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THE IMPACT OF MISSOURI'S PROPOSED \$6.50 MINIMUM WAGE ON THE LABOR MARKET

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EXECUTIVE SUMMARY

A proposal on the November 2006 ballot in Missouri would raise the state minimum wage to \$6.50 an hour. Supporters of this proposal argue that this is a way to help workers in poor families by providing them with a “livable wage.” In order to assess this claim we use a large, representative data set to examine which types of Missouri workers would be helped or hurt by the proposal.

We find that the typical minimum wage worker is young, still in school, living with a relative and living in a family that has a total family income of over \$57,000. The typical poor worker is older, out of school, earning a wage substantially above \$6.50 an hour, and the sole earner in a family with children. Most poor workers are poor because they work relatively few hours, not because they are paid low wages. The fact that minimum wage workers tend to look very different from poor workers suggests that increases in the minimum

wage would have a limited impact on poverty.

We estimate that an increase in the minimum wage would result in over 18,000 Missourians losing their jobs and would raise total labor costs for Missouri firms by \$340 million. For those who manage to keep their jobs the increase in the minimum wage would lead to a 2.4 percent increase in household income. For those who lose their jobs the increase in the minimum wage would lead to an 11 percent decline in household income. Increasing the minimum wage would reduce the overall poverty rate by less than 0.5 percentage points.

In contrast, getting all poor workers to work full time would decrease the overall poverty rate by 1 percentage point and would reduce the poverty rate among low-wage workers by 35 percent. Expanding existing government programs such as the Earned Income Tax Credit or childcare subsidies would likely have a much larger impact on poverty in Missouri than increasing the minimum wage.

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The minimum wage tends to provide a small amount of help to the most-skilled low-wage workers while imposing a severe hardship on the least-skilled low-wage workers.

INTRODUCTION

It has now been almost 10 years since the last increase in the federal minimum wage. After adjusting for inflation, the minimum wage is at its lowest level in over 50 years. That has led 18 states and the District of Columbia to increase their minimum wages. Missouri is considering following suit with an initiative on the November 2006 ballot that would raise the minimum wage for workers in Missouri to \$6.50 an hour, or \$1.35 an hour more than the federal minimum wage.

Most supporters of increasing the minimum wage argue that it would help workers in poor families (the “working poor”) by providing them with a “livable wage.” They also argue that it is the socially fair thing to do. Unfortunately, as anyone who has closely studied the minimum wage knows, increases in the minimum wage have a very small impact on poverty. In addition, the impacts of the minimum wage are far from fair by any measure—the minimum wage tends to provide a small amount of help to the most-skilled low-wage workers while imposing a severe hardship on the least-skilled low-wage workers. Finally, by lowering the demand for less-skilled labor among employers, increasing the minimum wage actually exacerbates the primary problem faced by workers in poor families—they are poor because they work few hours, not because they earn exceptionally low wages.

The goal of this report is to use a large representative data set, the March 2005 Current Population Survey (CPS), to document which Missouri workers are helped and hurt by the proposed increase

in the minimum wage. Along the way we will present estimates of how many Missouri workers would lose their jobs if the minimum wage were raised from \$5.15 to \$6.50 an hour. Finally, we will suggest some alternative policies that are much better targeted towards the working poor because they address the root causes of poverty. These alternative policies could potentially have a much larger impact on poverty in Missouri.

A DESCRIPTION OF THE CURRENT POPULATION SURVEY

The primary dataset used in our analysis is the 2005 March CPS Annual Social and Economic Survey (U.S. Department of Commerce, Bureau of the Census, 2005). We begin our report with a brief description of these data.

The CPS is a credible and widely respected survey. The March 2005 CPS surveys nearly 77,000 households and asks questions that specifically address issues of employment and wages. It is administered by the Bureau of the Census for the Bureau of Labor Statistics and has been conducted for more than 50 years.¹ The response rate for the March survey is exceptionally high for a voluntary, household-based survey.² The sample is scientifically selected to represent the civilian non-institutional population. The Census Bureau states that the CPS sample provides estimates for the nation as a whole and contributes to model-based estimates for individual states and other geographic areas. The CPS is conducted by telephone and in-person (and thus includes residences without telephones).

The March 2005 CPS surveyed 210,648 people across the nation (76,447 households), and 3,365 people in Missouri (1,254 households). When appropriately weighted, the estimated population count from the CPS is 291,156,238 for the United States and 5,615,010 for Missouri. The count for Missouri exactly matches published Census tabulations, while the count for the United States appears to be subject to a trivial amount of rounding error.³ Unless otherwise noted, all estimates in the paper are based on the weighted data.

The 2005 March CPS also identifies a number of localities in Missouri, including Columbia, Joplin, Kansas City, Saint Louis and Springfield. These localities, when weighted, represent more than 70 percent of Missouri's population, with Saint Louis and Kansas City alone representing 58 percent. Identification of these localities is important, because a large portion of Missouri's population lives in "border cities" where businesses can move across state lines (to Kansas, in the case of Kansas City, and Illinois, in the case of Saint Louis) in response to an increase in the cost of doing business in Missouri. In such cases where businesses could move yet remain in the same labor market, one might expect that some jobs would be shifted from Missouri to other states if employers were suddenly forced to pay higher wages to some workers in Missouri. In our analysis of the labor market, we make adjustments for such border cities.

