

A Decade of Living Wages

What Have We Learned?

Scott Adams and David Neumark

SUMMARY

In the past decade, local governments in California and nationwide have enacted living wage laws to try to counter the declining earnings of low-wage, low-skilled workers and low-income families and to offset urban housing costs that have become increasingly out of reach for low-income families. Living wages aim to raise the incomes of low-wage workers to reduce poverty by mandating higher wages. Living wage laws impose wage floors that are typically considerably above traditional federal and state minimum wages and that are often explicitly pegged to the wage needed for a family to reach the federal poverty line. However, mandated wage increases may also have adverse employment effects, leading employers to reduce employment of less-skilled labor. Moreover, living wage ordinances cover only narrow subsets of workers, because they are frequently imposed only on companies under contract with cities and sometimes also on companies receiving business assistance from cities. Looking back on a decade of experience with living wage laws, this issue of *California Economic Policy (CEP)* presents new analyses and synthesizes other research to provide a comprehensive picture of what we have learned, to date, about the economic effects of living wage laws.

The major findings are that living wage laws, on average, boost the wages of the lowest-wage workers but also reduce employment among the least skilled. However, the net effect of living wages—stemming from wage increases, employment reductions, and how both are spread across families—is to reduce poverty in the urban areas in which they have been enacted. These conclusions hold more strongly for living wage laws that extend to employers receiving business assistance from cities and for those that are accompanied by similar laws in nearby jurisdictions that amplify the laws' effects.

But the adverse effects of living wages fall more heavily on the least-skilled individuals, who are the least likely to be employable after a mandated wage increase is enacted. Thus, even if living wages deliver some benefits to low-income families, additional policies are needed to help the most disadvantaged. This implies that although living wages offer some assistance to some low-income families, they are not a panacea for the problem of low-wage work and poverty.

California Economic Policy is a quarterly series analyzing and discussing policy issues affecting the California economy.

Introduction

Local governments in California and the rest of the nation have enacted living wage laws, with the goal of raising the earnings of low-wage, low-skill workers and low-income families. The first living wage law was enacted in Baltimore in 1994, but living wages have now spread to approximately 100 communities in the United States.¹ Living wage laws are now on the books in 10 of the nation's 20 largest cities, and of the population living in cities larger than

100,000, about 40 percent are in cities with living wage laws.² California is at the forefront of the living wage movement, with some of the nation's highest living wages and with living wages currently on the books in 18 cities or counties, including many of the state's largest cities (Los Angeles, Oakland, San Jose, San Francisco, and Sacramento).³

This issue of *CEP* looks back on a decade of experience with living wage laws to provide

as complete a picture as possible of what we have learned, to date, about the economic effects of living wage laws, focusing on their effects on the wages and employment of low-skilled individuals and on urban poverty.

Living Wage Laws

Information on living wage laws for larger cities is provided in Table 1 for the period covered by our analysis. Living wage laws have three central features. First, they impose a wage floor that is higher—and often much higher—than traditional federal and state minimum wages. For example, living wage levels as of the end of 2002 were \$8.17 in Los Angeles, \$8.72 in Oakland, \$10.00 in San Francisco, and \$10.36 in San Jose, compared with a state minimum wage of \$6.75 (and a federal minimum wage of \$5.15). Second, living wage levels are often explicitly pegged to the wage level needed for a family

of three or four (depending on the specific law) with one full-time, year-round worker to reach the federal poverty line. Third, coverage by living wage ordinances is generally quite narrow. Frequently, cities impose wage floors only on companies under contract with the city (often including non-profits). Estimates of the share of workers covered by “contractor-only” living wage laws in cities with living wage laws hover around 1 percent.⁴ Other cities impose the wage floor on companies receiving business assistance from the city, almost always in addition to coverage of city contractors. These “business assistance laws” cover firms receiving financial assistance, tax abatements, grants, low-interest loans, and many other forms of government assistance from cities. Finally, a handful of cities require that city employees or employees of municipal leaseholders be paid a living wage.⁵

The central goal of living wages is to raise the incomes of low-wage workers in order to reduce poverty. The Economic Policy Institute, for example, argues that “the living wage is a crucial tool in the effort to end poverty.”⁶ Thus, in our view, the key research question with regard to living wages is whether they help low-wage workers and low-income families.

