Employment Policies INSTITUTE


# The Effects of the Proposed Ohio Minimum Wage Increase

by David A. Macpherson, Florida State University

February 2006

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

---

**Dr. David A. Macpherson** is Rod and Hope Brim Eminent Scholar of Economics and Director of the Pepper Institute on Aging and Public Policy at Florida State University. His specialty is applied labor economics. His current research interests include pensions, discrimination, industry deregulation, labor unions, and the minimum wage. Dr. Macpherson has published more than 45 articles in leading economics journals including the J*ournal of Labor Economics*, *Industrial and Labor Relations Review*, *Journal of Human Resources* and *Review of Economics and Statistics*. He is co-author of the principles of economics text *Economics: Private and Public Choice*. He is also co-author of the undergraduate labor economics text, *Contemporary Labor Economics*, as well as the book, *Pensions and Productivity*. He received his Ph.D. from Pennsylvania State University in 1987.

# The Effects of the Proposed Ohio Minimum Wage Increase

by David A. Macpherson

## Table of Contents

# The Effects of the Proposed Ohio Minimum Wage Increase

## Executive Summary

In recent years, the movement to enact "living wages" or increases in the minimum wage has been active in states and cities across the country. Advocates of these wage hikes argue that the increases will help low-income families escape poverty. Although emotionally compelling, this argument ignores the unintended consequences the proposed increase would create. Worse, the mandated increase confers its benefits overwhelmingly on employees who aren't poor whereas those who are bear a disproportionate share of the costs.

This paper by economist Dr. David Macpherson from Florida State University analyzes one such proposal—legislation to increase the minimum wage in Ohio. Using Current Population Survey data and labor demand estimates (as reported by a consensus of economists), Dr. Macpherson's research shows that the proposed increase will be an expensive mandate on the employers of Ohio.

The study concludes that the mandate increase would result in a loss of almost 12,000 jobs and impose a $308 million hit on the Ohio economy. Most of the economic cost—$202.6 million—stems from increased labor costs for employers. A significant portion, however—$105.9 million—is the result of lost income for the almost 12,000 employees who will lose their jobs. More than half of the job losses fall on those under 25 and nearly one-third on those earning less than $25,000, adding cruel irony to the consequences.

As this study shows, minimum wage increases are a blunt and ineffective means to assist low-income employees. Many low-income persons are unaffected because they do not work or they work few hours. This report found that families with incomes below $15,000 would experience only a $63 increase in annual income. It's the amount they work, not the wage they work at, that is the critical determiner of their economic situation.

Wage increases also fail to meet their stated goals for the simple reason that most minimum wage earners aren't poor. Less than 10% of earners are the sole earner for a family with kids. Almost two-thirds—62.7%—are under 24 and 48.3% still live with their parents. Almost three-quarters, 73%, are part-time employees. This study found that the average family income of affected employees in Ohio is just over $52,000 and that almost 80% of the benefits of the wage hike go to families that aren't poor.

This paper's calculation of the enormous economic cost of a mandated wage increase ought to caution policymakers. When this is added to the research that the proposed wage increase would confer most of its benefits on families that aren't poor and impose a disproportionate share of its costs on those that are, policymakers would be wise to explore alternative measures to assist low-income families.

# The Effects of the Proposed Ohio Minimum Wage Increase

## Introduction

"Living wage" laws have been enacted in almost one-hundred states and cities.[1] According to their proponents, a living wage is approximately one-half of the average local or state wage. In an attempt to increase the wages of low-income workers to meet this goal, living wage supporters have proposed minimum wage levels greater than the federal minimum wage of $5.15.

This paper examines the effects of one such proposal in a variety of dimensions. In Ohio, the minimum wage is proposed to rise from $5.15 to $6.85 in January 2007, and to be indexed to inflation starting in January 2008. The study reaches several conclusions regarding this proposed minimum wage increase. First, the workers who would be affected by this proposed increase tend to be younger and less educated than the average Ohio worker. Second, only about one-tenth of the affected workers are the sole earner for a family supporting one or more children. Third, about four-fifths of the income gains will go to families above the poverty line. Fourth, the minimum wage increase is projected to cause 11,951 workers to lose their jobs, with one-third of the job losses in the leisure and hospitality industries. This would cause an annual income loss to these workers of $105.9 million. Fifth, the cost to employers would be substantial. It is estimated to raise their labor costs by $202.6 million per year.

The study is organized as follows. The data used to calculate some of the consequences of a higher minimum wage are described in section 2, and a statistical portrait of the workers affected by the minimum wage increase is provided in section 3. The impact of the increase on the distribution of family income is discussed in section 4. An analysis of the employment effects of the minimum wage increase is presented in section 5, and an investigation of the cost to employers of the wage hike as well as the income loss to laid-off workers is reported in section 6. Lastly, section 7 provides a summary and conclusion.

## The Data

To analyze the effects of the proposed Ohio minimum wage increase, data are drawn from January through December 2005 Current Population Survey (CPS) Outgoing Rotation Group (ORG) files. The CPS ORG has the important advantage of being a large and representative sample of the population.

The main sub-sample of the CPS ORG data used here includes wage and salary workers who are residents of Ohio, 16 years of age or older, and whose hourly wage is between $5.15 and $6.85 in January 2007 dollars.[2] Observations missing data necessary to compute the hourly wage, family income, or other relevant variables are deleted from the sample. The data appendix describes the calculation of the hourly wage variable and other data issues.