Employment information in the CPS is elicited for all household members age 16 and over. The survey asks all adults questions about usual hours worked per week, annual earnings, weeks worked per

year, employer's industry and firm size. Typically, a single CPS respondent reports for everyone in the household, although telephone call-backs to obtain particular items of information known only by someone else in the household are fairly common.⁴

The CPS provides demographic information for all respondents on age, education, race, ethnicity, gender, marital status, and disability. It also provides sufficient information to identify family relationships across household members. This information is critical for classifying low-wage workers.

CHARACTERISTICS OF LOW WAGE WORKERS

We will use the CPS data to produce a picture of what type of workers earn wages below the proposed \$6.50 minimum wage and what type of workers are from poor families. If workers earning wages below the proposed minimum wage look like workers from poor families, then we would conclude that changes in the minimum wage could help workers from poor families. However, if the two populations look very different, then it is more difficult to imagine how changes in the minimum wage could help workers in poor families.

Table 1 presents, successively, summary statistics for non-elderly adults (those aged 16 to 64), adult workers, low-wage workers, and workers in poor families. We define low-wage workers as those workers who are earning less than \$6.50 an hour according to the CPS, since these are the workers that will be most affected by the change in the minimum

Low-wage workers tend to live in households that are far from poor.

The average household income of low-wage workers exceeds \$57,000.

wage.⁵ We classify workers as being in poor families using the poverty line defined by the U.S. government. In the U.S. the poverty threshold is fixed (in real dollars) over time but varies by the number of individuals living in the household. In 2004 a four-person household consisting of two adults and two related children was considered poor if total household income was less than \$19,157.

Looking at Table 1 we see that nearly 2.9 million of Missouri's 3.7 million non-elderly adults, or 79 percent, worked during 2004, with the average worker's age being 39.2 years. Among all workers, household income averaged nearly \$86,000 and just 7 percent lived in poverty (all dollar amounts are expressed in 2006 dollars). The average wage among all workers was nearly \$21.50 per hour.

Table 1
Summary Statistics of Missouri Adults, 2004
 (Authors' Tabulation of 2005 March CPS)

	Non-elderly adults	Adult workers	Low-wage workers	Workers in poor families
Weighted sample in Missouri	3,681,677	2,893,293	355,710	208,833
Individual demographics				
Age in years	39.2	39.2	32.5	32.1
Age 16-19	8.8%	6.0%	24.9%	8.8%
Age 20-29	20.2%	20.9%	29.9%	42.2%
Age 30-39	21.2%	23.3%	11.6%	20.4%
Age 40-49	22.0%	24.4%	14.3%	18.8%
Age 50-59	20.9%	20.7%	15.1%	9.1%
Age 60-64	6.9%	4.8%	4.1%	0.6%
Married	52.6%	55.3%	31.8%	15.7%
Male	48.3%	51.3%	41.8%	41.7%
Veteran	8.8%	9.1%	4.8%	3.9%
No high school diploma/GED	15.7%	10.8%	29.6%	27.5%
Enrolled in school	9.8%	7.0%	25.5%	7.8%
White	84.9%	85.7%	77.3%	72.7%
African-American	11.5%	11.0%	17.7%	23.3%
Individual work behavior				
Worked in past year	78.6%	100.0%	100.0%	100.0%
Uninsured	16.3%	16.1%	30.4%	44.6%
Adult has disability	10.6%	4.4%	8.0%	6.5%
Annual hours worked		1,853	1,341	1,120
Wage		\$21.47	\$5.45	\$9.58
Wage gap from \$6.50		\$0.13	\$1.05	\$0.47
% Under \$6.50		12.3%	100.0%	43.0%
Annual per-worker cost of raising minimum wage		\$172.17	\$1,400.38	\$625.74

Table 1 (continued on page 5)

Table 1 (continued from page 4)
 Summary Statistics of Missouri Adults, 2004
 (Authors' Tabulation of 2005 March CPS)

	Non-elderly adults	Adult workers	Low-wage workers	Workers in poor families
Household characteristics				
Household income	\$79,284	\$85,998	\$57,562	\$26,888
Household size	3.02	3.00	3.15	3.36
Number of children	0.89	0.88	0.87	1.42
Under 100% of poverty line	11.8%	7.2%	25.2%	100.0%
Over 400% of poverty line	42.1%	47.8%	28.9%	0.0%
How worker fits into household				
One worker (single or married) with kids		12.7%	11.0%	38.8%
Worker lives with parent or relative		14.7%	40.9%	16.2%
Two workers in married couple with or without kids		44.7%	27.5%	3.4%
One worker (single or married) without kids		21.3%	15.8%	21.5%
Non-relative		6.6%	4.8%	20.1%
Notes: Authors' tabulation of 2005 March CPS, covering the 2004 calendar year. All dollar amounts are expressed in constant 2006 dollars. Wage rate is computed by dividing annual earnings by the product of usual hours worked per week and weeks worked; non-negative values of the wage rate that were below \$5.15 were then imputed as \$5.15 an hour. The CPS asks only individuals aged 16 to 24 whether they are enrolled in school; the analysis assumes no adults age 25 and over are enrolled in school.				

