# Intended vs. Unintended Consequences: Evaluating the New Orleans Living Wage Proposal 

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#### Abstract

New Orleans will consider in 2002 a ballot initiative to establish a citywide minimum wage one dollar above the federal minimum. We surveyed New Orleans businesses to estimate this proposal's costs. We then evaluate five means through which firms might adjust to cost increases-raising prices, improving productivity, redistribution of firms' income, layoffs/labor displacements, and relocations. Changes in prices, productivity and distribution are the likely primary means through which firms will absorb these costs.


## 1. Introduction

In February 2002, citizens of New Orleans, Louisiana will consider a ballot initiative that proposes to raise the minimum wage within the city by one dollar above the federal minimum wage. The proposal would mean that all workers in New Orleans, with the exception of those in job categories that are explicitly exempted from the law, would have to be paid at least $\$ 6.15$ an hour, 19.4 percent above the current national minimum wage of $\$ 5.15$. The New Orleans law would also mean that workers within the city would get raises each time the federal minimum increased in order for New Orleans workers to maintain its one dollar increment above the federal minimum.

This paper presents the main findings of a longer study we conducted assessing the likely impact of the New Orleans proposal (Pollin, Luce, and Brenner 1999), and considers some broader methodological issues for assessing the viability of such proposals. The cornerstone of our previous study was an extensive survey we conducted in 1999 of New Orleans businesses as to their employment levels, labor costs, and total operating budgets.

The petition prepared by supporters of the proposal to the New Orleans City Council states that the current federal minimum of $\$ 5.15$ is "insufficient to provide a living wage under conditions existing in the City of New Orleans." This view about the inadequacies of the current national minimum wage is certainly consistent with the basic fact that the national minimum wage has fallen sharply over the past two decades. At its current rate of \$5.15/hour, the national minimum wage was, in 1999 dollars, about 32 percent below its peak in 1968 of $\$ 7.61$, even though the U.S. economy was 52 percent more productive in 1999 than 1968. More to the point, someone who works full-time for 52 weeks at the $\$ 5.15$ would earn $\$ 10,712$ over a year. This figure is 6.8 percent below the 1999 national poverty threshold of $\$ 11,483$ for a family of two, and a broad range of researchers consider such official poverty thresholds themselves to be between 25 and 50 percent too low. A family of four living on the earnings of two full-time minimum wage workers would still achieve a living standard only 27 percent above the government's stringent official poverty line. Of course, such families are eligible to receive an earned income tax credit, food
stamps, and Medicaid. But the need for such programs to support families which includes full-time workers only emphasizes further the low level to which the national minimum wage has fallen.

Since 1994, the downward trend for the minimum wage has led to a movement throughout the country for legally mandated "living wage" floors, i.e. minimum wage rates at least high enough to keep workers and their families out of poverty. This movement has been focused primarily at the level of municipalities, but there have also been state-wide initiatives. The first victory of a municipal living wage campaign was in Baltimore in 1994. The ordinance there stipulated that firms that hold service contracts with the city pay a minimum wage that began at $\$ 6.10$ an hour in 1996 and then rose to $\$ 7.70$ an hour by 1999. Broadly similar ordinances have since passed in 52 other municipalities and approximately 70 other campaigns in behalf of such measures are ongoing. These are in addition to the state-wide minimum wage measures that have become law in California, Connecticut, Massachusetts, Oregon, Rhode Island, Vermont, and Washington since 1996.

The proposal in New Orleans is one expression of this broader living wage movement. In terms of its specifics, it is a hybrid between the municipal and state-wide measures. This is because it would be a municipal ordinance, but, corresponding to the various statewide measures, it would cover all workers within the municipality, not only those employed by city contractors.

The primary intended consequence of the proposal is straightforward: to raise living standards for as many as possible of the more than 40 percent of all households in the New Orleans area that are poor or near-poor. At most, however, the proposal is likely to reach no more than about half of the area's low-income households, since only half of these households include members with jobs.

Among those who do have jobs in New Orleans and that pay below $\$ 6.15$ at the time of our survey, the average hourly wage is $\$ 5.50$. This means that the average hourly raise for such workers would be 65 cents, which amounts to an annual increase of about $\$ 1,100$, given that, on average, lowwage workers in New Orleans are employed approximately 1,700 hours per year. For poor families in New Orleans that include employed workers, a $\$ 1,100$ annual raise would produce a modest but still significant improvement in their living standard. We have estimated that the pretax family income of
such families would increase by roughly 12 percent. After allowing for changes in taxes as well as eligibility for food stamps and the EITC, the net gain for poor families would be between $3-4.5$ percent.

But a crucial premise underlies these calculations as to the likely benefits of the proposal: that workers now employed in low-wage jobs in New Orleans will retain these same jobs after the living wage ordinance is implemented. But contrary to this premise, economists have long recognized that minimum wage mandates and similar labor market interventions can generate negative unintended consequences. Employment losses for low-wage workers is the unintended consequence that has been most widely recognized and debated in association with minimum wage proposals generally. But in the case of a municipal ordinance such as that proposed for New Orleans, an equally serious potential unintended consequence would be business relocations out of the city to avoid the higher minimum wage requirements.