If living wages deliver benefits to low-wage workers and low-income families, they do this most directly by raising the wages of the employees of covered businesses. Living wages may at first seem a natural way to fight poverty, but there are two reasons why such mandates may not help to achieve this goal, aside from the fact that they do not cover many workers. First, economic theory predicts that because a mandated wage increase operates essentially as a tax on the use of low-skilled labor, living wages will discourage the use of such labor. Thus, whatever wage gains accrue to workers who retain their jobs (and do not have their hours reduced) may have to be offset against potential job and income losses for other workers.

Second, living wages may ineffectively target low-income families. Broadly speaking, low-wage workers in the United States belong to two groups. The first is very young workers who have not yet

California is at the forefront of the living wage movement, with some of the nation's highest living wages and with living wages currently on the books in 18 cities or counties, including many of the state's largest cities.

Table 1. Living Wage Laws

City and State	Initial Month Law Was Effective	Living Wage Requirement as of December 2002 (\$/hr)	Coverage
Ann Arbor, Michigan	April 2001	8.70	B,C
Baltimore, Maryland	July 1995	8.20	C
Bellingham, Washington	December 2002	10.00	C
Boston, Massachusetts	October 1998	10.25	C
Burlington, Vermont	December 2001	9.90	C,M
Chicago, Illinois	August 1998	9.05	C
Cleveland, Ohio	January 2001	9.20	B,C,M
Dayton, Ohio	April 1998	7.00	M
Denver, Colorado	March 2000	8.70	C
Detroit, Michigan	December 1998	9.05	B,C
Duluth, Minnesota	August 1997	6.50	B
Durham, North Carolina	January 1998	8.45	C,M
Gainesville, Florida	October 2001	8.56	M
Hartford, Connecticut	October 1999	9.96	B,C
Jersey City, New Jersey	July 1996	7.50	C
Los Angeles, California	April 1997	8.17	B,C
Madison, Wisconsin	April 1999	9.05	B,C,M
Milwaukee, Wisconsin	December 1995	7.22	C
Minneapolis, Minnesota	April 1997	9.05	B
New Haven, Connecticut	May 1997	10.86	C
Oakland, California	April 1998	8.72	B,C
Portland, Oregon	July 1996	8.00	C
Rochester, New York	January 2001	8.76	B,C,M
San Antonio, Texas	August 1998	9.27	B
San Francisco, California	September 2000	10.00	C
San Jose, California	December 1998	10.36	B,C,M
Toledo, Ohio	June 2000	9.96	B,C,M
Tucson, Arizona	October 1999	8.57	C

Notes: We list cities large enough to be identified in the Current Population Survey (CPS) data and included in our analysis, along with the first complete month in which the law was effective. Because most cities adjust their wage requirements based on federal poverty guidelines, inflation rates, or some other means, we list the wage requirement as of December 2002, the last month included in our sample. Some cities impose a higher living wage if health insurance is not provided; the table reports the lower wage floor. We also classify the coverage of laws by the following categories: B (firms receiving some form of business assistance from the city, broadly defined), C (city contractors and subcontractors), and M (municipal employees). We exclude cities that passed a law but do not currently enforce it for a variety of reasons (Buffalo, New York; Omaha, Nebraska; Pittsburgh, Pennsylvania; and St. Louis, Missouri). Most of the information in this table is updated information from Neumark and Adams (2003a and 2003b), which contain more detail about each city's law.

acquired many labor market skills but who are likely to escape low-wage work as they acquire skills.

If the gains from living wages accrue to low-wage adults and the employment losses fall on low-wage, nonpoor teenagers, living wages are likely to reduce poverty. But the reverse outcome is also possible, with adverse outcomes for low-income families.

The second is low-skilled adults who remain mired in low-wage jobs and who—as adults—are much more likely to be in poor families.⁷ If the gains from living wages accrue to low-wage adults and the employment losses fall on low-wage, nonpoor teenagers, living wages are likely to reduce poverty. But the reverse outcome is also possible, with adverse outcomes for low-income families. Thus, although economic theory predicts employment losses and hence implies that there are likely to be both winners and losers

from mandated wage floors, whether living wages have beneficial distributional effects is a purely empirical question.