Approximately 12 percent of all workers are low-wage workers earning less than \$6.50 per hour. These workers are clearly different from higher-wage workers, yet they are also different from workers who live in poverty. Low-wage workers are much younger, on average. The average age of low-wage workers is 32.5, making the typical low-wage worker almost seven years younger than the typical adult worker. More than half of those workers are teenagers or in their twenties, compared with one-quarter of all workers. They are also far more likely to be single and enrolled in school: only 41 percent of low-wage workers are married compared to 51 percent of all workers, while over one-quarter of low-wage

workers are still in school compared with only 7 percent of adult workers.

Although the average wage rate among low-wage workers is only \$5.45 per hour, these workers tend to live in households that are far from poor. The average household income of low-wage workers exceeds \$57,000. As Figure 1 shows, as many low-wage workers live in households with incomes above 400 percent of the poverty line as live in households with incomes below 100 percent of the poverty line. Perhaps most relevant, however, is how the worker fits into the household. As we can see in Figure 2, only 11 percent of low wage workers are sole-earners supporting children. The most common

The most common living arrangement for a low-wage worker is with his or her parents.

living arrangement for a low-wage worker is with his or her parents, which is the living arrangement of 40 percent of low-wage workers. More than 25 percent are spouses in two-earner families, and 21 percent are either childless workers or non-relatives in the household (e.g., roommates). Thus, the notion that raising the minimum wage primarily benefits poor working families is mistaken. (See, for example Economic Policy Institute's web site, http://www.epinet.org/content.cfm/issueguides_minwage_minwagefacts). This column alone should dispel the notion that poverty and low wages are synonymous.

The notion is further dispelled by looking at workers in poor families. Here we see that 62 percent of workers in poor families are between 20 and 39 years old compared with only 50 percent of low wage workers. In addition, only 7.8 percent of workers in poor families are in school, a number that is similar to all

adult workers but well below the number for low-wage workers. However, the most striking difference between low-wage workers and workers in poor families concerns their wages. The average wage among workers in poor families is \$9.58 per hour—47 percent higher than Missouri's proposed minimum wage. Well over half of workers in poor families have wages above the proposed minimum wage. The key difference between poor workers and the typical adult worker is in hours of work—workers are poor because, on average, they work 1,120 hours per year compared with 1,853 hours per year for all adult workers. As we will show in Table 4, the poverty rate could be dramatically lowered if poor workers worked full-time throughout the year. Finally, when we look at how workers in poor households fit into the family we see that almost 40 percent of workers in poor families are sole workers in families with children, in contrast to the 11 percent of

The notion that raising the minimum wage primarily benefits poor working families is mistaken.