## Who Will Be Affected by the Minimum Wage Increase?

A vivid statistical portrait of the workers affected by the minimum wage increase (*i.e.,* earning $5.15–$6.85 in January 2007 dollars) emerges from Table 1, which presents the means of demographic variables for such workers. For comparison purposes, means for all Ohio residents and workers who are 16 years of age and older are also included. The results reveal that a large fraction of workers affected by the higher minimum wage are young. In fact, 39.1% of af-

fected workers are between 16 and 19 years of age, and an additional 23.6% are between 20 and 24 years of age. Thus, 62.7% of affected workers are 24 or younger.

The affected workers differ from the average Ohio resident on several other demographic characteristics. The affected workers are substantially less educated than the average Ohioan—more than one-third have not graduated from high school. Also, they are much more likely to be never-married (69.7%) and female (61.1%) than the population as a whole.

Workers affected by the minimum wage increase are less likely to be supporting a family than a typical Ohio worker. For example, 48.3% of the workers are living with their parent or parents, whereas only 11.9% of all Ohio workers are in this category. Also, they are much less likely to be a dual earner in a married couple (16.1% versus 43.2%) than typical Ohio workers. Lastly, about one-tenth are a single head or a single earner in a married couple supporting a family with children.

The family income of the affected worker is somewhat lower than the average Ohio resident ($51,791 versus $63,498). However, less than 20% of the minimum wage workers are in families with an income of less than $15,000. In fact, 70% are in families with an income of $25,000 or more.

The affected workers are less involved in the labor market than the average Ohio worker. About 73% of the affected workers are employed part-time, but only 21.4% of all Ohio employees work part-time. In addition, the affected workers are employed 1.4 fewer weeks per year than the typical worker.

The location of the affected workers differs from the typical Ohio resident and worker. The affected workers are much more likely to live in non-metro/small metro areas (29.5%) than the average Ohio worker (23.8%). On the other hand, they are less likely to live in the Columbus CBSA (10.9%) than the average Ohio worker (15.4%).

## What Will Be the Impact on the Distribution of Family Income?

Table 2 provides calculations of the annual income increases for workers affected by the minimum wage increase as well as the resulting impact on family income. The top row shows that the mean increase in annual income is $875. Because the average family income of the affected families is $52,087 per year, the resulting increase in average family income would be 1.7%.[3]

Column 4 of Table 2 presents the percentage share of the total income gains resulting from the minimum wage increase that accrue to families in various family income groupings. The gains are roughly proportional to the percentages of affected families in each grouping. For example, 17.8% of the affected families have incomes of less than $15,000, a rough approximation of the poverty threshold.[4] The share of total income gains going to these families is only 21.1%. In other words, about four-fifths of the total income gains will go to affected families living above the poverty level.

To provide a broader view of the impact on income distribution, Table 3 presents calculations of the impact of the minimum wage increase on before-tax family income across all families. The mean increase in family income across persons 16 and over is $54. Because the average income of all families is $48,902 per year, the resulting increase in average family income would be 0.1%.

A problem with minimum wage increases is that many low-income persons are not affected by them since they do not work. The impact of this problem is shown when the results are broken out by income. For persons in families below the poverty level, the increase in income would be $63. These numbers are substantially lower than the corresponding figures presented in Table 2.

## How Many Workers Will Be Laid Off?

An important effect of the minimum wage increase is that some workers will lose their jobs because it will be no longer profitable for firms to employ them. To estimate the job loss, the following procedure was used. First, the fractional wage gain due to the minimum wage increase was computed for the affected worker and then averaged across the sample. Second, estimated fractional wage gain was used in the following formula to calculate the employment loss:

(1) Employment Loss = Fractional Wage Gain *Affected Worker Employment * Labor Elasticity

This study uses an estimate of labor demand elasticity (–0.22) for minimum wage workers reported by Neumark and Wascher (2000). An elasticity of –0.22 implies that a 10% increase in wages results in a 2.2% decrease in employment for the affected group.[5]

Table 4 presents the results of these calculations for all of the affected workers as well as subgroups of workers. Overall, the analysis indicates that 11,951 workers are projected to lose their jobs due to the minimum wage increase. The breakdowns by age, family income, and location are not surprising. More than one-half of the layoffs would occur among workers under the age of 25. Nearly one-third of the layoffs would occur among workers with a family income below $25,000. More than one-quarter of the job losses (3,341) would occur in the metro/small metro areas. About one-seventh of the job losses would occur in the Cincinnati, Cleveland, and Columbus metropolitan areas.

The results by industry indicate that more than one-half of the job losses are projected to occur in the leisure and hospitality industries (7,014 jobs). This is not surprising since because nearly one-third of the workers in the leisure and hospitality industries will be affected by this increase. Another 2,424 jobs or 20.3% of the losses, are projected to occur for workers in the retail trade industry.

The findings by occupation show that nearly three-fifths of the losses are predicted to be for those in service occupations. Another 20.4% would occur for those sales occupations.

