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Economic Analysis of Florida Minimum Wage Proposal

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HIGHLIGHTS OF BASIC FINDINGS

ECONOMIC ANALYSIS OF FLORIDA MINIMUM WAGE PROPOSAL

On the November 2004 ballot, citizens of Florida will have the opportunity to vote on a proposal to raise the statewide minimum wage to $6.15 per hour. At present, the federal minimum wage, which prevails in Florida, is $5.15 per hour. The measure also calls for tipped workers getting a raise from the current federal mandate of $2.13 to $3.13. The measure includes an automatic cost-of-living adjustment, by which further raises in the statewide minimum wage would occur automatically at the national inflation rate. If Florida voters approve this measure, Florida will become the 13th state in the country to operate with a minimum wage above the federal minimum.

Motivation for Proposal

The federal minimum wage has fallen by nearly 40 percent from its peak in 1968 (in inflation-adjusted dollars) of $8.49. At present, someone who works full-time for 52 weeks at the $5.15 federal minimum would earn $10,712, an amount that is 28 percent below the 2003 federal poverty threshold for a family of three. Families experience real hardship when the working members of the family are employed at jobs paying close to the $5.15 minimum wage. For example, nearly 30 percent of families with incomes at twice the poverty line or lower faced hardships such as missing meals, being evicted from their housing, having their utilities disconnected, or doubling up on housing.

Main Findings from Research

Costs

- The primary costs of the measure will be those incurred by businesses that will pay the increased wages to the low-wage workers they employ. Businesses will face two kinds of wage increases:

  o Legally mandated wage increases for workers now earning between $5.15 and $6.14, and tipped workers now earning between $2.13 and $3.12; and

  o So-called "ripple effect" wage increases – non-mandated raises that businesses voluntarily provide to some of their workers after the higher minimum wage rate is implemented.

- We estimate the total costs of the measure – including all mandated and ripple-effect raises, as well as increases in payroll taxes, for all Florida enterprises, both private businesses and government operations – as $443 million. For private businesses, costs will rise by a total of $406 million.

- The $406 million in cost increases for private businesses amounts to 0.04 percent of the total sales of these businesses, which was $928.7 billion in 2003. The average firm in Florida would therefore have to increase its revenues by 1/25th of 1 percent to fully cover the costs of the minimum wage increase to $6.15.

- The ratio of cost increases/sales will vary widely by industry. The industry with the highest cost increase/sales is the restaurant industry, where the representative firm will face a cost increase of 0.7 percent of sales. With limited-service restaurants, including fast-food outlets, the cost increase/sales ratio is 1.3 percent.

Methods of Business Adjustment to Minimum Wage Increase

- The primary way that businesses are likely to adjust to these cost increases is to raise their prices by small amounts.

  o A representative retail clothing store would face a cost increase of 0.05 percent of its sales. It could fully cover its increased costs by, for example, raising the price of a $20 sweatshirt to $20.01.

  o A representative restaurant would have to raise the price of a $20 meal to $20.14 to cover its increased costs of 0.7 percent of sales.

  o A representative hotel would have to raise the price of a room from, for example, $100 to $100.20 to cover its increased costs of 0.2 percent of sales.

- Businesses will also be able to absorb some of their increased costs through increasing productivity. Productivity should rise by a small amount with the wage increases, because workers should become more committed to their jobs. This will lower turnover and absenteeism, and more generally raise morale.

- Regarding prospects for negative "unintended consequences" resulting from business adjustments to the minimum wage increase, three possibilities have been frequently raised:

  o **Unemployment:** Businesses lay off workers, creating unemployment;

  o **Relocation:** To avoid having to increase wages for low-wage workers, businesses in Florida relocate out of the state, or out-of-state firms choose not to locate in Florida.

  o **Inflation:** With businesses raising prices to cover their increased costs, an inflationary spiral could result.

- Our results show that these negative "unintended consequences" are very unlikely to occur to any significant extent. This is, again, because businesses will be able to absorb their cost increases through modest price and productivity gains. They will not need to resort to more extensive measures – layoffs or relocations – that are costly for the businesses themselves.

Moreover, precisely because the upward price pressures will be modest, they will not encourage inflation, which would mean a significant rise in all prices throughout the state.

■ Regarding employment effects, we also analyze the experience from other states that have recently raised their statewide minimum wage relative to states that operated with the lower federal minimum wage. We find that employment growth in high minimum wage states did not fall in relative terms after they raised their minimum wage.

Benefits of Minimum Wage Increase

Benefits to Workers

■ Roughly 300,000 workers earning between $5.15 and $6.14 or, for tipped workers $2.13 and $3.12, will receive mandated wage increases. The average pay for $5.15 - $6.14 workers is now $5.73, so their average mandated raise will be 42 cents/hour to bring them to $6.15. This is an average mandated raise of 7.3 percent for the un-tipped workers.

■ About 550,000 workers will receive "ripple effect" increases.

   o Those earning between $6.15 and $6.99 will receive, on average, a 6.3 percent raise.

   o Those earning between $7.00 and $7.49 will receive, on average, a 2.2 percent raise.

■ Low-wage workers and their families will enjoy increases in disposable income of between $500 and $600.

   o This is an average disposable income gain of about 4 percent for families currently living below 150 percent of the official poverty thresholds.

   o It is an average disposable income gain of about 2.6 percent for families currently living below what we define as a "basic needs" living standard, measured relative to expenditures on necessities.

   o This increase in disposable income will produce modest benefits, such as enabling the family to reduce debt, reduce work hours or purchase a car.

   o It is significant that this improvement results through an increase in earned income rather than government subsidies. In terms of dignity and commitment to work, most low-income workers value a dollar of earned income more highly than a dollar of government support.

Benefits to Business

■ Retail stores in the state's low-income neighborhoods will experience an increase in sales, reflecting the increased disposable income of workers and their families living in these neighborhoods.

   o For low-income neighborhoods in Miami, we estimate that retail businesses will experience a sales increase of about 3 percent.

Fiscal Impact Estimate

- There are five potential areas of fiscal impact:

  - o Three will create increased costs for the state: 1) wage increases for state employees; 2) cost pass-throughs from state goods and service suppliers; and 3) administrative costs of implementing the law.

  - o Two will provide either more revenues or lower expenditures for the state: 1) increased sales tax revenue; and 2) publicly subsidized health care cost savings.

- Overall, we estimate roughly a net fiscal savings of $3.4 million. And while this is a very rough estimate, it is clear that there are no significant net fiscal costs to the measure.

Effect of Automatic Cost–of–Living Adjustments

- Linking future increases in the minimum wage to inflation – i.e. providing an automatic cost-of-living adjustment – will have no impact on our analysis of the effect of the measure.

- Without an automatic cost-of-living adjustment, all of the costs and benefits that we identify would diminish with time.

SUMMARY

ECONOMIC ANALYSIS OF FLORIDA MINIMUM WAGE PROPOSAL

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On the November 2004 ballot, citizens of Florida will have the opportunity to vote on a proposal to raise the statewide minimum wage to $6.15 per hour. This would represent a 19 percent increase over the current federal minimum wage of $5.15 per hour, the minimum wage mandate that prevails in Florida. The $5.15 federal minimum has been in place since 1997. In addition, the measure includes an automatic cost-of-living adjustment, i.e. further raises in the statewide minimum would occur automatically at the national inflation rate.

If Florida voters approve this measure, Florida will become the 13th state in the country to operate with a minimum wage above the federal minimum, and the third to include an automatic cost-of-living adjustment as one feature of its mandate. Moreover, over the past decade, about 120 municipalities throughout the country have passed so-called "living wage" measures, which set minimum wage mandates significantly above both the current federal minimum as well as the various statewide standards.

The aim of this study is to provide a careful assessment of what the overall impact would be if Florida were to increase its minimum wage to $6.15 per hour. In this summary, we provide background as to the economic motivation of this and similar proposals around the country, and then present an overview of the major costs and benefits of this particular measure for the economy and people of Florida.

We draw on a wide range of evidence to identify the likely costs and benefits of the proposal, and weigh the importance of costs and benefits. In developing this evidence, we have relied entirely on publicly available data sources supplied by various branches of the United States government. These are the same statistical sources which serve as the foundation for most economic policy decisions at the federal, state, and local levels within the United States. In the main body of the report, we briefly describe the various statistical techniques we utilize in the study. We provide a fuller explanation of these techniques in the appendices of the report.

Motivations for Statewide Minimum Wage and Municipal Living Wage Measures

The primary force giving motivation for these laws over the past decade has been the precipitous decline in the real value of the federal minimum wage over the past generation. The federal minimum wage – which is the minimum wage that applies today throughout Florida – is currently $5.15 per hour. In real dollars, the federal minimum wage reached its peak in 1968, at $8.49 (adjusting for inflation using the Consumer Price Index CPI-U). Thus, in real, inflation-adjusted dollars, the federal minimum wage has fallen by *nearly 40 percent* between 1968 and the present. By contrast, average productivity per worker in the U.S. rose by about 90 percent between 1968 – 2003. This means that if the real value of the national minimum wage had risen exactly in step with the average rate of productivity growth – and no more than that – the minimum wage as of 2003 would be $16.13.

The collapse since 1968 in the real value of the minimum wage has had severe consequences for the lowest-paid workers in the United States. This is because the minimum wage plays a crucial role in setting wages for low-wage workers. These workers generally have little bargaining power when they seek employment, or in trying to obtain a raise once they have a job. To a significant extent, low-wage workers rely on increases in mandated minimum wages simply to obtain cost-of-living adjustments in their hourly pay rates.

The effects on living standards of a declining minimum wage become evident by considering the income that a minimum wage worker would bring home relative to some basic poverty thresholds for the United States. For example, someone who works full-time for 52 weeks at the $5.15 federal minimum would earn $10,712 over a year. This figure is 28 percent below the 2003 federal poverty threshold for a family of three (2 adults, 1 child) of $14,810. By contrast, someone in the same situation in 1968 – working full-time at the federal minimum – would still have been earning a low income, but at least it would have been 19 percent *above* the official poverty line.

Families experience real hardship when the working members of the family are employed at jobs paying a wage close to the $5.15 minimum wage. For example, a recent study by the Economic Policy Institute in Washington, DC found that nearly 30 percent of families with incomes at twice the poverty line or lower faced hardships such as missing meals, being evicted from their housing, having their utilities disconnected, doubling up on housing, or not having access to needed medical care.

Coverage of Measure and Major Costs to Businesses

Mandated Wage and Cost Increases. The measure would provide for two categories of mandated wage increases. The first is for workers now earning between the current federal minimum of $5.15 and the proposed new minimum of $6.14 on average. The second is for tipped workers now earning between the current federal minimum for tipped workers of $2.13 and the proposed minimum of $3.13. We assume that workers earning below the current federal mandates are exempt from coverage.

According to our estimates, there are 252,999 workers in Florida currently earning between $5.15 and $6.14. On average, their current wage is $5.73, and they currently work 1148 hours/year (28 hours/week, 41 weeks/year). Assuming all these workers continued working the same number of hours per year, raising all their wages to a $6.15 minimum would mean a yearly wage increase of

$482 per worker, and a total wage increase for all workers of $121.9 million. In addition, there are currently 44,952 tipped workers earning between $2.13 and $3.12. Bringing them all up to the new federal mandate would produce annual raises of $737 per worker, with an overall wage bill of $33.1 million. Overall, the measure would produce $155 million in mandated wage increases for almost 300,000 workers (our exact estimate being 297,951 workers). The firms that will pay these wage increases will also experience increases in their payroll taxes that amount to $11.8 million, bringing the total mandated costs to $166.8 million.

"Ripple Effect" Wage and Cost Increases. This category of costs refers to the non-mandated increases in wages above the minimum that businesses voluntarily provide to some of their workers after a higher minimum wage rate is implemented. Businesses provide these non-mandated raises to maintain some semblance of the wage hierarchy that prevailed prior to implementation of a new mandated minimum wage. Establishing ripple effects is necessarily more speculative than estimates of mandated raises, for precisely the reason that ripple effects are non-mandated. We have developed a statistical technique for generating rough estimates of the ripple effect, based on previous experiences in the U.S. with increases in the minimum wage.

Following this technique, we find that workers presently earning up to $7.00 per hour will likely receive raises on the order of 6.3 percent. This category includes 222,263 workers now earning between $6.15 and $6.99. It also includes 126,473 workers who now earn between $6.00 and $6.14 – these workers will get mandated raises up to $6.15, but we anticipate that the full amount of their raise will place them above the $6.15 mandate, to about $6.38 on average. We also estimate that workers earning between $7.00 and $7.49 will also get ripple-effect raises, though these are likely to be much smaller, on the order of 2.2 percent. There are now 334,579 workers in this category in Florida.

In short, the non-mandated ripple-effect increases will be a major factor both in terms of benefits to workers and costs to businesses. In total, ripple-effect raises will provide nearly $260 million in wage increases – $100 million more than the mandated increases. Moreover, the 557,000 workers receiving ripple-effect increases alone (i.e. not counting the $6.00 - $6.14 workers who receive both mandated and ripple-effect increases) is also far larger than the 300,000 likely to received mandated raises.

Total Cost Increases Relative To Sales. Calculating a ratio of total cost increases resulting from the minimum wage increase relative to sales is central for evaluating the impact of the minimum wage increase to $6.15 per hour. From this ratio, we are able to gauge how much additional revenue firms would have to produce to exactly equal the increase in costs they will experience due to the higher minimum wage.

Totaling both mandated and ripple-effect wage increases, as well as the payroll taxes associated with both, we estimate that the average firm in Florida will experience cost increases from the $6.15 minimum wage of about 0.04 percent of their sales. In other words, roughly speaking, the average firm in Florida would have to *increase its sales revenue by only 1/25th of 1 percent in order to fully cover the additional costs resulting from the minimum wage proposal.* But we also find that this cost increase to sales ratio varies considerably by industry. We estimate that the industry with the highest cost increase/sales ratio is the restaurant industry, where the ratio will be roughly 0.7 percent. So-called "limited service" restaurants – including fast-food outlets, delicatessens, and carry-out pizzerias – face the highest costs among restaurants, with a ratio of 1.3 percent. Hotels will experience cost increases of about 0.2 percent of their sales. For most industries in Florida – including those employing over 75 percent of all workers in the state – the representative (i.e.

median) cost increase/sales ratio due to the $6.15 minimum wage will be less than 1/10th of 1 percent.[1]

Overall, then, these findings are the basis on which we conclude that the minimum wage increase is not likely to have a significant effect on the operations of businesses in the state. Rather, they will be able to absorb the relatively small cost increases they will experience through modest adjustments in their normal mode of operation.

Methods of Business Adjustment to Minimum Wage Increase. We focus on one primary way that businesses are likely to adjust to their increased costs. This is to raise their prices by very small amounts. We consider how such price increases would work primarily with respect to the restaurant and hotel industries, where the cost increases due to the minimum wage raise will be highest. We also consider the prospects of businesses improving their productivity modestly after they give raises to low-wage workers, primarily through reducing employee turnover.

We focus on modest price increases, and secondarily on modest productivity improvements, as adjustment methods for businesses because they will almost certainly be the primary ways that businesses will in fact adjust. This is because for the overwhelming majority of firms in the state, the cost increases resulting from the minimum wage increase will be very small. Other methods of adjustment, including laying off workers or relocating out of Florida, would be more likely to occur if the cost increases faced by firms were considerably larger than what we estimate will occur due to this measure.

However, we do still examine in some detail the possibility that this minimum wage increase will produce increasing unemployment among low-wage workers in Florida. In particular, we examine the employment patterns for other states in the U.S. after they raised their minimum wage, and compare their experiences with states that did not raise their minimum wage. We find no evidence that employment opportunities worsened in the states that had raised their minimum wages.

Raising prices. With respect to the restaurant industry overall, our results find that a representative restaurant would have to raise its prices 0.7 percent to fully cover the costs of the ordinance. For limited service restaurants, including fast-food outlets, the price increase would have to be 1.3 percent to fully cover their increased labor costs. Thus, considering a fast-food restaurant, this would mean that the price of a $2.00 hamburger would have to rise to $2.03 for the firm to fully cover the costs it would incur due to the minimum wage rise. The price increase at a full-service restaurant would be proportionally lower, e.g. a $20 meal would have to rise by 0.7 percent to $20.14. A representative hotel in Florida would face a still-lower 0.2 percent price increase – from, say $100 to $100.20.

We review the academic and trade literature as to whether restaurants and hotels would likely be able to raise their prices by these small amounts without experiencing a decline in customer demand. The evidence strongly supports the conclusion that these firms could indeed raise their prices by this amount without losing customers. There are two basic reasons for this. The first is that that the needed price increases in this case are very small. The second is that – as a substantial body of evidence shows – within a given price range, spending for hotels and restaurants is primarily based on quality considerations. In other words, quality factors dominate over *small* differences in price (though certainly not over *large* differences in price) when consumers make spending decisions on restaurants and hotels.

Improving productivity. The primary way that implementing a higher minimum wage in Florida could raise business productivity is by reducing employee turnover and, to a lesser extent, absenteeism. This is because when workers receive better wages, their morale rises, and they become more committed to keeping their job and performing well. We do not expect that the average firm will make significant gains in productivity in overall dollar terms. But they are likely to make modest improvements, which could in turn cover a significant share of what are going to be, as we have seen, modest increases in costs.

Overall Conclusion on Business Adjustments to Higher Costs. Our key conclusion is that the overwhelming majority of business firms in Florida – including fast-food outlets and other types of restaurants, which employ a large number of low-wage workers – will be able to absorb the increased costs through some combination of small price increases and improvements in productivity. As such, workers in Florida are unlikely to experience layoffs due to the minimum wage increase. Similarly, businesses will not choose to locate outside of Florida to avoid paying the higher costs: firms now operating in Florida will not leave the state, nor will firms outside the state choose to stay away due to the minimum wage increase. The small amounts that restaurants and perhaps other firms will raise their prices to cover their higher costs will produce some general rise in prices, i.e. inflation. But because the cost increases for business are so small relative to their sales, these inflationary pressures will be virtually undetectable.

In short, we do not expect that there will any significant negative unintended consequences from Florida implementing a $6.15 minimum wage.

Benefits of Minimum Wage Increase

Benefits to Workers and their Families. We estimate that roughly 300,000 workers will receive mandated increases averaging about 7.3 percent. Another 550,000 workers will receive ripple-effect raises, of about 6 percent for those now earning between $6.00 and $6.99, and about 2.2 percent for those earning between $7.00 and $7.49. The workers receiving these raises are overwhelmingly adults well into their working lives, and are providing their families with about half of the families' total income. Over one-third of the workers live in families whose overall income places them below 150 percent of the official federal poverty line.[2] Nearly two-thirds live in families whose overall income places them below what we term a "basic needs" threshold, meaning that these families have a difficult time purchasing basic needs in the areas of food, housing, transportation, child care, clothing, and other necessities.[3]

The increase in disposable income for low-wage workers and their families will vary, of course, first, by the size of the wage increase they receive. For workers in the $7.00 - $7.49 range, their 2.2 percent ripple effect raise will not bring a significant gain in disposable income, especially after the worker has to pay out more in FICA taxes. But for workers now earning between $5.15 and $6.99 – who would receive either mandated raises of about 7 percent or ripple-effect raises of about 6 percent – the minimum wage increase will make a small, but still significant, difference in their living standard. Families with workers in this wage range will experience increases in disposable income somewhat above $500, which amounts to an average gain of between 2.6 and 4 percent. This is after taking into account the increased tax obligations of the family, as well as their reduced eligibility for government subsidies once their before-tax income rises.

This improvement in disposable income is not going to bring a dramatic improvement in these families' living standards. Rather, such increases can bring modest but still significant

improvements in a variety of ways. For example, having the extra $500 per year should enable the family to reduce its debt, take a vacation, help purchase a car, or reduce work hours. At the same time, in the contemporary U.S. economy, where the real purchasing power of the minimum wage has fallen precipitously over the past 35 years, the absence of a minimum wage increase has produced a worsening of living standards among low-wage workers and their families. The increase in the Florida minimum wage will therefore at least serve as a counterweight to the tendency of worsening living standards for low-wage workers in the United States.

It is also significant that this modest improvement in living conditions for low-income families in Florida is occurring through an increase in the family's *earned income* rather than raising their benefits from EITC, food stamps, or some other government assistance program.[4] As was demonstrated in the mid-1990s debate on welfare reform, for poor families, receiving a dollar of government assistance is by no means the same in terms of dignity and commitment to work as receiving a dollar of earned income.

Benefits to Business. The primary benefit for businesses will be for retail outlets in low-income neighborhoods throughout Florida. This is for the simple reason that the low-income families living in these neighborhoods will now have more disposable income to spend in their neighborhoods. Focusing on the situation in the 101 low-income census tracts in Miami, we estimate that retail spending will rise about 3 percent as a result of the minimum wage increase. We have not conducted similar data exercises for low-income neighborhoods in other cities in Florida, but we expect that the spending gain will be approximately equal to the 3 percent improvement in Miami.

Fiscal Impact Estimate. There are five major areas of potential fiscal impacts to consider with respect to raising the minimum wage to $6.15. Three of these will entail increased expenditures for the state. They are 1) wage increases for state government employees; 2) cost pass-throughs from state goods and service contractors; and 3) the administrative costs of implementing the new law. The other two categories will provide either more revenues or lower expenditures for the state. They are 1) increased sales tax revenues, through private firms raising prices in response to higher labor costs; and 2) publicly subsidized health care cost savings – within both the Medicaid and KidCare programs – as some workers and their families move above the eligibility thresholds for these programs after receiving wage increases.

