3 shows, the estimated total number of contract employees covered by the Ordinance is 1,760 (160 times 11) and the estimated total cost of raising their wages is $8,377,864 ($761,624 times 11).

Note that Table 3 includes an estimated cost faced by other beneficiaries of city assistance, beyond those included in the survey. Among the other beneficiaries are firms located in Enterprise Zones, recipients of tax abatements or waivers of water and sewer charges, buyers of discounted property, and recipients under other assistance programs. It is estimated that 1,000 workers currently employed with these other beneficiaries earn less than $7.60/hour.[5] If the average cost of raising the wages of these workers is equal to the cost per worker for the

Table 3
Estimated Citywide Cost of Proposed Ordinance

Category	Number of Affected Workers (Survey)	Estimated Cost (Survey)	Citywide Conversion Factor	Number of Affected Workers (Citywide)	Estimated Cost (Citywide)
Contractors	160	$761,624	11	1,760	$8,377,864
Delegate Agencies	491	$1,814,233	4	1,964	$7,256,932
Airport Concessions	1,073	$4,666,197	1.5	1,610	$6,999,296
TIF Recipients	2,034	$6,657,668	1.2	2,441	$7,989,202
Loan Recipients	172	$531,683	6	1,032	$3,190,098
Other Beneficiaries	N/A	N/A	N/A	1,000	$3,672,000
Total	**3,930**	**$14,431,405**	**N/A**	**9,807**	**$37,485,392**

firms included in the survey, the other beneficiaries would face additional labor costs of $3,672,000 per year ($3,672 per employee).

Table 3 shows that the proposed Ordinance would lead to a citywide additional labor cost faced by affected employers of $37.5 million per year. Using the same conversion factors presented in Table 3, it is estimated that a total of 9,807 employees, including 1,000 employees of other beneficiaries, would be eligible to receive a wage increase under the proposed Ordinance. The total additional cost per eligible employee is $3,822 per year ($37,485,392/9,807) or $3,551 per year, not including the employer's additional FICA taxes. These averages differ slightly from the averages discussed following Table 2 because of the different weightings used to calculate the citywide total.

D. Additional Administrative Costs

The calculated costs in Tables 2 and 3 only consider the increased labor costs of the proposed Ordinance. In addition to the labor costs, firms receiving assistance would be subject to new administrative costs. The administrative costs include:

- The costs of applying for assistance. Firms would have to submit payroll data and other paperwork to the city. This required paperwork includes not only detailed information about the direct beneficiary, but also about any subcontractors or tenants who may also qualify as a beneficiary.

- The costs of determining whether a company and its workers are covered by the Ordinance. This may require consulting with a lawyer, reviewing payroll data, and determining which workers are employed on the city contract and which are not. Note that these costs would apply to all firms, even those that already pay the required wage to all their workers.

- The costs of compliance. Firms must continue to submit payroll data and other paperwork to the city. This could be extremely burdensome for manufacturing firms that supply equipment to the city if all assembly workers are considered covered employees. The Ordinance also requires "First Source" hiring which requires firms to consider applicants from community based hiring halls before it accepts applications from the general pool of applicants. Again, firms that already pay the required wage to all their workers would bear the burden of proof of compliance.

- Bureaucratic costs would also be present because the city would incur costs to monitor firms and investigate alleged violations of the act. This would lead to an increase in the cost of city government and could necessitate higher taxes to fund the activity.

No estimate of the administrative costs faced by employers resulting from the Ordinance is included in the costs presented in Tables 2 and 3. Nonetheless, such costs would exist and would be added to the $37.5 million in additional labor costs resulting from the Ordinance.

The Office of Management and Budget of the city of Chicago reported that the estimated annual administrative cost for certification, monitoring, and enforcement of the Ordinance would be $4.2 million.

E. An Even Broader Interpretation of the Ordinance

In addition to the inclusion of other public agencies, the proposed Ordinance could be interpreted

even more broadly. The following is a list of additional beneficiaries and covered employees that were *not* included as part of the citywide estimated total cost of the proposed Ordinance, but could be included if the Ordinance were enacted.

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1. Many beneficiaries employ subcontractors. The subcontractors would likely work on a number of different projects, not all of which are for the beneficiary of city assistance. In a broader interpretation, all of the subcontractor employees would be covered by the Ordinance, even if their work for the beneficiary represents a tiny portion of their total activity.

2. The Chicago Archdiocese receives waivers of property taxes, water and sewer fees. Under a broad interpretation, all their employees would be covered.

3. Many small businesses are located in buildings sold by the city at a discounted price. If the assistance from the city, which is the difference between the market value of the building and the sale price, exceeds the thresholds in the Ordinance, the business could be required to pay all employees at least $7.60 an hour.

4. A developer of an office building constructed using TIF funds would clearly be considered a beneficiary of city assistance. Would the property management company subcontracted to run the building by the developer also be a beneficiary? How about the janitorial service hired by the property management company? And bicycle messengers hired to do deliveries for the building?

5. Manufacturing firms which sell equipment to the city of Chicago could be required to pay all employees the living wage, including non-U.S. employees. Any worker participating in the assembly process could be considered a covered employee, even if working in Indonesia.

Beneficiaries Not Included in the Calculation of the Citywide Cost of the Proposed Ordinance
Clearly, the cost of the proposed Ordinance could be substantially greater than the costs estimated in Table 3, particularly if the scope of the Ordinance were interpreted to include foreign contract employees, many of whom might be paid far below $7.60/hour. Therefore, the cost estimate presented in Table 3 should be viewed as appropriate for a narrow interpretation of the Ordinance.

III. Employer Response to Increase in Wage Costs

A. Three Employer Responses

In the previous section, it was estimated that employers would face additional annual labor costs of $37.5 million if the Ordinance were enacted. Faced with an increase in labor costs, employers may respond in three ways:

- Raise prices to cover the increase in wage costs, thereby passing the costs of the Ordinance on to the firms' customers.

- Reduce costs by reducing the number of workers employed.

- Reconsider the firm's association with the city and contemplate relocating the firm elsewhere.

The present section of the report discusses in greater detail each of the three responses.

B. Response One: Cost Pass-Through to Consumers and Taxpayers

1. What is Cost Pass-Through

Cost pass-through occurs when the firm passes the increase in its costs through to its customers through an increase in price. Because the

Ordinance affects firms that sell goods and services to the city, price increases by these firms would raise the cost of city government. The increased cost of city government could, in turn, lead to a tax increase. In this case, the costs of the Ordinance are passed through to the city taxpayers.