How significant are these negative unintended consequences of the New Orleans proposal likely to be? As a simple matter of accounting, it is clear that layoffs or business relocations are not the only possible ways New Orleans businesses could respond to an increased municipal minimum wage. Depending on their cost structures and production processes, firms could also absorb the increased costs through three other means: 1) raising prices; 2) raising productivity; or 3) redistributing income within the firm, either through wage compression or a fall in profit shares. The advantage of these three other adjustment mechanisms, relative to layoffs or relocations, is that, within a reasonable range of small adjustments, firms could implement them more quickly and at a lower cost than either layoffs or redistributions. ${ }^{\text {a }}$

Our paper is an effort to establish what are the most likely effects of the New Orleans proposal. Of course, we cannot say with certainty what any such future outcomes will be. As the long-term debate over minimum wage policies make clear, it is difficult enough to reach definitive conclusions about a policy measure already in place. But such difficulties are greater still in attempting to project the impact of future policies. In the next section of the paper, we report the main results of our survey of New Orleans businesses. In section three, we then draw on these results and other data sources to consider the
extent to which firms are likely to absorb these costs through some mix of the five possible responsesprice or productivity increases, redistribution within the firm, layoffs or relocations. We do not explore further in this paper either the magnitude of the benefits to workers or the distribution of these benefits across family types. Nevertheless, obtaining a clearer understanding as to how businesses are more likely to respond to the ordinance should itself shed light on whether the proposal's intended or unintended consequences are likely to prevail.

## 2. Estimate of Covered Workers and Firms

Mandated Effects. There were approximately 12,700 business firms in New Orleans in 1999, employing about 293,330 workers during our survey period between January - March 1999. In our survey, we received full responses from 444 firms that, overall, employ 68,751 workers, amounting to 23.4 percent of the entire labor force of New Orleans. We generated estimates for the full city from these survey responses using standard statistical methodologies. ${ }^{\text {B }}$

Of the 293,330 workers in the city, we estimate that 77,175 people, amounting to 26.3 percent of the total work force, earn below $\$ 6.15$ an hour. However, 19,008 were paid below the national minimum of $\$ 5.15$ at the time of our survey, either through an exemption or noncompliance with the law. We assume these workers would not receive the higher municipal minimum wage. In addition, we estimate that there are 11,117 public sector workers in New Orleans presently earning between $\$ 5.15$ and $\$ 6.14$, amounting to nearly 20 percent of the city's workforce within that pay scale. These workers would not be covered by the living wage proposal in its present form, which would obviously limit the scope of the law considerably. The New Orleans proposal would, however, provide coverage for workers who receive part of their income in tips. The current federal minimum wage sets a minimum of $\$ 2.13$ for people earning at least $\$ 30$ a month in tips; the New Orleans proposal would raise the minimum for tipped workers to \$3.08. Thus, excluding public sector workers while including tipped workers earning below $\$ 3.08$ among the covered segment of the New Orleans labor market, we arrive at our estimate that a total of 47,050 workers would be covered by the ordinance.

In Table 1, we present figures as to the number of firms and workers covered as well as our estimates of the labor cost increases that would result from the living wage proposal. As the table shows, of the 47,050 total workers that would be covered by the law, 25,477 ( 54.1 percent) are full-time workers, 20,341 (43.2 percent) are part-timers, and 1,232 (2.6 percent) are tipped workers earning between $\$ 2.13$ and $\$ 3.08$.

## SEE TABLE 1

The average wage at present for the workers between $\$ 5.15$ and $\$ 6.14$ is $\$ 5.50$, so the average hourly increase would be 65 cents. On average, these workers are not full time; they work 32.7 hours per week. Assuming these workers are employed 50 weeks a year, that would mean that they will get an annual raise of $\$ 1,063$ For tipped workers, the average hourly wage is presently $\$ 2.39$, so the average wage increase would be 69 cents. These workers are employed an average of 23.3 hours per week. If we again assume they are working 50 weeks per year, this would bring their annual wage increase to $\$ 804$. Adding these figures together, the total wage increase due to the living wage ordinance would be $\$ 49.7$ million. In addition, the payroll tax that covered businesses will have to pay is 7.65 percent of this wage increase, or $\$ 4.4$ million. This brings the total mandated costs for all 12,682 firms to $\$ 53.5$ million, or $\$ 4,218$ per firm.

Ripple Effects. The ripple effect refers to those wage increases that employers give to employees beyond what is legally mandated. Employers give such ripple effect increases to maintain some measure of pay hierarchy between the lowest-paid workers receiving the mandated increase, and those earning somewhat above the new minimum. For this New Orleans proposal, there are four categories of likely recipients of such wage increases: 1) employees who, prior to passage of the New Orleans law, were earning between $\$ 5.15-\$ 6.15$ and who receive wage increases that puts them above $\$ 6.15$; 2) employees who are now earning more than $\$ 6.15$ and who nevertheless receive a raise when the living wage policy becomes law; 3) tipped workers earning above $\$ 2.13$ but below $\$ 3.08$ who receive a raise that will put them above $\$ 3.08$; and 4) tipped workers earning above $\$ 3.08$ but below $\$ 5.15$.

Recent research on the ripple effects arising from increases in federal and state minimum wages has consistently found these effects to be relatively weak. For example, we examined the combined state and federal minimum wage increase in California from $\$ 4.25$ to $\$ 5.75$ between 1996-98, a 35 percent increase in the statewide minimum (Pollin and Brenner 2000). We found that workers earning between \$4.25-\$4.99 in October 1995-i.e. those within 75 cents of the minimum-- received a median nominal wage increase of 51 percent by September 1998. The increase by September 1998 for those earning between $\$ 5.00-\$ 5.75$ in October 1995 was 25 percent less than that for the minimum wage category. Those earning between $\$ 5.75$ - 7.24 in September, 1995 received wage increases roughly one-third that for the minimum wage category. These results are in line with other studies of the same California experience (Reich and Hall 2000) and similar experiences in other states (summarized in Card and Krueger 1995).