## What Will Be The Cost to Employers and The Income Loss to Laid-off Workers?

Another critical issue is the cost to employers of the minimum wage increase. These higher costs will be either passed on to consumers through higher prices, or profits will be reduced for firms. Also, an important cost to workers is the loss in income due to the layoffs caused by the minimum wage increase.

These costs were calculated in the following manner. First, the increase in labor cost that would occur if no workers are laidoff was calculated. This figure was estimated by multiplying the annual increase in wages due to the minimum wage increase times the number of affected workers. Second, the lost income to workers (and thus reduction in labor cost) due to the layoffs was estimated.[6] This number was calculated by multiplying the number of workers who are projected to lose their jobs by their average wage before the minimum wage increase. Third, the net increase in labor cost to employers was calculated by taking the difference between the cost to employers if no layoffs occurred and the reduction in costs due to the layoffs of employees.

Table 5 presents the results of these calculations. The first row of the table indicates that likely no layoffs occurred, then the cost of labor to employers would rise by $308.6 million.[7] The projected worker layoffs of 11,951 will cause $105.9 million of worker income to be lost. The

net rise in the cost of labor to employers is estimated to be $202.6 million.

The results by industry and location indicate that these costs are clearly concentrated in certain industries and locations. In the leisure and hospitality industries, net labor costs will rise by $76.9 million, and the income of laidoff workers will be reduced by $66.7 million. In the retail trade industry, the net employer cost will rise by $56.9 million, and the income loss to displaced workers will be $19.6 million. The net labor cost for employers in the Cleveland area will rise by $27.3 million, and while fired workers will suffer an income loss of $13.3 million. In non-metropolitan/small metropolitan areas, the employer costs will rise by $68.7 million, and laidoff workers are projected to have a $29.2 million reduction in income.

## Summary and Conclusions

This paper examines the effects of the proposed rise in the Ohio minimum wage to $6.85 in January 2007 in a variety of dimensions. The study reaches several conclusions regarding this proposed minimum wage increase. First, the workers affected by this increase tend to be younger and less educated than the average Ohio worker. Second, one-tenth of the affected workers are the sole earner for a family supporting one or more children. Third, many of the gains would go to low-wage workers in higher-income families, rather than those most in need. For example, about two-fifths of the wage gains would go to workers in families with incomes of $40,000 or greater. Fourth, the minimum wage increase is projected to cause 11,951 workers to lose their jobs, with about three-fifths of the job losses in the leisure and hospitality industries. This will cause an annual income loss to those workers of $66.7 million. Fifth, the cost to employers will be quite substantial. It will raise their labor costs by $202.6 million per year.

# References


Burkhauser, Richard V.; Couch, Kenneth A.; and Wittenburg, David C. "Who Minimum Wage Increases Bite: An Analysis Using Monthly Data from the SIPP and CPS," *Southern Economic Journal* 67 (July 2000): 16–40.

Employment Policies Institute, "Living Wage Campaign Map, <http://www.epionline.org/lw_proposal.cfm?state=AllStates >, (August 20, 2005).

Fuchs, Victor R.; Krueger, Alan B.; and Poterba, James M. "Economists' Views about Parameters, Values, and Policies: Survey Results in Labor and Public Economics." *Journal of Economic Literature* 36 (September 1998): 1387–1425.

Hirsch, Barry T.; and Macpherson, David A. *Union Membership and Earnings Data Book: Compilations from the Current Population Survey (2005 Edition)*. Washington, D.C.: Bureau of National Affairs, 2005.

Neumark, David; and Wascher, William. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Ohio: Comment." *American Economic Review* 90 (December 2000): 1362–96.

Neumark, David; Schweitzer, Mark; and Wascher, William. "Minimum Wage Effects Throughout the Wage Distribution." *Journal of Human Resources* 39 (Spring 2004): 425–50.

# Data Appendix

## *Hourly Wage*

This study uses data from the January 2005 through December 2005 Current Population Survey (CPS) Outgoing Rotation Group (ORG) files. The main sub-sample of the CPS data employed used here includes wage and salary workers who are residents of Ohio, 16 years of age or older, and whose hourly wage is between $5.15 and $6.85 in January 2007 dollars or tipped workers whose wage before tips was between $2.13 (the federal minimum) and $3.43 (the proposed minimum wage before tips in Ohio).

The hourly wage is constructed to account for problems caused by workers with variable hours, "top coded" or "capped" earnings, tips, commissions, and overtime, inflation, and changes in the minimum wage.

The first step is to assign a wage for workers who don't have these difficulties. Non-top coded workers who are paid by the hour and do not receive tips, commissions, or overtime are assigned their reported hourly earnings. For all non-hourly workers, the hourly wage is constructed by dividing usual weekly earnings (which includes tips, commissions, and overtime pay) by usual hours worked per week.

The second step is to estimate usual weekly earnings for workers whose weekly earnings are top coded or capped at a maximum value. The CPS ORG files have a topcode of $2,885 per week or about $150,000 per year for year-round workers. If the earnings of topcoded workers were not adjusted, average earnings would be understated. To estimate the mean earnings of topcoded workers it is assumed that the upper tail of weekly earnings distribution follows a Pareto distribution. These estimated mean values for the CPS ORG files using this approach are presented in Hirsch and Macpherson (2005) by gender and year and are used in this study.