If a firm is able to completely pass the increased wage costs on to its customers — consumers and taxpayers — the firm would have little need to reduce employment. Instead, the firm could continue to employ the same number of workers at the higher wage required by the Ordinance and recoup the increase in wage costs through an increase in revenues generated by higher prices. However, to the extent that any price increase is passed through to the city, city spending would increase, leading to a tax increase.

2. Under What Conditions is Cost Pass-Through Likely

The ability of firms to pass their costs on to their customers depends, in part, on the willingness of their customers to pay higher prices. When the city is the customer, the willingness to pay higher prices is rooted in the willingness of city residents to pay higher taxes as opposed to accepting service cuts. As part of the analysis of Section V, both conditions will be examined with separate estimates of the economic impact of the Ordinance if city taxes are raised and if taxes are not raised.

Another factor determining whether cost pass-through is likely, apart from the willingness of customers to pay higher prices, is the nature of competition between firms. If only one firm experiences an increase in operating costs due to the Ordinance, it would be difficult for that single firm to pass its costs on to its customers because its customers could buy from a competing firm that did not experience a cost increase. On the other hand, if all firms experience an increase in operating costs due to the Ordinance, each individual firm would find it easier to raise prices knowing that its competitors also face a cost increase. Thus, a determinant of the ability of firms to pass higher costs on to their customers is the extent to which their competitors are also affected by the Ordinance.

Firms that receive assistance from the city in the form of loans or TIF funds, but sell their product in the wider marketplace, may have little ability to pass any increased costs on to their customers. These firms are likely to face competition from other companies that do not receive assistance from the city and are not subject to an increase in labor costs. In contrast, firms that sell goods and services directly to the city would be more likely to pass the increased costs on to the city because any other firm selling their product to the city would also be subject to the Ordinance.

Competition between firms selling goods and services to the city would have an ambiguous effect on the ability of affected firms to pass their costs on to the city. Suppose a contractor that does not pay $7.60/hour raises the price of its contract to offset the increase in wage costs. It is possible that another competing contractor that already pays all its workers $7.60/hour would be able to do the work for less because this second firm would not face an increase in its wage costs from the Ordinance. In this case, competition would serve to limit the increase in the cost of city government resulting from enactment of the Ordinance.

However, in other cases, the Ordinance would lead to a larger increase in the cost of city government. A firm that already pays all its workers $7.60/hour would face no increase

in labor costs from the Ordinance but might raise its price to the city regardless because this firm's competitors may face an increase in labor costs. This effect is known as an *indirect cost-pass-through* and occurs when affected and unaffected firms compete with each other. In other words, competition may cause some firms that pay less than $7.60/hour to lose business to firms that pay $7.60/hour (thereby mitigating the cost increase) but competition may also allow firms that pay $7.60/hour to raise their prices as well (exacerbating the cost increase).

3. Evidence from Previous Studies

Previous studies of the impact of higher wages show that higher prices are definitely one result. According to Kevin Murphy, professor of economics at the University of Chicago, one effect of an increase in the minimum wage is that "all of those whose wages and income are not increased by the minimum will be worse off, as the higher minimum raises employers' costs and the ultimate prices of products."[6]

The same conclusion was obtained from a study of New Jersey fast-food restaurants by economists David Card and Alan Krueger. Card and Krueger found that the price of meals at these restaurants increased when the state of New Jersey increased its minimum wage from $4.25/hour to $5.05/hour.[7] Interestingly, price increases occurred at firms that previously paid most of their workers $4.25/hour (direct cost-pass-through effect) and at firms that previously paid most of their workers at least $5.05/hour (indirect cost-pass-through effect). In other words, firms that did not experience much of an increase in costs as a result of the higher wage still raised their prices because their competitors also faced an increase in costs.

C. Response Two: Firms Reduce Employment

1. Reason for Reduction in Employment

A second employer response to the increase in wage costs resulting from the Ordinance is a reduction in the number of workers employed. It is well known that consumers buy less of a product that has risen in price, unless they get a compensating increase in their income. Employers who cannot completely offset the wage increase through an increase in income from higher prices will reduce costs by hiring fewer workers.

The degree to which employers reduce employment depends on the increase in the cost of labor. The likelihood that an employee is dismissed is related to the increase in wages that the worker would experience under the Ordinance. A worker currently earning $7.50/hour would be far less likely to be dismissed than a worker currently earning $4.25/hour because the Ordinance causes the first worker's wage to rise by only ten cents an hour while the second worker's wage would increase by $3.35/hour. Thus, heavier employment losses would be experienced by workers currently earning far less than $7.60/hour, meaning that the lowest skilled workers are most likely to become unemployed.

2. Measurement of Employment Loss in Response to Wage Increase

The decline in employment resulting from an increase in wages depends on the employers' elasticity of demand for labor. The elasticity of demand for labor measures the percentage change in employment resulting from a one percent change in wages. If the elasticity of demand is -1, it means that a 1 percent increase

in wages leads to a decline in employment of 1 percent. Put differently, if wages were to increase 25 percent and the elasticity of demand were -1, employment would fall 25 percent.

When the elasticity of demand for labor is -1, the total expenditures on labor are effectively unchanged by a change in wages. That is, if a 1 percent increase in wages leads to a 1 percent decrease in employment, total labor costs remain unchanged because 1 percent fewer workers are earning 1 percent more in wages.[8] If the elasticity of labor demand is greater in magnitude than -1, an increase in wages leads to a decline in total labor costs because the percentage decline in employment exceeds the percentage increase in wages. Conversely, if the elasticity of labor demand is less in magnitude than -1, total labor costs rise because the percentage decline in employment is less than the percentage increase in wages.

3. Factors Which Influence the Elasticity of Demand

Ability to Raise Prices

The elasticity of demand for labor is closely tied to the ability of firms to pass increased costs to their customers. If firms can fully pass the costs to their customers, the firm will not have to reduce employment and the elasticity of demand for labor may be equal to 0, meaning no change in employment. If firms are unable to pass any of their costs on to their customers, the elasticity of demand may be equal to -1, which is the elasticity needed to keep total labor costs unchanged and allow the firm to continue to charge the same prices. If firms are able to pass some, but not all of their increased costs on to their customers, the elasticity of demand may be between 0 and -1, which gives the result that an increase in wages will lead to a partial decline in employment and a partial increase in firms' operating costs, passed on as a somewhat higher price to consumers. In other words, the less able firms are to pass their costs on to their customers, the more aggressively they will attempt to cut their costs by reducing employment.