In estimating magnitudes for each of these effects, our overall estimate of net fiscal impact is *$3.4 million in net fiscal savings.* This includes $12.6 million in new expenditures, and $16.0 million in either increased tax revenues or spending savings. Given a State of Florida budget of around $55 billion, our conclusion is that the net fiscal impact of raising the Florida minimum wage to $6.15 will be negligible.

Effect of Indexing Minimum Wage To Inflation. The analysis we provide considers the effects of a one-time event – the rise in the minimum wage to $6.15 after the November 2004 election, given the current state of the Florida economy. Would our overall conclusions about the impact of the measure be altered when, in subsequent years, the Florida minimum wage continues to rise in step with inflation?

In fact, our basic analysis of costs and benefits would not change as the minimum wage rises above $6.15 with inflation. Rather, the purpose of indexing the minimum wage to inflation is precisely to prevent the benefits of a $6.15 minimum from dissipating with inflation. This is because in an economy with inflation – i.e. a general rise in prices over time – what one can buy with one dollar, or $6.15, necessarily goes down over time. Indeed, if the minimum wage did not

rise with inflation after the initial increase to $6.15, then all the costs and benefits of the measure would diminish with time relative to what we have identified for the $6.15 minimum. It is only through indexing that our analysis of costs and benefits will remain approximately stable over time.

ECONOMIC ANALYSIS OF FLORIDA MINIMUM WAGE PROPOSAL

I. Introduction

The purpose of this report is to provide an assessment of the likely costs and benefits of the proposal to raise the minimum wage in Florida from the current federal minimum of $5.15 per hour to $6.15 per hour. For tipped workers, the minimum wage would rise from its current federal level of $2.13 to $3.13. In addition, the measure would provide that after the initial increase to a $6.15 minimum wage, further raises in the statewide minimum would occur automatically in step with annual increases in the cost of living (with rises in the cost of living – i.e. inflation – being measured by the U.S. Consumer Price Index (CPI)). The Florida law would apply to all people employed in the state, other than those already exempt from the federal minimum wage law.

This proposal will be presented to Florida voters as a referendum item in the November 2004 election. If Florida voters approve this measure, Florida will become the 13th state in the country to operate with a minimum wage mandate above the federal minimum as of January 1, 2005. For the 12 states that currently have minimum wages higher than the national minimum, the minimum wages range between $6.15 in Delaware and $7.16 in Washington.[5] The District of Columbia also currently has such a law in place, operating with a $6.15 minimum wage.

In section two of this report, we present a short discussion of the history of the minimum wage in the United States, as well as a discussion as to why voters and policy makers in 12 states and the District of Columbia have perceived a need to set their statewide minimum above the federal mandate. Moreover, over the past decade, about 120 local government entities throughout the country have passed so-called "living wage" measures, which set minimum wage mandates significantly above both the current federal minimum, as well as the various statewide standards. Section three briefly reviews the data sources and statistical techniques we employ in this study. In section four, we assess the costs of the ordinance for the covered businesses, including mandated wage increases and non-mandated "ripple effect" wage increases. Section five evaluates the likely ways that businesses will adjust to their increased costs. In terms of the adjustment mechanisms for businesses, we devote primary attention to the possibilities of covered businesses – in particular restaurants and hotels – passing through their increased costs in the form of higher prices to consumers. We also consider the likelihood that businesses will enjoy modest productivity gains after they provide raises to their lowest-paid workers. We also focus on the possibility that businesses will reduce their hiring of low-wage workers after the minimum wage increases. This would mean higher unemployment for Florida's low-wage workers – an obvious and serious *unintended consequence* of raising statewide minimum wage.

Section six considers the likely benefits of the measure for low-wage workers and their families, as well as to businesses operating in the state. We begin by providing a profile of the individual and family characteristics of the workers who will receive raises. We then present a discussion of the *net benefits* of the ordinance for low-wage workers and their families, after taking account of all income sources within the affected families, as well as changes in taxes and subsidies. Finally,

we examine the gains for businesses in Florida when low-wage workers and their families enjoy increased disposable income. This effect has particular relevance for retail firms operating in low-income neighborhoods. In section eight, we assess the fiscal impact of the measure on the budget of the State of Florida.

II. Background on Minimum Wages and Living Wages in the United States

Minimum wage laws in the United States were first implemented at the state level beginning with Massachusetts in 1912, then moving to the federal level through various measures between 1933 and 1936. The establishment of these measures was the culmination of an explicit "living wage" movement in the country. One of the most influential works supporting the movement was a 1906 book by Monsignor John A. Ryan titled *A Living Wage: Its Ethical and Economic* Aspects. By the mid-1930s, President Franklin D. Roosevelt made his position on the issue clear, stating that "no business which depends for existence on paying less than living wages to its workers has any right to exist in this country."[6]

The real purchasing power of the federal minimum wage reached its peak in 1968, and has since experienced an extraordinary decline. We can see this clearly in Figure 1. As the figure shows, the real value of the national minimum wage as of 2003, at $5.15 per hour, was 39 percent below its peak value in 1968 of $8.49 (expressed in constant 2003 dollars). This means that, outside of those exempt from minimum wage laws and after controlling for inflation, the lowest-paid legally employed workers in the United States in 1968 were earning $8.49 an hour (2003 dollars). In other words, even a teenager coming to work for his or her first day at McDonalds would legally earn no less than $8.49 an hour in 1968. It is also important to recognize that average labor productivity rose in the U.S. by about 90 percent between 1968 and 2003. This means that if the real value of the national minimum wage had risen exactly in step with the rate of productivity growth – and no more than that – the minimum wage as of 2003 would be $16.13.

Figure 1. Real Value of United States Minimum Wage, 1960–2003 (in constant 2003 dollars)
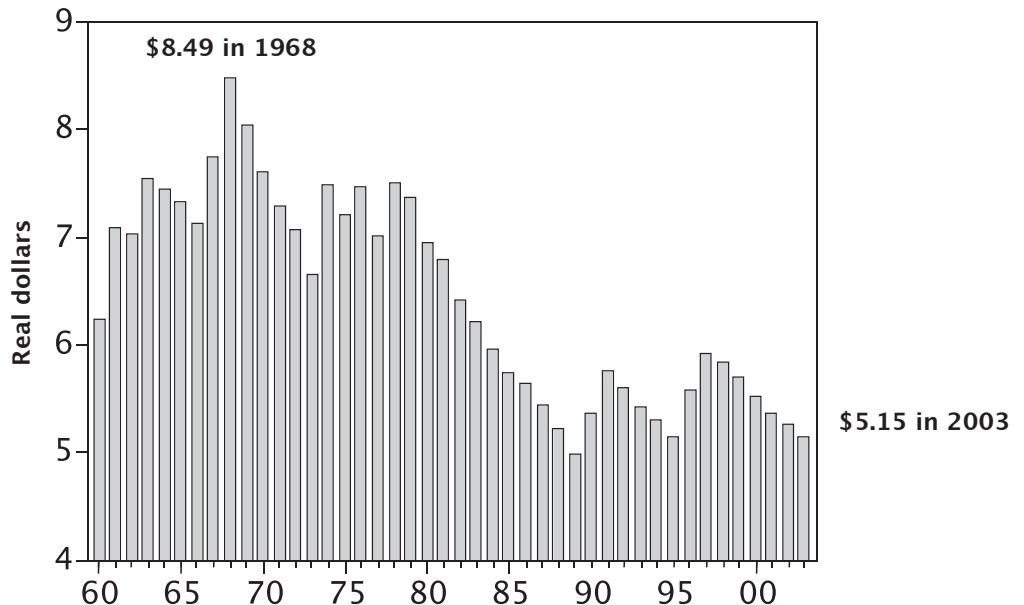
Source: Bureau of Labor Statistics, U.S. Department of Labor

The collapse since 1968 in the real value of the national minimum wage has had severe consequences for the lowest-paid workers in the United States. This is because the minimum wage plays a crucial role in setting wages for low-wage workers, since these workers generally have little bargaining power when they seek employment, or in trying to obtain a raise once they have a job. Indeed, a substantial body of research now demonstrates that, unlike all other groups in the labor force, the lowest-paid workers do not tend to receive raises that even enable their pay to keep pace with inflation.[7] As such, the living standards of low-wage workers almost inevitably deteriorate simply as a result of inflation, unless the mandated minimum wage rises. In this regard, it is highly significant that the Florida minimum wage proposal provides for *automatic* increases in the mandated minimum in step with the rate of inflation.

The general effects on living standards of a declining minimum wage become evident by considering the income that a minimum wage worker would bring home relative to some basic poverty thresholds in the United States. For example, someone who works full-time for 52 weeks at the $5.15 national minimum would earn $10,712 over a year. This figure is 28 percent below the 2003 federal poverty threshold for a family of three (2 adults, 1 child) of $14,810. Even if we allow for two full-time minimum wage workers in this family, their combined income of $21,424 would still place them at less than 150 percent of the official poverty line for this family type. Moreover, it is widely recognized among economists and other social scientists that the official poverty benchmark is probably about 40 – 50 percent too low. This is because it is calculated using an outdated approach which does not reflect the actual costs of providing for basic necessities other than food, including housing, healthcare and child care. The poverty benchmarks also take no account of regional differences in the cost of living.[8] We address these inadequacies of the U.S. poverty thresholds in section six.

Families experience real hardship when the working members of the family are employed at jobs paying a wage close to the $5.15 minimum wage. For example, a recent study by the Economic Policy Institute in Washington, D.C., found that nearly 30 percent of families with incomes at twice the poverty line or lower faced hardships such as missing meals, being evicted from their housing, having their utilities disconnected, doubling up on housing, or not having access to needed medical care.[9] Such problems spread throughout the broader community. Working people earning poverty wages obviously have less money to spend. It therefore becomes difficult for businesses in the communities serving them to prosper.

The collapse in the purchasing power of the federal minimum wage has been the primary factor motivating both the increase in statewide minimum wage standards in 12 states and the District of Columbia, but also, even more broadly, the spread of the living wage movement throughout the United States. The contemporary living wage movement in the United States began in Baltimore in 1994. Since then, more than 120 living wage ordinances of various types have become law in communities throughout the country, and roughly 70 campaigns are ongoing as of this writing.[10]

III. Statistical Methods and Sources

The data presented in this study are derived entirely from publicly available U.S. government data sources. We provide detailed information on these data sources and our methods of data construction in Appendices 1 and 2. Here we present a broad overview of the data sources and statistical methods.

The calculations of business costs are drawn from three sources: the 2002 ES-202 reports, published by the Bureau of Labor Statistics; the 1997 Economic Census (EC) for the state of Florida (and the Metropolitan Statistical Areas of Miami and Tampa), also published by the U.S. Census Bureau; and the Current Population Survey's Outgoing Rotation Group (CPS-ORG), published jointly by the Bureau of Labor Statistics and the Census Bureau. The data on low-wage workers in Florida are also taken from the CPS-ORG, and the CPS Annual Demographic Supplement (CPS-ADS).

It will be useful to highlight here some of the major issues in our usage of these government data sources and in our statistical estimates.

1. Year of estimation. The evidence we provide in this study is meant to reflect conditions in Florida for the year 2003 as best we can. In some cases, we have had to draw on data for previous years. For example, we used ES-202 data from 2002 and Economic Census data from 1997. When we have had to utilize data for years prior to 2003, we have made adjustments to these data, as appropriate, to best reflect conditions in 2003. In the appendices, we describe how we have made these adjustments on the data for prior years.

2. Accuracy and corroboration of main findings. All the figures we present in this study are *estimates.* For example, we do not know –nor could we or anybody else know – the exact number of workers who will receive raises as a result of this measure, or exactly how much the measure will cost businesses that have to give raises to their employees. However, we are confident that all of our figures are accurate to a level that is relevant for purposes of our analysis. Thus, we estimate that the average business in Florida will experience a total cost increase of about 0.04 percent of its total sales due to the impact of raising the statewide minimum wage to $6.15 per hour. We also estimate that the average restaurant will experience a total cost increase of about 0.7 percent of their sales. We cannot be certain that these figures are precisely correct. But we are certain that the ratio for all businesses is not 0.4 percent, or 4 percent, as opposed to 0.04 percent. Similarly, we are certain that the ratio for restaurants is not 7 percent or even 3.5 percent, as opposed to 0.7 percent. As such, we are confident that the estimates we have enable us to make accurate evaluations about the likely ways businesses will respond to the measure.

In the various appendices to the study, we provide details about our estimating procedures, which are the basis on which we establish confidence in our overall findings. But in addition, our confidence is strengthened by the fact that our estimates are very much in line with those we obtained in previous studies of our own on this issue (see Pollin and Luce 2000; Pollin and Brenner 2000; Pollin, Brenner and Luce 2002; and Pollin 2004), as well as the work of other researchers (see Tolley et al. 1996; Reich, Hall and Jacobs 2003). These previous studies were for different cities and frequently utilized different types of data sources, including direct surveys of covered businesses and workers.

3. Measuring averages using both mean and median figures. The statistical analysis we conduct here entails utilizing data from several sources about conditions in a wide range of business firms. To make these usable for the purposes of analysis entails estimating conditions for average or representative firms derived from these data samples. The mean and median of a data sample are two separate statistics for measuring average or representative conditions. Both measures provide valuable information, and frequently, both measures provide similar, if not identical, information about a given data set. But at times, the two measures provide different pictures of reality, and, in such situations, we need to decide which is the more reliable measure.

To illustrate the issue, consider the case of five businesses, which have generated the following amounts of sales over the past year: $2,000, $2,000, $2,000, $2,000, $12,000. We calculate the mean level of sales for these five firms by adding up the total amount of sales of the five firms, which is $20,000, and dividing by the number of firms which is five. The mean sales of these five firms is therefore $4,000. We calculate the median by putting the five firms in a rank-order, from the lowest to the highest sales figure. The sales figure that is precisely in the middle of the rank-ordering is the median. The median income of the five firms is therefore $2,000. Which is the most accurate indicator of the reality we are trying to describe? Both the mean and median tell us something useful about the world. But the difference is that, with the mean, the one firm earning $12,000 in sales brings up the average substantially, and the resulting $4,000 figure does not adequately capture the fact that most firms earned only $2,000 and that none of the firms actually earned something close to $4,000.

As such, in cases where there is a divergence between the mean and median, the median figure is almost always a more accurate measure of the representative situation. Thus, in our analysis below, we rely primarily on median statistics when the two statistics diverge significantly. But we have also calculated mean figures, and report them in situations when doing so is appropriate to the analysis. There are also some cases when neither the mean nor the median provides an accurate picture of the main patterns within a data sample. In such cases, we would simply not report either the mean or median as providing an accurate picture, and would instead provide a greater level of detail for a data set through which the mean or median will offer a reliable statistical picture. The most important example of this in our study is with the figures for the increased cost/sales ratios as they apply on an industry-by-industry basis.

IV. Estimated Costs of Minimum Wage Measure for Florida Businesses

We estimate costs according to two basic categories. The first is the mandated cost increases that would apply to all firms who now employ workers earning less than the new $6.15 statewide minimum.

The second category is the so-called "ripple effect," which are the non-mandated increases above the new $6.15 minimum that businesses voluntarily provide to some of their workers after the minimum wage is raised. Businesses provide these non-mandated raises to maintain some semblance of the wage hierarchy that prevailed prior to implementation of a new mandated minimum. Estimating ripple effects is necessarily more speculative than estimates for mandated raises, for precisely the reason that ripple-effect raises are non-mandated. We present a technique for generating rough estimates of the ripple effect. As we will see, we estimate the ripple effects of the Florida minimum wage proposal are likely to be larger than the mandated increases themselves, both in terms of number of workers affected and the dollar amount of the wage increases.

There is also a third category of costs resulting from the minimum wage proposal, which are the regional supplier cost pass-throughs. These are the costs that some Florida firms would face when their suppliers are other firms in Florida who themselves experienced cost increases resulting from the minimum wage rise. These suppliers then pass along their increased costs to their purchasers in the form of higher prices. However, these cost pass-throughs will have negligible impact, and we therefore will not devote additional attention to them.[11]

Mandated Costs

Table 1 presents evidence on the number of workers that we estimate would be covered by the Florida minimum wage proposal. This includes the number of workers who are now earning between the current Florida minimum of $5.15 and the proposed new minimum of $6.15. It also includes tipped workers in restaurant and hotels now earning between $2.13 and $3.12. We excluded from these measurements untipped workers who are presently earning below the current $5.15 minimum. We assume that all workers who are currently earning below the current minimum wage, and are therefore presently exempt from minimum wage coverage, will remain exempt from coverage under the new Florida provision.

Table 1. Mandated Wage Increases of Raising Minimum Wage to $6.15/hour and $3.13 for Tipped Workers

	Workers Earning $5.15 – $6.14	Restaurant and Hotel Tipped Workers Earning $2.13 – 3.12/hour
1) Total Number of Workers Covered	252,999	44,952
2) Full–time workers	103,730	22,026
3) Part–time workers	149,269	22,926
4) Full–time equivalent workers	139,636	22,130
5) Average hourly wage	$5.73	$2.41
6) Average hourly wage increase	$0.42 = 7.3% raise	$0.72 = 29.9% raise for wage income
7) Average hours worked/week	28	32
8) Average weeks/year	41	32
9) Average hours worked/year [row 7 x row 8]	1148	1024
10) Average yearly wage increase [row 6 x row 9]	$482	$737
11) Total raise for all workers in category [row 1 x row 10]	$121.9 million	$33.1 million

Sources: See Appendix 1

According to our evidence presented in column one of Table 1, there are 252,999 workers in Florida earning between $5.15 and $6.14. Of this total, 103,730 are full-time workers and 149,269 are part-time. The average work week for all of these workers is 28 hours, and the average number of weeks per year that they work is 41. Clearly, most of the low-wage workers in Florida are working far less than full-time. However, if we converted all of the $5.15 - $6.14 workers to full-time equivalence – 40 hours for 52 weeks per year – they would amount to 139,636 full-time equivalent workers.

The next set of figures shows data on wages for these workers. We estimate that the average worker who earns between $5.15 and $6.14 in Florida now earns $5.73. Thus, to bring the average worker up to the new $6.15 minimum, he/she would receive a raise of 42 cents per hour. If we assume that these workers maintain exactly their same level of employment after the higher minimum wage is implemented – i.e. the same average work year of 1148 hours – the average worker would receive a raise of $482 per year (i.e. 1148 hours x $0.42). From these figures, we are

then able to estimate that the total mandated wage increase for the 252,999 (139,636 Full Time Equivalent) workers is $121.9 million.

Column two of Table 1 shows the comparable data for tipped workers now earning between $2.13 and $3.12. As we see, there are 44,952 workers in this category, with a current average wage of $2.41 without tips. Their mandated wage increases will total $33.1 million.

Non–Mandated Cost Increases: Ripple Effects

"Ripple effects" refer to the non-mandated increases in wages and benefits above the newly-established minimum that businesses provide to some of their workers after a living wage ordinance is implemented. Businesses provide these non-mandated raises to maintain some semblance of the wage hierarchy that prevailed prior to implementation of a new mandated minimum wage. But estimating ripple effects is necessarily more speculative than estimates for mandated raises, for precisely the reason that ripple-effect raises are non-mandated.

With respect to the Florida proposal, there are two categories of likely recipients of such wage increases:

1. Employees who, before the Florida measure would be implemented, earn more than the federal minimum wage of $5.15 but less than the new Florida minimum of $6.15. Once the Florida measure would become law, some of these employees would receive wage increases that put them above $6.15.

2. Employees who earn more than $6.15 prior to the time the Florida proposal is implemented, but who nevertheless receive a raise when the new Florida minimum becomes law.

The key issue in determining the size of the ripple effect is to evaluate how much of a change in wage equality is likely to occur after the lowest-paid workers receive their mandated raises. The term "wage compression" is often used to describe the condition of wages becoming more equal, either within a given firm or more broadly, including throughout the economy as a whole. Recent research on the ripple effects arising due to increases in the federal minimum wage and state-wide minimum wages has found that the increases tend to diminish fairly rapidly at higher wage rates, which means that wages will become more equal – i.e. wage compression does indeed generally occur.

For example, in studying the impact in Texas of the 1991 federal minimum wage increase from $3.80 to $4.25, Lawrence Katz and Alan Krueger (1992) found that, sorting restaurants according to their previous wage structure, only between 16 and 33 percent of the restaurants they sampled maintained the wage hierarchy under which they had operated prior to the minimum wage increase. The overwhelming majority allowed wage compression to occur as the lowest earners got mandated raises due to the new minimum. Among the restaurants with the lowest initial starting wages, only 9 percent granted wage increases to workers earning $4.50 or above prior to the minimum wage rise to $4.25.

The combined increase in California of both the national and statewide minimum wages between 1996 and 1998 provides additional evidence of the strength of the ripple effect. Between the two-step national minimum wage increase from $4.25 - $5.15 in 1996-97, and the two-step statewide increase from $5.00 - $5.75 in 1997-98, the minimum wage in California rose by 35 percent – from $4.25 to $5.75 – over two years.