The third step is to estimate usual weekly hours for workers who indicate their weekly hours are variable. This is calculated by using the results of a regression model based on a sample of workers with non-missing data on usual hours worked. The model is estimated by gender and year and includes controls for hours worked in the prior week, full-time status, marital status, years of schooling, age, race and ethnic status, broad occupation, and broad occupation interacted with full-time status. The parameters from this regression model are then used to estimate the usual hours for those whose weekly hours are variable.

The next step is to assign a wage for hourly workers who receive tips, commissions, or overtime pay or are top coded workers. In this case, their hourly wage is constructed by dividing usual weekly earnings (adjusted for top codes) by usual hours worked (or estimated usual hours if usual hours is missing).

The last step is to adjust the wages of workers for inflation and changes in the minimum wage. Wages of workers are adjusted for inflation to January 2007 using the CPI-U (a 2.5% annual inflation rate is assumed for the period between November 2005 and January 2007). Workers who earned exactly the minimum wage at the time of the survey are assigned a wage of $5.15 in January 2007 dollars. Workers whose wage at the time of the survey was less than the legal minimum wage ($5.15 per hour) were deleted from the sample.

## *Family Income*

Family income is reported as a categorical variable in the CPS ORG and includes all sources of money income received in the prior 12 months. The income ranges are:

less than $5,000; $5,000–$7,499; $7,500–$9,999; $10,000–$12,499; $12,500–14,999; $15,000–$17,499; $17,500–$19,999; $20,000–$24,999; $25,000–$29,999; $30,000–$34,999; $35,000–$39,999; $40,000–$49,999; $50,000–

$74,999; $75,000–$99,999; $100,000–$149,999; and $150,000 and up.

To assign a dollar value to these categories, mean values of family income for persons in each income range were calculated from a sample of Ohio residents in the March 2005 CPS (which reports family income received in the prior year as a continuous variable). Very similar results occurred when a national rather than an Ohio-based sample was used to generate the mean income values.

## *Annual Income*

Though the CPS ORG provides measures of hourly earnings and hours worked, it does not indicate the number of weeks worked per year. Thus, to generate annual income estimates for workers affected by the higher minimum wage, an alternative data source must be used and merged with the CPS ORG. Fortunately, the April 1993 CPS provides such a measure, and the mean usual weeks worked was calculated for all workers earning $5.15–$6.85 per hour in January 2007 dollars.

# Endnotes

1. See Employment Policies Institute (2005).

2. Hourly wages are adjusted for changes in the minimum wage and inflation and other data issues. See the data appendix for a more detailed explanation. The sample also includes tipped workers whose wage before tips was between $2.13 (the federal minimum) and $3.43 (the proposed minimum wage before tips in Ohio).

3. These calculations are based on the assumption that all affected workers increase their wage to the new minimum wage of $6.85 per hour. Hence, we are not allowing for noncompliance or exemptions from the law.

4. The Earned Income Tax Credit (EITC) would bring a single worker supporting two children slightly above the poverty level for such a family.

5. The average elasticity reported by a survey of labor economists at leading universities is –0.21. See Fuchs, Krueger, and Poterba (1998). Other research confirms that a 10% hike leads to at least a 2% decrease in employment for employees affected by the hike. See, e.g., Neumark, Schweitzer, and Wascher (2004) (for employees at the minimum wage, a 10% increase in the minimum wage reduces employment by about 2% and reduces hours of work by about 6%). Some studies using micro-data on individuals, or panel data using year and state and the unit of observation, have documented much higher negative employment effects. See Neumark, Schweitzer, and Wascher (2004) and Burkhauser, Couch, and Wittenberg (2000). Longer-term effects are likely to be larger because there is more time for employers to make adjustments.

6. Workers may reduce this income loss as they are able to obtain employment in a job not covered by the minimum wage.

7. This calculation ignores the cost of payroll taxes. If they were included, the cost to employers would be at least 7.65% higher (the employer portion of the Social Security tax).