The Magnitude of the Wage Increase

The greater the magnitude of the wage increase, the greater will be the increase in operating costs. Obviously, firms will find it more difficult to pass a large cost through to their customers (requiring a large price increase) than a small cost. Furthermore, the larger the wage increase, the more workers likely to be eligible for the increase and the greater the additional wage cost that would result from paying more workers higher wages.

Ability to Substitute Higher Skilled Employees for Lower Skilled Employees

Wage rates are related to the skill level of the employee. Higher skilled workers are paid higher wages than lower skilled workers. If a firm is required to pay all its workers at least $7.60/hour, regardless of skill level or experience, the firm will have a strong incentive to replace its lower skilled workers who currently earn less than $7.60/hour with higher skilled workers. For example, suppose a firm employs 20 workers at $6/hour, yielding a total hourly labor cost of $120/hour. Faced with a requirement to pay its workers at least $7.60/hour, the firm may choose to replace all of its 20 relatively low skilled workers with 15 higher skilled workers earning $8.00/hour. In this way, the firm keeps its labor costs constant by hiring fewer higher skilled workers instead of hiring more lower skilled workers. The easier it is for a firm to replace low-skill workers with high-

skill workers, the greater will be the elasticity of demand for workers currently earning less than the required wage.

4. Estimates of the Elasticity of Demand for Labor

Consensus Estimates

Most of the economic analysis of the elasticity of demand for labor comes from studies of the impact of changes in the federal minimum wage. These studies show a range of effects, but all indicate that the elasticity response to changes in the minimum wage is less in magnitude than -1. The consensus among economists is that the elasticity of demand at the minimum wage is between -0.1 and -0.3, meaning that a 10 percent increase in the minimum wage leads to a decline in employment of minimum wage workers by between 1 and 3 percent. Furthermore, relatively less experienced and lower skilled workers are most likely to be adversely affected, as confirmed in a study by economists Kevin Murphy, Donald Deere, and Finis Welch which showed that teenagers and adult high school dropouts faced relatively large employment losses following the 1990-1991 increase in the minimum wage.[9]

Recent New Jersey Study

Recently, evidence has been presented that challenges the traditional view that a higher minimum wage decreases employment. Economists David Card and Alan Krueger examined the impact of the 1992 increase in the minimum wage in the state of New Jersey from $4.25/hour to $5.05/hour. They found that employment in fast-food restaurants did not decline, and in fact appeared to increase relative to employment in similar restaurants in bordering Pennsylvania where the minimum wage remained unchanged.

Two other economists, William Wascher and David Neumark, re-examined the New Jersey study using actual payroll data and a somewhat different methodology and found that employment did decline, as predicted by the traditional theory.[10] Therefore, while some studies show relatively large declines in employment following an increase in the minimum wage and a few studies show no decline or even an increase in employment, the consensus among economists is that employment declines when the minimum wage is raised.

Relevance of Minimum Wage Studies to Proposed Ordinance

The elasticity of demand for labor in response to a change in the federal minimum wage is likely to be smaller than the elasticity of demand for labor in response to the proposed Ordinance for the city of Chicago. First, the Ordinance mandates a wage of at least $7.60/hour, 79 percent above what was then the current minimum wage of $4.25/hour, whereas the New Jersey and other minimum wage studies have considered the impact of increases of ten to twenty percent. Although they have not studied the effect of a substantial wage increase, Card and Krueger suspect that "at sufficiently high levels of the minimum wage, the predicted employment losses of the standard model will be borne out."[11] Their observation reflects the fact that the greater the wage increase, the greater the potential costs to employers and the more likely employers are to respond by reducing employment.

Second, businesses which employ a large number of minimum wage workers generally compete with one another and, consequently, all these firms are equally burdened by the higher minimum wage. As explained earlier, the elasticity of demand is lower when firms can pass their costs through to their customers and

firms are more able to pass costs through if their competitors also face cost increases. As a result, the minimum wage elasticities are relatively low because, as Card and Krueger found, firms affected by the minimum wage are able to pass most of their costs through to their customers. If firms affected by the proposed Ordinance cannot easily pass costs to their consumers, their elasticity of demand for labor would be greater than the federal minimum wage elasticity of demand for labor.

A third reason why the minimum wage elasticity is likely to be less than the elasticity in response to the proposed Ordinance is that the minimum wage is federal law while the proposed Ordinance is a local law. Businesses cannot avoid coverage of the federal minimum wage by relocating elsewhere in the country. But firms in Chicago could avoid coverage of the proposed Ordinance by relocating outside the city of Chicago, as discussed in the next section of this report. If firms leave Chicago and move to a nearby suburb in response to the Ordinance, employment in Chicago will decline, even if total employment in the Chicago area remains the same. In other words, the local elasticity of demand for labor (the change in local employment in response to a change in local wages) will be greater than the national elasticity of demand for labor (change in national employment in response to a change in the national minimum wage).[12]

D. Response Three: Firms Relocate to Avoid Ordinance

The proposed Ordinance affects firms that receive some assistance from the city of Chicago, including, but not limited to, subsidized loans, TIF funds and tax abatements. These kinds of assistance are provided by the city as part of an overall economic development strategy whereby the benefits from encouraging businesses to locate and expand within the city are estimated to outweigh the costs of the assistance program. If the Ordinance were enacted, firms that are receiving assistance from the city may find that the higher wage costs resulting from the Ordinance outweigh the benefits received from the city by the firm. In these cases, the firm would reconsider continuing its relationship with the city and contemplate relocating to avoid being covered by the Ordinance.

Consider a company that receives a $200,000 Industry Retention and Expansion Loan (IREL) at an interest rate lower than the interest rate that the company could receive from a private bank. Suppose the IREL rate is 6 percent less than the private bank rate. In this case, the assistance the firm receives from the city is equal to the interest savings from the city loan program, equal to 6 percent of $200,000 or $12,000 per year. The interest savings serve as incentive for the company to locate or expand within the city. Now suppose the Ordinance is enacted and the firm discovers that it would incur an additional $20,000 in labor costs. The total cost to the company of the Ordinance ($20,000) would then exceed the $12,000 benefit received from the city.

The company could respond in a number of ways. It could try to raise prices to offset the cost of the Ordinance, but competition from other firms not affected by the Ordinance would make this difficult. The firm could reduce the costs of the Ordinance by dismissing some of its workers. Or the firm could determine that it would be better off by discontinuing its association with the city by canceling the loan and freeing itself from the additional wage costs mandated by the Ordinance.

In terms of the overall impact on the city of Chicago, the key issue is whether the Ordinance causes firms to close down or move out of the

city. The firm's decision would depend on how the Ordinance affects its profits. If the firm is able to pass their additional costs through to their customers in the form of higher prices, their revenues would increase to match their cost increase and leave profits unaffected. In that case, the firm would have no reason to leave the city. Similarly, if the firm is able to reduce employment sufficiently to offset the increase in labor costs, profits would not be harmed and the firm would have little reason to relocate.