Wage and Employment Effects of Living Wage Laws⁸

Data

Data on labor market outcomes and other worker-related characteristics used to estimate the effects of living wages are drawn from the CPS. Details are provided in the data box. Residents of all Metropolitan Statistical Areas (MSAs), encompassing all large and medium-sized cities in the United States, can be identified in the CPS; for ease of exposition, we often refer to “cities” rather than MSAs.

Because the CPS is a household-based survey with virtually no information on employers, it is not possible to identify covered and uncovered workers. Instead, all we know with certainty about living wages is the city where a worker lives and the type of law prevailing there. Questions regarding the effects of living wages at the firm or establishment level are best addressed using direct survey data on covered employers and ideally a control

Data Description

The data come from the CPS monthly Outgoing Rotation Group (ORG) files extending from January 1996 through December 2002, and the CPS Annual Demographic Files (ADFs) from 1996 through 2002, which elicit information on the previous calendar year. The CPS is the basic household labor market survey used in the United States to measure employment, unemployment, wages, and so on. For details, see <http://www.bls.gov/cps/#overview>. Because cities cannot be identified in the ORG files for a period in 1995, and because most living wage laws came into effect in 1996 or after, we restricted the analysis to begin in 1996. The ORG files are ideal for analyzing individual-level outcomes—wages and employment—because they have information on current wages and provide a sample three times as large as the ADFs. In contrast, the ADFs are suited to analyzing the effects of living wages on poverty because their measures of income correspond to those used in defining poor families by including nonearned family income and transfer payments and by measuring income annually.

group of uncovered or unaffected employers.⁹ But the CPS data are very useful for addressing policy questions regarding the effects of living wages on low-wage workers and low-income families, because they permit us to estimate the combined effects of all of the direct and indirect influences (both positive and negative) of living wages—and it is these net effects that are likely to be of most interest to policymakers. If CPS data that include a relatively large number of workers and families from many cities cannot detect an effect of living wage laws (as is the case for cities with contractor-only laws), then the most reasonable conclusion

A Decade of Living Wages

may be that the policy did not achieve its desired goals (or alternatively did not generate the negative effects predicted by opponents).

Wage Effects

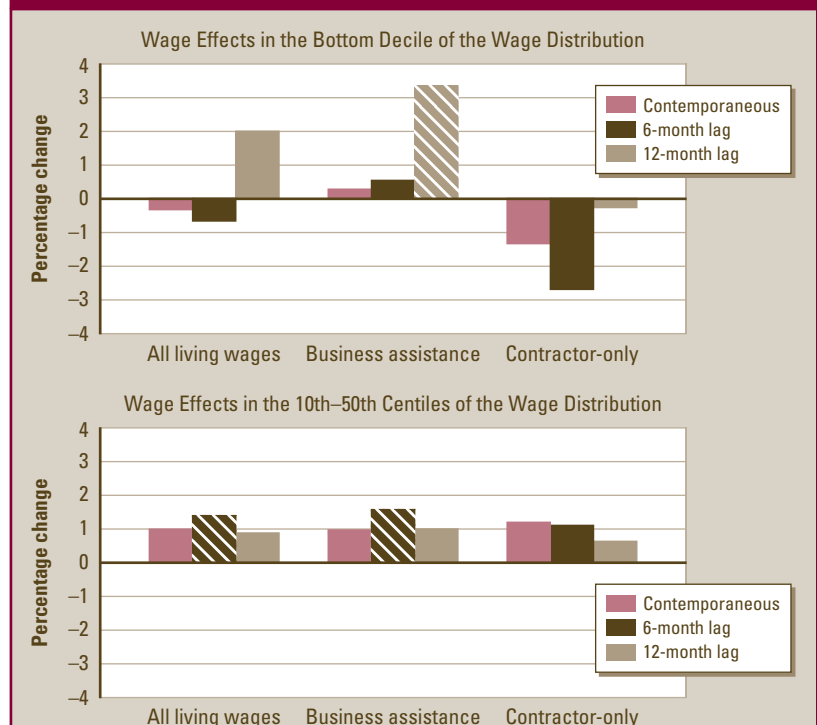
We estimate the effects of living wage laws on workers in various ranges of the wage distribution in each MSA and month, with the expectation that living wages will boost wages in the lower tail of the wage distribution, at least if they achieve their policy goal.¹⁰ To obtain reliable measurements, we restricted our sample for each analysis to workers in city-month cells with at least 25 observations (although most have far more observations). This restriction, coupled with the requirement that MSAs be identified in the CPS, implies that we exclude smaller cities with living wages. We know from existing research that there are lags in establishing guidelines and enforcement mechanisms, suggesting that the effects of living wage laws arise with some delay.¹¹ We therefore always allow for the effects of living wages to take up to a year to emerge, and in some of the results we report, we present only the effects that are evident one year after implementation of living wage laws or changes in living wage levels. Finally, we often emphasize differences between the effects of business assistance and contractor-only living wage laws.