Figure 1: Household Income of Low-Wage Workers

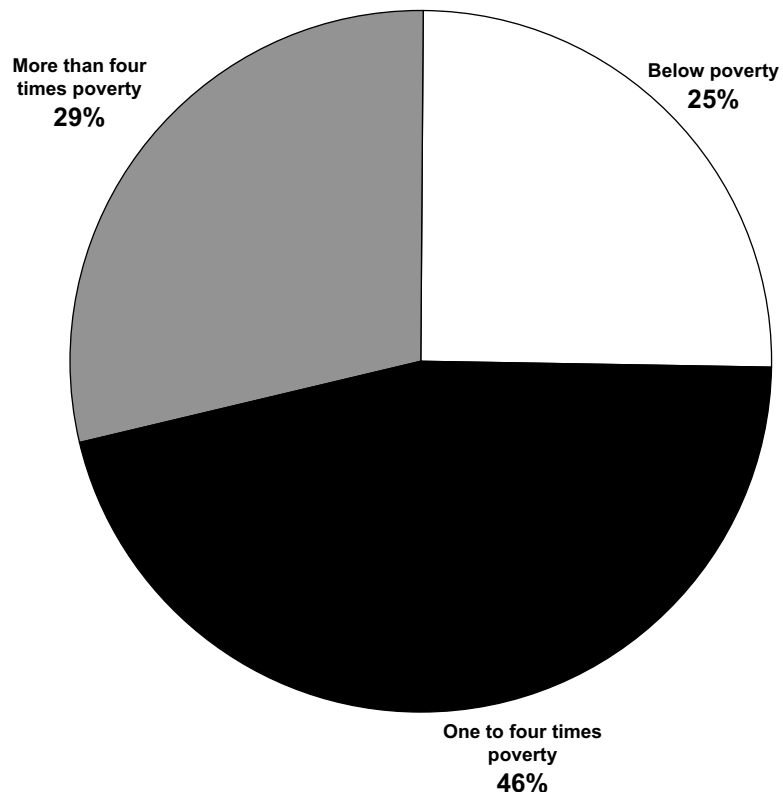
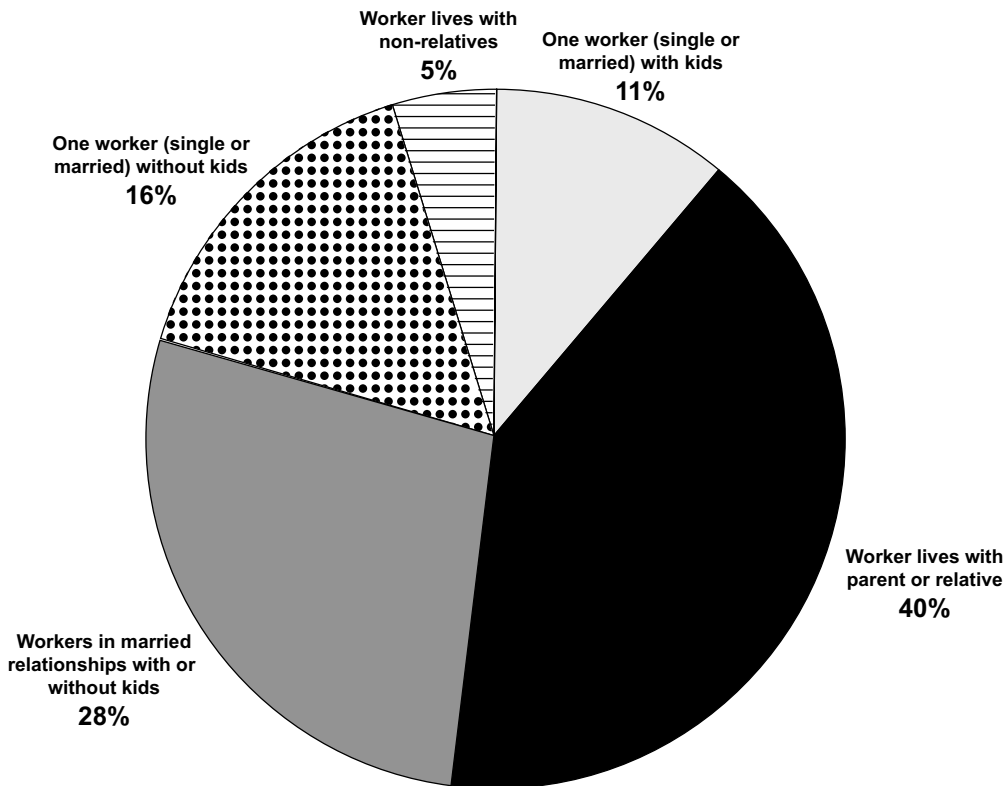


Figure 2: Household Status of Low-Wage Workers



The average wage among workers in poor families is \$9.58 per hour—47 percent higher than Missouri’s proposed minimum wage.

low-wage workers who are sole workers in families with children.

Clearly there are some significant differences between the typical low-wage worker who would be affected by an increase in the minimum wage and the typical worker in a poor household. Minimum wage workers tend to be young, are likely to be enrolled in school and live with a parent or relative who still works. Research by Carrington and Fallick (2001) also finds that minimum wage workers typically earn the minimum wage for a relatively short period of time. All of this suggests that the majority of minimum wage workers are young workers in the early part of their careers who earn the minimum wage for only a short period. In contrast, the typical worker in a poor household is older, earns a wage well

above \$6.50 an hour and is the sole worker in a family with children. The primary reason workers tend to be poor is not due to low wages, but is due to working fewer hours than the typical adult worker. Given these differences between low wage workers who would be affected by the proposed change in the minimum wage and poor workers, it seems highly unlikely that Missouri’s proposed increase in the minimum wage would have much impact on poor workers.

EFFECT OF MISSOURI’S PROPOSED INCREASE IN THE MINIMUM WAGE

We now use the CPS data to estimate what effect the proposed minimum wage

The poverty rate could be dramatically lowered if poor workers worked full-time throughout the year.

Table 2
Estimates of Job Loss by Raising Minimum Wage to \$6.50 per Hour
(Authors' Calculations Using 2005 March CPS)

Elasticity	Lost jobs	Low-wage jobs	% of Low-wage jobs lost
Elasticity = -0.30 in Saint Louis and Kansas City and Elasticity = -0.22 elsewhere	18,520	355,710	5.21%
Elasticity = -0.10 everywhere	7,099	355,710	2.00%
Elasticity = -0.22 everywhere	15,639	355,710	4.40%
Elasticity = -0.30 everywhere	21,321	355,710	6.00%

increase would have on the Missouri labor market and on workers. One of the fundamental principles of economics is that if the price of a good increases the demand for that good will fall. Another way of stating this principle is that demand curves slope downwards. This principle has been well documented and shown to be true for goods as varied as apples, gasoline and (most important for our purposes) labor. This means that if the price or wage for labor is increased then the demand for labor will fall. The only question is: by how much will demand fall?