**Table 1 Means for Selected Variables**

| Variable | Affected Workers | | All Workers Percent | All 16+ Percent |
|---|---|---|---|---|
| | Percentage | Population | | |
| Age: | | | | |
| 16 to 19 | 39.1 | 125,076 | 5.4 | 7.3 |
| 20 to 24 | 23.6 | 75,443 | 10.9 | 9.2 |
| 25 to 29 | 7.3 | 23,442 | 9.7 | 7.7 |
| 30 to 39 | 9.6 | 30,825 | 22.2 | 17.0 |
| 40 to 64 | 16.9 | 54,031 | 48.7 | 42.7 |
| 65 to 99 | 3.5 | 11,136 | 3.0 | 16.1 |
| Average | 28.3 | | 40.1 | 45 |
| Years of Schooling: | | | | |
| 0 to 8 | 1.2 | 3,870 | 1.2 | 3.2 |
| 9 to 11 | 39.3 | 125,614 | 7.9 | 13.3 |
| 12 | 29.5 | 94,403 | 37.5 | 37.9 |
| 13 to 15 | 26.3 | 84,247 | 28.8 | 25.6 |
| 16 or more | 3.4 | 11,819 | 16.4 | 13.4 |
| Average | 11.8 | | 13.4 | 12.9 |
| Race: | | | | |
| White | 89.2 | 285,374 | 87.1 | 86.2 |
| Black | 7.9 | 25,328 | 10.4 | 11.1 |
| Asian | 1.9 | 6,102 | 1.0 | 1.1 |
| Other Race | 1.0 | 3,149 | 1.5 | 1.6 |
| Ethnic Status: | | | | |
| Hispanic | 1.5 | 4,712 | 2.5 | 2.1 |
| Non-Hispanic | 98.5 | 315,241 | 97.5 | 97.9 |
| Gender: | | | | |
| Male | 38.9 | 124,532 | 50.3 | 48.0 |
| Female | 61.1 | 195,421 | 49.7 | 52.0 |
| Marital Status: | | | | |
| Married, Spouse Present | 20.4 | 65,259 | 54.4 | 52.6 |
| Divorced, Separated, Widowed | 9.9 | 31,544 | 16.8 | 20.3 |
| Never Married | 69.7 | 223,150 | 28.8 | 27.1 |
| Family Status: | | | | |
| Single Individual | 19.6 | 62,654 | 21.6 | NA |
| Single Head | 8.7 | 27,753 | 10.4 | NA |
| Single Head with no children | 0.8 | 2,657 | 1.3 | NA |
| Single Head with 1 child | 3.3 | 10,411 | 4.9 | NA |
| Single Head with 2 children | 3.5 | 11,213 | 3.0 | NA |
| Single Head with 3+ children | 1.1 | 3,472 | 1.1 | NA |

*Continued on next page*

**Table 1 (Continued) Means for Selected Variables**

| Variable | Affected Workers | | All Workers Percent | All 16+ Percent |
|---|---|---|---|---|
| | Percentage | Population | | |
| Single Earner in Married Couple | 4.3 | 13,900 | 11.2 | NA |
| Single Earner with no children | 2.8 | 8,937 | 5.1 | NA |
| Single Earner with 1 child | 0.6 | 1,992 | 2.3 | NA |
| Single Earner with 2 children | 0.9 | 2,971 | 2.1 | NA |
| Single Earner with 3+ children | 0.0 | 0 | 1.6 | NA |
| Dual Earner in Married Couple | 16.1 | 51,359 | 43.2 | NA |
| Dual Earner with no children | 7.5 | 24,042 | 15.3 | NA |
| Dual Earner with 1 child | 2.4 | 7,636 | 10.8 | NA |
| Dual Earner with 2 children | 3.4 | 11,011 | 11.3 | NA |
| Dual Earner with 3+ children | 2.7 | 8,670 | 5.8 | NA |
| Living with Parent(s) | 48.3 | 154,629 | 11.9 | NA |
| Other Relative | 3.0 | 9,658 | 1.7 | NA |
| Family Income: | | | | |
| < $15,000 | 17.0 | 54,304 | 6.6 | 13.3 |
| $15,000–$24,999 | 11.1 | 35,517 | 8.0 | 11.8 |
| $25,000–$39,999 | 22.5 | 71,989 | 18.1 | 19.0 |
| $40,000–$49,999 | 6.2 | 19,837 | 10.4 | 9.2 |
| $50,000–$50,999 | 6.4 | 20,477 | 10.9 | 9.6 |
| $60,000–$74,999 | 12.6 | 40,314 | 15.0 | 11.9 |
| $75,000 or more | 24.2 | 77,429 | 31.1 | 25.3 |
| Mean | $51,791 | | $63,498 | $56,097 |
| Median | $36,969 | | $54,574 | $44,590 |
| Location: | | | | |
| Non-Metro/Small Metro Areas | 29.5 | 94,270 | 23.8 | 25.2 |
| Akron | 4.3 | 13,859 | 6.4 | 6.0 |
| Canton-Massillon | 5.3 | 16,839 | 3.6 | 3.5 |
| Cincinnati-Middletown | 12.2 | 38,986 | 14.9 | 13.7 |
| Cleveland-Elyria-Mentor | 17.0 | 54,548 | 18.0 | 18.2 |
| Columbus | 10.9 | 35,003 | 15.4 | 14.2 |
| Dayton | 6.7 | 21,377 | 7.1 | 7.4 |
| Springfield | 1.2 | 3,998 | 0.8 | 0.9 |
| Toledo | 6.1 | 19,422 | 5.6 | 5.5 |
| Youngstown-Warren | 6.8 | 21,651 | 4.4 | 5.3 |
| Hours Per Week | 25.0 | | 37.8 | NA |
| Full-time | 26.7 | | 78.6 | NA |
| Weeks Worked Per Year | 46.6 | | 50.0 | NA |
| Population | 319,953 | | 5,038,469 | 8,862,313 |
| Sample Size | 337 | | 5,366 | 9,470 |

Source: January to December 2005 Outgoing Rotation Group Current Population Survey files.