A central goal of research on the effects of living wages (or any policy change) is to estimate the causal effects of living wages, rather than simply to document associations between living wages and wages (and, later, employment and poverty) that might arise for other reasons and lead to misleading conclusions about the effects of living wages. Specifically, we need to take account of at least three alternative sources of a relationship between living wages, on the one hand, and wages, employment, and poverty, on the other. First, high living wages tend to be passed in cities with higher state-level minimum wages, and we want to isolate the effect of living wages. Second, living wages may be implemented in cities where wage levels in general are higher, in which case we

do not want to attribute the higher overall wage or income levels to living wages. And third, living wages have tended to be enacted when macro-economic conditions were particularly good, raising the possibility that the disemployment effects of living wages are masked by the effects of aggregate economic conditions, while wage increases are exaggerated. In all of these cases, if we do not account for these other factors, we might reach misleading conclusions about the actual effects of living wages. The potential confounding influences of these other factors are accounted for in the statistical model we use to obtain the estimated effects of living wages.¹²

The evidence on the effects of living wage laws on wages is reported in Figure 1. The top panel of

Figure 1. Percentage Change in Wages from a 50 Percent Increase in the Living Wage



Source: Authors' calculations from the CPS.

Notes: Striped bars indicate that the effect is statistically significant at the 10 percent level. Standard errors used to establish statistical significance are robust to nonindependence (and heteroscedasticity) within city cells, following the suggestions in Bertrand, Duflo, and Mullainathan (2002). The sample is restricted to workers ages 16 to 70 with an hourly wage > \$1 and ≤ \$100.

the figure reports the estimates for workers in the bottom 10th of the wage distribution—where we expect the effects of living wage laws to be concentrated. For purposes of comparison, the bottom panel reports the estimates for workers between the 10th and 50th centiles of the wage distribution—that is, above the bottom 10th but below the median. Each panel shows results when we simply lump all living wage laws together (the left set of bars), and when we instead distinguish between the effects of business assistance and contractor-only living wage laws (the center and right sets of bars). Within each set of bars, the contemporaneous effects that ensue immediately upon a change in the living wage, and then the effects 6 and 12 months later, are reported. As noted above, we focus mainly on the effects at 12 months.¹³ Finally,

When we estimate separate effects for business assistance and contractor-only living wage laws, we find a significant effect from business assistance laws (only).

to provide information on the strength of the evidence, the bars are striped if the estimated effect is significant at the 10 percent level; otherwise, the indicated effect is not statistically significant at the 10 percent level. In general, only estimates significant at the 10 percent level should be taken as reliable indicators of an effect.¹⁴ In all cases, the estimates are presented in terms of

the percentage change in wages stemming from a 50 percent increase in the living wage—roughly in line with the difference between a representative living wage and the minimum wage.

Looking at all living wages together, in the lowest range of the wage distribution reported in the top panel—the bottom 10th of the wage distribution in the city-month cell—we find no evidence of effects of living wage laws generally until about 12 months after implementation. The estimated effect at 12 months indicates that a 50 percent increase in the living wage boosts wages by about 2 percent, but this estimate is not statistically significant. However, when we estimate separate effects for business assistance and contractor-only living wage laws, we find a significant effect from busi-

ness assistance laws (only). As shown in the second set of bars in the top panel, the estimate implies that a 50 percent increase in this type of living wage increases wages by over 3 percent.