In Table 2, we summarize the work of Michael Reich and Peter Hall (2000), which shows the change in the percentage of California workers falling below three wage thresholds – $5.75, $6.50 and $7.25 – over 1996-98, the years that the national and statewide minimum wages increased. As we see, a large drop occurred in the proportion of workers earning below $5.75 – from 11.8 percent to 5.8 percent, amounting to a rate of decline of 50.1 percent. Meanwhile, those below the $6.50 wage threshold declined from 18.2 to 14.9 percent, a rate of decline of 18.1 percent, far less than that for the $5.75 threshold. Finally, the decline in the proportion of workers earning below $7.25 fell from only 21.8 to 20.8 percent, a decline of 4.6 percent. Thus, with this recent California experience, we again see strong evidence of wage compression – which is to say, a weak ripple effect – subsequent to the minimum wage increases.

Table 2. Ripple Effects After California Minimum Wage Increases: Percentage of Workers Earning Below $5.75, $6.50 and $7.25, 1996–98

	Below $5.75	Below $6.50	Below $7.25
1996	11.8	18.2	21.8
1997	10.9	16.9	20.4
1998	5.8	14.9	20.8
percentage point decline, 1996–98	−6.0	−3.3	−1.0
rate of decline, 1996–98 $(x_{96} - x_{98})/x_{96}$	−50.1	−18.1	−4.6

Source: Reich and Hall (2000)

To provide an estimate of the likely magnitude of the ripple effect of the Florida minimum wage increase, we constructed a formal statistical model which estimated the size of the ripple effects resulting from both national and statewide minimum wage increases throughout the country between 1991 and 2000 (we chose to examine these years because they encompass the most recent full business cycle in the U.S. economy). Our model enabled us to systematically observe recent experiences of the U.S. economy with minimum wage increases as the basis for estimating the likely magnitude of the ripple effect in Florida.

We present a full description of that model in Appendix 2. In Table 3, we provide a summary of the main findings of the formal model. As the first three columns of the table show, there are three categories of low-wage workers who are likely to receive ripple-effect raises resulting from the Florida minimum wage increase – workers now earning between $6.00 and $6.14; those now earning between $6.15 and $6.99; and those now earning between $7.00 and $7.49. We assume that part-time as well as full-time workers in these two categories will receive ripple-effect raises. According to our model, workers earning more than $7.50 are not likely to receive any raise resulting from the minimum wage raise in Florida from $5.15 to $6.15. This finding from our model is therefore consistent with the previous research on this question, showing that the ripple effect dissipates fairly quickly as one moves further away from the new mandated minimum, i.e., in this case, of $6.15 per hour.

Table 3. Calculation of Ripple Effects from Minimum Wage Increase

	$6.00 – $6.14	$6.15 – $6.99	$7.00 – $7.49	All Workers Receiving Ripple Effect Raises
Number of workers in category	126,473	222,263	334,579	683,315
				(556,842 excluding $6.00 – $6.14 workers)
Average number of hours worked/year	1,092	1,530	1,598	1,485
	(28 weekly hours x 39 weeks)	(34 weekly hours x 45 weeks)	(34 weekly hours x 47 weeks)	(33 weekly hours x 45 weeks)
Present average wage	$6.00	$6.53	$7.06	$6.69
Estimated percentage wage increase	6.3%	6.3%	2.2%	3.7%
Average Wage after Minimum Wage Increase	$6.38	$6.94	$7.22	$6.94
Total Yearly Wage Increases	$52.5 million	$139.4 million	$85.5 million	$277.5 million
	($20.7 million mandated, $31.8 ripple effect)			($256.8 excluding mandated increases for $6.00 – $6.14 workers)

Sources: See Appendices 1 and 2

Considering the first category of workers in Table 3 – the 126,473 workers now earning between $6.00 and $6.14 – these workers will of course, at a minimum, receive the *mandated* raise from their current hourly pay up to $6.15. But we have included these workers as among those who will receive ripple-effect increases, because we anticipate that their raises will put them over $6.15. That is, their raise will include a combination of a mandated raise to $6.15, and a ripple effect raise beyond the new $6.15 minimum. Consider, for example, a worker in Florida now earning $6.00 per hour. Given that our model estimates that all workers in the $6.00 - $6.14 range will get a 6.3 percent raise, this means that this $6.00 per hour worker will receive a raise to $6.38. Of this total raise from $6.00 to $6.38, the increase to $6.15 is mandated, while the remaining raise from $6.16 to $6.38 will be the ripple effect increase. More generally, for all workers in this wage category, the ripple-effect raises will amount to a total of $31.8 million, which is larger than their mandated raises of $20.7 million.

There are 222,263 workers in the second category, those earning between $6.15 and $6.99. On average, these workers presently earn $6.53 per hour and, according to our model, they will also receive average raises of 6.3 percent after the new minimum wage law is implemented. This would bring their average wage to $6.94.

We estimate that there are 334,579 workers in the third category, those now earning between $7.00 and $7.49. On average, these workers earn $7.06. Our model estimates that these workers will, on average, receive a modest raise of 2.2 percent – a figure, again, that is consistent with the broader finding in the literature that the ripple effect dissipates fairly quickly as one moves away from the new mandated minimum wage. For our average worker in this category, this would mean

her/his new wage would be $7.22. As the table shows, when all 334,579 workers in this category receive their ripple-effect raises, this will generate a total of $85.5 million in wage increases.

Overall then, we estimate that the wage increases for all workers earning between $6.00 and $7.49 will total $277.5 million. Of this amount, $256.8 million will be strictly non-mandated ripple-effect raises, while the remaining $20.7 million will be mandated raises for those now earning between $6.00 and $6.14.

Total Costs

In Table 4, we summarize the cost increases businesses will face due to the Florida minimum wage proposal, including all mandated increases for $5.15 - $6.14 workers, mandated raises for $2.13 - $3.12 tipped workers, as well as all ripple-effect raises. To these, we then add payroll taxes of 7.65 percent that businesses will face along with each category of wage increases.[12] As we can see, we estimate that 854,793 workers will be receiving $411.7 million in total wage increases. These wage increases will in turn generate $31.5 million in additional payroll taxes. As such, the total cost increases for Florida businesses will be $443.1 million.[13]

Table 4. Total Estimated Cost Increases from Florida Minimum Wage Proposal

	Number of workers receiving raises	Wage Increases (in millions)	Payroll Tax Increases (in millions)	Total Cost Increases (in millions)
Mandated Raises for $5.15 – $6.14 workers	252,999	$121.9	$9.3	$131.2
Mandated raises for $2.13 – $3.12 tipped workers	44,952	$33.1	$2.5	$35.6
Ripple effect raises for $6.00 – $6.14 workers	126,473	$31.8	$2.4	$34.2
Ripple effect raises for workers above $6.14	556,842	$224.9	$17.2	$242.1
Totals	854,793	$411.7	$31.5	$443.1
	(No double–counting of $6.00 – $6.14 workers)			

Sources: Figures taken from Tables 1 and 3.

Total Costs Relative to Sales of Florida's Firms

In Table 5, we present data showing the estimated total cost increase of $443 million relative to the total number of business firms in Florida and the total sales of these firms. To begin with, we show that of the total estimated cost increase of $443.1 million, private sector firms will bear $405.9 of the total – 92 percent of the total costs. We will consider the cost effects for the public sector – i.e. the other $37 million in total cost increases – in Section VII of the report, on net fiscal impact.

We also focus here only on private firms that have employees. As Table 5 reports, there are about 470,000 firms in Florida that employ people.[14] This means that, on average, firms in Florida will face a cost increase of $863 resulting from the minimum wage increase. In addition, the total sales of these firms was $928.7 billion in 2003. This means that our $405.9 million estimate of the total increase in costs for private firms due to the minimum wage measure is equal to 0.04 percent of sales of the these private firms. In other words, roughly speaking, the average firm in Florida would have *to increase its sales revenue by only 1/25th of 1 percent in order to fully cover the additional costs resulting from the minimum wage proposal.*[15]

Table 5. Total Cost Increases Relative to Sales for Covered Florida Firms

1) Total Cost Increase from Minimum Wage Increase	$443.1 million
2) Cost Increase for Private Sector Firms	$405.9 million
3) Private Business Firms in Florida with Employees	470,541
4) Total Cost Increase per Private Sector Firm **(rows 2/3)**	$863
6) Estimated Sales Of Private Sector Firms With Employees	$928.7 billion
7) Total Cost Increases Of Covered Firms Relative To Sales **(rows 2/6)**	0.04%

Sources: See Appendix 1.

This is a crucial initial finding in evaluating the impact that the $6.15 minimum wage proposal is likely to have on business firms in Florida. However, we still need to consider this cost increase/ sales ratio in more specific terms, especially as it varies on an industry-by-industry basis, before we can reasonably consider how firms are likely to adjust to the cost increases they will face.

In Table 6, therefore, we examine the ratio of minimum wage costs/sales of the minimum wage proposal, broken down on an industry-by-industry basis. The industrial groupings in the table are based on the Department of Commerce's North American Industrial Classification System (NAICS) coding system. The table lists the industrial groups according to their minimum wage cost/sales ratio, starting with industries with the highest ratios. In columns 3 and 4, the table then presents information on the size of the industry within the Florida economy. We measure industry size according to two dimensions, its share of the total employment in the state, and its share of total sales.

Table 6. Impact of Minimum Wage Increase by Industry

(1) Industry category	(2) Median costs relative to total sales	(3) Share of total Florida employment	(4) Share of total Florida sales (gross receipts)
Accommodation and Food Services	0.69%	10.56%	3.06%
Administrative, Support, Waste Management and Remediation Services	0.38%	12.84%	3.20%
Arts, Entertainment, and Recreation	0.10%	2.65%	1.38%
Other Services (except Public Administration)	0.06%	3.93%	2.15%
Retail Trade	0.05%	15.30%	20.36%
Educational Services	0.04%	1.37%	0.67%
Health Care and Social Assistance	0.03%	12.41%	6.43%
Real Estate, Rental and Leasing	0.02%	2.49%	2.34%
Transportation and Warehousing	0.02%	3.35%	3.12%
Manufacturing	0.02%	6.72%	9.02%
Information	0.02%	2.94%	3.66%
Professional, Scientific, and Technical Services	0.01%	6.22%	4.53%
Wholesale Trade	0.01%	5.16%	23.93%
Finance and Insurance	0.01%	5.31%	6.46%
Construction	0.01%	7.06%	8.10%
Mining	0.01%	0.05%	0.09%
Utilities	0.00%	0.46%	1.49%
All Industries	0.04%	100.0%	100.0%

Source: See Appendix 1.

As the table shows, the "accommodation and foodservices" – including hotels, restaurants, bars, cafes, and caterers, has the highest cost increase among all industries in the state. We estimate the cost increase for accommodations and restaurants to be 0.69 percent. This is more than 10 times greater than the average for all industries which, as we saw in Table 5, was 0.04 percent. At the same time, this cost increase is still well below 1 percent of sales, and is therefore not likely to represent a significant burden for the state's restaurants and hotels (a subject we consider in depth below).

As the table also shows, the accommodation and foodservices industry is the only one in the state that will experience a cost increase greater than one-half of 1 percent as a result of raising the state's minimum wage to $6.15. The industry with the second highest ratio is, as defined by the NAICS classification system, "administrative, support, waste management and remediation services," whose cost increase/sales ratio is 0.38 percent. This industry includes security guard, janitorial, call center, trash collection and temporary services. The only other industry where the cost increase is greater than one-tenth of 1 percent is "arts, entertainment, and recreation," where the ratio is 0.10 percent.

The accommodation and foodservices industry – i.e. restaurants and hotels – is clearly of major significance here. Not only will the restaurants and hotels experience the largest cost increases, but, as we also see from the table, this is a significant industry in terms of its relative size in the

Florida economy. In terms of employment, restaurants and hotels employ nearly 11 percent of all workers in the state of Florida, making it the fourth-largest industry in the state in terms of employment, after retail trade, health care, and the administrative and support industries. The hotels and restaurants are much smaller relatively speaking in terms of sales. At 3 percent of total sales, hotels and restaurants are far below wholesale trade, which is the largest in the state by sales, at nearly 24 percent of total state sales. However, the wholesale trade industry would experience a cost increase from the $6.15 minimum wage law of only 0.01 percent. Similarly, the retail trade industry would experience a cost increase of only 0.05 percent. In general, because of its combination of the highest cost ratio and a relatively high percentage of employment in the state, the hotel and restaurant industries are clearly the industries on which to focus in considering how the minimum wage increase is likely to impact businesses in Florida.

As such, in Table 7, we examine the Accommodation and Food Services industry in a bit more detail, by first dividing up the category according to whether firms are hotels or restaurants, then considering "limited service restaurants" only as a separate category. The limited service restaurants include in particular the fast-food industry, as well as carry-out restaurants, pizza delivery services, delicatessens, and the like. Because the fast-food firms have the highest concentration of low-wage workers in their overall labor force and cost structures, the impact of the minimum wage increase should be highest here. With the available data, we were unable to isolate fast-food firms from other types of limited service restaurants. But the general situation for fast-food firms should still be clarified from the figures we do have.

TABLE 7. Impact of Minimum Wage Increase for Hotels and Restaurants

(1) Industry category	(2) Cost increase/Sales for Representative Firm	(3) Share of total Florida employment	(4) Share of total Florida sales (gross receipts)
Hotels	0.18%	2.49%	1.09%
All Restaurants	0.69%	8.07%	1.96%
Limited Service Restaurants Only	1.32%	2.59%	0.61%

Source: See Appendix 1 for details. The cost increase ratios for Hotels and All Restaurants are medians. The figure for Limited Service Restaurants was derived from industry-specific data for previous years.

As we see in Table 7, the median ratios of cost increases/sales are significantly higher for restaurants than hotels – at roughly 0.2 percent for hotels and 0.7 percent for all restaurants. The restaurant industry is also larger than the hotels, especially in terms of employment (8 percent versus 2.5 percent of total state employment), but also in terms of sales.

Not surprisingly, the representative cost increase/sales ratio for limited service restaurants, at about 1.3 percent, is nearly double that for the restaurant industry as a whole, and more than six times higher than that for the hotels.[16] In other words, it is clear that, by a wide margin, limited service restaurants will experience the highest cost increases in the state. This is of particular significance since, according to our estimates, more than 69,000 workers in this industry will receive wage increases with the rise to a $6.15 minimum wage. That represents more than 8 percent of the roughly 850,000 workers in the state who will receive raises resulting from raising the statewide minimum wage. Thus, in considering the impact of the rise in the Florida minimum wage to $6.15, we will clearly need to pay particular attention to limited service restaurants.

V. Methods of Adjusting to Minimum Wage Increase by Florida Firms

A more than 7 percent average pay increase for nearly 300,000 workers – including those now earning between $5.15 and $6.14 as well as tipped workers – and additional, if smaller, ripple-effect increases for an additional 550,000 workers, will obviously entail that businesses in the state make some adjustments in the way they operate. What are these adjustments likely to be?

Two types of adjustment processes are most frequently the focus of discussions in considering the impact of raising minimum wages at the national, statewide or municipal levels. The first is *unemployment*, or more specifically, that businesses will lay off workers and will become more reluctant to hire new employees, thus creating job losses and fewer opportunities for the working poor. The second is *business relocation*, that is, to avoid paying the higher minimum wage, firms located in the city or state will move out and firms considering moving into the city or state will be discouraged from doing so. Such moves would also then create job losses and fewer opportunities for the working poor. Since the purpose of raising minimum wage laws is to improve living standards and create better employment opportunities for the working poor, a rise in unemployment or business flight from the city or state would obviously be unintended and undesirable consequences of passing such a measure into law.

However, laying off workers or relocating are not the only ways that businesses might adjust to a minimum wage increase. In fact, there are three other ways that firms might respond to an increase in the Florida minimum wage: 1) businesses would raise prices; 2) firms would operate more productively; and 3) low-wage employees would receive a relatively greater share of firms' total wage, salary and profit payments. These three other adjustment paths are likely to be the primary channels through which Florida firms adjust to the ordinance, since they can be accomplished more readily and at lower costs than either laying off workers or relocating. The adjustment process that would be least costly and disruptive for firms would be to simply raise prices to reflect their increased costs. Thus, if a restaurant faced a 0.7 percent cost increase relative to sales due to the increased statewide minimum wage, if they were able to raise their prices by 0.7 percent, they would be able to fully pass through their increased minimum wage costs to their customers. In other words, their profits would not fall at all due to the $6.15 minimum wage, and no other adjustments, such as unemployment or relocation, would be necessary to absorb their increased minimum wage costs. Is it reasonable to expect that restaurants could raise their prices by 0.7 percent without losing business? This is the question on which we will focus in this section.

We will not need to give the same attention to this question as it relates to other industries. Because other industries will face significantly lower cost increases relative to their sales, they will not experience serious difficulties raising their prices slightly to cover their higher costs. This point should be clear from considering briefly the case of the retail trade industry, in which the representative (i.e. median) cost increase/sales ratio, at 0.05 percent, is only slightly higher than the statewide average of 0.04 percent. The retail trade industry is also an important case to consider, since it employs more than 15 percent of all people working in Florida and accounts for over 20 percent of total sales in the state.

With the retail trade industry facing a cost increase/sales ratio of 0.05 percent, to compensate itself penny-for-penny for the increased costs it faces, it should raise the price of its inventory by exactly the same 0.05 percent. The price of a $20 sweatshirt would therefore need to rise to $20.01 – *a one-cent price increase on this $20 item*. We then assume that this one-cent increase in the price of a sweatshirt will not be large enough to alter consumer purchasing habits, especially given that all retail clothing stores in the state will face comparable cost increases in their operations

resulting from the $6.15 minimum wage. All of the retail clothing outlets, in other words, are likely to raise their prices by the same one cent on the $20 sweatshirt, so that none of the retail firms in the state are placed at a competitive disadvantage due to the higher minimum wage. If customers keep buying the same number of sweatshirts at $20.01 as they did at $20 even, this would then generate exactly the additional 0.05 percent in revenue necessary to cover the increase in costs due to the minimum wage raise to $6.15.

We turn now to the hotel and restaurant industries, where the issue of raising prices to cover cost increases does require more attention.

Price Increases for Restaurants and Hotels

In 1995, David Card and Alan Krueger published *Myth and Measurement: The New Economics of the Minimum Wage.* This was a path-breaking book that examined, among other questions, the effects in the fast-food industry in New Jersey when the state raised its minimum wage in 1991 to 18.8 percent above the national minimum wage. Card and Krueger were particularly interested in how fast-food outlets on the New Jersey side of the New Jersey-Pennsylvania border would respond to their statewide minimum wage requirement, since these businesses faced nearby competitors who were required to pay only the lower national minimum wage. They found 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. They summarized their results by writing, "A comparison of price changes at fast-food restaurants in New Jersey and Pennsylvania after the increase in the New Jersey minimum wage suggests that average prices in New Jersey rose by about enough to cover the cost of the higher minimum wage" (1995, p. 390).

Card and Krueger, along with other researchers, also compared this finding with experiences in the fast food industries in other states after the national minimum wage increased. Again, they found that, for the most part, prices at these restaurants were marked up roughly in correspondence with the increased total costs associated with the minimum wage increase. For example, a 2001 study by Daniel Aaronson of the Federal Reserve Bank of Chicago examined price pass-throughs in the restaurant industry after minimum wage increases in the United States and Canada between 1978 and 1995. After presenting a large and varied body of data, and pursuing alternative methods of testing the robustness of his statistical tests on the data, Aaronson concludes that "the majority of the evidence suggests that restaurant prices rise with increases in the wage bill that result from minimum wage legislation" (Aaronson 2001, p. 169).

Thus, these researchers provide strong evidence for the importance of the price mark-up as an adjustment mechanism in the fast-food industry. But how well can their findings be generalized beyond the fast-food industry, to hotels and restaurants more generally? There are two crucial questions to ask about the viability of price increases for hotels and restaurants, given the current economic conditions in Florida. They are:

1. **How much would they have to raise prices to cover their increased costs?** Based on the figures we have presented above, a representative firm in the hotel industry would have to raise prices about 0.2 percent to cover its increased costs relative to sales, and a representative restaurant would have to raise its prices by 0.7 percent. The figure is, of course, higher for limited service restaurants, where a 1.3 percent price increase would be needed to cover the cost increases from the minimum wage raise.

2. **How much would firms be able to raise their prices to cover these increased costs?**
   Answering this question first depends on how sensitive consumers are to price increases.
   Consider an average restaurant. If the price of a meal was, say, $10 to begin with, would
   customers be discouraged from buying this meal if, due to the $6.15 minimum wage, its price
   were to rise by 0.7 percent, or even 1 percent – with the 0.7 percent price increase bringing the
   price of the meal to $10.07?

We also need to consider the competitive environment in which firms operate. Would the
restaurants that raised their prices lose customers to other restaurants that did not raise prices?
Here we need to focus on the fact that *all businesses in the same industry – hotels, restaurants,
and fast-food outlets –* will face comparable cost increases. Hence, no firm within Florida loses
competitive position by having to cover the costs of the $6.15 minimum wage. It is true that Florida
firms would face higher low-wage labor costs relative to firms in states, such as Georgia, that
continue operating under the federal $5.15 minimum. However, the competition that restaurants
and hotels face is overwhelmingly focused within their particular localities. They do not, for the
most part, compete with other hotels and restaurants outside their locality, much less in other
states.