Because the ripple-effect raises are non-mandated, any estimate of their size is inherently more speculative than the figures we have calculated for the mandated increases to $\$ 6.15$. Nevertheless, the basic ripple-effect patterns described in the literature provide guidance for calculating an order of magnitude figure. Our approach to generating this order of magnitude estimate is to construct a sliding scale of wage increases for workers currently earning up to $\$ 7.14$ an hour, i.e. one dollar over the New Orleans mandated increase. The scale begins with a 50 cent band between the current $\$ 5.15$ minimum wage and $\$ 5.64$. On average, those workers earned $\$ 5.33$ in 1999 , so that raising them all to the $\$ 6.15$ living wage minimum will mean an average raise of 16 percent.

Based on this 16 percent raise for the lowest-paid wages-only workers, we then assumed a sliding scale of wage increases for workers in three other wage categories. We assume wage increases are 8 percent for workers currently earning between $\$ 5.65-\$ 6.14$; 4 percent for those earning between $\$ 6.15$ and $\$ 6.64$; and finally, 2 percent for those earning between $\$ 6.65$ and $\$ 7.14$. As we show in Table 1, these effects would cover 27,314 workers, a full 58 percent of the 47,050 who receive mandated raises. We calculate that the total set of ripple effect labor cost increases will be $\$ 17.9$ million, including 7.65 percent in payroll taxes on $\$ 16.6$ million in wage increases.

## Living Wage Costs Relative to Firms' Total Operating Costs.

As Table 1 shows, adding up mandated and ripple effect costs brings our estimate of total costs to $\$ 71.4$ million, or, on average, $\$ 5,630$ for the 12,682 firms. Even more pertinent are the total living wage cost figures relative to the firms' overall operating costs. As we report at the bottom of Table 1, the direct mandated costs of the living wage ordinance will amount, on average, to 0.7 percent of the covered firms' operating costs. If we add our estimated ripple effect wage increases, this brings the average total costs of the living wage ordinance to 0.9 percent of firms operating costs. 5

## Distinctions between Industries

Industry Groupings. Table 2 presents data on living wage costs/operating budgets based on 2digit SIC industrial groupings. The table lists the industrial groups according to the living wage cost/operating budget ratio, starting with the industries with the highest ratios. In columns 3 and 4 , the table then presents information on the size of the industry within the New Orleans economy. We measure industry size according to two dimensions: its share of total output and total employment. The table reports data only on industries where either total output or employment exceeds one percent of the New Orleans total.

## TABLE 2 BELONGS HERE

As the table shows, only the eating and drinking industry-i.e. restaurants, cafes and barswould experience a cost increase greater than two percent of their operating budget, and even here, the cost increase is just above two percent. The hotel industry would be the next most heavily affected, with cost increases at 1.7 percent of operating budgets. These two industries are responsible for about 6 percent of all production in New Orleans and almost 10 percent of all employment. Beyond these, three additional industries--business services, food stores and wholesale trade--would face a cost increase greater than one percent of operating budgets. Together, these three industries account for another 8.2 percent of production and 11.4 percent of employment in New Orleans. Taking account of all the rest of businesses in New Orleans, our results show that industries accounting for 86 percent of production and

79 percent of employment in New Orleans would face cost increases of less than one percent due to the living wage ordinance.

## 3. Alternative Adjustment Responses to Increased Labor Costs

As we have said, New Orleans firms will respond to the cost increases imposed by the living wage ordinance through some combination of 1) raising prices; 2) raising productivity; 3) redistribution within the firm; 4) layoffs; or 5) relocations. At least initially, some combination of the price, productivity, and distributional adjustments is likely to be the primary channels through which New Orleans firms adjust to the ordinance, since they can be accomplished more readily and at lower costs than either laying off workers or relocating. Once we have assessed how significant these adjustment processes are likely to be, we will then be in a better position to evaluate concerns about layoffs or business relocations stemming from the ordinance.

## Price Effects

The adjustment process that would be least costly and disruptive for firms would be to simply raise prices to reflect their increased costs. But whether firms can succeed in such a strategy depends on the competitive environment in which they operate and the price elasticity of demand for their products.

As part of their path breaking work on minimum wages, Card and Krueger (1995) concluded through observing a variety of situations that price increases were a primary means through which firms' absorbed their increased costs resulting from a higher minimum wage. Indeed they concluded that the New Jersey fast-food outlets were able to raise their prices by about the same amount as their total costs were increased, which amounted to about 3.4 percent. This conclusion is especially notable for our purposes since the average cost increase/operating budget ratio for the four fast-food restaurants in our New Orleans survey was 3.9 percent-thus corresponding closely to the price mark-ups observed by Card and Krueger for New Jersey.

But these results are based primarily on how increases in either a statewide or national minimum wage will affect fast-food restaurant prices only. How well can these results be generalized to the range of businesses in New Orleans that would be covered by a municipal living wage ordinance? Of course,
all firms operating in New Orleans will face the same new minimum wage laws. But firms that compete with other firms in New Orleans will likely be better able to raise their prices, since their competitors will have experienced similar mandatory cost increases. Businesses that compete in markets that extend beyond New Orleans will correspondingly have more difficulty marking up their prices.