Economists use a concept called elasticity to measure how responsive the demand for a good is to changes in the price of the good. The elasticity indicates how much the demand for a good will decline when the price of the good increases by 1 percent. For example, if the elasticity of a good is -0.5 this means that a 10 percent increase in the price of a good will lead to a 5 percent decrease in the demand for the good. In a recent report for the Show-Me Institute David Neumark reviewed the economics literature estimating how responsive labor demand is to changes in the minimum wage. According to Neumark the best

estimates of the elasticity fall in the range of -0.1 to -0.3, meaning that a 10 percent increase in the minimum wage will lead to a fall in labor demand of 1 percent to 3 percent. David Neumark and William Washer (2000) estimate an elasticity of -0.22.⁶ When estimating the impact of the proposed increase in the minimum wage on the Missouri labor market we will assume elasticities of -0.1, -0.22, and -0.3. However, there are reasons to believe that the impact of the proposed minimum wage increase would be larger in some parts of Missouri than in others because the two major cities in Missouri—Kansas City and Saint Louis—are both located on the borders of the state. This means that it would be relatively easy over the long run for business in these two cities to relocate to Kansas or Illinois, where the minimum wage has not changed, in reaction to the increase in the minimum wage in Missouri. Therefore, we will also produce an estimate of the impact of the proposed increase in the minimum wage assuming an elasticity of -0.3 for workers in Kansas City and Saint Louis and assuming an elasticity of -0.22 for workers in the rest of Missouri.

Table 2 contains our estimates of job loss from Missouri's proposed new

minimum wage. Using the March CPS, we estimate that there are 355,710 workers with hourly wage rates under \$6.50. The first row in Table 2 presents our best estimate of the job losses that would occur in Missouri with the proposed increase in the minimum wage. In this line we apply an elasticity estimate of -0.3 to workers

in the two “border cities,” Saint Louis and Kansas City, and an elasticity of -0.22 to workers in the rest of Missouri. When we do so, we find that the minimum wage increase would result in a loss of more than 18,000 jobs, representing 5.2 percent of low-wage employment. The other lines in Table 2 present estimates of the job

Table 3
Job Losers and Job Keepers under \$6.50 per Hour
 (Authors’ tabulation of 2005 March CPS)

	Job losers	Job keepers
<i>Weighted sample in Missouri</i>	18,520	337,190
<i>Individual demographics</i>		
Age in years	32.2	32.5
Age 16-19	26.7%	24.8%
Age 20-29	29.8%	30.0%
Age 30-39	10.0%	11.7%
Age 40-49	15.6%	14.2%
Age 50-59	13.6%	15.2%
Age 60-64	4.3%	4.1%
Married	32.8%	31.7%
Male	43.8%	41.7%
Veteran	5.8%	4.7%
No high school diploma/GED	30.4%	29.6%
Enrolled in school	27.4%	25.4%
White	75.9%	77.4%
African-American	20.4%	17.6%
<i>Individual Work Behavior</i>		
Worked in past year	100.0%	100.0%
Uninsured	26.3%	30.6%
Adult has disability	8.8%	8.0%
Annual hours worked	1,318	1,342
Wage	\$5.24	\$5.46
Wage gap from \$6.50	\$1.26	\$1.04
% Under \$6.50	100.0%	100.0%
Annual per-worker cost of raising minimum wage	\$1,667.73	\$1,385.70

Table 3 (continued on page 10)

The majority of minimum wage workers are young workers in the early part of their careers who earn the minimum wage for only a short period.

Table 3 (continued from page 9)
Job Losers and Job Keepers under \$6.50 per Hour
 (Authors' tabulation of 2005 March CPS)

	Job losers	Job keepers
Household characteristics		
Household income	\$60,429	\$57,404
Household size	3.23	3.14
Number of children	0.88	0.87
Under 100% of poverty line	25.6%	25.2%
Over 400% of poverty line	32.3%	28.7%
How worker fits into household		
One worker (single or married) with kids	9.9%	11.0%
Worker lives with parent or relative	42.6%	40.8%
Two workers in married couple with or without kids	28.4%	27.4%
One worker (single or married) without kids	14.4%	15.9%
Non-relative	4.7%	4.9%
<small>Notes: Authors' tabulation of 2005 March CPS, covering the 2004 calendar year. All dollar amounts are expressed constant 2006 dollars. Wage rate is computed by dividing annual earnings by the product of usual hours worked per week and weeks worked; non-negative values of the wage rate that were below \$5.15 were then imputed as \$5.15 an hour. The CPS asks only individuals aged 16 to 24 whether they are enrolled in school; the analysis assumes no adults age 25 and over are enrolled in school.</small>		

neither group is particularly poor: the typical worker in each group lives in a household with around \$60,000 in household income. In both groups almost one-third of workers live in households with incomes that are over four times the poverty line. All of this provides further evidence that the minimum wage effects are not well targeted at the poor. The 337,190 workers who receive a pay raise (and keep their jobs) add \$467 million in labor costs, while those who lose their jobs reduce labor expenditures by \$128 million. In total, the labor costs of Missouri businesses would likely increase by \$339 million due to the minimum wage proposal.