Some hotels do compete with entities outside the state – for example, hotels in Miami are in
competition with hotels in, say, the Bahamas or Las Vegas for some vacationers and convention
organizers. We will therefore consider this particular situation in our discussion below. Otherwise,
our primary concern in considering the effects of cost increases will be the response of consumers
to higher prices, rather than the possibility that firms raising prices to cover their increased costs
could lose their market share to firms that do not face comparable cost pressures.

Basics of Price Competition in Restaurant and Hotel Industry

The key consideration here is straightforward: the relevant price increase necessary to cover
costs, at 0.2 percent for hotels, 0.7 percent for all restaurants, and 1.3 percent for limited service
restaurants, is small in absolute terms, even if it is still higher than any other industry in Florida.
Thus, a restaurant with a $20 average-priced meal would need a price increase to $20.14. For
the fast-food restaurant, the price of a $2.00 hamburger would have to rise to $2.03. And finally,
considering the case for hotels, a $100 hotel room would have to rise to about $100.20 and a $200
room to $200.40. How much would price increases of this size likely affect customers' willingness
to spend for restaurant meals and hotel rooms?

In fact, the available relevant literature suggests that consumer behavior is not likely to change
by any discernable amount as long as price increases remain this small. This is because spending
on hotels and restaurants are forms of discretionary consumption. Within a given price range – a
$10 meal or a $100 hotel room, for example – consumers are primarily interested in the quality
they are purchasing, and perceived quality differences between hotels and restaurants are more
important in determining consumer demand than whether a meal will cost, say, $10 or $10.07.

Evidence on Hotels. Consultants and researchers in the field of hotel management have long
recognized this general situation. For example, a 1997 paper by Robert Lewis and Stowe Shoemaker
in the *Cornell Hotel and Restaurant Administration Quarterly* explains how price can serve as a
crucial indicator of quality to potential high-end hotel and restaurant clients. Such clients are not
seeking low prices as a priority. They are rather seeking high-quality services, and are willing to
pay high prices in exchange for high quality. A hotel or restaurant that can maintain strong client

demand with high prices is therefore signaling with its high prices that it is able to deliver on high quality. Correspondingly, for a hotel or restaurant in this market segment, to cut prices would signal that they have failed to maintain the high level of quality that their potential clients are seeking.

Hotel clients in this market segment are, therefore, willing to accept a broad range of room prices, depending on how they perceive the quality of the service they are receiving in return. According to Lewis and Shoemaker's own research, the range of acceptable prices for hotels for business purposes varied by $54 around a midpoint price for rooms of a given quality. Lewis and Shoemaker also argue strongly against "cost-driven pricing" – i.e. letting costs, rather than customer attitudes, determine prices – for all hospitality services, including both hotels and restaurants. Citing leading management theorists Peter Drucker and Theodore Leavett, they argue that the error with cost-driven pricing is precisely that it does not attempt to gauge what the market will bear, and specifically, the fact that customers perceive prices as an important quality indicator.

The overall point concerning hotels for our purposes is clear: potential clients of Florida's hotels will almost certainly never be swayed in their decision to choose Florida as a destination relative to other potential destinations by the fact that a room price in Florida is set at $100.70 rather than $100. Florida hotels do indeed compete with destinations outside the state. But the costs they will incur due to the minimum wage increase to $6.15 will not be a factor in this competition.

Evidence on Restaurants. The literature on the restaurant industry reaches the same basic conclusions as that focused on high-end hotels. One important piece of research was an innovative 1994 study by Nicholas M. Kiefer, Thomas J. Kelly and Kenneth Burdett, published both in the *Journal of Business and Economic Statistics* and the *Cornell Hotel and Restaurant Administration Quarterly*. With the cooperation of a restaurant owner, these researchers set different prices within a given restaurant for a popular item on the menu, a fried haddock dinner. Specifically, they examined the effect on demand at the restaurant when they varied the price of the haddock dinner between $8.95 and $10.95 for different customers at the restaurant on a given night. Their major finding was that there was no effect on the demand for the haddock dinner regardless of the variation in the price within this range. They write, "The data clearly indicate that a substantial negative effect of price on the amount of fish fry ordered is quite unlikely in the range of prices we tested" (*Cornell H.R.A. Quarterly*, p. 52).

More generally, they conclude that their findings are consistent with the view expressed by the National Restaurant Association itself in its publication *Price-Value Relationships at Restaurants* (1992). The National Restaurant Association suggests in this publication that "consumers view themselves as being more quality and value conscious as opposed to price conscious – they want quality and are willing to pay for it" (quoted in Kiefer, Kelly, and Burdett 1994, p. 49).

Beyond the higher-end market segments, the evidence from the Card and Krueger study of New Jersey fast-food restaurants suggests that, even with the fast-food restaurants, relatively small price changes do not lead to large changes in consumer demand. Card and Krueger deliberately studied fast-food restaurants along the border with Pennsylvania. The restaurants on the New Jersey side of the border raised their prices 3.4 percent to cover their increased costs, while in Pennsylvania, firms did not face any mandated wage increase at all.[17] Nevertheless, the New Jersey firms did not experience any significant change in consumer demand, despite having raised their prices 3.4 percent. In other words, fast-food restaurant clients along this border did not migrate to the Pennsylvania side of the border to avoid the price increases in New Jersey. This experience

would seem relevant to businesses in Florida along its border with Georgia. Even fast-food firms along this border should not expect to face increased competitive pressures from the fact that they may try to raise their hamburger prices from $2.00 to $2.03, or even somewhat higher, while those on the Georgia side of the border maintain prices at $2.00.[18]

Productivity Improvements

How might business firms in Florida raise productivity as a result of paying a higher mandated minimum wage and also giving ripple-effect wage increases? Considerable research in recent years has shown that a higher minimum wage can improve firm performance through several channels. These include lower costs for recruiting low-wage workers, as well as lower turnover and less absenteeism among the low-wage workers on the job. Less turnover and absenteeism in turn mean that the firms' training and supervisory costs should fall. Combining all of these factors may then yield a workplace with better morale, less unneeded hierarchy and greater cooperation.[19]

Actually, the recent perspective on wages and firm productivity has actually only rediscovered some old ideas that most economists had neglected for a generation. Probably the most famous historical case illustrating this approach was that of Ford Motor Company in the early part of the last century. In 1913, the turnover rate at Ford Motors was roughly 400 percent. That means that Henry Ford found himself hiring four times the average number of workers he actually needed to staff production over the course of a year. Rates of absenteeism were similarly high. Recognizing this problem, Ford instituted the $5.00-a-day wage rate for production workers, which amounted to a *near doubling* of wages at that time. It is now well-documented in the professional literature that Ford's bold move led to significant decreases in both absenteeism and turnover. Other firms in this period, including Goodyear, General Electric, and Bethlehem Steel, took slightly different, but equally dramatic, approaches in the attempt to reduce turnover and raise morale. These included profit-sharing arrangements, pension plans, health insurance and educational subsidies for employees and their children.[20]

In the contemporary economy, we see these same considerations showing up at all sorts of firms, and not only ones where the pay increases are as dramatic as in the Ford case. Indeed, the basic point is that firms operating in the same industry often have significantly different pay scales, and it does not necessarily follow that the firms paying higher wages charge higher prices or lose out in market competition. The successful firms paying higher wages do have higher *direct labor costs – i.e.* wage payments – but they also tend to have lower *indirect labor costs*, including recruitment, turnover, absenteeism, and supervision.[21]

But the view that firms gain in efficiency through paying a higher minimum wage raises some vexing questions. First, if there are benefits for firms to grab through paying a higher minimum wage, why don't they just *voluntarily* pay their workers the higher wage? The answer to this question is that, as noted above, many firms, from the Ford Motors example onward, have understood that they can benefit through paying low-wage workers above the legal minimum wage. This is often termed the "high road" path to competitive success.

At the same time, for most firms, the savings they would gain through lowering turnover, absenteeism, and associated recruitment, training and supervisory costs will still be less than the cost increases they would face from paying higher wages. The average firm, in other words, is not likely to get a $1 benefit in cost savings for a given $1 increase in wages. And unless they get the full $1 in cost savings, they are not likely to raise the wage by that same $1. This is why some firms

do indeed succeed through what is termed a "low road" strategy – minimizing wage costs at the expense of higher costs of recruitment, turnover, absenteeism and supervision.

In general, we do not expect that the average firm will be able to cover a high proportion of its increased costs through improved productivity. But it is likely to make modest gains in productivity. And given that the average firm in the restaurant and hotel industry will need to cover a cost increase of only 0.7 percent, even a modest gain in productivity could make a significant contribution to absorbing some, if not all, of these costs.

Employment Effects and Additional Business Adjustments

The evidence we have reviewed strongly suggests that business firms in Florida will be able to absorb the increased costs of the $6.15 minimum wage through a combination of raising prices and improving productivity by only slight amounts. This means that the $6.15 minimum wage is very unlikely to induce firms to either lay off employees or relocate out of Florida to avoid the increased costs of the measure. It correspondingly means that firms will not need to cut into their profits or reduce the wages of higher-paid workers in order to cover their higher wage payments to low-wage workers.

This conclusion is especially pertinent as regards unemployment effects, i.e. whether a rise in Florida's minimum wage to $6.15 would lead businesses to lay off low-wage workers or be more reluctant to hire them in the future. Certainly in considering the negative unintended consequences of minimum wage or living wage laws, the potential for creating unemployment among low-wage workers is, rightfully, the single greatest matter of concern. As such, it is appropriate to consider the unemployment question in a bit more detail now.

The best-known recent work in considering the employment effects of minimum wage laws has been that of David Card and Alan Krueger, especially their path-breaking 1995 book that we cited above, *Myth and Measurement: The New Economics of the Minimum Wage.* Card and Krueger have consistently found that changes in the minimum wage have not tended to raise unemployment by any discernable amount (and indeed have tended to be associated with slight *increases* in low-wage employment; see also Card and Krueger, 2000). However, the Card/Krueger research methods and results have been challenged by a number of authors, most notably David Neumark and William Wascher (for example, 2000). But Neumark and Wascher's most recent findings, while still at variance with those of Card and Krueger, also show either no significant employment effects at all resulting from a minimum wage increase, or only small negative effects. The differences between the Card/Krueger and Neumark/Wascher findings have been well summarized by Professor Richard Freeman of Harvard University: "The debate is over whether modest minimum wage increases have 'no' employment effect, modest positive effects, or small negative effects. It is *not* about whether or not there are large negative effects" (1995, p. 833; emphasis in original).

Freeman's summary of the academic research is also consistent with other evidence. In particular, we have examined the employment experience of two sets of states: the six states that operated with minimum wage levels higher than the federal minimum for the full 1998 – 2003 period, and the 39 states that operated with the federal $5.15 minimum throughout these years. We present some basic findings from that comparison in Table 8.

Table 8. Comparing Employment Growth for States with Above $5.15 Minimum Wage Standards versus States with only Federal $5.15 Minimum

Average Annual Employment Growth 1998 – 2003 (in percentages)

	6 States with above $5.15 minimum wage over 1998–2003	39 States with only Federal $5.15 minimum
Overall Employment Growth	0.55	0.43
Restaurant Industry Employment Growth	1.4	1.9
Hotel Industry Employment Growth	0.61	−0.24

Source: See Appendix 3. The six states in the first category of this table are Alaska, Connecticut, Hawaii, Massachusetts, Oregon, and Vermont.

As we see, in terms of overall employment, the six states with a minimum wage higher than the $5.15 federal mandate in these years experienced an average annual rate of employment growth of 0.55 percent, while the 39 states that did not raise their statewide minimum wage experienced an average annual employment growth rate of 0.43 percent. In other words, there was somewhat *faster* growth in the six states with higher minimum wages over the full period than in the 39 states with no statewide minimum wage law of their own.

The table next focuses on employment in the restaurant and hotel industries, i.e. the industries that would be most heavily affected by the $6.15 minimum wage in Florida. With restaurants, we do see that employment growth is somewhat slower in the six states with higher minimum wages, 1.4 percent growth versus 1.9 percent for the other 39 states. For the hotel industry, the growth in employment was 0.61 percent for the six states with higher minimum wage mandates, whereas employment actually fell in the hotel industry by 0.24 percent for the 39 states operating at the federal minimum wage.

Overall, there is certainly no evidence in this table to suggest that a higher minimum wage in a state significantly reduced that state's rate of employment growth. There is some evidence from the restaurant industry that employment growth was a bit slower in states with a higher minimum wage standard. But this was not true for the hotel industry or for the statewide economies overall.

Of course, many things other than the minimum wage mandate affect employment growth at any given time. For example, the September 11, 2001, terrorist attacks no doubt contributed to the fact that employment actually declined in the hotel industry in the 39 states with no statewide minimum wage law. The national recession in 2001 (which began in March of that year, well before the terrorist attacks) obviously led to a decline in employment growth in all the states. Recognizing these considerations, what the data in Table 8 still show is that instituting a minimum wage law higher than the federal mandate does not, *on its own*, produce a major negative effect on employment – or indeed any significant discernable effect on employment of any kind – relative to all the other influences that may also be effecting employment. If the higher minimum wage laws in the six states were, on their own, producing a major influence on employment relative to other factors, then we would observe significantly lower employment growth figures for these states. This obviously did not happen in the years that we are observing, 1998 – 2003.

Through more formal statistical procedures, we are also able to test how statewide minimum wage laws affects employment in the states, *after controlling for other factors that could affect*

employment in the states. We present this formal statistical analysis in Appendix 3. To summarize the main finding of this analysis: considering the period 1991 – 2000, and controlling for other factors that influence employment growth, we found states which had minimum wage standards above the federal mandate *did not* experience slower employment growth in the retail trade, the restaurant industry or the hotel industry.

In other words, this formal statistical analysis again supports our main conclusion from this section: that raising the minimum wage in Florida from $5.15 to $6.15 will not produce any significant change in the employment practices of businesses in the state. Businesses will make small adjustments in their operations due to the higher minimum wage. But the primary adjustment they will make will almost certainly be to slightly raise prices, especially in the hotel and restaurant industries, and most especially among fast-food and other limited services restaurants. Small improvements in productivity encouraged by the wage increase may also make a modest contribution to absorbing the increased costs resulting from the $6.15 minimum wage.

VI. Benefits from Raising Florida Minimum Wage to $6.15

Who are the Low–Wage Workers in Florida?

In Tables 9 - 11, we analyze the characteristics of the roughly 850,000 workers in Florida – 11.1 percent of the state's total employed workforce – who would receive either mandated raises or ripple-effect wage increases if the state were to raise its minimum wage to $6.15. We consider three basic features of these workers' lives: their individual characteristics, their family characteristics, and the poverty status of the workers and their families. We also provide the same set of information for the nearly 177,000 workers in Miami and the roughly 165,000 in Tampa who would receive raises through the $6.15 minimum wage proposal.

Individual Characteristics. The basic facts are presented in Table 9: 84 percent are adults (i.e. 20 years old or more); 52 percent are non-white, including Hispanics, and 29 percent are Hispanics; and 61 percent are female. Their average age is nearly 36, and they have been in the labor force for nearly 18 years. In other words, the jobs that these workers hold now reflect their long-term occupational trajectory. They are not on a career ladder that will be moving them to a significantly better job situation. The overwhelming majority are not middle-class teenagers earning some extra spending money.

Table 9. Individual Characteristics of Low–Wage Workers in Florida, 2003

	Florida	Miami	Tampa
Number of Workers	854,793	176,859	165,359
Percentage of Workforce	11.1	17.3	13.0
Average Age	35.8	37.8	34.6
Labor Force Tenure (years)	17.9	20.1	16.7
Percentage Teenagers (15 – 19)	16.4	11.7	20.4
Percentage Non–White (including Hispanics)	52.4	75.1	30.5
Percentage Hispanic	29.2	60.8	16.5
Percentage Female	61.3	51.6	55.2

Source: See Appendix 4. Low-wage workers include all workers earning between $5.15 and $7.49 per hour and restaurant and hotel workers earning between $2.13 - $3.12 per hour.

For the city of Miami, the only major difference in the individual characteristics is, not surprisingly, that the percentage of Hispanic workers, at 61 percent, is much higher than for the state as a whole. Also, the percentage of males working in Miami at low-wage jobs is about 48 percent, higher than the state average of 39 percent. In short, in Miami, there are considerably more Hispanic males in the low-wage labor force than in the state overall. For Tampa, the major difference is again with racial characteristics. Here, as we see, the percentage of non-white workers is only 30 percent and the percentage Hispanic is only 16 percent.

Family Structure and Income Levels. Figures on family status and average income of workers who would be covered by the minimum wage are presented in Table 10. On average, workers who would receive mandated or ripple-effect raises from the $6.15 minimum wage live in families that include approximately two other people, of whom one other person is likely to also be working. These figures apply throughout the state, and do not vary significantly in either Miami or Tampa. This figure on family size has an important implication: as we have seen, approximately 850,000 workers will receive either mandated or ripple-effect raises due to the minimum wage increase. But the benefits of this increase will apply to all family members – approximately 2.2 million people overall.

Table 10. Family Structure, Earnings, and Incomes of Low–Wage Workers, 2003

	Florida	Miami	Tampa
Average Family Size	2.8	3.1	2.7
Average Number of Wage Earners per Family	1.8	1.9	1.8
Average Percentage of Total Family Earnings Contributed By Worker	59.9	56.2	58.2
Percentage of Total Family Income Contributed by Worker			
Mean	48.7	50.4	47.4
Median	38.0	41.5	36.3
Total Family Income			
Mean	$42,095	$35,785	$37,398
Median	$28,157	$26,705	$28,843

Source: See Appendix 4. Low-wage workers include all workers earning between $5.15 and $7.49 per hour and restaurant and hotel workers earning between $2.13 - $3.12 per hour.

Considering the state as a whole, the average worker's earnings amount to nearly 60 percent of the family's total earnings, with the figures slightly lower in Miami and Tampa.

In considering the data on workers' contribution to *income* as opposed to earnings and the amount of the families' total income, there are some statistical difficulties in accurately summarizing the typical situation. That is why, with the income data, we report results both in terms of mean and median figures. Still, as we see, the income figures are higher than earnings figures, both in terms of means and medians. This is inevitably the case, since the income figures will include sources of money other than earnings to support the family – including interest, dividends, alimony and child support, Social Security, and unemployment insurance. What we see from these figures is that in the State of Florida overall, the low-wage worker is contributing, according to the mean figures, nearly 50 percent to the family's total income, and nearly 40 percent according to the median. The variations on this statewide figure for Miami and Tampa are not significant.

Finally, we consider the total family income levels for the families that include low-wage workers. Here again, we do see large variations in the figures depending on whether we are considering means or medians. Generally, the medians are a more accurate reflection of the living standard for most workers and their families. This is because the mean figures will include a small number of families with either very high or very low income levels, and this either pulls up or down by a large amount the figures for family incomes. For the State of Florida as a whole, as we see, the median income for a family which includes low-wage workers is $28,157; and again, the figures for Miami and Tampa are very similar.

Poverty Status. In Table 11, we obtain a further sense of the situation of the families in which low-wage workers live by comparing their income levels to some basic living standard benchmarks – specifically a poverty benchmark and a "basic family budget" benchmark. But for these benchmarks to be at all meaningful, we first need to briefly describe the ways in which they have been developed. Of course, the U.S. government has calculated for many decades its own measurements of a poverty benchmark for families of different types. But, as we have discussed in previous work (e.g. Pollin and Brenner 2000), there are some serious problems with this standard. These problems have been widely recognized in the professional literature.

The basic concern with the official poverty line is that its methodology for measuring poverty has not been modified since the 1960s, even though conditions facing the poor in the U.S. have changed substantially over the past 40 years.

When it was first developed, the government methodology began by determining the costs for families of various sizes subsisting on what the Department of Agriculture terms the "Economy Food Plan," – which was the lowest cost bundle of food items available that could ensure each family member received the basic caloric minimum. Based on survey evidence from the time, the government's methodology then assumed that poor families spent approximately one-third of their budgets on food. Thus, to generate the dollar figures for the poverty threshold, the government simply multiplied the dollar value of the "Economy Food Plan" by three. In subsequent years, upward adjustments to the poverty thresholds were made every year using the annual rate of inflation.

The fundamental problem with this methodology is its assumption that the costs for the poor of purchasing basic necessities are accurately reflected in this annual inflation adjustment. In fact, the costs of necessities for the poor – including medical treatment, childcare, transportation, and especially housing – have risen faster than the overall rate of inflation, as measured by the Consumer Price Index that applies to all urban households. Indeed, a large research project sponsored by the National Research Council (NRC) provided a range of alternative methodologies that take account of the rising relative costs to the poor of non-food necessities.[22] Of particular interest for our purposes, the NRC reported that in considering six alternative methodologies, the average value for the poverty threshold generated by these six alternative methodologies was 41.7 percent higher than the official poverty threshold. In addition, the official methodology for measuring poverty makes no adjustment for regional differences in the cost of living. But the cost of living in the Miami is roughly 12 percent higher than the national average. The cost of living in Tampa is roughly at the national average.[23]

To obtain a better measure of poverty as is relevant for low-wage workers throughout Florida, we should combine the effects of these two weaknesses in the official poverty thresholds – that the studies reported by the NRC suggest an alternative poverty line in the range of 42 percent above the official line; and that the cost of living for a good share of the affected workers in Florida – at

least those living in the Miami area – is about 12 percent above the national average. Adding these two factors together would suggest that the appropriate poverty line for Florida should be roughly 50 percent above the official line. We therefore report a 150 percent of official poverty as our basic Florida poverty line. We then also report 175 percent of official poverty as a "near poor" standard. We also report the official poverty threshold figures in Table 11, but consider this as properly measuring a "severe poverty" standard.