However, sometimes businesses are unable to use price increases or employment reductions to offset the higher costs of the Ordinance. In addition, firms would face administrative costs that cannot be avoided. Therefore, in some cases, the Ordinance would cause profits to decline. The employer's response to a decline in profits depends on whether the business is still making sufficient profits to continue its operations in the city. If profits fall only very slightly, the company may not relocate or close down, but any decline in profits resulting from the Ordinance would encourage businesses to consider relocating outside of the city of Chicago. In recent years, many businesses have left the city of Chicago and moved to a nearby suburb, to another state, or to another country. In fact, it is the presence of various assistance programs — TIF financing, subsidized loans, tax abatements — that have kept many businesses in Chicago that would otherwise have left. Consequently, it appears that if the proposed Ordinance meaningfully reduced the profits of affected firms, many of these firms would leave the city of Chicago.

E. Estimated Employer Responses by Types of City Assistance

The likely responses of different employers to the higher costs imposed by the proposed Ordinance are summarized below.

1. City Contractors

Contractors who provide goods and services to the city would be most likely to respond to the proposed Ordinance by raising the price of their city contract, consistent with the cost pass-through model. If the city were willing to pay the higher price, the costs would be passed further through to taxpayers in the form of a tax increase.

If the city is unwilling to raise taxes to fund the higher price of contracted goods and services, contractors would resort to dismissing workers in an attempt to lower their costs to offset the increase in wages.

2. Delegate Agencies and Other Not-for-Profit Groups

If delegate agencies and other not-for-profit groups are able to secure more funding, then they may be able to pay their employees the higher wage without having to reduce the level of services provided or the number of workers hired. As with the case of contractors, however, any increase in funding for delegate agencies and other not-for-profit groups would lead to an increase in city government spending. Since it seems unlikely that the state or federal government would provide additional funds to pay the costs of a local Ordinance, the higher funding for delegate agencies and not-for-profits would likely come from an increase in city taxes.

As with the contractors, if the city is unwilling to raise taxes to fund the higher costs faced by delegate agencies and other not-for-profit groups, these agencies would have to reduce services and employment in an attempt to keep

their operating costs consistent with the current level of funding.

3. Airport Concessionaires

Airport concessionaires are limited in their ability to raise prices by another city ordinance which limits the difference between the airport price and the "street" price of products. Given that airport prices already tend to be high, "street pricing" requirements greatly limit the price-raising ability of airport concessionaires. Therefore, in the absence of other remedies, these firms would most likely respond to the Ordinance by reducing employment.

Many of the concessionaires interviewed for this study stated that they would respond to the Ordinance by attempting to renegotiate their rent payments to the city of Chicago. Lower rent payments would produce a shortfall in the Airport Authority's budget, which could necessitate some kind of offsetting tax increase. This report does not assume any tax increase to assist airport concessionaires.

4. Recipients of TIF Funds

Companies that receive TIF funds have limited ability to raise prices because they compete with companies that do not receive assistance from the city and would not be affected by the proposed Ordinance. Therefore, it is most likely that companies that receive TIF funds would respond to the increase in wage costs by dismissing workers.

As noted in section D above, some recipients of TIF funds may find that the added cost of the Ordinance exceeds the benefit from the TIF. The company may respond by leaving the city altogether and relocating to a nearby suburb. In this case, all of the Chicago jobs at the company could be eliminated, a much larger job loss than if the firm only partly reduces employment to offset the higher wage costs. Nonetheless, the analysis in this report assumes that recipients of TIF funds do not leave the city, recognizing that this assumption may lead to an underestimation of the decline in employment resulting from the proposal.

5. Recipients of Subsidized Loans

Like recipients of TIF funds, companies that receive subsidized loans through the city have limited ability to raise prices because they compete with companies that do not receive assistance from the city and would not be affected by the Ordinance. Therefore, firms that receive subsidized loans would most likely respond to the proposed Ordinance by reducing employment to offset the increase wage costs.

As with recipients of TIF funds, some recipients of subsidized loans may find that the cost of the Ordinance exceeds the benefit from the loan program. These companies may decide to leave the city, in which case the employment loss would be much greater than if the firm only partly reduces employment to offset the increased wage cost resulting from the Ordinance. The analysis in this report assumes that recipients of subsidized loans do not leave the city, recognizing that this assumption may lead to an underestimation of the decline in employment resulting from the proposal.

6. Other Beneficiaries of City Assistance

Other beneficiaries of city assistance — firms located in Enterprise Zones, recipi-

ents of tax abatements, waivers of water and sewer charges, buyers of discounted property, and other assistance programs — would have limited ability to raise prices because these firms usually compete with other private firms that do not receive assistance from the city. Therefore, the other beneficiaries would most likely respond to the increased labor cost from the Ordinance by reducing employment.

IV. Analysis of Benefits and Costs

The present section examines the impact of the proposed Ordinance as it applies to a full-time worker who earns the federal minimum wage (as of May 1996) of $4.25/hour and is the sole working member of a family of four. The primary purpose of this section is to see how the Ordinance would affect the living standards of the affected worker and determine the impact of the Ordinance on federal, state and city government finances.

A. Increase in After-Tax Income of Worker's Family

Table A examines how the Ordinance would affect the after-tax income of a family of four headed by a full-time worker whose hourly wage is raised from $4.25 to $7.60 per hour. At $4.25/hour, the worker's gross annual income (at 2000 hours of work) is $8,500, as shown in Table A. At that income level, a family of four pays no federal income tax because of the presence of tax deductions and exemptions. The employee is responsible for $650.25 in FICA taxes, equal to 7.65 percent of gross income. In addition, a family of four earning $8,500/year would be responsible for $135.00 in Illinois state income taxes.[13] These tax payments, however, are more than offset by the Earned Income Tax Credit (EITC), a federal program that benefits low-income workers. As shown in Table A, the annual tax credit for a worker

Table A
After-Tax Cash Income of Employee Before and After Ordinance[14]

Income/Tax/Credit	At $4.25/hour for 2000 Hours	At $7.60/hour for 2000 Hours
Gross Annual Income	$8,500.00	$15,200.00
Federal Income Tax	-$0-	-$0-
Employee FICA Tax	-$650.25	-$1,162.80
Illinois State Income Tax	-$135.00	-$336.00
Earned Income Tax Credit	$3,410.00	$2,795.00
Net Annual Income after including taxes and EITC	$11,124.75	$16,496.20
Net Increase in Annual Household Income of Affected Worker	**= $16,496.20-$11,124.75**	
	= $5,371.45	

with two or more children and earning $8,500 per year is $3,410.00. Combining the effect of FICA and state income taxes with the EITC leaves the worker and his family with an annual disposable income of $11,124.75.