In Table 3, we divide up industries in New Orleans according to whether they compete primarily either with firms outside or inside New Orleans, or whether they face some combination of competitors both inside and outside the city. The data presented for each industry are simply the same living wage/operating budget ratios reported in Table 3. 6

## TABLE 3 BELONGS HERE

Industries Competing Outside of New Orleans. These firms are going to be placed at a disadvantage relative to their competitors outside New Orleans, since they alone will face an increase in their labor costs. Thus, if everything else remained equal in their industry, New Orleans firms would not be able to pass along their cost increases through raising their prices, without risking a loss of their customer base to their out-of-town competitors. However, the cost increases faced by these industries are negligible, as we see in Table 3--0.5 percent for manufacturing, 0.1 percent for legal services, and effectively no cost increase in mining. As such, we can assume that these firms will have to make essentially no adjustments in their prices, and should therefore face no competitive disadvantage due to a New Orleans living wage ordinance.

Industries Competing Within New Orleans. For firms competing mainly within New Orleans, it is likely that the situation will approximate that analyzed by Card and Kreuger and others for the fastfood industry. That is, these firms should be able to raise their prices to reflect their higher costs, since all the firms in the market will face similar cost increases. As shown in Table 3, we have assigned five industries to this category--the eating and drinking industry, facing a 2.2 percent cost increase; hotels, with a 1.7 percent cost increase; and the personal services, transportation, and construction industries, all of which would experience cost increases below one percent. These figures indicate that the hotel and restaurant industries would need to mark up their prices by about 2 percent to cover their additional costs,
while personal service and perhaps transportation firms would seek price increases in the range of one percent. Given that the size of all these price mark-ups are still small, they are not likely to have a substantial impact on the demand for their products, through, for example, New Orleans residents eating in restaurants less frequently or visitors to the city staying with friends in private homes rather than hotels.

Of course, none of these industries are completely insulated from competition outside of New Orleans. For example, individual hotel clients could seek out less expensive lodgings outside the city limit, and conventions could shop for cheaper rates in other cities. These considerations could well play a role in overall demand for New Orleans hotels if the New Orleans hotels attempted to mark-up their prices by a significant amount. But hotel customers who need or want to be in New Orleans would expend time and transportation costs if they rented a room outside the city, then commuted in. As such, with living wage costs/operating budget ratios in the 1-2 percent range for these industries, we would reasonably expect that no significant adjustments will follow from implementing the living wage ordinance.

## Industries Competing Both Inside and Outside New Orleans

Industries in this broad category are very heterogeneous, as, indeed, are many of the firm types within each industry category. For example, business services includes both advertising and building maintenance firms. Wholesale trade includes both durable and non-durable goods. For some of these businesses, such as janitorial firms or fresh-food wholesalers, proximity to their customers is important. As such, the main competitors for these firms are likely to be within New Orleans. By contrast, neither advertising firms nor wholesalers selling durable goods would likely face only local competitors. Given these differences, it is difficult to generalize as to how industries and firms in this category would react to a city-wide minimum wage increase. Still, of the eight industries listed in this category in Table 3, only three--business services, food stores, and wholesale trade--have living wage cost/operating budget ratios greater than 0.8 percent. Let us therefore consider these three industries in more detail

Business Services and Wholesale Trade. The firms in both of these categories, such as nondurable goods or building maintenance, that compete in local markets should be able mark up their prices without significantly affecting their customer base, as with the other industries operating in the local market. The more difficult problems emerge with the businesses facing competitors outside New Orleans, such as advertising firms or durable goods distributors. For these firms, much, if not all of the average 1.5 percent cost increase may well be difficult to pass along to customers. For these firms, the other adjustment mechanisms should be especially important.

Food Stores. Food stores in New Orleans, as in other large cities, operate in very different markets, depending on whether they are located in poor or non-poor neighborhoods. In non-poor neighborhoods, the customers of these stores typically have cars, and thus the ability to drive outside the city to avoid paying higher food prices. For stores operating in these markets in New Orleans, these stores may have some difficulty in maintaining their marked-up prices.

However, counteracting this factor is that in most middle-class neighborhoods, price is rarely the sole determining factor around which food shopping decisions are made. Convenience and quality are at least equally important factors in attracting middle-class food shoppers. ${ }^{8}$ Heavily discounted food stores already exist on the outskirts of all major metropolitan areas. These discount stores have not driven customers away from the higher quality but more expensive stores. Overall then, stores in these neighborhoods probably will be able to pass on to customers some share of their higher costs. They will then absorb the rest of their higher costs through some combination of the other adjustment mechanisms.

The situation will be different for food stores in poor neighborhoods. This is because customers in poor neighborhoods are not generally able to travel significant distances to find cheaper food prices. We therefore expect that, everything else equal, food stores in poor neighborhoods will be able to mark up their prices by an amount roughly comparable to the 1.5 percent increase in costs. ${ }^{6}$

This then raises another issue: how much would a 1.5 percent increase in food prices in poor neighborhoods affect the living standards of the poor? Would such an increase in food prices constitute another unintended consequence of a living wage policy? This will depend, first of all, on what
percentage of a family's food budget is covered by food stamps. If we were to assume that food stamps completely covered a family's food budget, then the increase in food prices would have no effect on the family's standard of living.