Finally, we report a "basic family budget" line. This concept draws on the work of numerous recent researchers, and is defined by Boushey, Brocht, Gundersen and Bernstein as providing "a realistic picture of how much income it takes for a safe and decent standard of living.[24] Boushey et al. have developed specific estimates of this concept for communities throughout the United States. For Miami, for example, they estimate the following as constituting a basic family budget for a family with one parent and one child (in 2003 dollars): $775/month for housing; $254/month for food; $375/month for childcare; $188/month for transportation; $269/month for health care; $319/month for other necessities; and $308/month for taxes. This amounts to a total of $2,488/month, or roughly $30,000/year. Their estimate of a basic family budget would then obviously rise for a larger family. For a family with two parents and three children, the basic family budget level for Miami is a little less than $48,000. Drawing from their methodology, we then estimate the percentage of families with low-wage workers that fall below the basic family budget threshold.

In Table 11, we are now able to get a sense of what types of workers, along with their families, would be affected by the increase to a $6.15 minimum wage. As we see, 16 percent of low-wage workers in Florida now live in families with incomes below the official government poverty line, which we conclude, following the work of the National Research Council study, should properly be termed a "severe poverty" threshold. Moreover, still referring to the studies cited by the National Research Council, 37 percent of low-wage workers and their families in Florida live below what is a more reasonable poverty line, and 47 percent are near poor. Finally, we see in Table 11 that nearly 63 percent live below the basic family budget line, with 75 percent below that line in Miami.[25]

Table 11. Poverty Status of Low–Wage Workers, 2003

	Florida	Miami	Tampa
Families in Severe Poverty (Percentage below official poverty line)	16.2	17.1	15.4
Families in Poverty (Percentage below 150% of official poverty line)	36.6	40.7	30.6
Families in Near–Poverty (Percentage below 175% of poverty line)	47.0	50.7	40.9
Families below Basic Needs Threshold (Percentage below threshold)	62.6	75.3	64.2

Source: See Appendix 4. Low-wage workers include all workers earning between $5.15 and $7.49 per hour and restaurant and hotel workers earning between $2.13 - $3.12 per hour. The sample for the Basic Needs Threshold is workers in families with one or two parents, and one to three children under age 12. The Basic Needs Threshold is derived from Boushey, Brocht, Gundersen, and Bernstein (2001).

Impact of Minimum Wage Increase on Various Low–Income Families

How would raising the Florida minimum wage affect the living standards of the workers receiving raises and their families? We have seen that the majority of low-wage workers in Florida live in families in which they are not the only income source. This means that we have to show how much

overall family income changes after accounting for all income sources for the family. Moreover, the family's overall size and combined earnings level, rather than just the covered worker's wage income, will establish the family's tax obligations and eligibility for government subsidies – the most important of these being the Earned Income Tax Credit and food stamps.

In Table 12, panels A and B, we present data on what the overall change in disposable income – the most direct measure of a family's living standard – would be due to the minimum wage increase (details and references on how we generated these figures are in Appendix 5). We present these calculations for all families that include workers now earning between $5.15 and $6.99. As we have seen earlier, workers now earning between $7.00 and $7.49 are likely to receive only a small ripple effect raise, on the order of 2 percent. As such, the gains for their families in disposable income will be much smaller than those which include workers in the $5.15 - $6.99 wage range, in which the workers receiving raises will be getting an average increase of about 7 percent. In panel A, we show the effects on all families that now fall below what we have termed a "poverty" threshold – 150 percent of the government's official poverty line. This includes the families of nearly 40 percent of all workers now earning between $5.15 and $6.99. In panel B, we show the same calculations for all families falling below what we have termed the "basic needs" threshold, which includes over 60 percent of the families that will benefit from the minimum wage increase (among the family types for which we have basic budget thresholds; see footnote 24).

TABLE 12. Changes in Living Standards for Low–Wage Workers and their Families After Florida Minimum Wage Raise to $6.15

Data are for workers earning up to $6.99 before minimum wage increase

A) Families in Poverty – Below 150% of Official Poverty Line (39.4% of families in data pool)

	Minimum wage at $5.15	Minimum wage at $6.15	Percentage Increase/ Decrease
1. Worker annual earnings	$9,063	$9,684 (+ $621)	+6.9%
2. Family Income before Taxes and Subsidies	13,041	13,683	+4.9%
3. Federal Income Tax	22	43	+95.5%
4. FICA Tax	875	925	+5.7%
5. Earned Income Tax Credit	1,210	1,199	−0.9%
6. Food Stamps Benefits	268	237	−11.6%
Disposable Income [(rows 2 + 5 + 6) – (rows 3 + 4)]	13,622	14,151 (+ $529)	+3.9%

B) Families below Basic Needs Threshold (62.9% of affected families in data pool)

	Minimum wage at $5.15	Minimum wage at $6.15	Percentage Increase/ Decrease
1. Worker annual earnings	$9,774	$10,459 (+$685)	+7.0%
2. Family Income before Taxes and Subsidies	19,901	20,599	+3.5%
3. Federal Income Tax	−646	−644	+0.3%
4. FICA Tax	1,438	1,491	+3.7%
5. Earned Income Tax Credit	2,186	2,153	−1.5
6. Food Stamps Benefits	284	231	−18.7
Disposable Income [(rows 2 + 5 + 6) – (rows 3 + 4)]	21,579	22,135 (+ $556)	+2.6%

Sources: See Appendix 5.

Our calculations take account of all income sources within the affected families – that is, the change in earnings from all the workers who would receive either mandated or ripple-effect raises resulting from the minimum-wage increase; and the effect of these earnings increases on overall pre-tax family income. We then also calculate the effects of changes in income tax and social security (FICA) taxes, as well as changes in eligibility for the Earned Income Tax Credit and Food Stamp subsidies.[26]

Considering all families in poverty in panel A, we see that the average worker in such families will receive a $621, or a 6.9 percent wage increase, from $9,063 to $9,684 per year. This wage increase then leads to a 4.9 percent gain in the family's overall income before changes in taxes and subsidies. However, the family will now have to pay $71 more in taxes, and their support from both the EITC and food stamps will fall by $42. Overall then, the family's disposable income rises by $529, nearly a 4 percent gain. In panel B, considering families that now fall below the basic needs threshold, we see that the overall disposable income rises by $556, from $21,579 to $22,135, a 2.6 percent increase.

The roughly $530 - $550 that these families receive is clearly not going to bring a dramatic improvement in their living standards. Rather, such increases can bring modest, yet still significant, improvements in a variety of ways, as previous studies of the impact of minimum wage and living wage laws have shown. For example, having the extra $500 per year should enable the family to reduce its debt, take a vacation, help toward purchasing a car, or reduce work hours. At the same time, in the context of the contemporary economy where, as we have seen earlier, the real purchasing power of the minimum wage has fallen precipitously over the last 35 years, previous studies have shown that workers who did not receive increases in the minimum wage appear to have experienced a worsening of their living standard.[27] The increase in the Florida minimum wage will therefore at least serve as a counterweight to the tendency that otherwise appears prevalent for low-wage workers and their families in the United States today, which is a long-term deterioration of their living conditions.

It is also significant, moreover, that this modest improvement in living conditions for a low-income family is occurring through an increase in the family's earned income rather than through raising their benefits from EITC, food stamps or some other government assistance program.[28] As was demonstrated in the mid-1990s debate on welfare reform, for poor families, receiving a dollar

of government assistance is by no means the same in terms of dignity and commitment to work as receiving a dollar of earned income.

Benefits to Retail Businesses of Minimum Wage Increase

We have examined in detail the costs Florida businesses will face resulting from raising the statewide minimum wage to $6.15, and how the businesses are likely to respond to these costs. But many businesses in the state will also benefit from the rise to the $6.15 minimum wage. The reason they will benefit is straightforward: when low-wage workers and their families have more money to spend, they will spend a good share of it in the lower-income communities in which they live.

Which businesses are likely to benefit and how much will they gain? As we have seen, raising the Florida minimum wage to $6.15 ($3.13 for tipped workers) will provide mandated raises of about $150 million and ripple-effect increases of another $250 million – in total, roughly $400 million in wage increases for 850,000 workers. However, not all $400 million in wage gains will represent an increase in spending for Florida businesses. There are two basic reasons for this.

1. As we have seen, the increases in *net family incomes* will be less than the wage gains because most low-wage workers will see their government subsidies go down and their taxes go up after they receive a raise. This is why, for example, among the families below the basic needs threshold with at least one worker earning up to $6.99, workers' earnings rise by 7 percent but family disposable income increases by only 2.6 percent.

2. For the most part, the $400 million in wage gains will be paid for through small price increases by the affected businesses. This means that the extra money being received by low-income families is coming out of the pockets of everyone else who is spending money in Florida: the benefits to low-income families is resulting through an income transfer from the incomes of all consumers in the state. Considering this income transfer in itself, there should be no net benefit to businesses in Florida from raising the minimum wage to $6.15, only a different set of people spending the $400 million worth of wage increases – lower-income consumers are in a position to spend more, while higher income consumers having slightly less to spend.

However, even recognizing that the gains from the low-income families comes from the pockets of higher-income families, there are still two ways in which Florida businesses will benefit from the minimum wage increase. We term these 1) *An out-of-state spending injection*; and 2) *A low-income neighborhood spending injection*.

Out–of–State Spending Injection. Some of the extra income going to low-income families in Florida will be coming from the pockets of *out-of-state* consumers, in particular, out-of-state tourists spending money in Florida's restaurants and hotels. When the hotels and restaurants raise their prices slightly to cover their higher labor costs, the effect is that extra money from out of state is being transferred into Florida. This extra spending first goes to the low-wage workers in the hotels and restaurants serving out-of-state tourists, and therefore does not directly benefit the hotel and restaurant owners themselves, or businesses in the state more generally. However, the low-wage workers in the hotels and restaurants now have extra money to spend that came from outside of Florida. The extra income that these workers spend is money that, if not for the minimum wage increase to $6.15, would not otherwise have been available to any consumers in

the state. This is why we refer to this effect as an *out-of-state spending injection*, resulting from the minimum wage increase.

How large is this out-of-state spending injection likely to be? We estimate that the annual net income increase to Florida workers coming from out-of-state tourists will be $91 million (a technical description with references as to how we derived this figure is in Appendix 6). But this $91 million in increased spending will in turn create further spending increases within the state – what economists call a *multiplier effect*. The multiplier effect will occur after low-wage workers and their families spend their extra $91 million. The business owners and workers who receive this extra money will also then spend a major portion making purchases from other business owners and workers in Florida. Thus, the effects of the initial $91 million out-of-state injection multiplies throughout Florida's economy. To be specific, this multiplier effect operates as follows: for every extra dollar spent by low-wage workers and their families due to the out-of-state injection, the total increase in spending for Florida's economy will be $1.52. In other words, the $91 million out-of-state spending injection will generate a total of $138 million in new spending in Florida.

This $138 million figure for net new spending is, of course, tiny in comparison to the total sales figure in the state of $930 billion ($138 million is 0.015 percent of $930 billion). At the same time, as we have seen, the total costs to businesses from the minimum wage are $443 million. From this perspective, the $138 million in new spending due to the out-of-state spending injection and the multiplier effects represents *fully 30 percent of the increase in costs* that businesses will face. Of course, there is no guarantee that the businesses that will be paying out $443 million in extra wages and payroll taxes due to the higher minimum wage will be the same ones who receive the extra $138 million in sales from the spending injection and multiplier. But there will certainly be some broad compensation operating through the effects of the out-of-state spending injection.

Low-Income Neighborhood Spending Injection. The primary business beneficiaries from the minimum wage increase will be retail stores in poor neighborhoods. This is for the simple reason that low-wage workers and their families will spend most of their increase in disposable income in the neighborhoods in which they live. How significant will be the spending increases in low-income neighborhoods? To estimate this, we have calculated how this effect is likely to operate within the 101 census tracts that constitute the low-income neighborhoods in the Miami metropolitan area. We present the basic data from this exercise in Table 13 (and again, a fuller methodological discussion is in Appendix 6).

Table 13. Sales Increases for Retail Firms in Low-Income Miami Area Neighborhoods

Total number of workers in Miami receiving raises	176,859
Number of workers living in low-income neighborhoods that receive raises	123,571 (70% of Miami workers receiving raises)
Total disposable income in low-income neighborhoods	$3.0 billion
Increased disposable income for low-wage workers and families living in low-income neighborhoods	$91.7 million
Percentage increase in disposable income	3.1%

Sources: See Appendix 6.

As the table shows, we estimate that of the roughly 177,000 workers in the Miami area who will receive raises, 123,571, or 70 percent, are members of low-income families that live in one of the

area's 101 low-income census tracts. The families in which these workers live will receive a total increase in disposable income of $91.7 million due to the minimum wage increase. This increase in disposable income amounts to about 3 percent of the total disposable income among families living in these neighborhoods.

For the purposes of our estimate, we make the reasonable assumption that, whatever the proportion of their total disposable income the affected families were spending in their own neighborhoods *before the minimum wage rises*, they would keep spending that same proportion of their disposable income in their neighborhoods *after* the minimum wage is raised to $6.15. As such, we estimate that spending in Miami's low-income neighborhoods will rise by about 3 percent after the minimum wage goes up to $6.15. We have not conducted the same focused data exercise for other communities in Florida. However, broadly speaking, we expect that spending in the other low-income neighborhoods in the state will increase by approximately the same 3 percent.

Such a 3 percent boost in sales for retail businesses in Florida's low-income neighborhoods is a small, but still significant, benefit. For purposes of comparison, it is an amount that is approximately equal to the average rate of income growth of the U.S. economy over the past full business cycle, 1991 – 2000. If we assume that incomes in Florida's low-income neighborhoods approximately mirror the average rate of income growth for the national economy, this means that the retail business in Florida's low-income neighborhoods would effectively jump roughly one year ahead of the normal pace of sales growth.

Moreover, as with the income benefits to individuals and families, a 3 percent increase in sales for a business can be compounded to the degree that this additional income also increases the creditworthiness of a business, and of the community more generally. With increased access to credit, businesses are able to expand, increase amenities to customers, or smooth over periods when sales revenue may fluctuate. This should mean further benefits to the life of low-income neighborhoods throughout Florida.

VII. Fiscal Impact Estimate

In this section, we provide an estimate of the net fiscal impact for the State of Florida of the proposed increase of the Florida minimum wage to $6.15. Though our focus is on the effects for the State of Florida's budget, we do not expect that the proportionate magnitudes of the effects on government will vary significantly for either state and local governments operations, or for federal government operations in Florida.

There are five major areas of potential fiscal impacts to consider with respect to this law. Three of these will entail increased expenditures for the state. They are 1) wage increases for state government employees; 2) cost pass throughs from state goods and service contractors; and 3) the administrative costs of implementing the new law. The other two categories will provide either more revenues or lower expenditures for the state. They are 1) increased sales tax revenues, through private firms raising prices in response to higher labor costs; and 2) publicly subsidized health care cost savings – within both the Medicaid and KidCare programs – as some workers and their families move above the eligibility thresholds for these programs after receiving wage increases.

We summarize the overall effects from these five fiscal impact categories in Table 14. As we can see from the table, our overall estimate of net fiscal impact is $3.4 million in net fiscal savings. This

includes $12.6 million in new expenditures, and $16.0 million in either increased tax revenues or spending savings. We also note in the table that these various effects will not all occur at a single point in time once the higher minimum wage standard becomes law. We distinguish the effects according to whether they are ongoing changes or one-time effects, and for the ongoing changes, according to the rate at which they are phased-in over time.

Table 14. Estimated Net Fiscal Impact of Florida Minimum Wage Amendment

Expenditure Increases	
Ongoing Increases	
1) Wage Increases for State Government Employees	$9.6 million
(Mandated costs rise Immediately with Implementation; ripple effect costs phased in)	
2) Cost Pass Throughs from State Goods and Service Contractors	$2.3 million
(Cost Increases Phased in with New Contracts)	
One–Time Implementation Expenditures	
3) Administrative Costs of Advertising New Law	$700,000
Ongoing Expenditure Reductions	
4) Reduced Medicaid and KidCare Expenditures	$5.7 million
Ongoing Revenue Increases	
5) Sales Tax Revenue Increases	$10.3 million
(Revenue increases rise immediately with mandated costs; revenues resulting from ripple effect costs phased in)	
Net Fiscal Impact	$3.4 million in net fiscal savings
= (Categories 1 + 2 + 3) – (Categories 4 + 5)	

Sources: Figures taken from Tables 15 and 16 and discussion in text. For other details, see Appendix 7.

Overall, then, our conclusion is that the net fiscal impact of raising the Florida minimum wage to $6.15 will be negligible.

1. Raises for State Employees.[29]

Fiscal Impact: $9.6 million in increased state expenditures

($2.4 million in immediate increases, $7.2 million in phased-in increases)

We estimate that 4,553 state employees will receive mandated wage increases. The average annual income increase will be $505 per worker, which translates into $2.3 million in total mandated wage increases for state employees. In addition, we estimate that 14,744 workers will receive non-mandated ripple-effect increases following on the mandated raises. We estimate these ripple-effect raises will amount to approximately $6.6 million, or about $448 per worker. This means, in total, wage increases of $8.9 million. We then add payroll tax increases of 7.65 percent to the $8.9 million

in wage increases, which amounts to $680,850. Adding all wage and payroll tax increases together, we estimate an overall increase in state expenditures of $9.6 million.

Time dimension of state employee wage increases. The state will face the mandated wage increases immediately after the new minimum wage law is implemented. By contrast, the non-mandated ripple-effect raises are most likely to be phased in over a period of one to two years, as the state adjusts its new pay scales in response to the higher minimum wage.[30]

2. State Contractor Pass Throughs

Fiscal Impact: $2.3 million in increased state expenditure

(All spending phased in as new contracts are awarded)

When the statewide minimum wage rises to $6.15, it will effect the bidding process for government contracts for outsourced goods and services, as government contractors will attempt to pass through their increased costs to the state. To estimate the fiscal impact of these pass throughs, we need to consider three factors: 1) The amount of money the state spends on outsourced contracts with private companies; 2) The likely cost increases that the private contractors will face due to the minimum wage proposal; and 3) What percentage of their increased costs the contractors are likely to be able to pass through to the state, assuming that the awarding of contracts operates through competitive bidding. We consider these in turn.

State spending on outsourcing. It is difficult to track down an overall figure for state spending on outsourcing. From the state's own publicly available budget documents (available at http://www.ebudget.state.fl.us/), we were able to identify 122 contracts totaling $44 million in outsourced contracts. A second source, "Florida Sales Tax Return Data" for the fiscal year 2003, reports gross sales from government contractors at $74.9 million. Finally, Mr. David Bennett, the contract administrator for statewide energy contracts, directly provided us with detailed budget information on all goods and services purchased by the state's executive agencies. Our discussions with Mr. Bennett were a follow-up to our queries to Mr. Fred Springer, Florida's director of state purchasing. According to Mr. Bennett's figures, total goods and services contracts held by the state's executive agencies currently amounts to about $7.8 billion. Obviously, a wide disparity exists between the various figures. But to avoid underestimating the effects of increased costs due to outsourcing, we will work from the highest figure, and assume outsourced contracts amount to $7.8 billion.

Cost Increases by Firms with Outsourced Contracts. We estimate the cost increases to private businesses using the same general approach that we pursue above with the costs to the public sector. That is, we estimate mandated and ripple-effect wage increases, assuming the number of workers employed and the total number of hours worked by these workers remains constant. Because we are unable to obtain a detailed breakdown, either by type of contract or on a firm-by-firm basis, of the firms holding government contracts, we will assume that the profile of firms holding government contracts will be similar to the profile for the average firm in the State of Florida, in terms of how its costs will be affected by a statewide minimum wage increase to $6.15.

As we saw earlier in Table 5, for the average firm in Florida, we estimate that the total cost increase due to the minimum wage proposal – including the mandated wage increases, the ripple-effect increases, and the corresponding increases in payroll taxes – will amount to about 0.04 percent of total firm sales. Assuming, again, that the total value of outsourced contracts held by

the state is $7.8 billion, a cost increase that is equal to 0.04 percent of the $7.8 billion in total contract value will translate into a cost increase of $3.1 million.

How much of this $3.1 million in additional costs will the private contractors pass through to the state? Of course, contractors will attempt to pass through a high proportion, if not all, of their higher costs to the state through receiving more money for a given amount of goods or services that they provide. In other words, this means the state faces higher prices for the goods and services they purchase from outside contractors. According to the evidence we have studied, it is not likely that, on average, contractors will pass through their additional costs to the state on a dollar-for-dollar basis. This is first of all because the average cost increases for firms, on the order of 0.04 percent of their sales, are small enough so that firms can absorb at least a portion of their higher costs without significantly affecting their total income from operations. In addition, firms face competition in bidding for state contracts, and thus are constrained in raising their bids too high.[31]

We cannot know for certain how much of their increased costs winning bidders will be able to pass on to the state. But for the purposes of this exercise, we choose a high-end estimate, and assume that winning bidders for state contracts will pass on 75 percent of their increased costs that result from raising the statewide minimum wage. Based on this assumption, we estimate that the increase in contract costs for all goods and service providers will be $2.3 million. This figure includes both mandated and ripple-effect wage increases.