Table A also shows the annual disposable income of a family of four headed by a full-time worker earning $7.60/hour or $15,200 per year. As shown in the table, at that level of gross income, the worker's family would owe no federal income tax but would be responsible for $1,162.80 in FICA taxes and $336.00 in Illinois state income taxes. Offsetting these taxes is an Earned Income Tax Credit of $2,795. The combined effect of FICA and state income taxes with the EITC leaves the worker and his family with an annual disposable income of $16,496.20. Therefore, while the Ordinance would increase the worker's annual gross income by $6,700 ($15,200 - $8,500), after consideration of taxes and tax credits the worker's annual net disposable income increases by only $5,371.45 ($16,496.20 - $11,124.75).

B. Loss of Food Stamp and Medicaid Benefits

Many low-income working families receive food stamp and Medicaid benefits. Table B examines the impact of the Ordinance on these non-cash benefits for a family of four headed by a full-time worker whose hourly wage is raised from $4.25/hour to $7.60/hour.

As shown in Table B, at $4.25/hour the worker's family's net cash income (after considering the effect of taxes and credits discussed in Table A) is $11,124.75. In addition to this cash income, the worker's family could be expected to receive $3,721.20 in annual food stamp benefits and $3,408 in annual Medicaid benefits. Adding the value of these in-kind benefits to the family's after-tax income derived from Table A yields an effective family income of $18,253.95 per year.

Table B also examines the effect on family income of food stamps and Medicaid payments to a family of four headed by a full-time worker earning $7.60/hour. As shown in Table B, this worker's family would receive $1,598.40 in annual food stamp benefits and $1,992 in annual Medicaid benefits. Adding the dollar value of these in-kind benefits to the after-tax income derived in Table A yields an effective family income of $20,086.60.

Therefore, after consideration of the full effect of taxes and government benefits, Table B shows that the annual income of a family headed by a

Table B
After-Tax Income with Government In-Kind Benefits[15]

Annual Income and Benefits	At $4.25/hour for 2000 Hours	At $7.60/hour for 2000 Hours
Net After-Tax Income (from Table A)	$11,124.75	$16,496.20
Food Stamp Benefits	$3,721.20	$1,598.40
Medicaid Benefits	$3,408.00	$1,992.00
Total Income plus Benefits	$18,253.95	$20,086.60
Net Increase in Annual Household Income plus Benefits of Affected Worker		**=$1,832.65**

full-time worker earning $7.60/hour is only $1,832.65 greater than the annual income of a family headed by a full-time worker earning $4.25/hour.

C. Cost of Raising One Full-Time Worker's Wage From $4.25/hour to $7.60/hour

Table C shows the impact on the employer of the increase in a full-time worker's wage from $4.25/hour to $7.60/hour. The employer would experience an increase in his or her direct labor cost of $6,700 per year ($3.35/hour times 2000 hours of work per year). In addition to this direct labor cost increase, the employer would be responsible for an additional $512.55 in FICA taxes (7.65 percent of the $6,700), raising the total increased cost to the employer to $7,212.55 per year.

Faced with this increase in labor costs, the employer might respond by dismissing the worker, thereby worsening the economic situation of the worker and the worker's family. Another possible response, as discussed in part B of Section III would be to pass the cost of the ordinance on to the city through an increase in the price of goods and services. If this were the employer's response and if the city were willing to bear the additional costs, the affected worker would not lose his job, but the taxpayers would face an additional burden of $7,212.55 per year in higher taxes to fund the additional spending by city government. Note, then, that taxpayers could be liable for $7,212.55 in additional taxes to increase the disposable income of a family of four by $1,832.65.

D. Where Does the Money Go? Gains to Federal and State Governments

Tables A through C show that Chicago taxpayers could face $7,212.55 in additional taxes to raise the disposable income of a family of four by $1,832.65. What happens to the rest of the money? It goes to the federal and state government, as shown in Table D.

Table D shows that an increase in a full-time worker's wage from $4.25/hour to $7.60/hour would result in $512.55 of additional FICA taxes paid by the employee and matched by the employer. FICA taxes are paid to the federal government in Washington. Similarly, the worker would pay an additional $201.00 of state income taxes at the higher wage, paid to the state government in Springfield. At the same time, the higher wage would reduce the annual Earned Income Tax Credit payments to a family of four by $615 and lower food stamp benefits by $2,122.80. These dollars are returned to Washington because the EITC and the Food Stamp program are federal programs. Finally, Table D shows that at the higher wage,

Table C
Cost of Raising One Full-Time Worker's Wage from $4.25/hour to $7.60/hour

Hourly Wage Increase:	$3.35	
Hours Worked Annually:	2000	
Additional Direct Labor Cost:	$3.35 x 2000 =	$6,700 per year
Additional Employer FICA Tax	$6,700 x 0.0765 =	$512.55 per year
Total Additional Cost to Employer		**$7,212.55**
Total Cost to Taxpayer (if passed through)		**$7,212.55**

the worker's family would be required to pick up $1,416 of the cost of Medicaid benefits, half of which would be returned to Washington, D.C., and the other half to Springfield, Illinois.

The combined effect of higher taxes paid and lower benefits received provides a total gain to government of $5,379.90. Of this gain, 83 percent ($4,470.90) goes to the federal government in Washington, D.C., and 17 percent ($909) of the gain goes to the state government in Springfield, Illinois. None of the $5,379.90 gain goes to the government of the city of Chicago.

E. Summary: Cost is Borne by Chicago Taxpayers, Resulting in Gains to Taxpayers Elsewhere and Limited Net Benefit to Any Chicago Workers

Table E shows that Chicago taxpayers could face additional taxes of $7,212.55 to raise the wage of one worker from $4.25/hour to $7.60/hour. Of that total, $4,470.90 goes to Washington, D.C., $909.00 goes to Springfield, Illinois, and only $1,832.65 ends up going to the family of the Chicago worker. Put differently, Chicago taxpayers could pay approximately four times as much in taxes than would be received by a worker who experiences a wage increase from the Ordinance.

The analysis in Tables A through E demonstrate the futility of trying to solve a national problem — low wages — through a local Ordinance. The proposed Ordinance would shift the burden of aiding low-income families from the federal and state governments to the city government and city taxpayers. And recall that the analysis in Tables A through E assumes that the employer does not respond to the increased labor cost by dismissing the worker, in which case, the worker's family would clearly be worse off than they are now.