The second panel reports these estimates for a higher range of the wage distribution, specifically, the 10th through the 50th centile. Looking at the general effect of living wage laws in this higher range, all of the estimates are positive, although most are not statistically significant and all of them are small, providing little evidence of effects of living wages higher up in the wage distribution. When we focus on the effects of business assistance living wage laws at higher ranges, the estimated effects are a shade larger—although still much smaller than for low-wage workers. Although the higher-wage workers covered by the estimates in this panel are much less likely to be directly affected by living wage laws, it is possible that their wages are bid up as employers substitute toward them and away from the lowest-wage, lowest-skill workers who are made more expensive when a living wage law is enacted.¹⁵

In summary, the evidence points to lasting positive effects of living wages on wages primarily at the lower end of the wage distribution, where we would expect any effects to be concentrated.¹⁶ Moreover, it is primarily the broader business assistance living wage laws that generate these effects. In addition, there is some suggestion of weaker positive effects on wages higher up in the wage distribution, which may reflect shifts in demand (substitution) toward more-skilled workers generated by the wage increases for less-skilled workers that living wages mandate. But the principal effects on wages are at the bottom of the wage distribution.

Employment Effects

We use the same basic empirical framework to study employment. The key difference is that we cannot classify nonworking individuals by their position in the wage distribution, since they do not have a wage. Instead, we impute wages for everyone and group individuals by their position in the distribution of imputed wages, or “skills.”¹⁷

The results are reported in Figure 2 in a format paralleling that of Figure 1. For living wages generally, for those in the bottom 10th of the skill distribution (displayed in the top panel), we find a significant estimated disemployment effect 12 months after a living wage is enacted or increased, paralleling the wage results. The estimated effect implies that a 50 percent increase in the living wage reduces employment by 6 percent. When we estimate the separate effects of business assistance and contractor-only living wage laws, both estimates (again, after 12 months) are negative, but we find a significant disemployment effect only for business assistance living wage laws, and the difference in the estimated effects is quite pronounced; the implied effect of a 50 percent increase in the living wage is an employment reduction exceeding 8 percent for business assistance living wage laws, more than double the estimate for contractor-only laws. This evidence parallels the findings for wages, as we might expect, because it is presumably the wage effect that generates the disemployment effect.

Between the 10th and 50th centiles of the skill distribution (that is, imputed wage) distribution—as reported in the bottom panel of Figure 2—all of the point estimates of the effects of living wage laws are positive. These positive estimates are consistent with living wages leading employers to substitute away from the least-skilled workers and toward those who are higher skilled. However, none of these estimated employment effects higher up in the skill distribution is statistically significant.

Evidence from New Micro-Level Studies of Wage and Employment Effects of Living Wage Laws¹⁸

The evidence on wage and employment effects discussed thus far is based on CPS data. There is also some recent, more geographically limited evidence from data on covered employers (and sometimes uncovered or unaffected employers). This evidence is reviewed briefly here, focusing on estimates of wage and employment

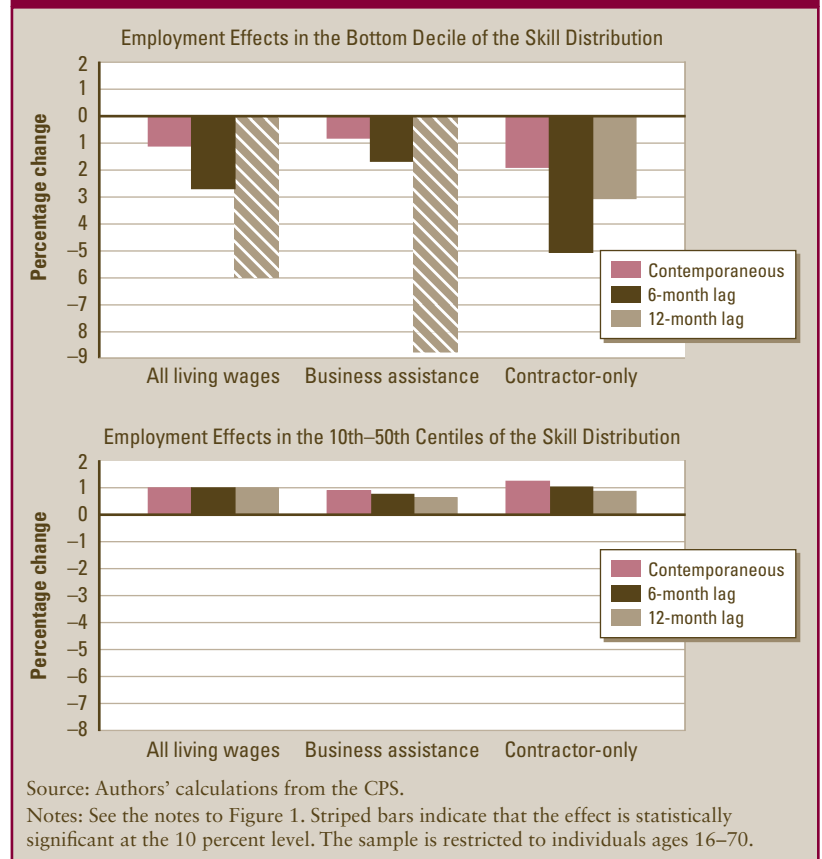
effects to allow for comparison with the evidence just discussed.