Time dimension of outsourcing cost increases. Unlike with the direct raises for public sector employees, this increase in contract costs that the state will face will not be experienced at once after the minimum wage law is implemented. Rather this fiscal impact will be phased in, reflecting the rate at which existing state contracts expire and new contracts are put out to bid.

3. State Administrative Costs of Implementing New Law

Fiscal Impact: $700,000 in increased state expenditure

(Spending increases are immediate)

We have checked with government officials in five other states that have implemented minimum wage laws in recent years – those in Massachusetts, Connecticut, Washington, Maine and California – as to the costs these states incurred in implementing the law. The states already have in place administrative personnel assigned to monitoring and enforcing existing labor laws, including the federal minimum wage statute. Thus, they did not increase their administrative costs at all in the areas of monitoring and enforcement.

The only additional costs they reported incurring were the costs of placing advertisements in the media about the new law; and of producing and sending out posters that private businesses were to post announcing the new minimum wage standard. None of the officials that we contacted in any of the states were able to point us to a fully documented accounting history of these costs. This suggests that the costs were not high enough to incur detailed accounting assessments from state officials. An official in California informed us that the state sent out posters to 1 million employers, at a cost, including printing and postage, of $380,000, i.e. $0.38 per firm. An official from Maine informed us that they spent $1,500 to produce and distribute 3000 posters – i.e. $0.50 per firm.

If we extrapolate this single cost to the roughly 500,000 firms that now operate in Florida, that would represent a total high-end cost of printing and mailing posters of roughly $250,000 (though, in the case of Maine, not all firms were sent posters). We assume that the costs of administering the mailing of the posters would amount to another $100,000, bringing the total costs of sending the posters to $350,000. If we then say that the state would spend roughly the same total amount on media advertisements of the new law, that would bring the total costs of implementation to roughly $700,000.

Time Dimension of Administrative Costs. In this case, the full $700,000 would be incurred immediately upon passage of the law. There would be no phase-in of these costs.

4. Reductions in State Healthcare Expenditures

Fiscal impact: $5.7 million in state saving

(State will experience savings at same rate at which wage increases are phased in, with a lag relative to wage increases)

An increase in Florida's minimum wage will of course raise the incomes for hundreds of thousands of low-income people throughout the state. In doing so, a significant fiscal effect of the minimum wage will be to push some of those receiving wage increases above the eligibility thresholds for Medicaid and other subsidized KidCare health coverage.

In Table 15, we present estimates as to the net changes in health care coverage due the minimum wage increase, and the fiscal impact of these changes.[32] As the table shows, there are three categories of changes to calculate.

1. Adults who lose Medicaid coverage because of the increase in their family's income.

2. Children who lose Medicaid coverage, but become newly eligible for subsidized KidCare coverage after their family has moved into a higher income bracket; and

3. Children living in somewhat higher income families, whose families move above the threshold for subsidized KidCare coverage.

As we see from Table 15, we roughly estimate the net effect of these three eligibility changes as generating $5.7 million in savings for the state.

Table 15. Net Effects of Changes in Health Care Eligibility

Change in Eligibility After Wage Increases	Number of People Affected by Eligibility Change	Fiscal Impact Per Person of Eligibility Change	Total Fiscal Impact of Eligibility Change
1) Loss of Medicaid Eligibility	5,022 people in lowest income categories lose eligibility: 472 adults, 4,550 children	State saves $700/adult and $488/child	$2.6 million in state savings
2) KidCare Offset to Medicaid Eligibilty Losses	4,550 children move from Medicaid to other KidCare eligibility, Medikids or Healthy Kids	New state expenditures of $286/child	$1.3 million in state expenditures
3) Loss of KidCare Eligibility	17,756 children move from subsidized to unsubsidized KidCare coverage	State saves $251/child	$4.4 million in state savings
Net Effect of Changes in Health Care Eligibility (rows 1 – 2 + 3)			$5.7 million in state savings

Sources: See Appendix 7.

In addition to these three major effects in health care spending due to the minimum wage law, it is also likely that the state will incur some additional costs when people who have lost their Medicaid or KidCare coverage come to rely on hospital emergency room care to meet their healthcare needs. However, this effect is likely to be small. Only about 12 percent of the costs incurred by Florida's hospitals to treat uninsured patients were covered by government funds; and of this amount of support, less than half is covered by the State of Florida, as opposed to the federal government. Thus, even if we assume that the full $5.7 million reduction in Medicaid and KidCare coverage were simply transmuted into increased emergency room costs, it would still mean that the state would cover something on the order of $342,000 (about 6 percent of $5.7 million) of these increased emergency room costs for hospitals.[33]

What is clear from these calculations is that, due to the minimum wage increase, the state will generate savings for itself as about 18,000 people fall out of eligibility for either Medicaid or subsidized KidCare coverage – with almost all of these being children moving from subsidized to unsubsidized KidCare. This would appear to be an anomalous effect of the minimum wage law. While about 850,000 working people are likely to receive either mandated or ripple-effect wage increases – which will in turn produce benefits to their family members as well – it is also true that, of the beneficiaries, about 18,000 families will also experience a counter-effect, in the form of loss of subsidized health care coverage, again, almost entirely for children.

However, because the state will receive net savings from the minimum wage law, the law is itself generating the financial means for extending healthcare coverage to those people who might otherwise be net losers from the minimum wage law. In other words, if the state so chooses, some of the savings it obtains from the minimum wage law could go back to the people who have lost their health care coverage. This clearly is an issue for further public consideration.

5. Increased Sales Tax Revenues from Private Firm Pass Throughs

Fiscal Impact: $10.3 million in increased state revenue

(Revenue increases phased in at approximately same rate as state's wage increases)

The overwhelming majority of the workers who will receive either mandated or ripple-effect wage increases will be employed by private sector firms who do not hold state contracts. We estimate that these firms will experience total cost increases – including mandated and ripple-effect raises, as well as payroll tax revenues – of approximately $406 million. It is reasonable to assume for our purposes here, as we have done above with state contracting firms, that price pass throughs will cover 75 percent of these increased costs. Assuming this price pass through, and assuming no change in spending patterns, this means that businesses will increase their revenues by a total of approximately $305 million.

To estimate the effects of this revenue increase on state sales tax revenues, we need to also take account of the exemptions from sales taxes that operate in the state. For fiscal year 2003, the state reports $619 billion in gross sales, and $265 billion in taxable sales, a taxable/total sales ratio of 43 percent. However, the restaurant and hotel industry, which will experience the largest proportionate increase in labor costs, had much higher taxable/total sales ratios. The ratio for restaurants was 92 percent, and for hotels 93 percent. Thus, to estimate the increase statewide in sales tax revenues, we assume that our estimate of revenue increases for hotels and restaurants will come from a base of 90 percent of their sales. For the rest of the Florida economy, we assume the sales tax revenue increase will come from 40 percent of a revenue increase.

Working from these assumptions, we show in Table 16 our estimation as to how sales tax revenues are likely to increase because of the higher minimum wage. As we see, the increased revenue from hotels and restaurants is about $5.4 million, and from the rest of the economy, about $4.9 million. By our estimate then, the total increase in sales tax revenue from the minimum wage law will be $10.3 million.

Table 16. Calculation of Increased Sales Tax Revenue for State

	Restaurants and Hotels	All Other Industries	Totals for Private Economy
Cost Increases from Minimum Wage Law	$134 million	$272 million	$406 million
Revenue Increase from Price Pass Throughs (75% of cost increase)	$101 million	$204 million	$305 million
Taxable Sales Increase	$90 million (90% of revenue increase)	$82 million (40% of revenue increase)	$172 million
Sales Tax Revenue Increase (6% of taxable sales increase)	$5.4 million	$4.9 million	$10.3 million

Sources: See Appendix 7.

Possible Fiscal Impact of Higher Unemployment and Business Relocations

Two possible negative effects of raising statewide minimum wages that have been widely discussed are 1) the mandated wage increases will induce businesses to lay off workers; and 2) businesses will relocate out of the geographic area covered by the higher minimum wage mandate.

Both of these effects would, in turn, generate fiscal impacts. If businesses lay off workers, this could produce a reduction in sales tax revenues for the state, since unemployed workers would

likely reduce their level of spending. The state would also be faced with increased spending for low-income laid-off workers, whose family members become newly eligible for Medicaid and subsidized KidCare. If businesses were to relocate out of Florida to avoid its higher minimum wage mandate, this would mean loss of sales tax revenues from the relocated firms. But as we have discussed at length above, both the unemployment and relocation effects are likely to be negligible, which is why we have not attempted to quantify them formally in this section of the report.

APPENDIX 1
GENERATING BUSINESS COST ESTIMATES

Cost calculations were derived using data from three publicly available government sources: the 2002 ES-202 reports published by the Bureau of Labor Statistics; the 1997 Economic Census (EC) for the State of Florida (and the Metropolitan Statistical Areas of Miami and Tampa), also published by U.S. Census Bureau; and the Current Population Survey's Outgoing Rotation Group (CPS-ORG) published jointly by the Bureau of Labor Statistics and the Census Bureau. Wage, sales, and other dollar-denominated variables were adjusted to constant 2003 dollars unless otherwise noted. In this appendix, we discuss how these three sources of data were combined to produce our cost estimates.

Calculations

1. Number of Workers Receiving Mandated Wage Increases and Mandated Wage Increases

To determine the number of workers receiving mandated wage increases we used data from the 2003 CPS-ORG. These data allow us to estimate the number of workers in 2003 who earned between $5.15 and $6.14. We also used the 2003 ORG to identify the number of tipped workers in hotels and restaurants who earn between $2.13 and $3.12, and to provide information necessary to estimate the cost increase of mandated raises that would result from a statewide minimum wage of $6.15 (including an increase to $3.13 for tipped workers). For workers earning between $5.15 and $6.14, we take the difference of $6.15 and their average current wage, multiply this amount by the average weeks usually worked, and the average number of weeks worked per year (calculated for similarly waged workers for the State of Florida from the 2003 March Annual Demographic Supplement of the CPS). We repeat the same calculation for hotel and restaurant tipped workers, this time taking the difference between $3.13 and workers' average current wage.

2. Number of Workers Receiving Ripple Wage Increases and Ripple Wage Increases

As discussed in the text, we anticipate that there will also be wage increases not directly mandated by a statewide minimum wage increase, but which will result from upward wage pressure created by those making close to, but slightly above, the new mandated minimum of $6.15. To estimate the magnitude of these effects, we conducted a statistical analysis of the experience with state and federal minimum wage increases of the 1991 - 2000 period, discussed more fully in Appendix 2. We found that, on average, several groups of workers experienced wage increases not directly mandated by these federal or state minimum wage increases. The first category of workers is those earning just below the new minimum wage – in this case, those workers earning between $6.00 and $6.14. Although not directly mandated, workers in this wage category are likely to experience

wage increases *beyond* the $6.15 mandate. In addition to these workers, a second group earning $6.15-$6.99 – just above the new minimum wage – is also likely to experience wage increases. Our statistical analysis estimates that these two groups will, on average, experience a wage gain of approximately 6.3 percent. For the $6.00-$6.14 group, part of their raises is comprised of the mandated increase and part comprised of a non-mandated ripple increase. A third group is also likely to experience wage increases, although their raises are smaller: this group, earning $7.00-$7.49, will receive a raise of roughly 2.2 percent.

To estimate the cost of ripple-effect wage increases, we repeat the method described in Section 1, this time using the estimated wage gains of 6.3 percent for workers earning between $6.00 and $6.99, and 2.2 percent for workers earning between $7.00 and $7.49. Note that the ripple wage increase for workers earning between $6.00 and $6.14 is only their wage increase *beyond* $6.15.

3. Payroll Taxes and Other Costs

Along with the mandated and ripple wage increases likely to result from a higher statewide minimum wage in Florida, we provide an estimate of the payroll taxes that will accompany these higher wages. In our calculations, we include a social security tax of 6.2 percent and a Medicare tax of 1.45 percent, for a total FICA tax of 7.65 percent. On average, we do not anticipate that employers will have any additional federal or state unemployment insurance tax liability. Because of the dramatic differences in workers compensation costs across industries and between firms within a given industry, we ignore any additional workers compensation liabilities that might result from raising Florida's minimum wage.

4. Measuring the Relative Cost of Raising Florida's Minimum Wage

To estimate the impact of an increase in the Florida minimum wage relative to the level of economic activity of Florida businesses, we utilized a methodology that we have applied in many other settings (e.g., Pollin and Brenner, 2000). In order to make a relative cost calculation, we must first have an estimate of the mandated and ripple-effect costs. First, we utilized the 2002 ES-202 data to identify the number of affected firms in the state at the detailed industry level (4 digit NAICS). We also used the ES-202 data to identify the total employment within those firms, which we combined with information from the CPS-ORG to estimate the number of workers receiving mandated or ripple-effect raises. We do this by calculating the proportion of workers earning wages in the following wage categories: $2.13-$3.12/hour, $5.15-$5.99/hour, $6.00-$6.14/hour, $6.15-$6.99/hour, and $7.00-$7.49/hour for each 4-digit NAICS code for the State of Florida in 2003 (as well as the Metropolitan Statistical Areas of Miami and Tampa). Applying the proportions from the CPS-ORG to the overall employment taken from the ES-202, we are able to estimate the number of covered workers in each firm. In those cases where there were not enough observations in the dataset to reliably estimate these proportions in each 4-digit NAICS (a threshold was set at 30 individuals) we used estimates from a lower level of aggregation. Second, we used the CPS-ORG and March ADS to calculate the average wage, average hours worked per week, and average weeks worked per year for workers in the above wage categories. These calculations were performed for each 4-digit NAICS industry, and then matched to the affected firms identified from the ES-202. As before, when there were not enough observations in a given industry, we substituted estimates at lower levels of aggregation. The mandated wage increase for each firm is then arrived at by multiplying the number of workers in each wage category by their average weekly hours, times their average number of weeks per year, times the difference between $6.15 and their average hourly wage. Adding those totals together for all affected firms gives us the mandated wage

cost increase. The ripple wage increase for each firm is arrived at in the same way. We multiply the number of workers earning $6.00-$6.99 by their average weekly hours, times their average number of weeks per year, times 6.3 percent of their current wage (we subtract the mandated wage increases for those earning between $6.00 and $6.14). We then multiply the number of workers earning $7.00-$7.49 by their average weekly hours, times their average number of weeks per year, times 2.2 percent of their current wage. Adding these totals together for all affected firms gives us the ripple wage cost increase. As before, we add to these total wage increases, mandated and ripple, a FICA tax of 7.65 percent.

After estimating the total cost of the Florida minimum wage proposal for each covered firm, we need to examine these costs relative to some measure of the firm's economic activity. In this study, we chose to compare total costs to each firm's total sales. In order to estimate each firm's total sales, we utilize our third data source, the Economic Census (EC) for 1997. From the EC, we were able to measure average sales per employee for all private sector firms in each detailed industry in the State of Florida (or the Metropolitan Statistical Areas of Miami and Tampa) in 1997. Adjusting these sales figures for inflation using the national consumer price index, we then have a sales-per-employee figure expressed in 2003 dollars which we can match to covered firms using the 6-digit NAICS codes. Multiplying the inflation-adjusted sales-per-employee figures times the estimated employment in covered firms gives us our estimate of total sales in each covered firm.

5. Measuring the Relative Cost of Raising Florida's Minimum Wage for Limited Service Restaurants

Because the CPS-ORG does not provide an industry classification fine enough to identify limited service restaurants, the narrowest NAICS classification (722211) containing fast-food restaurants, we turn to the BLS Occupational Compensation Survey of Fast Food Restaurants to derive the proportions of workers who will receive raises, their average wages, and their average weekly hours (average weeks worked were taken from the March Annual Demographic Survey for similarly situated hotel and restaurant workers) to calculate total mandated and ripple-effect costs for limited service restaurants. Reports from the 1992-1993 Occupational Compensation Survey of Fast Food Restaurants, conducted by the Bureau of Labor Statistics, were provided to us by Robert Van Giezen of the Office of Compensation Levels and Trends of the Bureau of Labor Statistics. These reports provide detailed descriptions of the wage distributions of approximately 900 fast food establishments in 43 areas, and covering 88 percent, on average, of each establishment's workforce.

Aside from the use of this data in place of the CPS-ORG, two other adjustments had to be made to our method of calculating the cost-to-sales ratio for limited service restaurants. First, because this survey was done from November 1992-January 1993, we deflated the wage categories $5.15-$5.99, $6.00-$6.14/hour, $6.15-$6.99, and $7.00-$7.49/hour (limited service restaurants do not provide tipped wait service) according to their relative distance to the minimum wage. For example, we looked at workers earning $4.25-$4.94, $4.95-$5.06, $5.07- $5.77, and $5.78-$6.18 for those workers living in states with a minimum wage of $4.25 at the time of the survey. Through this process, we estimated that 41 percent of fast-food workers earn between $5.15 and $6.14 in 2003 and an additional 8 percent earn between $6.15 and $7.50.

Second, we denominated the sales-per-employee value in 1998 dollars. We did this to match the value of sales-per-employee to the value of wages, given the relative position of wages from the minimum wage. Because the wage data was collected only one year after the federal minimum wage increase to $4.25 in 1991, the wage distribution of these workers was closely bound by the federal

minimum wage, i.e., their wages were low at that point in time, relative to the minimum wage. Correspondingly, the sales-per-employee values should reflect the sales from a year that is a similar number of years out from the last minimum wage increase to $5.15. Thus, we inflate our 1997 EC data to 1998 values rather than 2003 values. Without this second adjustment, our estimates would tend to underestimate the cost increases relative to sales. Note that unlike our other industry estimates reported above in Table 6, we have only one estimate for limited service restaurants because it is the narrowest industry category (i.e., there are not several different industry estimates that provide the basis for the limited service restaurant industry) provided by the Economic Census and ES-202 data.

APPENDIX 2
ESTIMATING THE RIPPLE EFFECT OF A MINIMUM WAGE INCREASE

As discussed in the text, we anticipate wage increases to occur that are not directly mandated by a state minimum wage law, particularly to those workers earning near but above the new minimum wage. These wage increases potentially result if firms attempt to maintain a consistent wage hierarchy, both within firms and across firms, before and after a minimum wage change. To estimate the magnitude of such a ripple effect, we examine the impact of changes in state and federal minimum wages on wages at different points in the wage distribution, focusing on those wage percentiles that usually sit just above the mandated minimums. Because the proposed increase to $6.15 is proportionately similar to past changes in other state minimum wage levels and the federal minimum wage level, studying the impact of changes in state and federal minimum wages should provide a useful estimate of the ripple effect that will take place if Florida adopts a $6.15 state minimum wage.

Our analysis is based on the CPS-ORG wage data from 1991-2000, capturing one full business cycle and spanning a number of minimum wage changes including three federal minimum wage changes (1991, 1996, 1997). We use regression analysis to estimate the relationship between a change in a state's prevailing minimum wage (the higher of the state and federal minimum wage) and a particular wage percentile of the state's wage distribution. In particular, we examine the relationship between changes in the prevailing minimum wage and each of the following wage percentiles: the 5th, 10th, 15th, 20th, and 25th. Take the 5th percentile of states' wage distributions, for example. The 5th wage percentile tends to be near states' prevailing minimum wage levels. Currently, the 5th wage percentile of Florida's wage distribution is $6.00, near but above Florida's current prevailing minimum wage of $5.15. By observing the degree to which the 5th wage percentile moves among states that change their minimum wage level, and in contrast to those that do not, we will be able to estimate how the wages of workers who earn wages near but above the wage floor may react to a change in the wage floor. By repeating this regression analysis for the higher wage percentiles, we are able to measure both the magnitude of the ripple effect, as well as observe how high up the wage distribution the effect travels.

The model we estimate, separately for 5th, 10th, 15th, 20th, and 25th wage percentiles is as follows:

$$\text{Change in Wage Percentile}_{s,y} = \alpha + B_1 (\text{Change in Average Minimum Wage}_{s,y}) +$$

$$B_2 (\text{Fraction of Directly Affected Workers}_{s,y}) +$$

$$B_3 (\text{Fraction of Indirectly Affected Workers}_{s,y}) +$$

$$B_4 (\text{Change in Employment/Population}_{s,y}) +$$

$$B_5 (\text{Change in CPI-U}_{r,y}) + \varepsilon_{s,y}$$

Where each of the change variables measures the difference between two consecutive annual estimates for each state, the subscript y indicating Year 1 of each two-year interval. Thus, the observations are at the state-year level and produce a sample of 508 (10 years times 50 states, plus 8 observations from Washington D.C.; because Washington D.C. did not have a uniform minimum wage until 1993, Washington D.C. observations prior to 1993 were excluded). This model is an extension of that used by Card and Krueger (1995), who analyzed the impact of the 1990-1991 federal minimum wage changes on the 5th, 10th, 25th, 50th, and 90th percentiles across states.