V. Overall Economic Impact of Proposed Ordinance

A. Immediate Impact of Ordinance on Employment of Current Beneficiaries

As discussed in Section III, recipients of TIF funds and recipients of subsidized loans would

Table D
Government Gains from Increase in Taxes Paid and Reduction in Benefits Granted to Low-Income Workers, **But Where Does The Money Go?**

Effect on Government of Increase in Wage from $4.25/hour to $7.60/hour	Change in Program Revenues or Spending	Money Goes to:
Additional Employer FICA Taxes	$512.55	Washington, D.C.
Additional Employee FICA Taxes	$512.55	Washington, D.C.
Additional State of Illinois Taxes	$201.00	Springfield, Illinois
Reduction in Earned Income Tax Credit	$615.00	Washington, D.C.
Reduction in Food Stamp Benefits	$2,122.80	Washington, D.C.
Reduction in Medicaid Benefits	$1,416.00	50% to Washington 50% to Springfield
Total Gain to Government	**$5,379.90**	**83% to Washington** **17% to Springfield**

probably not be able to pass their costs on to their customers because they face considerable competition from firms not affected by the Ordinance. These firms would have little choice but to dismiss workers in an attempt to lower their operating costs. Similarly, airport concessionaires would be severely limited in their ability to raise prices because of an existing city ordinance which limits the price on goods sold at the airports. Consequently, the airport concessionaires would also have to reduce employment to lower their operating costs.

From Section II, Table 3, it was estimated that airport concessionaires would face additional labor costs of $6.999 million. Table 3 also showed that TIF recipients face additional labor costs of $7.989 million and loan recipients face additional costs of $3.190 million. Other beneficiaries were estimated to face additional costs of $3.672 million. Taken together, these firms face a total additional cost of $21.850 million.

Faced with an inability to raise prices to offset the cost increase, these firms would have to reduce employment to lower operating costs by $21.850 million. As discussed in upcoming section C, if contractors and delegate agencies are able to pass their additional costs through to the city, they would have no need to reduce employment. Therefore, as shown in Table 5, the immediate impact of the Ordinance would be a reduction of 1,337 jobs by airport concessionaires, TIF recipients, loan recipients, and other beneficiaries. Consequently, of the 9,807 workers eligible for a wage increase under the Ordinance, 1,337 would lose their jobs and 8,470 would receive the pay increase. This represents a reduction of 13.6 percent of the employees eligible for a wage increase.

B. Longer Term Potential Impact on Employment

1. Job Losses by Future Beneficiaries

In the preceding section, the estimated job losses were based on the current level of assistance provided by the city. That is, firms currently receiving assistance from the city would eliminate 1,337 jobs in response to the Ordinance. Beyond this immediate impact, the proposed Ordinance could reduce the effectiveness of future job creation. Future job losses would include not only the 1,337 workers who are dismissed from firms currently receiving assistance, but other workers who would be dismissed — or not hired — by firms that benefit from assistance in the future. For example, Table 5 shows that firms currently receiving TIF funds would eliminate 488 jobs. If the TIF program were targeted for expansion in the coming years, the job losses would increase.

Suppose, for example, that the city issued new TIF funding, raising the total amount of TIF funds by 25 percent above the current level. The job losses likely would increase by

Table E
Breakdown of Effect of Increasing Wage from $4.25/hour to $7.60/hour

Cost to Chicago Taxpayers (if additional wage costs passed through to city)	$7,212.55
Benefit to Washington, D.C.	$4,470.90
Benefit to Springfield, Illinois	$909.00
Benefit to Chicago Worker's Family	$1,832.65

25 percent, bringing the total employment reduction resulting from the Ordinance to 610 (25 percent more than the 488 jobs lost at firms benefiting from existing TIF funds). Similarly, a planned development at O'Hare Airport would normally lead to a large increase in employment, but if the Ordinance were enacted, fewer new jobs would be added. In fact, if the Ordinance were sufficiently costly, the development might not go forward at all and no jobs would be created. Thus, if the city planned to expand its assistance programs in the future, the number of firms affected by the Ordinance would increase, as would the number of job losses.

2. Job Losses Increase as Required Wage Increases

The estimated job losses were based on the current additional labor cost of current beneficiaries, assuming a wage level of at least $7.60/hour. In the future, the mandated wage would be expected to increase, which would increase the cost imposed on employers and encourage firms to make large reductions in employment. As shown in Section II, it was estimated that it would cost affected employers $37.5 million to raise all of their current employees to at least $7.60/hour. The cost of raising all of their current employees to at least $8.00/hour is estimated to be $45.9 million, or 22 percent more than the current cost of $37.5 million. The greater future cost would cause job losses to increase beyond 1,337.

3. Firms May Leave City if Ordinance Severely Affects Their Profits

Another long-term impact of the proposed Ordinance is that it may encourage firms to leave the city if, over time, affected firms discover that the Ordinance severely impacts their profits. In this case, employment losses within the city could be far greater than the 1,337 jobs that would immediately be eliminated if firms

Table 5
Change in Employment Resulting from Ordinance

Category	Number of Employees Earning Less than $7.60/hour	Average Wage of Employees Earning Less than $7.60/hour	Number of Employees Firms Could Employ at $7.60/Hour	Loss of Jobs Resulting from Increase in Wage
Contractors	1,760	$5.39/hour	1,760	0
Delegate Agencies	1,964	$5.88/hour	1,964	0
Airport Concessionaires	1,610	$5.58/hour	1,182	428
TIF Recipients	2,441	$6.08/hour	1,953	488
Loan Recipients	1,032	$6.16/hour	836	196
Other Beneficiaries	1,000	$5.89/hour	775	225
Totals of Above	9,807	$5.82/hour	8,470	1,337

Note: Contractors and delegate agencies would not have to reduce employment if additional funding were provided by the city to offset the employers' increase in labor costs. In that case, total employment would decline by 1,337 to 8,470 as shown in Table 5.

decide to remain in the city. Instead, if the firm left the city, all the jobs would be eliminated — not simply a fraction of the workers earning less than $7.60/hour, but all the workers regardless of their wage level.

C. Estimated Fiscal Impacts

1. City of Chicago Tax Increases

As discussed in Section III, contractors, delegate agencies, and other not-for-profit groups are likely to respond to the ordinance by passing their additional costs on to the city. Contractors would raise their price for providing goods and services and delegate agencies and other not-for-profit groups would request additional funding to prevent service reductions. From Section II, Table 3, it was estimated that the proposed Ordinance would raise contractors' costs by $8.377 million and raise costs of delegate agencies and other not-for-profit groups by $7.256 million. Passing these costs through to the city would result in a $15.633 million increase in government spending leading to a $15.633 million tax increase to prevent service reductions.