One additional important fact to note is that the proposed increase in the minimum wage would result in relatively small gains in income experienced by some workers and in very large losses felt by other workers. On a per-worker basis, those who keep their jobs would see their incomes rise by \$1,385—an increase of 2.4 percent in their household incomes, while those who lose their jobs would see their incomes fall by \$6,906—a decrease of over 11 percent in their household incomes. While it is impossible to assess whether the increase in income among those who keep their jobs is worth more than the loss in income suffered by those who lose their jobs, what is clear is that the rather small gain in income experienced by some workers would be paid for by a severe loss in income suffered by other workers.

We find that the minimum wage increase would result in a loss of more than 18,000 jobs, representing 5.2 percent of low-wage employment.

loss assuming elasticities of -0.1, -0.22 and -0.3, respectively.

Table 3 profiles job losers and job keepers, based on our estimates from line 1 in Table 2. To create this profile, we examine the 355,710 low wage workers, separating them out into the 18,520 who would lose their jobs based on our calculations and the 337,190 who would keep them.⁷ The most remarkable finding is that both groups look extremely similar in terms of demographics. Both those who keep their jobs and those who lose their jobs tend to be young (over one-quarter of both groups are under 20 years old) and still in school. In addition,

Table 4
Poverty Reductions from Various Policies

	Poverty rate for		
	Low-wage workers	All workers	All adults
No new policies	25.2%	7.2%	11.8%
Raise minimum wage, no job loss	20.6%	6.5%	11.1%
Raise minimum wage, hours reductions	21.9%	6.7%	11.4%
Raise minimum wage, job loss	21.4%	6.7%	11.4%
Increase work hours for low-wage workers and non-workers.	16.5%	6.1%	10.8%

IMPACT OF THE MINIMUM WAGE ON THE POVERTY RATE

In the final part of our analysis we estimate the impact the proposed increase in the minimum wage would have on the poverty rate. Table 4 simulates poverty reductions from raising the minimum wage, and also considers how the poverty rate would change if, instead of raising the minimum wage, all low-wage workers and workers in poor families worked full-time (2,080 hours in a year, the product of 40 hours per week of work and 52 weeks per year). Among low-wage workers—the only workers for whom a higher minimum wage could reduce poverty—poverty rates would fall by nearly 20 percent if we assumed that we could raise the minimum wage without the resulting loss in jobs. If we make the more sensible assumption that increasing the minimum wage would result in a decline in either the number of low wage jobs or in the number of hours worked by low-wage workers, we see that the poverty rate for low-wage workers would fall by about 13 percent.

Although each of these reductions is certainly significant, they pale in comparison to the results of policies that would encourage workers to work full-time. The poverty rate among low-wage workers falls by 35 percent by simply bringing low-wage workers up to full-time, full-year work, at their existing wages. The final two columns in Table 4 show poverty reductions for all workers, and for all adults.⁸ In these cases we observe that raising the minimum wage would have trivial effects on overall poverty. For example, the poverty rate would fall by less than 0.5 percentage points after we account for the resulting loss in jobs. However, increasing hours worked among poor workers would reduce the overall poverty rate by 1 percentage point, or by twice as much as would result from the increase in the minimum wage.

The numbers in Table 4 again demonstrate that the problem of poverty stems from a lack of work hours much more than from low wages. What is particularly insidious about increasing the minimum wage is that it provides employers with an incentive to decrease

The proposed increase in the minimum wage would result in relatively small gains in income experienced by some workers and in very large losses felt by other workers.

The poverty rate among low-wage workers falls by 35 percent by simply bringing low-wage workers up to full-time, full-year work, at their existing wages.

the hours of low wage workers—which has exactly the opposite effect that we need to decrease poverty among poor workers. Instead we should consider adopting or expanding programs that are designed to encourage poor workers to enter the labor market or to work more hours.

The best way to increase the hours worked by workers in poor families depends on the reasons why workers are not working full-time. Three possible reasons why workers in poor families work so few hours are: that poor workers do not have enough incentive to work or to work more hours; that poor workers lack the necessary skills to obtain full-time jobs; or that poor workers have situations—such as taking care of children or transportation issues—that make it very costly for them to work at full-time jobs. However, we already have a number of government programs designed to help workers with these problems. First, the Earned Income Tax Credit (EITC) is a program that gives poor workers a tax credit if they work but have low earnings. The EITC has historically provided very modest tax credits for childless households and more substantial credits to households with children (while differentiating between households with one child and those with more than one child).

The major advantage that the EITC has over the minimum wage is that instead of providing a wage subsidy for relatively wealthy teenagers, the EITC is directly targeted at workers in poor households. Initially, the EITC is phased in with a “credit rate,” which is, in essence, a wage subsidy. From 1994 onward, this subsidy has been equal to 34 percent for one child

households and 40 percent for two plus child households. In 2006, the maximum subsidy was \$2,747 for a household with one child and income between \$8,080 and \$14,810, and \$4,536 for a household with two or more children and income between \$11,340 and \$14,810. A full time worker in these circumstances who earned the minimum wage could be entitled to a tax credit as high as \$4,285.⁹ After household income exceeds \$14,810, the credit is gradually phased out. Households with incomes exceeding \$36,348 would not be eligible for the EITC in 2006.¹⁰

The EITC moves many workers out of poverty.¹¹ The EITC provides a strong incentive for poor individuals who are currently not working to begin working, and it provides incentives for poor workers who are doing some work to increase the amount that they work. In fact, many researchers have attributed much of the dramatic decline in the number of families on welfare in recent years to the increases in the EITC in the 1990s (Blank, 2002).