The *Change in Average Minimum Wage* is the proportionate change in the average prevailing minimum wage from Year 1 to Year 2 for each state observation. The *Fraction of Directly Affected Workers* is the proportion of workers earning between the minimum wage in Year 1 and the minimum wage in Year 2. Note that when there is no change in the minimum wage, this fraction is equal to zero. Similarly, the *Fraction of Indirectly Affected Workers* is the proportion of workers earning wages just above the minimum wage in Year 2, when there is a minimum wage change. Specifically, this fraction is the proportion of workers earning between 100 percent and 150 percent of the new minimum wage in Year 2 and is equal to zero when there is no change in the minimum. The remaining variables provide measures of macroeconomic conditions: The *Employment to Population Ratio* provides an indication of the tightness of the labor market. The *Change in the Consumer Price Index-Urban* measured at the regional level, provides a measure of inflation.

The *Change in Average Minimum Wage* is a direct measure of the impact of a change in states' prevailing minimum wages on each wage percentile. However, it is also important to take into account the character of a state's wage distribution at the time of a minimum wage change. The variables, *Fraction of Directly Affected Workers* and *Fraction of Indirectly Affected Workers*, provide a way to do this. A concentration of workers around the minimum wage may provide two countervailing forces. First, it may increase the impact of a minimum wage change. Consider the impact of a minimum wage change on the 5th wage percentile. A large fraction of directly affected workers is likely to *increase* the likelihood of the 5th percentile increasing, because a large fraction of directly affected workers indicates that the 5th percentile is in close proximity to the minimum, and thus is more likely to experience the full magnitude of the minimum wage change. Also, a greater number of workers directly affected by the minimum wage change may make a change in workers' relative wage position more apparent to workers earning just above the new minimum wage. Second, a concentration of workers around the minimum wage may decrease the impact of a minimum wage change. A large fraction of workers near the minimum may *decrease* the likelihood of the 5th percentile rising, because the larger the fraction of workers affected by the minimum wage change (directly or due to a ripple effect), the larger the increase in the wage bill for employers, giving employers greater incentive to reduce the size of any ripple effect. Also note that the greater the fraction of workers near the wage percentile being analyzed, the greater the number of workers that need to experience wage raises in order to move that particular wage percentile. The regression results are presented in Table A2.

Table A2. Estimating Ripple Effects from State and Federal Minimum Wage Changes, 1991–2000

Independent Variables	Dependent Variable					
	5th Wage Percentile	**10th Wage Percentile**	**15th Wage Percentile**	**20th Wage Percentile**	**25th Wage Percentile**	**30th Wage Percentile**
Change in the State Prevailing Minimum Wage	0.259 ***	0.080	0.089	–0.027	–0.060	–0.050
	(3.67)	(1.30)	(1.43)	(–0.40)	(–1.18)	(–0.97)
Fraction of Directly Affected Workers	–0.306 **	0.499 ***	0.008	0.163	0.070	0.120
	(5.16)	(3.85)	(0.07)	(1.48)	(0.52)	(0.99)
Fraction of Indirectly Affected Workers	0.107 ***	–0.049 ***	0.009	0.001	0.005	0.014
	(–0.41)	(–3.76)	(0.46)	(0.05)	(0.32)	(0.70)
Change in the State Employment to Population Ratio	–0.038	–0.109	–0.095	0.065	–0.019	–0.088
	(–2.59)	(–1.63)	(–0.92)	(0.98)	(–0.29)	(–0.99)
Change in the Regional Consumer Price Index–Urban	–0.596 **	–0.885 ***	–0.664 **	–0.567 **	–0.834 **	–0.675 **
	(5.71)	(–3.64)	(–2.06)	(–2.37)	(–3.16)	(–2.48)

Note: The standard errors used to produce the t-statistics are robust to heteroskedasticity and non-independence of errors within states. The Fraction of Directly Affected Workers and Fraction of Indirectly Affected Workers are calculated for each state from the Current Population Survey. The State Employment to Population Ratios are taken from the Geographic Profiles of Unemployment and Employment. The Regional Consumer Price Index-Urban is taken from the BLS (http://www.bls.gov/cpi/home.htm). ***, **, and * indicates statistical significance at the 0.001, 0.05, and 0.10 levels respectively.

The regression coefficients of the first three rows provide an estimate of how much, on average, a wage percentile changes for a given minimum wage change, and the character of the wage distribution at the time of the change. The regression results suggest that a change in the minimum wage affects wage percentiles up to the 15th wage percentile, but not beyond. Note that while the magnitude of the change in the prevailing wage is statistically significant for the 5th wage percentile, it is not for higher wage percentiles, consistent with our expectations that the proximity of the 5th wage percentile to the minimum wage would likely result in a direct relationship between the level of the minimum wage and the level of the 5th wage percentile. The character of the wage distribution appears to be a more important factor for the 10th wage percentile. In particular, both countervailing forces are evident: the greater the fraction of directly affected workers, the greater the increase in the 10th wage percentile and the greater the fraction of indirectly affected workers, the smaller the increase in the 10th wage percentile.

To get a specific estimate of how much a given wage percentile moves, given a change in the prevailing minimum wage, we need to combine the regression coefficients with specific values for each independent variable. We use the empirically observable characteristics of Florida's wage distribution in 2003 to derive such estimates, and these become the basis for all our ripple-effect calculations. Using 2003 CPS-ORG data, we estimate the 5th, 10th, and 15th wage percentiles in Florida in 2003. They are $6.00, $7.00, and $7.50 respectively. We also estimate from the 2003 CPS-ORG data the two relevant proportions: 1) the fraction of workers in Florida who earned between $5.15 and $6.14, i.e., the proportion of workers directly affected by a minimum wage increase, and 2) the fraction of workers in Florida who earned between $6.15 and $9.23, i.e., the fraction of workers who earned between the new minimum wage and 150 percent of the new minimum wage. These proportions are 3.9 percent and 23.5 percent, respectively. Using these values, we calculate the following proportionate changes in the 5th, 10th, and 15th wage percentiles, given a 19.4 percent change in the prevailing minimum wage (the proportionate change from $5.15 to $6.15):

6.3 percent for the 5th wage percentile, 2.3 percent for the 10th wage percentile, and 2.0 percent for the 15th wage percentile.

Based on these calculations, we assign a 6.3 percent wage increase to workers earning between $6.00 and $6.99. Note that part of this wage increase will result from the minimum wage mandated increase for workers earning between $6.00 and $6.14. Given that the regression coefficients for the 15th wage percentile are not statistically different from zero, we assume that the ripple effect ends at the 15th wage percentile, and assign wage increases equal to the average of the two percent changes for the 10th and 15th wage percentiles, or 2.2 percent, to workers earning between the 10th and 15th wage percentiles, i.e., $7.00-$7.49.

APPENDIX 3
EXAMINING EMPLOYMENT EFFECTS
OF STATE MINIMUM WAGES

One central question that states must address whenever they consider raising their minimum wage is the effect such action will have on state employment. In this appendix, we present an in-depth statistical analysis over the last full business cycle (1991-2000) of the changes in state employment in industries likely to be heavily affected by minimum wage changes, specifically the retail trade, restaurant, and hotel industries. We extended Card and Krueger's (1995) cross-state analysis, constructing a dataset with one observation for each of the fifty states for each year between 1991 and 2000, i.e. over the last full business cycle.

Our first analysis, presented above in Table 8, is an examination of the average annual percentage change in state employment for each state between 1998 and 2003. We divide states into two groups, those that had higher state minimum wages during the 1998 to 2003 period and those that did not, taking the group average for each. Our employment data come from the ES-202 reports published by the Bureau of Labor Statistics. Discussion of this analysis can be found in the main text.

For our second analysis, using panel data techniques, we regressed the change in log employment on a series of independent variables, including: the fraction of directly affected workers in the year prior to an increase in the minimum wage; the change in the state's employment to population ratio; the change in the state's unemployment rate; the change in the log of average adult male wages; and a regional effect. The results are reported in Table A3.

If an increase in the state minimum wage diminished employment prospects in a specific industry, we would expect for the coefficient on the fraction of directly affected workers prior to the minimum wage increase to be negative and statistically significant. In fact, we find the exact opposite effect for the retail trade and restaurant industries, where this coefficient is positive and statistically significant at the 99 percent confidence level. Although this regression coefficient is negative in the hotel industry, it is not statistically significant. This more in-depth statistical analysis confirms the findings from our cross-state comparisons between 1998 and 2003.

Table A3. Regression Analysis of the Employment Effects of Federal and State Minimum Wage Changes

Dependent Variable – Change in Log Employment in:	Retail Trade	Restaurants	Hotels
Fraction of Directly Affected Workers Prior to Wage Increase	0.191***	0.369***	−0.103
	(5.75)	(9.35)	(0.97)
Change in the State Employment/Population Ratio	0.014	−0.049	0.290
	(0.23)	(0.68)	(1.48)
Change in the State Unemployment Rate	−0.453***	−0.483***	−0.556*
	(4.13)	(4.05)	(1.78)
Change in the Log Wage of Adult Males	0.010	0.036	0.007
	(0.46)	(1.40)	(0.10)
Region Effect	−0.004***	−0.006***	−0.003
	(3.91)	(4.40)	(1.01)

Note: This model is estimated on 450 state-year observations for the fifty states (excluding the District of Columbia) between 1991 and 2000 using a random effects generalized least squares regression. Employment totals are taken from ES-202 data published by the Bureau of Labor Statistics. The employment to population ratio and the unemployment rate are taken from *Geographic Profiles of Unemployment and Employment*, also published by the Bureau of Labor Statistics. The fraction of directly affected workers and the average wage of adult males are calculated for each state from the Current Population Survey's Outgoing Rotation Group file. T-statistics are reported in parentheses below the estimated coefficients; * significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

APPENDIX 4
ESTIMATING FAMILY EFFECTS

In this study, we utilize the Current Population Survey (CPS) to examine the demographic characteristics and labor force participation of low-wage workers in Florida. Our methodology closely mirrors that found in Pollin and Brenner (2000), so interested readers can find a more detailed discussion of this approach in Appendix 9 (op. cit.). This appendix briefly summarizes our methods, highlighting differences from those used in Pollin and Brenner (2000) where appropriate.

Data

Data for our analysis were drawn from the March Annual Demographic Supplement (ADS) to the CPS. The ADS provides extensive information on income, family demographics, the sources of family income and poverty status. Our calculations for Florida are based on the 2003 ADS, which asks about income sources and labor force participation in the previous year. Our calculations for the Miami, Fla., Metropolitan Statistical Area (MSA) and the Tampa (-St. Petersburg-Clearwater) MSA are based on pooled data from 1999-2003. As in our other analyses, wages and incomes were updated using the national consumer price index (CPI-U) to 2003 levels. Our sample of low-wage workers include workers earning between $5.15 and $7.49 and hotel and restaurant workers earning between $2.13 and $3.12. We exclude from our sample of workers those wage earners who are part of the Armed Forces or who are under 15 years old. Unlike our analysis in Pollin and Brenner (op. cit.), we do not place any restrictions on annual hours worked. Also, we use the basic family budget thresholds reported in Boushey et al. (2001) as the benchmark for our Basic Needs thresholds. Note that these thresholds apply only to those families that have 1-2 adults and 1-3 children under the age of 12. Of families with at least one potentially affected worker, the percentage of families that meet these criteria (of having 1-2 adults and 1-3 children under the age of 12) is approximately 20 percent. Finally, we adjust our sample weights so that the number of affected workers is consistent with our estimates from the CPS-ORG 2003 data.

APPENDIX 5
GENERATING NET BENEFIT ESTIMATES

Net benefit estimates are calculated for all families with at least one affected worker (i.e. we expect at least one worker in the family to have increased his/her earnings due to the minimum wage change) using the 2003 March Annual Demographic Supplement of the CPS (ADS). Affected workers include those who receive either or both mandated and ripple-effect wage increases. We employed the method described in Appendix 1 to identify these affected workers. The only difference in this analysis is our use of the ADS data set and its corresponding labor market variables in place of the CPS-ORG.

The 2003 ADS data set provides detailed information about family earnings, family incomes, applicable poverty thresholds, family structure, non-cash benefits, and simulated income tax filing status and income tax liabilities. We use these data to calculate each family's disposable income before and after the minimum wage change to provide a measure of the family's net benefit from the minimum wage increase. Specifically, we adjust the amount of family income (with and without the increased earnings) by the following items: federal income tax, Earned Income Tax Credit, FICA, and food stamps, each of which varies with changes in earnings. Note that Florida does not have a state income tax. Because the 2003 ADS collects information on these items for the previous year (2002), all dollar values are inflated to constant 2003 dollars using the national consumer price index.

Calculations

1. Disposable income. To determine the net benefits (or change in disposable income) for each family after the minimum wage increase, we made the following calculation:

Disposable income before minimum wage change =

> Total family income – federal income tax – FICA + EITC + value of food stamp benefit

Disposable income after minimum wage change =

> Total family income + minimum wage raise in annual family earnings
> – federal income tax – FICA + EITC + value of food stamp benefit

> where the federal income tax, FICA, EITC and food stamp benefit values reflect the additional family earnings.

2. Increase in annual family earnings. To calculate the increase in a family's earnings due to the minimum wage increase, we did the following: First, we calculated each individual's wage increase

using the same method as described in Appendix 1, but using the ADS dataset and corresponding variables in place of the CPS-ORG. Multiplying this raise by the worker's usual hours worked and usual weeks worked in the past year produces the worker's total increase in annual earnings. We then summed this value across all family members for each family to get the total increase in family earnings.

3. Federal income tax liability. The ADS provides the following simulated tax information for each family: tax filing status of individuals within the family, taxable income (adjusted gross income minus deductions), federal income marginal tax rates, and Earned Income Tax Credit (EITC) values. Using the simulated tax information provided by the ADS, we calculate the federal income tax each family owes with and without the increase in family earnings due to the minimum wage change. Because the tax information provided in the 2003 ADS is based on 2002 tax laws, several adjustments were made to reflect current tax laws. These adjustments are: 1) a change in deduction amounts to reflect the increase in standard deduction amounts from 2002 to 2003 (these increased significantly for married tax filers, in particular), 2) changes in the marginal tax rates, and 3) ADS tax liability data do not take into account the Child Tax Credit, which increased significantly from 2002 to 2003: a portion of this credit may be received as an income tax refund for qualified families. Only the applicable increase in family earnings was used to determine a family's (or individual's) tax liability. This includes increased earnings from both spouses for married couples filing jointly, from the tax filer only for families who had a tax filer filing as a head of household, from each spouse separately for families where married couples filed separately, and from the tax filer only for individuals filing as single status tax filers. The Child Tax Credit, which depends on a family's earned income and number of qualifying dependent children, was assessed according to the guidelines provided by the Center for Budget and Policy Priorities (http://www.cbpp.org/ eic2004/ctc04-factbook.pdf) and the 2003 Internal Revenue Service Publication 972.

4. Earned Income Tax Credit (EITC). The amount of EITC a family receives depends primarily on two factors: 1) adjusted gross income, and 2) number of qualifying children. While simulated values of adjusted gross income are provided in the ADS, the number of qualifying children is not. To determine the appropriate number of qualifying children, we used the simulated EITC values, adjusted gross income and family structure data, combined with the 2002 EIC Table (from the 2002 Internal Revenue Service Publication 596). This also enabled us to identify families that required different guidelines for determining their EITC value. To determine each family's 2003 EITC value before the minimum wage change, we used each family's adjusted gross income (or other appropriate income) inflated to 2003 dollars, their number of qualifying children, and the 2003 EIC Table (the 2003 Internal Revenue Service Publication 596). To determine each family's EITC value after the minimum wage change, we added the total applicable increase in family earnings due to the minimum wage increase to each family's adjusted gross income (or other appropriate income): from both spouses for married couples filing jointly, from the tax filer only for either families who had a tax filer filing as a head of household or single status tax filers (those filing married, separately are not eligible for EITC). We used this new income level to determine their 2003 EITC, again using the 2003 EIC Table.

5. FICA. We assessed a 7.65 percent FICA tax (6.2 percent social security tax plus a 1.45 percent Medicare tax) to the sum of all additional earnings of each family member.

6. Food Stamp Benefits. The CPS collects data on the actual value of food stamp benefits families receive, as reported by survey respondents. Thus, unlike the EITC, the data reflect the *actual* receipt of the benefit, rather than the *potential* receipt. Because of this, we were able to use the reported

food stamp value that each family received and adjusted the benefit according to the following formula: for each $1 increase in family earnings, their food stamp benefit was reduced by $0.36. This reduction takes into account a combination of the effect of the increase in earnings on the family income and on the amount of shelter deduction allowable used in determining a family's food stamp benefit (for details see Center for Budget and Policy Priorities, 1999, and Rosenbaum, Tenny and Elkin, 2002).

While other social welfare programs that are means-tested (and thus possibly affected by the change in family earnings) are available to Florida residents, we do not include them in our calculations for one of the following reasons: 1) because the size of the program is too small to affect the average family with an affected worker (as determined by the program size and the frequency of program participation of workers in our sample), 2) the program benefits are temporary, or 3) the eligibility requirements are not directly linked to a family's income. Examples of such programs include the following: Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Child/Adult Care, National School Lunch Program, childcare subsidies, Child Care and Development Block Grant programs, housing subsidies, Low-Income Home Energy Assistance Program, Medicaid/SCHIP, and Social Services Block Grant programs (Holcomb et. al, 1999; Carasso and Bess, 2003). The one program listed here that would appear to be important in our net benefit calculation is the National School Lunch program. However, because other research has shown that program participation in the National School Lunch program does not appear to be closely linked to family income levels, as would be expected for means-tested programs, we are not able to reliably identify families that would experience a change in this benefit, or the value of this benefit (Food and Nutrition Service, 1999). Note that in Appendix 7 we do a careful examination of families' Medicaid/SCHIP (also called KidCare) benefits.

To provide a measure of the variability of our net benefits estimates, we provide in Table A4 the average values presented in Table 12 above, along with their standard errors and 95 percent confidence intervals.

TABLE A5. Changes in Living Standards for Low-Wage Workers and their Families After Florida Minimum Wage Raise to $6.15

Data are for workers earning up to $6.99 before minimum wage increase

A) Families in Poverty – Below 150% of Official Poverty Line (includes 39.4% of affected families in data pool)

	Minimum wage at $5.15	Minimum wage at $6.15
1. Worker annual earnings	9,063 (375) [8,313 , 9,813]	9,684 (383) [8,918 , 10,450]
2. Family Income before Taxes and Subsidies	13,041 (577) [11,887 , 14,195]	13,683 (589) [12,505 , 14,861]
3. Federal Income Tax	22 (41) [−60 , 104]	43 (43) [−43 , 129]
4. FICA Tax	875 (46) [783 , 967]	925 (47) [831 , 1,019]
5. Earned Income Tax Credit	1,210 (137) [936 , 1,484]	1,199 (137) [925 , 1,473]
6. Food Stamps Benefits	268 (76) [116 , 420]	237 (72) [93 , 381]
Disposable Income **[(rows 2 + 5 + 6) – (rows 3 + 4)]**	13,622 (642) [12,338 , 14,906]	14,151 (647) [12,857 , 15,445]

Note: Standard errors in parentheses, 95% confidence intervals in brackets.

B) Families below Basic Needs Threshold (includes 62.9% of affected families in data pool)

	Minimum wage at $5.15	Minimum wage at $6.15
1. Worker annual earnings	9,774 (673) [8,428 , 11,120]	10,459 (688) [9,083 , 11,835]
2. Family Income before Taxes and Subsidies	19,901 (1,364) [17,173 , 22,629]	20,599 (1,363) [17,873 , 23,325]
3. Federal Income Tax	−646 (156) [−958 , −334]	−644 (157) [−958 , −330]
4. FICA Tax	1,438 (116) [1,206 , 1,670]	1,491 (116) [1,259 , 1,723]
5. Earned Income Tax Credit	2,186 (209) [1,768 , 2,604]	2,153 (211) [1,731 , 2,575]
6. Food Stamps Benefits	284 (118) [48 , 520]	231 (107) [17 , 445]
Disposable Income **[(rows 2 + 5 + 6) – (rows 3 + 4)]**	21,579 (1,228) [19,123 , 24,035]	22,135 (1,224) [19,687 , 24,583]

Note: Standard errors in parentheses, 95% confidence intervals in brackets.

APPENDIX 6
ESTIMATING OUT-OF-STATE AND LOW-INCOME NEIGHBORHOOD SPENDING INJECTIONS

Out–of–State Spending Injection

To generate the spending injection and its corresponding multiplier effect, we combine information from the CPS-ORG data set described in Appendix 1, the 2002 Florida Visitor Study conducted by Visit Florida, and the input-output models provided by IMPLAN, a regional economic impact assessment software system developed by researchers from the University of Minnesota and the USDA Forest Survey. We use constant 2003 dollars in all of our calculations.

Calculations

1. Increase in earnings in the tourist industry

We first estimate the total increase in earnings that we expect workers in the tourist industry to receive. To obtain a measure of this, we apply the method described in Appendix 1 to identify affected workers and to calculate the cost of their annual wage increase. The affected workers considered here include hotel and restaurant tipped workers earning between $2.13 and $3.12, and other hotel and restaurant workers earning between $5.15 and $7.49. We estimate that 235,106 hotel and restaurant workers will experience wage raises that amount to $124 million.