## Table 2 Income Increases for Families of Workers Affected by Minimum Wage Increase to $6.85

| Group | Percentage in Class Before Increase | Annual Income Increase | Percentage Increase in Family Income | Percentage Share of Total Income Increase |
|---|---|---|---|---|
| All | 100.0 | $875 | 1.7 | 100.0 |
| Family Income: | | | | |
| < $15,000 | 17.8 | $1,034 | 14.8 | 21.1 |
| $15,000–$24,999 | 11.2 | $1,089 | 5.6 | 13.9 |
| $25,000–$39,999 | 21.3 | $907 | 2.8 | 22.1 |
| $40,000–$49,999 | 6.3 | $703 | 1.6 | 5.1 |
| $50,000–$50,999 | 6.4 | $827 | 1.5 | 6.1 |
| $60,000–$74,999 | 12.0 | $866 | 1.3 | 11.9 |
| $75,000 or more | 24.9 | $697 | 0.6 | 19.8 |
| Mean Family Income | $52,087 | | | |

## Table 3 Income Distribution Impact of Minimum Wage Increase to $6.85 Across All Families

| Group | Percentage in Class Before Increase | Annual Income Increase | Percentage Increase in Family Income | Percentage Share of Total Income Increase |
|---|---|---|---|---|
| All | 100.0 | $ 54 | 0.1 | 100.0 |
| Family Income: | | | | |
| < $15,000 | 18.1 | $ 63 | 0.8 | 21.0 |
| $15,000–$24,999 | 13.7 | $ 55 | 0.3 | 13.9 |
| $25,000–$39,999 | 20.4 | $ 59 | 0.2 | 22.1 |
| $40,000–$49,999 | 9.3 | $ 30 | 0.1 | 5.1 |
| $50,000–$50,999 | 8.6 | $ 38 | 0.1 | 6.1 |
| $60,000–$74,999 | 10.5 | $ 62 | 0.1 | 11.9 |
| $75,000 or more | 19.4 | $ 56 | 0.0 | 19.9 |
| Mean Family Income | $48,902 | | | |

| Table 4 | Employment Levels and Job Losses by Sector for Minimum Wage of $6.85 | | | |
|---|---|---|---|---|
| Group | Employment All Workers | Affected Workers | Projected Job Loss | Percentage of All Job Loss |
| All | 5,038,469 | 319,953 | 11,951 | 100 0 |
| Age: | | | | |
| 16–19 | 271,974 | 125,076 | 4,347 | 36 4 |
| 20–24 | 550,904 | 75,443 | 2,936 | 24 6 |
| 25–29 | 489,986 | 23,442 | 1,323 | 11 1 |
| 30–39 | 1,119,271 | 30,825 | 1,309 | 11 0 |
| 40–64 | 2,453,671 | 54,031 | 1,781 | 14 9 |
| 65–99 | 152,663 | 11,136 | 255 | 2 1 |
| Family Income: | | | | |
| < $15,000 | 331,438 | 54,304 | 2,196 | 18 4 |
| $15,000–$24,999 | 402,425 | 35,517 | 1,479 | 12 4 |
| $25,000–$39,999 | 910,263 | 72,037 | 2,654 | 22 2 |
| $40,000–$49,999 | 526,381 | 19,726 | 603 | 5 0 |
| $50,000–$50,999 | 548,005 | 20,628 | 749 | 6 3 |
| $60,000–$74,999 | 754,919 | 40,457 | 1,562 | 13 1 |
| $75,000 or more | 1,565,039 | 77,284 | 2,709 | 22 7 |
| Gender: | | | | |
| Male | 2,535,827 | 124,532 | 4,359 | 36 5 |
| Female | 2,502,642 | 195,421 | 7,592 | 63 5 |
| Race: | | | | |
| White | 4,386,511 | 285,374 | 10,848 | 90 8 |
| Black | 522,969 | 25,328 | 720 | 6 0 |
| Asian | 52,228 | 6,102 | 327 | 2 7 |
| Other Race | 76,761 | 3,149 | 56 | 0 5 |
| Ethnic Status: | | | | |
| Hispanic | 127,120 | 4,712 | 101 | 0 8 |
| Non-Hispanic | 4,911,349 | 315,241 | 11,850 | 99 2 |
| Years of Schooling: | | | | |
| 0–8 | 61,606 | 3,870 | 130 | 1 1 |
| 9–11 | 400,283 | 125,614 | 4,067 | 34 0 |
| 12 | 1,889,116 | 94,403 | 3,831 | 32 1 |
| 13–15 | 1,450,020 | 84,247 | 3,149 | 26 3 |
| 16 or more | 1,237,444 | 11,819 | 775 | 6 5 |