But, in fact, food stamps will not cover a family's entire food budget. Probably about 70 percent of eligible families in Louisiana make use of the food stamp program. ${ }^{10}$ For those that do utilize the program, coverage varies according to a family's needs. As a rough average figure, food stamps would likely cover 50 percent of a poor family's food budget. If we also accept the official government estimate that spending on food constitutes about one-third of a poor family's overall budget, this implies that a 1.5 percent increase in food prices would mean an increase in the cost of living for poor people of between 0.25 (for those receiving food stamps) and 0.5 percent (those without food stamps) ${ }^{11}$

How serious this problem would be depends, in turn, on whether the poor family includes a working member. For the roughly 50 percent of poor families in New Orleans that do include a working member, a $0.25-0.5$ percent increase in living costs would be counterbalanced by the roughly $3-4$ percent increase in disposable family income due to the minimum wage increase. Thus, even after allowing for a full mark-up of food prices commensurate with the minimum wage increases, and with no additional support through food stamps, the net effect of the minimum wage raise would still bring roughly a 3 percent average increase in disposable income.

That will not be the case for most of the poor families in which no member is employed; that is, depending on the threshold one chooses, between about 50-60 percent of the poor households in New Orleans. If they also do not receive food stamps, they will face a $0.25-0.5$ percent increase in their living costs that will not be counterbalanced by an increase in family income. Such families would be hurt by the minimum wage increase, though only by a small amount, if nothing else were to change in their lives.

## Productivity

New Orleans firms would likely experience at least modest increases in productivity through efficiency wage effects-i.e. increased worker effort, lower turnover and absenteeism, and, following
these, lower costs of recruitment, training and supervision. The citywide minimum wage pay raise should encourage these effects through two channels. Both the absolute pay raise itself, and the increase in pay relative to uncovered workers employed outside the city limits, should encourage increased job commitment.

This is likely to be especially important for the hotel and restaurant industries, which, as we have seen, would experience the highest relative cost increases through the New Orleans proposal. Research measuring turnover rates and the costs of turnover is limited. But the evidence available does strongly suggest that turnover rates are generally quite high in both industries, albeit with wide variations between firms. Our own employer survey of hotels and restaurants in Santa Monica, California found that average turnover rates for both hotels and restaurants were in the range of 50 percent per year. Average costs of replacing workers ranged between about $\$ 500$ - $\$ 700$. Previous industry studies are broadly consistent with our finding that turnover costs are significant (e.g. Fernsten and Croffoot 1986, Worcester 1999). This is not to suggest that the efficiency wage gains are likely to match the covered firms' increased costs. However, given that, for most firms, these cost increases relative to total operating budgets themselves will be small suggests that the efficiency wage gains could absorb some significant fraction of the cost increase.

## Redistribution

As we have mentioned, minimum wage increases could induce two types of downward redistribution: wage compression between lower and higher paid workers, and a reduction in the profit share. We have already built into our overall estimates a considerable degree of wage compression through assuming a weak ripple effect. Any decline in the profit share will of course be resisted by business owners. But the extent of their resistance will be tempered by firms' capacity for productivity growth, since productivity growth allows for a rising absolute level of profit even when the profit share is declining.

Consider, for example, the situation for the average firm in New Orleans, for which the living wage cost increase/operating budget ratio is roughly one percent. It is reasonable to assume that the
average firm is also likely to improve its productivity each year by at least one percent, without even taking into account possible efficiency-wage induced productivity gains. In this situation, the one percent productivity gain would mean that low-wage workers could get their raise, and all other operating costs could be covered equally, without anyone else at the firm experiencing a cut in the real level of their wages or profits. Of course, the benefits from the year's worth of productivity growth would accrue entirely to the low-wage workers. But by the same token, all gains from productivity growth in subsequent years could revert back to higher paid workers and owners while low-wage workers would still be earning the higher mandated minimum rate.

In fact, some variation on this scenario does appear to actually happen, as research shows that, in the initial period after a higher minimum wage is implemented, wage gaps do tend to return to their previous level (this research is summarized in Spriggs and Klein 1994). Overall then, because the average increase in firms' operating costs due to the New Orleans living wage ordinance would be only one percent, it is not hard to envision scenarios in which a redistribution of the firms' income could realistically cover a significant share of the wage gains for low-wage workers.

## Employment Effects

The proposed increase in the New Orleans minimum wage relative to the national minimum, at 19.4 percent, is virtually identical to the 18.8 percent increase in New Jersey's statewide minimum in 1992. It is therefore reasonable to draw from studies of the New Jersey experience (most recently Card and Krueger 2000; Neumark and Wascher 2000) that there is likely to be little, if any, employment losses in New Orleans resulting from the proposed citywide minimum wage increase. Indeed, if anything, we would expect the impact of the New Orleans increase to be significantly less than that observed by those studying New Jersey. This is because both of these studies examined fast-food restaurants only. For the fast-food industry in New Orleans, our survey results suggest that the living wage cost increase/operating budget ratio is just below 4 percent-i.e. about four times higher than the average ratio for all New Orleans firms.

The other possible effect on employment policies would be through labor substitution-i.e. firms replacing their existing minimum wage employees with workers having better credentials, which could occur even in the absence of any net job losses. Because the jobs in New Orleans would pay higher than comparable positions outside the city limits, openings for the covered New Orleans jobs would likely attract workers with somewhat better credentials, on average, than those in the existing labor pool. In order to roughly gauge how extensive such labor substitution is likely to be, we first consider in Table 4 the differences in personal characteristics for two groups of wage workers-those earning between $\$ 5.15$ - \$5.64 and \$6.15-\$6.64 in 1999. Our sample is drawn from a pooled sample of five southern states in the Current Population Survey, since both the New Orleans and Louisiana samples are themselves too small to provide reliable results.