2. Increase in tourist expenditures injected into Florida's economy

We assume for this analysis that the wage increases for hotel and restaurant workers will be covered by price increases. To estimate the proportion of this increased consumer expenditure attributable to out-of-state visitors, we use data from the 2002 Florida Visitor Study on the average number of nights per visit and number of persons per visit for each of two groups: 1) Florida residents traveling in Florida on pleasure trips, and 2) out-of-state visitors traveling in Florida (including international visitors). We find that the percentage of total person-nights of pleasure trips taken by Florida residents and all trips by out-of-state visitors that are attributed to out-of-state visitors is 92 percent. While this may be an overestimate for the restaurant industry (since we do not account for the visits to restaurants by Florida residents outside of pleasure trips in the denominator of the percentage), this is offset by the fact that we do not consider the increased expenditures by out-of-state visitors on other components of the tourist industry such as admissions, and rental of tangible property, both of which make up significant proportions of Florida's 2002 tourism/recreation taxable sales (Visit Florida, 2002). Thus, we assume 92 percent

of the increased earnings obtained by tourist industry workers will be provided by out-of-state visitors.

3. Determining net change in disposable income and the multiplier effect

While 92 percent of increased earnings may come out of the pockets of out-of-state visitors, only a proportion of that amount will turn into increased disposable income in the pockets of tourist industry workers and their families. Thus, we need to adjust the amount of increased earnings to determine the net change in disposable income for tourist industry workers in order to estimate the multiplier effect.

As we saw in Table 12 and in Table A5, the change in disposable income varies across family income levels. To account for this, we calculated the ratio of the change in disposable income to change in earnings for nine different intervals of household income using the method described in Appendix 5. The household income intervals are as follows: <$10,000; $10,000-$15,000; $15,000-$25,000; $25,000-$35,000; $35,000-$50,000; $50,000-75,000; $75,000-$100,000; and $150,000 and more. The average proportions of increased earnings that result in increased disposable income for these household groupings range from 0.76-0.94.

To make a final determination of the total amount of disposable income received by each group of households, we take two steps. First, we determine what proportion of the increased earnings will be received by each group of households. This proportion is calculated by summing the increased earnings of individual workers over all the households within each income interval (household income data is provided in the ADS) and dividing by the total increase in earnings. Second, we multiply the ratio of the change in disposable income to change in earnings for each group of households by their corresponding amount of increased earnings to produce the final amount of disposable income that will be received by each group of households.

Finally, to estimate the total economic impact of such an injection of disposable income into the Florida economy attributable to out-of-state consumers, we use the input-output models provided by IMPLAN. IMPLAN is one of the leading regional economic analysis tools of its kind in the country, and is used extensively in academia, government and the private sector. At their most basic, IMPLAN's input-output models provide a picture of the local economy in terms of the various goods and services produced at the local level, as well as the types and quantities of goods required to produce them. IMPLAN also provides data on patterns of household consumption by the household income groups listed above. Thus, with IMPLAN we are able to simulate the overall economic effect of an increase in disposable income based on characteristics of the Florida economy and the household expenditure patterns of those households receiving increased earnings.

Low–Income Neighborhood Spending Injection

We begin by defining low-income neighborhoods as those where average household income falls below the low-income threshold for a four-person household, as defined by the Department of Housing and Urban Development (HUD). Our example is taken from Miami-Dade County, where the low-income threshold for a four-person household in 2003 was $38,550.

Our analysis is based on three data sources, the detailed census tract information available in the Summary Tape File 3 (STF3) of the Census Bureau, the 5 percent sample of the 2000 Census also

published by the Census Bureau as the Public Use Microdata Series (PUMS), as well as the Current Population Survey further described in Appendix 1.

The calculation can usefully be divided into two parts: 1) the determination of the number of affected workers in low-income neighborhoods and the calculation of the net increase in annual income for each worker's family; and 2) the calculation of this wage increase relative to total expenditures in neighborhood places of business. We will consider each element of the calculation in the sub-sections below.

Determining the Number of Affected Workers and the Net Increase in Neighborhood Income

The first step in determining the effect of a wage increase on low-income neighborhoods is identifying the number of affected workers receiving mandated and ripple-effect raises residing in those neighborhoods. We use the March CPS to identify the number of affected workers in the Miami-Dade MSA whose family incomes fall below the HUD low-income threshold. We assume that these workers all reside in the 101 census tracts where average household income is below the HUD low-income threshold.

Note that to identify the number of affected workers in the city of Miami, we calculate the proportion of *all* workers in low-income neighborhoods in the MSA who reside within the city limits. We then assume that the same proportion of *affected* workers in low-income neighborhoods reside within the city limits. Note that approximately half (53) of all low-income census tracts are located within the city of Miami.

We also use the March CPS to identify the total increase in annual earnings for affected workers in low-income families, as well as the net increase in family incomes that occurs after taking into account changes in their EITC, food stamps, and tax liabilities. To do this, we utilize the same methodology employed in our net benefits calculations, described in Appendix 5.

Wage Increase Relative to Total Expenditures in Neighborhood Businesses

To complete our analysis, we want to compare the net increase in household incomes with the level of economic activity observed by local businesses. While neither the PUMS nor the STF3 files contain any information on business activity in the low- and moderate-income communities of the Miami-Dade MSA, an appropriate sense of the impact can be gathered by comparing the net income increases to the total household income in the low- and moderate-income communities. This assumes that the bulk of sales in neighborhood businesses come from local residents, and that the spatial expenditure patterns of households will be roughly the same for new income as it is for existing income.

When making these comparisons, it is important to make one additional refinement. When trying to assess the expenditure effects of this wage increase, one should compare the net income increase to the amount of money households had available for retail expenditure prior to the wage increase. This implies that essential household expenditures, most importantly housing costs (rent, mortgage, utilities, etc.), should not be considered in these calculations, as we would expect them to change little, given the magnitude of the total wage increase.

This is an important distinction to make, as these gross housing costs for low- to moderate-income households in Miami equaled approximately 49 percent of total income. With this adjustment, the ratio of the net income increase to the adjusted measure of total household income in the census tract gives us an estimate of the impact on sales in neighborhood businesses. These are the figures we present in Table 13 for the Miami-Dade MSA.

APPENDIX 7
ESTIMATING NET FISCAL IMPACT

Calculating Wage Increases for State Government Employees

We estimate the total increase in costs to the state government due to the minimum wage increase using generally the same method described in Appendix 1 with the following differences. Because of the small sample sizes of state government employees, we had to pool the 1999-2003 CPS-ORG data sets to produce proportions of state *and* local government workers who earn $5.15-$5.99, $6.00-$6.99, and $7.00-$7.49, their average wages, and average weekly hours. Average weeks worked was estimated for similarly situated local and state government employees from pooled 1999-2003 CPS-ADS datasets. To get an accurate *number* of the affected local and state government employees, we applied the proportions estimated from the pooled 1999-2003 CPS-ORG data sets to the 2003 level of employment in Florida of 7,743,804, as reported by the Bureau of Labor Statistics. We then combined these estimates: the number of affected local and state government employees per wage group, their hourly raises (calculated as described in Appendix 1), and their annual hours worked to generate the total amount of wage increases for local and state government employees. To get the total cost of wage increases, we add 7.65 percent of the total amount of wage increases to cover the cost of additional payroll taxes. To isolate the total cost of wage increases for state employees, we estimate the fraction of state employees among state and local employees across all wages from the pooled 1999-2003 CPS-ORG data sets. We apply this fraction of 28 percent to the total cost of wage increases for state and local government employees to produce the total cost of wage increases for state government employees only.

Assessing Changes in Medicaid/KidCare Eligibility and Medicaid/Kidcare Costs

In this section, we describe how we generate the fiscal savings due to changes in families' Medicaid/KidCare eligibility when Florida's minimum wage rises to $6.15. To make this calculation, we combine information on the eligibility requirements for Medicaid/KidCare (KidCare refers to the combination of Florida's state children's health insurance programs), family structure, income, and earnings data from the CPS ADS data set, and Medicaid expenditure patterns by the Florida state government.

Calculations

1. Medicaid/KidCare eligibility and changes in eligibility status

The CPS ADS provides data on whether survey respondents received Medicaid/KidCare benefits. We used this information to identify the number of affected workers (affected workers were identified as described in Appendix 1 using the ADS data set in place of the CPS-ORG) and their family members that received Medicaid or KidCare benefits. To obtain the largest number of observations of Medicaid/Kidcare recipients, we pooled the ADS 2002 and 2003 datasets, adjusting dollar values to constant 2003 dollars as needed (because the ADS asks about the previous year's program

participation and the Healthy Kids program – Florida's children's health insurance program – did not start state-wide until September 2000, we are unable to use any other years of data). Our final numbers of recipients were adjusted to reflect one year.

Once these Medicaid/KidCare recipients were identified, their eligibility status was assigned according to the eligibility requirements of the program (Institute for Child Health Policy, 2004). Eligibility requirements depend primarily on age and family income, but can also depend on other factors such as disability, exceptional medical expenses, and pregnancy status. Also, the family income requirements, which are linked to various levels of the federal poverty income levels, are different for different groups of recipients. Because of this, we were not always able to clearly identify the eligibility requirement for every Medicaid/KidCare recipient. This affected our ability to clearly identify which recipients would lose their benefits after the minimum wage increase since we require clearly defined eligibility requirements to determine their program eligibility. As a consequence, those recipients that did not clearly fall within the eligibility requirements based on family income and age were not subject to losing their eligibility status and were assumed to be eligible under conditions we could not account for. Thus, we may be underestimating the amount of movement out of the Medicaid/KidCare programs.

Changes in eligibility status were determined by adding the total increase in family earnings (as described in Appendix 5) to each recipient's family income (provided by the ADS), and then comparing this new level of family income to each recipient's income threshold for program eligibility. In this process, four different program requirements were considered: Medicaid, MediKids (this program is an extension of Medicaid but is supported by a different source of federal funding, and also has a different federal matching rate), fully subsidized Healthy Kids, and unsubsidized Healthy Kids. In doing so, we identified whether Medicaid/KidCare recipients moved out of their current program but into another, or whether they became ineligible for all programs.

2. Medicaid/KidCare costs

Along with identifying the number of Medicaid/KidCare program participants among affected workers and/or their family members and their movement between or out of Medicaid/KidCare programs, we need to identify the associated costs of participation in each program to calculate the costs or savings to the state resulting from this movement. To assess the costs associated with program participation we assessed the costs per recipient in the following way:

Medicaid. According to the Winter Park Health Foundation (2004), the Florida state government expended, on average over one year, $1,492 for each adult receiving Medicaid and $1,040 for each child in 2001. Two adjustments are made to these cost figures. First, we inflate the 2001 figures at an annual rate of 4.6 percent, the growth rate in Medicaid expenditures reported by the Agency for Health Care Administration from 2001-2002, to arrive at a figure for 2003 (Agency for Health Care Administration, 2003). These figures are $1,708 and $1,190 for adults and children, respectively. Then we applied the current federal matching rate of 0.59 (so that the state incurs a cost of $0.41 for every $1.00 expended), to arrive at the actual cost per recipient for the state government of $700 and $488 for adults and children, respectively.

MediKids. Costs to the state are somewhat lower for MediKids participants because of the higher federal matching rate of 0.71 for this program. Given this higher federal matching rate, each child that participates in MediKids costs the state $345/year.

Subsidized and Unsubsidized Healthy Kids. We assessed the cost of the Healthy Kids subsidized health insurance by taking the full insurance premium costs of $864/year (Agency for Health Care Administration, 2004), and applying the accompanying federal matching rate of 0.71 to arrive at the state's cost for each participant in the subsidized Healthy Kids program of $251/year. Finally, because participants in the unsubsidized Healthy Kids program are responsible for paying the entire insurance premium we assume that they incur no costs to the state.

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Footnotes

[1] Of course, the average (mean) or representative (median) firm in a sample of firms does not portray the situation for all firms in an industry. Some firms will certainly experience cost increases well above the representative firm for their industry (while others will be well below the average). However, given that the representative cost increases are so low relative to sales, even if some firms were to experience cost increases/sales of, say, 300 percent above the statewide average, this would still mean that their cost increase due to the minimum wage rise would be 0.12 percent of

sales. We present data on standard errors and confidence intervals around this estimated figure in footnote 15.

[2] We argue that the 150 percent of poverty is also a more reasonable poverty threshold than the official poverty line, which we rather term a "severe poverty" standard.

[3] The estimate for families below the basic needs threshold is derived from a more limited data sample, as described in the main text and Appendix 4.

[4] Note that with some family types, EITC benefits can rise along with the wage increase.

[5] The full list of states that already operate with minimum wages above the national minimum includes Alaska, California, Connecticut, Delaware, Hawaii, Illinois, Massachusetts, Maine, Oregon, Rhode Island, Vermont, and Washington.

[6] Glickman (1997) is a book-length history of living wage movements in the United States during the 20th century. The quote from Roosevelt is cited in Stabile (1993), p. 13.

[7] These references include Spriggs and Klein (1994), DiNardo, Fortin and Lemieux (1996), and Lee (1999).

[8] Citro and Michael (1995) offer a comprehensive discussion of the problems with the U.S. government's official poverty measures.

[9] Boushey, Brocht, Gundersen, and Bernstein (2001).

[10] See the websites for ACORN's Living Wage Resource Center http://livingwagecampaign.org/ and the Employment Policy Institute Living Wage page http://www.epionline.org/index_lw.cfm for listings of living wage ordinances passed to date as well as ongoing campaigns.

[11] Pollin (2004) calculated supplier cost-pass throughs for the Santa Fe, New Mexico living wage proposal, through which the city-wide minimum wage was raised to $8.50 per hour. These cost pass-throughs exerted an insignificant effect on the overall costs of the Santa Fe measure. Because the Florida increase is more than 40 percent smaller than that in Santa Fe, it follows that the supplier cost pass throughs will be of less overall significance in Florida.

[12] We do not include workers' compensation costs associated with the wage increase because these costs vary extremely widely between industries and even between firms in the same industry. Nevertheless, even assuming the largest reasonable magnitude for an increase in these costs, including them would not alter our overall assessment of costs or the cost increase/sales ratio for Florida firms.

[13] In combining the mandated and non-mandated cost increases, we assume for the sake of simplicity that all increased costs are borne by businesses at the same time. In fact, the non-mandated ripple-effect wage increases are likely to be phased in more slowly than the mandated increases, since the ripple-effect increases, again, reflect changes in the wage-bargaining dynamic that will filter through the economy over a period of months, but not a formal change in law.

[14] There are approximately an additional 930,000 firms that operate as individual proprietorships. Note that the $928.7 billion total sales figures for Florida's businesses reported in Table 5 includes the sales of these firms. It is difficult to separate out accurately the sales of these firms from

those that do hire employees. However, the available evidence suggests that the sales of individual proprietorships is less than 10 percent of total sales in the state.

[15] This is a mean estimate of the average cost increase/sales ratio for private sector firms. The median figure, as shown in Table 6, is also 0.04 percent. For this mean figure, the standard error of the estimate is 0.01 percent. This means that the 95 percent confidence interval around the mean estimate is 0.02 – 0.06 percent.

[16] We were unable to directly extract a median cost increase/sales ratio for the limited service restaurants. We explain in Appendix 1 how we derived this figure.

[17] The Pennsylvania firms may have increased their prices anyway, to take advantage of the rising prices in New Jersey, but they would not have raised prices to cover mandated cost increases.

[18] A 2003 journalistic survey of pricing strategies among chain restaurants (Peters 2003) reports that some restaurants are reluctant to raise prices even by small amounts while others are more willing to do so, both to build sales and to offset cost increases. The restaurants less willing to raise prices have taken other measures in the face of higher costs, such as trimming portions and deleting side items.

[19] The recent literature on these effects and their empirical importance is presented in Bernstein and Schmitt (1998). Akerlof and Yellen (1986) provides an earlier, more academic treatment of the broader set of concerns around wages, work effort, productivity and employment.

[20] William Lazonick's book Competitive Advantage on the Shop Floor (1990) provides an extensive discussion of the Ford Motor Experience. See also Daniel Raff and Lawrence Summers, "Did Henry Ford Pay Efficiency Wages?" (1987). Laura Owen (1995) presents the most comprehensive analysis of the broader experience of high wage/benefit firms in the early twentieth century.

[21] See Pollin and Luce (2000), pp. 151-57 for a profile of three firms which compete successfully in Los Angeles through paying higher than market wages and benefits.

[22] Constance F. Citro and Robert T. Michael, eds. 1995, Measuring Poverty: A New Approach, Washington, DC: National Academy Press.

[23] This is derived from the ACCRA Cost of Living Index for Miami. We discuss the application of the ACCRA index to lower-income families in Pollin and Brenner (2000), pp. 138-140.

[24] See Boushey, Brocht, Gundersen, and Bernstein (2001).

[25] The data sample for measuring percentages of families below the basic needs budget does not include all families, but only those family types for which Boushey et al. have provided estimated budget figures. Those family types are one parent with one, two, or three children; and two parents with one, two or three children. The budget figures for these various family types are available at: <http://www.epinet.org/content.cfm/datazone_fambud_budget>.

[26] Low-income households in Florida are eligible for other subsidies as well, including Medicaid, child care subsidies, housing subsidies, and home-energy assistance. However, for most low-income families in the state, the effects of the minimum wage increase on their eligibility for these additional programs are not large enough to significantly affect our calculations of average changes in disposable income due to the minimum wage increase. For example, in the case of Medicaid

eligibility, we estimate that the change in the minimum wage would affect only about 18,000 people, out of the total of 2.2 million who live in families where at least one worker will receive a raise. We discuss the details of our calculations, including the effects on eligibility of additional subsidy programs, in Appendix 5.

[27] See Brenner and Luce (2004) for an examination of the effect of Boston's living wage law on the lives of workers who received raises due to the law. Reich, Hall and Jacobs (2003) documents the effect of living wage laws on workers at the San Francisco airport. Their survey evidence includes the qualitative finding that low-wage workers who did not receive a living wage increase experienced a decline in their living conditions, while the majority who did receive the raise felt that their living conditions were at least not falling.

[28] But it is also true that in some family situations, EITC payments may also rise in conjunction with the wage increase.

[29] We consider here only employees of state government, not local governments, in keeping with the focus on the fiscal impact of the State of Florida.

[30] As noted earlier, in our cost estimates for the private sector, we assumed for the sake of simplicity that ripple-effect raises would occur concurrently with mandated raises. In the present discussion, we are trying to provide a more fine-grained analysis for fiscal impacts, and therefore are taking explicit note of the distinct phase-in periods for the various effects we consider.

[31] See Brenner and Luce (2004), "Economic Impact of Living Wage Ordinances in New England," Political Economy Research Institute.

[32] The estimates we provide in Table 15 are based on relatively small numbers of individuals from the Current Population Survey of the Bureau of Labor Statistics. Nevertheless, we are still confident that our estimates are still broadly accurate.

[33] Data on State support for emergency room care in Florida comes from the May 2002 Florida Hospital Association document "Financial Issues Affecting Florida Hospitals." The division of government coverage for emergency room costs is from Teresa Coughlin and David Liska (1997).

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Robert Pollin is founding co-director of the Political Economy Research Institute at the University of Massachusetts, Amherst. He received a Ph.D. in economics from the New School for Social Research in New York City in 1982. His research centers on macroeconomics, conditions for low-wage workers in the U.S. and globally, and the analysis of financial markets. His recent books include *Contours of Descent: U.S. Economic Fractures and the Landscape of Global Austerity* (Verso 2003); *The Living Wage: Building a Fair Economy* (with Stephanie Luce, The New Press New Press 1998); and the edited volumes *Globalization and Progressive Economic Policy* (with Dean Baker and Gerald Epstein, Cambridge 1998), *The Macroeconomics of Saving, Finance, and Investment* (University of Michigan Press 1997), and *Transforming the U.S. Financial System* (with Gary Dymski and Gerald Epstein, M.E. Sharpe 1993). In the area of labor market policies, Professor Pollin has written extensively on the viability of "living wage" policies, including those as proposed by policy makers in Los Angeles and Santa Monica, Calif.; New Orleans, La.; and Santa Fe, N.M. He is currently completing a manuscript, co-written with Professor James Heintz of PERI, on the economics of global sweatshops. In separate areas of policy work, he is currently directing a project on employment-targeted macroeconomic policies for South Africa, under the auspices of the United Nations Development Program (UNDP). He has worked previously with the UNDP in Bolivia, and has worked with the Joint Economic Committee of the U.S. Congress and as a member of the Capital Formation Subcouncil of the U.S. Competitiveness Policy Council.

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About the Political Economy Research Institute

The Political Economy Research Institute at the University of Massachusetts, Amherst, is actively engaged in research, dissemination, policy advising, and graduate student education. It also regularly sponsors conferences and other public events in its areas of research focus. Established in 1998, PERI is an independent unit at the University of Massachusetts, Amherst, with close ties to the Department of Economics. The Institute is committed to addressing basic issues of human and ecological well-being through research written for the general public, policy makers, and academic audiences. PERI researchers are currently involved in three broad and interrelated areas: Globalization and Macroeconomics; Labor Markets and Living Wages; and Development, Peacebuilding, and the Environment. PERI is co-directed by Gerald Epstein and Robert Pollin, both professors of economics at the University of Massachusetts Amherst. James K. Boyce, director of the PERI program on Development, Peacebuilding, and the Environment, is also a professor of economics at the University of Massachusetts, Amherst.

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