Fourteen states and the District of Columbia supplement the federal EITC with a state level EITC. These states include four of Missouri’s neighbors—Illinois, Iowa, Kansas and Oklahoma. In most of these states, the state level EITC is simply a fixed percentage of the federal EITC. The percentage varies by state and exceeds 30 percent some cases. In Kansas, the state level EITC provides a credit equal to 15 percent of the federal EITC. Thus, a household in Kansas could receive a cumulative tax credit as high as \$5,216.¹² Almost all workers would escape poverty if they worked full time and received a state-level EITC at this level. For example, a single parent

working full time, with two children, would need a wage rate of \$5.48 per hour to escape poverty if the federal and state EITC refunds were counted in poverty calculations.¹³ A much more effective policy for reducing poverty than increasing the minimum wage would be for Missouri to follow the lead of neighboring states and, instead of raising the minimum wage, adopt a state-level EITC.

As part of welfare reform in the 1990s, the federal government increased the availability of child care subsidies and increased spending on job training programs designed to increase the skills of poor workers. These programs have the distinct advantage that they are much better targeted towards the poor than increases in the minimum wage, and they therefore have a much larger impact on poverty than any proposed minimum wage increase.

CONCLUSION

The advocates of raising the minimum wage are driven by the best of intentions. Poor families in Missouri face many challenges, and it's appropriate to consider ways to help them. In crafting anti-poverty programs, it's important to

consider the costs of the programs. A law that imposes a large cost on the economy while achieving only small reductions in poverty is bad public policy.

Unfortunately, most of the benefits of a minimum wage hike would go to people who don't need them. The vast majority of workers who would enjoy higher wages under the proposal do not live in poor households. A quarter of low-wage workers are students, and more than 40 percent of low-wage workers live with their parents. Only 11 percent of low-wage workers are single parents. On the other side of the ledger, the costs of the minimum wage hike would be large. We estimate that 18,500 workers would lose their jobs. And businesses would face \$340 million in increased labor costs. A far more cost-effective strategy for combating poverty is to expand the Earned Income Tax Credit, a program whose benefits are narrowly targeted at those who need help the most. We estimate that an expansion of the EITC would be more than twice as effective at reducing poverty as an increase in the minimum wage. And it would help poor workers without destroying jobs or imposing hundreds of millions of dollars of higher labor costs on Missouri employers.

Instead of providing a wage subsidy for relatively wealthy teenagers, the EITC is directly targeted at workers in poor households.

REFERENCES

- Blank, Rebecca. 2002. "Evaluating Welfare Reform in the U.S." *Journal of Economic Literature*, Vol 40, No. 4, December, p. 1105-1166.
- Carrington, William J. and Bruce Fallick. 2001. "Minimum Wage Careers?" *Monthly Labor Review*, May, p. 17-27.
- Heckman, James J. 1979. "Sample Selection Bias as a Specification Error." *Econometrica*, Vol. 47, No. 1, January, p. 153-162.
- MacPherson, David. 2006. "The Effects of the Proposed Missouri Minimum Wage Increase." Mimeo, Employment Policies Institute, http://www.epionline.org/studies/macpherson_08 2006. pdf .
- Neumark, David. 2006. "The Economic Effects of Minimum Wages: What Might Missouri Expect from Passage of Proposition B?" Show-Me Institute Policy Study No. 2.
- Neumark, David, and William Wascher. 2000. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment." *American Economic Review*, Vol. 90, No. 5, December, pp. 1362-96.
- U.S. House of Representatives. 2004. *Overview of Entitlement Programs: Background Materials and Data on Programs Within the Jurisdiction of the Committee on Ways and Means* ("The Green Book"), Government Printing Office, Washington DC, <http://www.gpoaccess.gov/wmprints/green/2004.html>.
- Yelowitz, Aaron. 2005a. "Santa Fe's Living Wage and the Labor Market." Mimeo, Employment Policies Institute, http://www.epionline.org/studies/yelowitz_09 2005.pdf.
- Yelowitz, Aaron. 2005b. "How Did the \$8.50 Citywide Minimum Wage Affect the Santa Fe Labor Market? A Comprehensive Examination." Mimeo, Employment Policies Institute, http://www.epionline.org/studies/yelowitz_12 2005.pdf .
- The Stata data and programs used in the analysis are available at: <http://gatton.uky.edu/faculty/yelowitz/missouri.htm>

NOTES

¹ See <http://www.bls.census.gov/cps/overmain.htm>.