It is important to emphasize that these figures are useful only in establishing a far outer limit as to the likely degree of labor substitution. This is because, in considering these figures, we are effectively asking whether, if covered New Orleans firms were newly hiring their entire low-wage work force, and if they were advertising their job openings at a wage rate in the range of $\$ 6.15$ rather than $\$ 5.15$, how would the profile change of the newly hired workers?

## TABLE 4 BELONGS HERE

As we see from the table, the percentage of those without high school diplomas falls by 15.8 percent in moving from the $\$ 5.15-\$ 6.15$ wage category. Correspondingly, those with high school diplomas, some college, and college degrees each rise by between $4.5-6.5$ percent. Not surprisingly, the percentage of teenagers falls by 18.8 percent in moving from the lower to the higher wage category. The $\$ 6.15$ wage category has fewer females but, surprisingly, more non-native English speakers.

Having thus defined the outer limit of labor substitution effects through these figures, the next step here is to recognize why any actual labor substitution effects are likely to be far more modest. This is first of all because, in reality, businesses would not be free to newly hire their entire workforce after a higher municipal minimum wage were enacted, nor would they want to do so. Rather, as we have discussed, workers earning the higher minimum will be less inclined to leave their jobs, and their work
effort should correspondingly rise. By the same token, businesses are not likely to terminate their existing workers, even if they have relatively poor formal credentials, as long as their performance is satisfactory. This is especially true since, for virtually all jobs covered in the minimum wage range, the qualities that would distinguish one worker from another will not be based primarily on formal qualifications. More effective workers are rather those that simply exert more effort, and this employers can discern only through observation.

Another reason the Table 4 figures represent an outer limit measure of the substitution effect is that the minimum $\$ 5.15$ category includes a relatively high proportion of teenagers who do not have high school diplomas simply because they are still in high school. If $\$ 6.15$ became the new minimum wage for New Orleans, then the proportion of high school students would rise in this new minimum category, thereby also increasing the total share of those in this category with less than a high school diploma.

Recognizing these various factors, we would still expect some substitution to occur, both by educational credentials and age, though, again, the magnitude of such substitutions is likely to be modest.

## Business Relocations

As we have seen, the cost increase due to the living wage ordinance for the average firm in New Orleans would be 0.9 percent of its operating budgets. It is reasonable to assume that for firms whose cost increase ratio is around this average or lower, the incentive to relocate would be weak. But even for many firms whose operating budget increases are somewhat larger, it would still not follow that relocation is a viable option. For example, as we have seen, restaurants and hotels are the two business types that would face the highest proportional cost increases, at 2.2 and 1.7 percent respectively of their operating budgets. But the customer base for these businesses is location specific. This is why, for such firms, some combination of price mark-ups, productivity increases, or income share redistributions are far more efficient adjustment mechanisms than relocation.

Which firm types might have a stronger incentive to relocate? They would have two basic characteristics: their customer base is not specifically tied to New Orleans; and they would face a significant increase in their operating costs through a rise in the city's minimum wage. To help identify
how many such firms are in New Orleans, in Table 5, we provide a distribution of all 12,682 private sector firms according to their living wage cost/operating budget ratios. As we see, 26.5 percent of firms employ no low-wage workers. Another 71.8 percent, which do employ low-wage workers, average a cost increase of 0.7 percent of their operating budget. That leaves 208 firms, 1.7 percent of the total, which would have increased cost ratios of over five percent, the average cost increase ratio for these firms being 6.6 percent. Let us allow that all the firms with cost ratios of five percent or above would at least seriously consider relocating to avoid the increased living wage costs. But whether such a move would be viable for any given firm would depend on the nature of its business. As we see in the lower panel of Table 5, these 209 firms are distributed fairly evenly across four industry categories, these being "other services," as well as wholesale trade, business services and retail trade other than restaurants and hotels.

## SEE TABLE 5

Of these, it should be most feasible for the wholesale trading firms to relocate, since their business is not tied to a specific location. At the same time, if proximity to customers is important to these firms, moving could then threaten their customer base. Moving would also add to their transportation costs. Retail businesses could move, but may then risk losing customers whose purchasing habits are at least partially tied to convenience. Some business service firms, such as advertising agencies, could move without losing customers. But those with a high concentration of low-wage workers, such as security guard companies, would have to pay the living wage to workers whose jobs were located within New Orleans, regardless of where the firm's offices were located. In such cases, firms cannot avoid paying the higher New Orleans minimum wage by relocating. Finally, "other services" obviously encompasses a broad spectrum of firms, including those engaged in services like home health care, repair shops, and parking lots. Here as well, some firms may be mobile, while others are not.

As an exercise, let us allow that 100 of the 209 firms whose living wage cost/operating budget ratios are five percent or above did actually relocate out of New Orleans. What would be the impact on the city and state's economy if these firms did depart?

First, we are assuming that these firms would leave New Orleans strictly to avoid paying the higher minimum wage. As such, we would expect that these firms would move just outside the city limits, so as to retain, if from a different specific location within the metropolitan area, their New Orleansbased operations and customer base. One crucial implication of this point is that no net employment losses would occur due to these firms' relocation. Workers would be able to retain their jobs without moving, which in turn would mean no change in the city's housing market.

The primary loss to the New Orleans economy would therefore be the loss of the city's authority to tax these firms. This authority basically amounts to a five percent sales and use tax. But because we are assuming that firms would move just outside the city limits, the State of Louisiana would not lose its four percent sales/use tax revenue. According to our rough estimates, the total loss of tax revenue to the
 somewhat underestimate the total costs to the city of relocation, since we have not attempted to incorporate any calculation as to how the departure of 100 firms might also affect the business prospects of their neighboring firms. At the same time, to put this figure in perspective, it is equal to 0.4 percent of the city's $\$ 499.1$ million approved budget for 1999.