San Francisco Airport

Reich, Hall, and Jacobs (2003) study the implementation beginning in 1999 of the living wage law passed in San Francisco that extended to workers at San Francisco International Airport (SFO). Not surprisingly, the data collected by the authors indicate substantial effects on the pay of low-wage workers. More controversial is the authors' claim that employment did not fall. Their estimates indicate employment gains of about 1,150 employees from 1998 through 2001—

... for those in the bottom 10th of the skill distribution... the implied effect of a 50 percent increase in the living wage is an employment reduction exceeding 8 percent for business assistance living wage laws.

Figure 2. Percentage Change in Employment from a 50 Percent Increase in the Living Wage



from about 7,350 to 8,500. However, an important confounding factor was the opening of a new international terminal at SFO during this period, in the fall of 2000, which had been projected to increase employment sharply. On the other hand, air travel declined during 2001 because of the economic recession, which exerted a negative effect on employment.¹⁹ The authors suggest that because these two effects work in opposite directions, they can conclude from the employment gain that the living wage at SFO did not reduce employment. However, it seems plausible to us that the opening of the new international terminal would have had a far greater effect than the recession. Regardless, given the confounding of the living wage implementation with the opening of a new terminal, these data do not provide convincing evidence that employment did not fall as a result of the living wage at SFO.

Boston's Living Wage

Brenner (2005) studies the effects of the living wage in Boston on firms with contracts with the city. He has data only on contractor firms and therefore compares changes between firms indicating that they raised wages to comply with the living wage law (the treatment group) and those that did not (the control group). The reported share of workers with low wages declined sharply in the treatment firms while scarcely changing in the control firms, pointing to strong wage effects of the living wage law.

Turning to employment, the data indicate that employment grew in both groups of firms but grew faster in the control group. That is, employment declined in relative terms in the affected firms.²⁰ Based on the relative employment decline of 9.9 percent, and the fact that over this same period the percentage deviation between the living wage and the minimum wage grew from 0 to 35 percent, Brenner's estimates imply that a 50 percent increase in the living wage reduces employment by 14 percent.²¹ On the other hand, Brenner also finds that in terms of full-time-equivalent (FTE) employment, there is no significant difference between the changes for the treatment and

control groups. The apparent shift away from part-time and toward full-time work would be expected if there are fixed costs of employment on which employers economize in response to higher wage costs. So Brenner's results are most consistent with employment declines, but they also point to other potentially beneficial offsets for some workers in the form of increased hours of work.