² The CPS has a large percentage of in-person interviews that improves coverage and reliability and leads to a very high response rate. Interviewers use laptop computers to administer the interview, asking questions as they appear on the screen and directly entering the responses obtained. Households are interviewed eight times over the course of sixteen months. During the first and the fifth interviews, an interviewer usually visits the sample unit. Almost all of the remaining interviews are conducted by telephone. Even though the CPS is a voluntary survey, the March interview of recent years has between 92 and 93 percent of the eligible households providing basic labor force information, and between 80 and 82 percent of the eligible households completing the ADS supplement. For the March 2002 basic CPS, the nonresponse rate was 8.3 percent. The nonresponse rate for the March supplement was an additional 8.6 percent, for a total supplement nonresponse rate of 16.2 percent. See <http://www.bls.census.gov/cps/ads/1995/sdacodes.htm>, <http://www.bls.census.gov/cps/ads/1995/smethovr.htm>, and http://www.bls.census.gov/cps/ads/2002/S&A_02.pdf for additional discussion.

³ See http://pubdb3.census.gov/macro/032005/health/h05_000.htm.

⁴ See <http://www.bls.census.gov/cps/ads/1995/sdacodes.htm>.

⁵ Wage rates are computed by dividing an individual's annual earnings by annual hours of work (the product of weeks worked and usual hours worked per week). Since the CPS data reflect the 2004 calendar year, the wage rates were converted into 2006 dollars by inflating them by 7.7%. For workers under the \$5.15 federal minimum, wage rates were bottom-coded at \$5.15 per hour. This procedure in the March CPS yields a higher proportion of low-wage workers than one would obtain in the Merged Outgoing Rotation Groups. A key advantage of the March CPS for our purposes is its comprehensive questions on family income, which is important for the poverty simulations. In addition, wages over the course of an entire year reflect sporadic temporary work and short jobs, both of which may not be well captured in the ORG.

⁶ Yelowitz (2005a,b) finds significant effects of Santa Fe's citywide minimum wage. The unemployment rate among less-educated workers increased, while weekly hours fell. After adjusting the estimates for the fact that only 55% of workers were covered (because the \$8.50 ordinance only affected firms with 25 or more employees), he estimates an elasticity of -0.24. See www.SantaFeLivingWage.com for these calculations.

⁷ Specifically, for each low-wage worker in the CPS, we compute the percent change in the wage rate to move that worker to the higher \$6.50 wage floor. Then we apply the -0.22 elasticity (or -0.30 in Saint Louis and Kansas City), to compute the percent change in employment. Finally, we multiply the result by the CPS sample weight to compute the number of workers who lose their jobs and the number who keep their jobs. Those new weights—which add up to the initial number of low wage workers—are used to compute the summary statistics in Table 3. To illustrate, imagine a worker in the CPS with a given set of characteristics who initially has a wage rate of \$5.50 per hour, lives in Saint Louis, and has a sample weight of 1,300 (meaning that individual represents 1,300 people similar to himself). In that case, the change in the wage rate is 18.2 percent ($=6.50/5.50 - 1$). Applying this percentage increase in the wage floor results in a 5.5% reduction in employment (the elasticity of $-0.3 = -5.5\%/18.2\%$). Therefore, 72 of the 1,300 workers would lose their jobs (multiplying the 5.5% employment reduction by the sample weight of 1,300) and these 72 people all have the same characteristics. We would apply such a procedure for all low-wage workers, giving one set of sample weights for job losers, and another for job keepers. We then compute the summary statistics for individuals we identify as losing and keeping their jobs using the sample weights. A similar approach is taken in MacPherson (2006).

⁸ When computing poverty rates for full-time, full-year work, we imputed wage rates for non-workers with a procedure suggested by Heckman (1979). We use number of family members and number of children to identify the model) in the third column. For such workers, we bottom-coded predicted wages at \$5.15 per hour.

⁹ This is the tax credit a worker would receive if they had a spouse and two children, earned \$5.15 an hour and worked 2080 hours in the year.

¹⁰ See http://www.taxpolicycenter.org/TaxFacts/TFDB/Content/PDF/eitc_parameters.pdf.

¹¹ The official definition of poverty ignores transfers such as the EITC when computing poverty rates. The maximum credit in 2003 was \$4,204 (Green Book, 2004, 13-38), and the average family credit was \$1,784. In 2002, the poverty rate would have fallen from 12.1% to 8.2% if non-cash benefits (such as the EITC) had been included (Green Book, 2004, Table H-7, p. H-11).

¹² See <http://www.taxcreditsources.org/pages.cfm?contentID=39&pageID=12&Subpages=yes>.

¹³ See <http://aspe.hhs.gov/poverty/06poverty.shtml>

ABOUT THE SHOW-ME INSTITUTE

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The Institute's scholars study public policy problems and develop proposals to increase opportunity for ordinary Missourians. The Institute then promotes those solutions by publishing studies, briefing papers, and other educational materials. It also forms constructive relationships with policymakers and the media to ensure that its research reaches a wide audience and has a major impact on public policy.

The work of the Institute is rooted in the American tradition of free markets and individual liberty. The Institute's scholars seek to move beyond the 20th-century mindset that every problem has a government solution. Instead, they develop policies that respect the rights of the individual, encourage creativity and hard work, and nurture independence and social cooperation.

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