*Continued on next page*

| Table 4 (Continued) | Employment Levels and Job Losses by Sector for Minimum Wage of $6.85 | | | |
|---|---|---|---|---|
| Group | Employment All Workers | Affected Workers | Projected Job Loss | Percentage of All Job Loss |
| Location: | | | | |
| Non-Metro/Small Metro Areas | 1,198,365 | 94,270 | 3,341 | 28 0 |
| Akron | 323,836 | 13,859 | 338 | 2 8 |
| Canton-Massillon | 179,642 | 16,839 | 471 | 3 9 |
| Cincinnati-Middletown | 750,294 | 38,986 | 1,616 | 13 5 |
| Cleveland-Elyria-Mentor | 907,374 | 54,548 | 1,702 | 14 2 |
| Columbus | 775,224 | 35,003 | 1,759 | 14 7 |
| Dayton | 359,279 | 21,377 | 748 | 6 3 |
| Springfield | 38,606 | 3,998 | 321 | 2 7 |
| Toledo | 283,832 | 19,422 | 803 | 6 7 |
| Youngstown-Warren | 222,017 | 21,651 | 852 | 7 1 |
| Industry: | | | | |
| Agriculture, forestry, fishing, and hunting | 18,825 | 4,508 | 119 | 1 0 |
| Mining | 6,181 | - | - | 0 0 |
| Construction | 250,440 | 4,253 | 75 | 0 6 |
| Manufacturing | 923,936 | 14,473 | 328 | 2 7 |
| Wholesale trade | 163,291 | 2,494 | 68 | 0 6 |
| Retail trade | 578,258 | 86,022 | 2,424 | 20 3 |
| Transportation and utilities | 266,522 | 4,598 | 45 | 0 4 |
| Information | 96,944 | 5,802 | 246 | 2 1 |
| Financial activities | 338,228 | 2,636 | 139 | 1 2 |
| Professional and business services | 377,750 | 10,777 | 275 | 2 3 |
| Educational and health services | 1,165,149 | 31,569 | 808 | 6 8 |
| Leisure and hospitality | 447,786 | 139,513 | 7,014 | 58 7 |
| Other services | 203,354 | 12,493 | 385 | 3 2 |
| Public administration | 201,805 | 815 | 26 | 0 2 |
| Occupation: | | | | |
| Management, business, and financial occupations | 591,834 | 3,360 | 61 | 0 5 |
| Professional and related occupations | 963,465 | 13,814 | 446 | 3 7 |
| Service occupations | 868,701 | 145,913 | 7,137 | 59 7 |
| Sales and related occupations | 522,010 | 83,986 | 2,443 | 20 4 |
| Office and administrative support occupations | 766,090 | 26,886 | 772 | 6 5 |
| Farming, fishing, and forestry occupations | 17,299 | 1,916 | 37 | 0 3 |
| Construction and extraction occupations | 223,659 | 3,231 | 78 | 0 7 |
| Installation, maintenance, and repair occupations | 188,578 | - | - | 0 0 |
| Production occupations | 523,487 | 10,646 | 202 | 1 7 |
| Transportation and material moving occupations | 373,346 | 30,201 | 776 | 6 5 |

| Table 5 | Cost to Employers and Lost Income to Workers of Minimum Wage Increase to $6.85 |
|---|---|

| Group | Rise in Labor Cost if No Layoffs of Workers | Lost Income due to Layoffs | Net Rise in Cost of Labor to Employers |
|---|---|---|---|
| All | $ 308,595,251 | $105,948,152 | $ 202,647,099 |
| Industry: | | | |
| Agriculture, forestry, fishing, and hunting | $ 5,116,934 | $1,074,654 | $4,042,280 |
| Mining, construction | $ 3,816,417 | $ 859,049 | $ 2,957,368 |
| Manufacturing | $12,753,470 | $ 3,334,449 | $ 9,419,021 |
| Wholesale trade | $ 2,971,344 | $ 734,602 | $ 2,236,742 |
| Retail trade | $ 76,498,304 | $19,579,179 | $ 56,919,125 |
| Transportation and utilities | $ 2,280,127 | $493,418 | $1,786,709 |
| Information | $4,428,521 | $1,160,984 | $3,267,537 |
| Financial activities | $5,376,755 | $1,135,984 | $4,240,771 |
| Professional and business services | $10,184,066 | $ 2,296,862 | $ 7,887,204 |
| Educational and health services | $ 30,071,775 | $6,727,302 | $23,344,473 |
| Leisure and hospitality | $143,560,263 | $66,661,148 | $ 76,899,115 |
| Other services | $10,808,341 | $ 2,534,727 | $8,273,614 |
| Public administration | $728,936 | $541,915 | $187,021 |
| Location: | | | |
| Non-Metro/Small Metro Areas | $ 97,974,496 | $ 29,228,220 | $ 68,746,276 |
| Akron | $ 9,820,005 | $ 2,968,945 | $ 6,851,060 |
| Canton-Massillon | $ 15,058,307 | $ 4,321,433 | $10,736,874 |
| Cincinnati-Middletown | $ 36,728,384 | $14,483,761 | $ 22,244,623 |
| Cleveland-Elyria-Mentor | $ 40,531,358 | $13,273,518 | $ 27,257,840 |
| Columbus | $ 38,298,417 | $18,291,573 | $ 20,006,844 |
| Dayton | $ 19,553,852 | $ 7,954,650 | $11,599,202 |
| Springfield | $ 5,706,393 | $4,980,203 | $726,190 |
| Toledo | $ 20,531,151 | $6,215,232 | $14,315,919 |
| Youngstown-Warren | $ 24,392,888 | $6,176,009 | $18,216,879 |

# SELECTED EPI PUBLICATIONS

**The Effect of Increase in Health Insurance Premiums on Labor Market Outcomes,** by Katherine Baicker, University of California at Los Angeles, and Amitabh Chandra, Harvard University, January 2006.

**Helping Low-wage Americans—The Earned Income Tax Credit: An Effective Solution to an Age-old Problem,** by The Employment Policies Institute, January 2006.

**An Analysis of the Dynamics of Health Insurance Coverage and Implications for Employer-Mandated Insurance,** by Robert W. Fairlie, University of California–Santa Cruz, and Rebecca A. London, University of California–Santa Cruz, January 2006.