The city of Chicago Office of Budget and Management has estimated that the city would face $4.210 million in additional administrative costs resulting from the bureaucratic requirements to monitor and enforce the Ordinance. Adding these administrative costs to the higher cost of city services raises total city spending by $19.843 million, leading to a $19.843 million city tax increase. It should be noted that this is not a one-time tax increase, but a permanent tax increase as long as the Ordinance remains in effect. In fact, as noted earlier, the cost of the Ordinance would grow considerably if the mandated wage were increased to $8.00/hour in some future year. The required tax increase would therefore be expected to increase considerably in the future.

2. Additional Employment Losses if City Taxes Are Not Raised

The city may decide not to raise taxes to fund the additional costs faced by contractors, delegate agencies, and other not-for-profit organizations. Instead, the additional funding could come from service cuts and reductions in employment by the city of Chicago. The city would have to eliminate enough workers to offset the $19.843 million in additional costs incurred by the city as a result of the Ordinance. If the average labor cost of a city employee (including FICA taxes and benefits) is $40,000, then the city would have to dismiss 496 city workers to avert a tax increase. Adding these job losses to the 1,337 workers dismissed from firms that are current beneficiaries of city assistance raises the total job losses to 1,833.

Put differently, if the Ordinance were enacted, city officials would have to choose between losing 1,337 jobs *and* raising taxes by $20 million, or losing 1,833 jobs with no tax increase but substantial service cuts. In either case, only 8,470 workers would receive a wage increase and, because of the effect of changes in taxes and government benefits, the increase in income of the worker's family would not be large.

D. Impact on Poverty in Chicago

The proposed Ordinance would have an uncertain effect on poverty within the city of Chicago. If the city is willing to fund the additional costs faced by contractors, delegate agencies, and other not-for-profit groups, the Ordinance

would result in a loss of 1,337 jobs and bestow a wage increase to 8,470 workers. However, not all of the workers who receive a wage increase are currently living in poverty and many of the workers who lose their jobs would be pushed into poverty. Thus, the net impact of the Ordinance on the poverty rate in Chicago is uncertain for the following reasons.

1. Not All Workers Earning Less Than $7.60/Hour are in Poverty

The $7.60/hour wage is based on the poverty level for a family of four.[16] However, as shown in Table 6, the poverty level is lower for households of fewer than four persons. The average household in Chicago has only three persons, for which the poverty level was $12,516, or $6.26/hour for a full-time worker.

The average wage of the workers who would receive a wage increase under the proposed Ordinance was estimated to be close to $5.90/hour. Furthermore, census data show that the average household size in the city of Chicago is three persons. Therefore, the typical worker affected by the Ordinance living in a typical Chicago household was earning a wage almost equal to the poverty level. Moreover, a family of three with a single full-time worker earning $5.91/hour would receive over $2,000 from the earned income tax credit, thereby raising the family's total income above the poverty level. Clearly many of the workers who would receive wage increases from the proposed Ordinance are already above the poverty line at their current wage.

2. Many Families Have More than One Worker

In addition to the impact of family size, another factor influencing poverty is the presence of more than one worker in the household. Many households have two or more workers with combined incomes above the poverty level, even if one of the workers individually has an income that is below the poverty level. According to Bureau of Labor Statistics, in 1996, 70 percent of the people who earned less than $7.50 an hour lived in households with incomes *above* $20,000. Four in ten lived in households with incomes above $40,000.

Combining the role of smaller families with the presence of additional workers, it appears likely that many of the workers who would receive wage increases already live in households with incomes above the poverty level. Thus, while it is estimated that 8,470 workers could receive wage increases if the Ordinance were enacted, the number of families lifted out of

Table 6
Official Federal Poverty Levels for 1996

Household Size	Poverty Level	Full-Time Wage Required to Reach Poverty Level (based on 2000 hours of work)
One-Person Household	$7,995	$4.00 per hour
Two-Person Household	$10,564	$5.28 per hour
Three-Person Household	$12,516	$6.26 per hour
Four-Person Household	$16,036	$8.02 per hour

poverty would be considerably less than 8,470.

3. Employment Losses Cause Poverty

At the same time, the proposed Ordinance is estimated to lead to a loss of 1,337 jobs if the city decides to raise taxes and 1,833 jobs would be lost if taxes are not raised but service cuts are incurred. Many of these job losers could be pushed into poverty. The primary cause of poverty is lack of full-time work, not low wages. According to 1996 Census data, of families living in poverty, only 17 percent were headed by full-time workers who did not earn enough to escape poverty. The remaining 83 percent of poor families were either headed by an adult who did not work full-time (38 percent) or did not work at all (45 percent) in 1996.

The impact of employment as a tool for reducing poverty was further studied by the authors of the present report using a statistical analysis of the poverty rates in Chicago's 77 communities. The poverty rate in each community was compared to the employment rate in the community. It was found that three-fourths of the difference in community poverty rates is due to lack of employment, not low wages. Furthermore, each one percent reduction in employment led to a 1.3 percent increase in poverty.

4. Summary of Impact of Proposed Ordinance on Poverty

In summary, the proposed Ordinance raises wages of 8,470 workers and causes job losses for 1,337 other workers. The net impact on poverty among Chicago households is uncertain. Analysis of poverty, employment and wages reveals that lack of employment is a far greater cause of poverty than low wages. Thus, while the number of workers receiving wage increases exceeds the number of workers losing their jobs, the net effect is that the Ordinance is as likely to increase poverty as it is to reduce it.

VI. Summary of Key Findings

Cost of Proposed Ordinance

- The proposed Living Wage Ordinance, requiring firms that receive assistance from the City of Chicago to pay a minimum hourly wage of $7.60, would increase labor costs of affected firms by at least $37.5 million per year.

- The city of Chicago government would face $4.2 million in administrative costs to monitor and enforce the Ordinance.

- Raising one full-time worker's wage from $4.25 to $7.60/hour could cost Chicago taxpayers more than $7,000, while providing less than $2,000 in additional disposable income to the worker's family. The difference is due to an increase in taxes paid to the state and federal governments and a decrease in benefits received from them.

Impact on Local Government Budgets

- Some employers would pass their additional costs through to the city, thereby raising the cost of city services by $15.6 million. Adding the increased cost of city services to the $4.2 million administrative cost of the Ordinance would lead to a $19.8 million city tax increase.