## 4. Conclusion

Our results suggest that the New Orleans firms should be able to absorb most, if not all, the increased costs of the proposed living wage ordinance through some combination of price and productivity increases or redistribution within the firm. This result flows most basically from the main finding of our survey research: that living wage cost increases will amount to about 0.9 percent of operating budgets for average firms in New Orleans, and no more than 2.2 percent of operating budgets for the city's restaurant industry, which is the industry with the highest average cost increase. This then also suggests that the incentive for covered firms to lay off low-wage employees or relocate outside the New Orleans city limits should be correspondingly weak. It is likely, however, that some displacement of the least well-credentialed workers will occur as a result of the ordinance, though again, this effect should also be relatively modest. Similarly, a relatively small number of New Orleans firms will likely relocate,
generating a loss of municipal tax revenues on the order of 0.5 percent of the City's budget. Generally though, the process through which New Orleans firms adjust to the living wage ordinance is likely to be relatively mild, as the overall $\$ 71$ million burden in increased wages and payroll taxes will be broadly diffused among the city's 12,700 firms as well as the city government.

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## ENDNOTES

${ }^{1}$ See the findings from the National Research Council project summarized in Citro and Michael (1995), p. 47.
${ }^{2}$ Beyond simple accounting, one can also draw on either the standard Hicks-Marhall "law" of derived demand or a dynamic monopsony framework such as advanced by Card and Krueger (1995) for identifying these as the five possible paths through which covered firms in New Orleans would adjust to a higher citywide minimum wage. ${ }^{3}$ Details on our survey methodology and all calculations reported in the paper can be found in Pollin, Luce, and Brenner (1999), Appendix 3.
${ }^{4}$ We do not have accurate figures for weeks worked by low-wage workers in New Orleans in 1998. In 1990, lowwage workers who live in poverty averaged only 38 weeks of work over the year. However, at least in part, this figure may be low since 1990 was a recession year. In any case, our assumption of a 50 -week working year for lowwage workers is almost definitely high. This means that estimates of the impact of the minimum wage increaseboth its costs and benefits—are also likely overstated.
${ }^{5}$ In our questionnaire, we did not specify a definition of "operating costs" for the responding firms. We rather allowed each firm to report a figure based on their own accounting procedures. Our general understanding of the term is that it would include all current account expenditures but would not include capital expenditures or depreciation of capital goods.
${ }^{6}$ Two important sources providing background perspective on how a firm or industry's location is related to its competitive environment are Scheffman and Spiller (1987) and Greenhut and Norman (1995)
${ }^{7}$ Researchers have consistently recognized that the elasticity of demand in the hospitality industry is relatively weak within a fairly wide band of price variation-certainly within the 1-2 percent price increases due to a living wage cost pass-through in New Orleans. See, for example, Lewis and Shoemaker (1997).
${ }^{8}$ According to a 1994 Food Marketing Institute survey (Miller 1994), food price was only the fourth most important factor-ranking slightly behind quality, store cleanliness and courteousness of employees-as determining where shoppers purchased food
${ }^{9}$ Two studies documenting differences between in food prices between different neighborhoods, racial groups, and income levels are Chung and Myers (1999) and Finke, Chern, and Fox (1997).
${ }^{10}$ See USDA (2000) for estimates in 1997 on food stamp participation rates. According to these estimates, between $70-80$ percent of those eligible in Louisiana utilized the program in 1997. But participation rates have fallen significantly as a result of welfare reform, as described, for example, in Revkin (2000) and Mehren (2000). This is why we report only the lower-bound participation estimate of 70 percent in the main text.
${ }^{11}$ The calculation is as follows: ( 1.5 percent food price increase) x ( 0.33 , food as a percentage of total family budget) $\times(.50$, food budget not covered by food stamps). Our method for deriving the average 50 percent ratio for food budget coverage through food stamps is presented in Pollin, Luce, and Brenner (1999). Note though, that a wide range of poverty researchers argue that the government's assumption that food costs absorb $1 / 3$ of a poor family's total living expenditures is too high a figure. See Citro and Michael (1995).
${ }^{12}$ Appendix 4 of Pollin, Luce and Brenner (1999) explains our methodology for generating this $\$ 2$ million figure in lost sales tax revenues.

TABLE 1.
WAGE INCREASES AND COSTS TO FIRMS AFTER RAISE TO \$6.15

| Number Of Firms Covered | 12,682 |
| :---: | :---: |
| Number Of Workers Covered <br> Full-time <br> Part-time <br> Tipped workers <br> Total | $\begin{array}{r} 25,477 \\ 20,341 \\ 1,232 \\ \mathbf{4 7 , 0 5 0} \end{array}$ |
| Mandated Wage Increases <br> Wage-only workers <br> Average hourly wage before ordinance Average yearly wage increase (65 cent hourly increase x 32.7 hours/week) <br> Tipped Workers <br> Average hourly wage before ordinance Average yearly wage increase (69 cent hourly increase x 23.3 hours) <br> Total Mandated Wage Increase (including 7.65\% payroll tax) | \$5.50/hr. \$1,063 <br> \$2.39/hr. \$804 <br> \$53.5 million |
| Ripple Effect Increases <br> Total workers receiving ripple effect raises Total ripple effect cost increases (including 7.65\% payroll tax) | $\begin{array}{r} 27,314 \\ \mathbf{\$ 1 7 . 9} \text { million } \end{array}$ |
| Total Mandated And Ripple Effect Cost Increases | \$71.9 million |
| Cost Increases Relative to Total Operating Budgets <br> Mandated costs as percent of operating budgets <br> Total Costs as percent of operating budgets | $\begin{aligned} & 0.7 \% \\ & 0.9 \% \end{aligned}$ |

Sources: PERI New Orleans Employment and Wages Survey, 1999; Current Population Survey Outgoing Rotation Group files 1997; Bureau of Economic Analysis 1995.