**Making Markets Work: Five Steps To A Better Health Care System**, by John F. Cogan, R., Harvard University; Glenn Hubbard, Columbia University; and Daniel P. Kessler, Stanford University, January 2006.

**How Did the $8.50 Citywide Minimum Wage Affect the Santa Fe Labor Market? A Comprehensive Examination**, by Dr. Aaron Yelowitz, University of Kentucky, December 2005.

**Santa Fe's Living Wage Ordinance and the Labor Market,** by Dr. Aaron Yelowitz, University of Kentucky, September 2005.

**The Effects of the Proposed Pennsylvania Minimum Wage Increase,** by David A. Macpherson, Florida State University, September 2005.

**Raising the Minimum Wage: Another Empty Promise to the Working Poor,** by Richard Burkhauser, Cornell University, and Joseph J. Sabia, University of Georgia, August 2005.

**Employer Health Insurance Mandates and the Risk of Unemployment,** by Dr. Katherine Baicker, Dartmouth University, Dr. Helen Levy, University of Michigan, June 2005.

**Effective Tax Rates and the Living Wage**, by Dr. Aaron Yelowitz, University of Kentucky, Dr. Richard Toikka, Lewin Group, May 2005.

**The Cost of Washington's Health Care Responsibility Act,** by the Employment Policies Institute, February 2005.

**The Economic Impact of Proposition 72 on California Employers,** by Dr. Aaron Yelowitz, University of Kentucky, September 2004.

**The Effects of the Proposed California Minimum Wage Increase,** by Dr. David A. Macpherson, Florida State University, Craig Garthwaite, Employment Policies Institute, August 2004.

**Minimum Wages and Job Search: What Do Employment Effects Really Measure,** by Dr. Peter Arcidiacono, Duke University, Dr. Thomas Ahn, Duke University, August 2004.

**Why Raising the Minimum Wage Is a Poor Way to Help the Working Poor,** by Dr. Richard Burkhauser, Cornell University, Dr. Joseph Sabia, Cornell University, July 2004.

**Wage Growth Among Minimum Wage Workers,** by Dr. William E. Even, Miami University of Ohio, and David A. Macpherson, Florida State University, June 2004.

**Helping Working-Poor Families: Advantages of Wage-Based Tax Credits Over the EITC and Minimum Wages,** by Dr. Thomas MaCurdy, Stanford University, and Dr. Frank McIntyre, Brigham Young University, April 2004.

**The Cost of California's Health Insurance Act of 2003,** by Dr. Aaron Yelowitz, University of Kentucky, October 2003.

**Welfare Reform and Its Effects on the Dynamics of Welfare Receipt, Employment, and Earnings,** by Dr. Peter Mueser and Dr. Kenneth R. Troske, University of Missouri, September 2003.

**The Effects of the Proposed Santa Fe Minimum Wage Increase,** by Dr. David A. Macpherson, Florida State University, February 2003.

**The Economic and Distributional Consequences of the Santa Monica Minimum Wage Ordinance**, by Richard H. Sander, University of California at Los Angeles; E. Douglass Williams, University of the South; and Joseph Doherty, Empirical Research Group at the University of California Los Angeles, October 2002.

**The Economic Well-Being of Low-Income Working Families,** by John P. Formby and Hoseong Kim, University of Alabama, and Dr. John A. Bishop, East Carolina University, March 2002.

**The Long-Term Effects of Youth Unemployment,** by Thomas A. Mroz, University of North Carolina at Chapel Hill, and Timothy H. Savage, Welch Consulting Economists, October 2001.

**The Effect of Minimum Wages on the Labor Force Participation Rates of Teenagers,** by Walter J. Wessels, North Carolina State University, June 2001.

**Winners and Losers of Federal and State Minimum Wages,** by Thomas MaCurdy and Frank McIntyre, Stanford University, June 2001.

**Does the Minimum Wage Reduce Poverty?** by Richard K.Vedder and Lowell E. Gallaway, Ohio University, June 2001.

**Evaluating the Effects of Medicaid on Welfare and Work: Evidence from the Past Decade,** by Aaron S. Yelowitz, University of California at Los Angeles, December 2000.

**Higher Minimum Wages Harm Minority and Inner-City Teens,** by Mark Turner and Berna Demiralp, Johns Hopkins University, September 2000.

**Rising Above the Minimum Wage,** by William Even, Miami University of Ohio, and David A. Macpherson, Florida State University, January 2000.

**Effective Marginal Tax Rates on Low-Income Households,** by Daniel N. Shaviro, New York University School of Law, February 1999.

**Targeted Jobs Tax Credits and Labor Market Experience,** by Frederick J. Tannery, University of Pittsburgh, June 1998.

**Work Ethic and Family Background,** by Casey B. Mulligan, University of Chicago, May 1997.

**From Welfare to Work: The Transition of an Illiterate Population**, by Employment Policies Institute, February 1997.

**Who Are the "Low-Wage" Workers?** by Derek Neal, University of Chicago, July 1996.

**Jobs Taken by Mothers Moving from Welfare to Work and the Effects of Minimum Wages on This Transition,** by Peter D. Brandon, Institute for Research on Poverty, University of Wisconsin-Madison, February 1995.


**Employment Policies**
INSTITUTE

1775 Pennsylvania Avenue NW, Suite 1200
Washington, DC 20006
202.463.7650
www.EPIonline.org