Impact on Employment and Poverty in Chicago

- Employers currently affected by the Ordinance would respond to the increase in labor costs by eliminating 1,337 jobs, while 8,470 employees would receive a wage increase.

- If the city chooses not to raise taxes to fund the additional cost of city government, service cuts would result and nearly 500 city employees would be dismissed, raising job losses in the city to more than 1,800. Put differently, city officials would have to choose between losing 1,337 jobs and raising taxes by $20 million or losing more than 1,800 jobs and incurring service cuts to avert a tax increase.

- In the future, job losses would be greater. If the city were to expand its assistance programs, more firms would be covered by the Ordinance. If the mandated wage were increased above $7.60/hour, the costs of the Ordinance would rise, also contributing to greater job losses in the future. Moreover, the Ordinance might cause some employers to relocate from the City, and cause potential employers to not move to the City, thereby increasing the job losses beyond the totals estimated in this report.

- The Ordinance could increase poverty in Chicago. Only some of the households that receive wage increases would be lifted out of poverty, while many of the households headed by workers who lose their jobs would be pushed into poverty.

EPILOGUE

A Brief Political History of the Living Wage Ordinance in Chicago

The Living Wage Ordinance studied in the foregoing report was presented before the Chicago City Council in May 1996. At the time of the proposal, the Chicago Jobs and Living Wage Campaign counted support from 36 of the 50 aldermen on the Chicago City Council. Following the release of the report which detailed the full economic costs of the proposed ordinance, support fell well below the majority needed to pass the ordinance and the proposal died in subcommittee.

In July 1998, a scaled back version of the Living Wage Ordinance was proposed. The revised ordinance would apply only to contractors (and exempt those with 25 or fewer employees) and did not apply to the many other employers who would have been covered by the original ordinance. The City of Chicago Office of the Budget estimated that the scaled-down version would cost the city less than $4 million annually. The proposal passed the City Council by a vote of 49 - 0, the same day that the council approved a $10,000 increase in aldermanic pay.

Endnotes

[1] The "Chicago Jobs and Living Wage Ordinance" was proposed before the Chicago City Council on May 9, 1996. The original version of the present report was completed in June of that year and presented before the city council in July. The present report reflects minor revisions to the original study. In July of 1998, a scaled down version of the Living Wage Ordinance was presented to the Chicago City Council. The epilogue of the current report presents a brief discussion of the political history of these ordinances in Chicago.

[2] Six firms included in the survey provided specific wage information for employees. For these firms, the costs of raising workers' wages to $7.60/hour was calculated based on the wages reported by the employer, not the mid-point of the wage category.

[3] The use of specific wage information mentioned in footnote 2 as opposed to the category midpoint wage decreased the cost of raising the wages of employees at delegate agencies by $961 and increased the cost of raising the wages of employees at airport concessionaires by $71,587. The numbers in Table 2 reflect these differences.

[4] Surveyed contractors had approximately $30 million of the city's $330 million non-construction contracts in 1995. Construction contracts are not covered by the proposed Ordinance. Conversion factors for the other categories were calculated as follows:

Delegate Agencies: Survey was random sample of one-fourth of all agencies.
Airport Concessionaires: Sixteen of 24 concessionaires responded to survey.
TIF Recipients: Nine of eleven qualifying firms located in TIF districts responded to survey.
Loan Recipients: Surveyed firms received 1/6th of $19 million of loan subsidies provided by the City in 1995.

[5] Including 1,000 additional workers affected by the Ordinance brings the total number of affected workers to 9,807, essentially equal to the proponents' estimate that 10,000 workers would be affected by the Ordinance in their report, "Chicago Jobs and Living Wage Campaign."

[6] Murphy, Kevin, Testimony before Congress on the Minimum Wage, May 1996.

[7] Card, David and Krueger, Alan, Myth and Measurement: The New Economics of the Minimum Wage, Princeton University Press, 1995.

[8] For example, suppose a firm employs 100 workers at $10.00/hour for a total labor cost of $1,000/hour. If wages rise by 1 percent to $10.10/hour and employment falls by 1 percent to 99 workers, total labor cost becomes $999.90/hour which rounds to $1,000/hour.

[9] Murphy, Kevin, Deere, Donald, and Finis Welch, "Reexamining Methods of Estimating Minimum-Wage Effects," American Economic Review, v. 85, n. 2, May 1995.

[10] Neumark, David and Wascher, William, "The Effect of New Jersey's Minimum Wage Increase on Fast-Food Employment: A Re-evaluation Using Payroll Records", Working Paper, January 1996

[11] Card and Krueger 355.

[12] T. Bartik ("Who Benefits from State and Local Economic Development Policies?", 1991) discusses the results of eight economic studies of the impact of changes in local wages on employment and finds that the average elasticity of demand for local labor is -0.89.

[13] The state income tax is three percent of taxable income. Taxable income is earned income reduced by $1,000 per family member. Thus, a family of four with earned income of $8,500 would have $4,500 of taxable income in the State of Illinois.

[14] For a worker heading a family of four.

[15] For a worker heading a family of four receiving food stamp and Medicaid benefits. In 1996, annual food stamp benefits are equal to $4,764 ($397 maximum monthly benefit for a family of four times 12) minus 30 percent of counted income. Counted income is equal to 80 percent of earned income minus a $1,608 annual standard deduction ($134 monthly deduction times 12) minus $1,716 annual deduction for excess shelter costs (in the case of the family headed by a worker earning $8,500/year). Thus, annual food stamp benefits for a family of four with earned income of $8,500/year are equal to $4,764 - 0.3 · [0.8 · $8,500 - $1,608 - $1,716] = $3,721.20. Benefits at $15,200/year are equal to $4,764 - 0.3 · [0.8 · $15,200 - $1,608] = $1,598.40.

Medicaid benefits were obtained from a Chicago Institute of Urban Poverty Paper, "The Living Wage: In the Public Interest?" The paper was published in 1996 but used 1995 levels for Medicaid benefits.

[16] Curiously, the proposed wage of $7.60/hour was based on the *1994* poverty level for a family of four. As Table 6 shows, the 1996 poverty levels are somewhat greater as is the wage needed to reach the specific income thresholds.

The Employment Policies Institute is a nonprofit research organization dedicated to studying public policy issues surrounding employment growth. In particular, EPI research focuses on issues that affect entry-level employment. Among other issues, EPI research has quantified the impact of new labor costs on job creation, explored the connection between entry-level employment and welfare reform, and analyzed the demographic distribution of mandated benefits. EPI sponsors nonpartisan research which is conducted by independent economists at major universities around the country.

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