Table 2. Impact of Living Wage Ordinance by Industry

| (1) <br> Industry category | (2) <br> Total living wage costs relative to total operating costs | (3) <br> Share of total New Orleans output | (4) <br> Share of total New Orleans employment |
| :---: | :---: | :---: | :---: |
| Eating and drinking | 2.2\% | 2.8 | 6.0 |
| Hotels and other lodging | 1.7\% | 2.9 | 3.9 |
| Business services | 1.5\% | 2.6 | 5.3 |
| Food stores | 1.5\% | 0.9 | 2.5 |
| Wholesale trade | 1.5\% | 4.7 | 3.6 |
| Personal services | 0.9\% | 0.5 | 1.4 |
| Other retail trade | 0.8\% | 6.4 | 14.4 |
| Educational services | 0.8\% | 3.0 | 5.6 |
| Transportation | 0.7\% | 14.9 | 7.4 |
| Manufacturing | 0.5\% | 8.7 | 3.8 |
| Health services | 0.5\% | 6.2 | 7.5 |
| Finance, Insurance and Real Estate | 0.5\% | 12.3 | 5.5 |
| Other services | 0.4\% | 7.3 | 11.0 |
| Construction | 0.2\% | 4.4 | 4.2 |
| Legal services | 0.1\% | 3.7 | 3.2 |
| Mining | 0.0\% | 11.0 | 2.8 |

Source: PERI New Orleans Employment and Wage Survey, 1999; IMPLAN Pro Software package, 1996;
ES-202 data for Orleans County, 1996.

Table 3. Competitive Environment for New Orleans Industries

| Industry and Market Environment | Living Wage Cost/ Operating Budget |
| :---: | :---: |
| Competing outside city |  |
| Manufacturing | 0.5\% |
| Legal services | 0.1\% |
| Mining | 0.0\% |
| Competing within city |  |
| Eating and drinking | 2.2\% |
| Hotel and other lodging | 1.7\% |
| Personal services | 0.9\% |
| Transportation | 0.7\% |
| Construction | 0.2\% |
| Competing inside and outside city |  |
| Business services | 1.5\% |
| Food stores | 1.5\% |
| Wholesale trade | 1.5\% |
| Other retail trade | 0.8\% |
| Educational services | 0.8\% |
| Finance, insurance and real estate | 0.5\% |
| Health services | 0.5\% |
| Other services | 0.4\% |

Source: PERI New Orleans Employment and Wages Survey, 1999.

Table 4. Personal Characteristics of Low-Wage Workers in Five Southern States, 1999

|  | Hourly Wage Categories (1999 dollars) <br> $(1)$ <br> $\$ 5.15-5.64$ |  | Differences between <br> two wage categories <br> (3) |
| :--- | ---: | ---: | ---: |
| Less than high school <br> diploma | $46.0 \%-\$ 6.54$ | (column 2-1) |  |
| High school diploma <br> or GED | $31.5 \%$ | $30.2 \%$ | $-15.8 \%$ |
| Some college | $20.7 \%$ | $38.0 \%$ | $+6.5 \%$ |
| Bachelor's degree or <br> more | $1.9 \%$ | $25.2 \%$ | $+4.5 \%$ |
| Under 20 years of age | $32.2 \%$ | $6.6 \%$ | $+4.7 \%$ |
| Average age (years) | 30.6 | $13.4 \%$ | $-18.8 \%$ |
| Female | $65.5 \%$ | 33.9 | +3.3 |
| English as second <br> language | $13.9 \%$ | $61.5 \%$ | $-4.0 \%$ |

Source: Current Population Survey, Outgoing Rotation Group 1999
Note: In addition to Louisiana, the southern states in the sample are Alabama, Arkansas, Georgia, and Texas.

Table 5.
New Orleans Firms Grouped by Living Wage Cost/
Operating Budget Increases

| Wage increase/operating <br> budget percentage | Number of <br> firms | Percent of <br> firms | Average increase in living <br> wage cost/operating budget |
| :--- | :---: | :---: | :---: |
| $0 \%$ | 3,294 | 26.5 | $0.0 \%$ |
| $+0-4.9 \%$ | 8,936 | 71.8 | $0.7 \%$ |
| $5-9.9 \%$ | 209 | 1.7 | $6.6 \%$ |

Industry Profile of Firms with Cost Ratios Greater than Five Percent

| Industry | Number of <br> firms | Percent of <br> firms | Average increase in living wage <br> cost/operating budget |
| :--- | :---: | :---: | :---: |
| Other services | 61 | 29.3 | $5.1 \%$ |
| Wholesale trade | 55 | 26.4 | $8.8 \%$ |
| Other retail trade | 47 | 22.5 | $5.2 \%$ |
| Business services | 46 | 21.8 | $7.3 \%$ |

Source: PERI New Orleans Employment and Wages Survey, 1999.