Covered and Noncovered Employers in Los Angeles

Fairris (2005) describes an analysis of two samples: an original survey of establishments affected by the Los Angeles living wage, and a second sample of establishments collected for a quite different purpose, used as a control group. The results indicate that the wages of low-wage workers were increased as a result of the living wage, consistent with all of the prior results. The survey results indicate that 18 percent of covered establishments reported declines in employment stemming from the living wage law, and Fairris estimates an overall employment decline in the contractor firms of 1.6 percent. Given an approximate \$1.70 increase in wages for low-wage, affected workers caused by the living wage, Fairris suggests that the estimates imply that a 50 percent increase in the living wage would reduce employment by only 3 percent. This calculation, however, should be based on the ratio of the percentage employment decline for low-wage, affected workers to their percentage wage increase. Assuming that the employment decline is concentrated among these workers, the employment effect would be perhaps two to three times as large.²²

Summary of Micro-Level Studies

The studies reviewed in this section try to examine the consequences of living wage laws at the firm level. This is not an easy matter. We simply do not have much longitudinal data on firms in the United States, and when this limitation is combined with the small number of firms covered by living wage laws, the task is even more daunting. Nonetheless, we think two main conclusions can be drawn. First, living wage laws do affect the wages of low-wage

workers, delivering wage gains and to some extent compressing the wage structure. Second, some of the evidence points to employment declines resulting from living wage laws, and none contradicts this (in our view). Thus, broadly speaking, these microeconomic studies confirm our findings from the CPS.²³

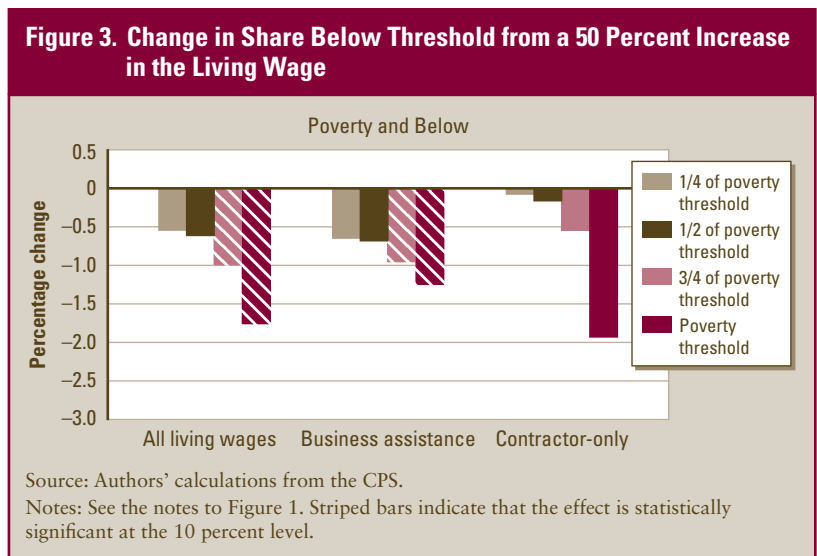
The Effects of Living Wage Laws on Poverty and the Income Distribution²⁴

Having established that living wages increase wages at the bottom of the wage distribution but that these wage increases come at the cost of some employment reductions, we next turn to the effects of living wages on urban poverty and more generally on the incomes of low-income families.

Distributional Effects

The statistical model used to estimate the distributional effects of living wages is very similar to that used above to study wage and employment effects.²⁵ The estimates are reported in Figure 3. The different bars in this figure present results for the likelihood not only that families are below the official federal poverty threshold but that they are below various fractions of this threshold, as explained in more detail below. For the moment, though, we focus just on the effects of living wages on the likelihood that families are below the official federal poverty threshold; these estimates are given by the right-most bar in each of the three sets of estimates in Figure 3, labeled “poverty threshold.” In this case, the estimated magnitudes are the changes in the percentage of families that are poor, one year later, after a 50 percent increase in the living wage.

Looking at living wage laws overall (“all living wages”), the evidence points to a statistically significant negative effect about one year after a living wage is implemented, with the estimate implying that a 50 percent increase in the living wage



reduces the poverty rate by about 1.7 percentage points. The remaining estimates in Figure 3 break out the separate effects of the two types of living wage laws. In both cases, the evidence points to reductions in poverty, but only the estimated effect of business assistance living wage laws is statistically significant.²⁶

These effects of living wages in reducing poverty may seem large, given that the positive wage effect is smaller than the negative employment effect. Of course, no one is claiming that living wages can lift families from well below the poverty line to well above it. But living wages may help nudge families over the poverty line, and we have to recall that these average wage effects are likely manifested as much larger gains concentrated on a possibly quite small number of workers and families. Thus, even coupled with some employment reductions, living wages can lift a detectable number of families above the poverty line.

... even coupled with some employment reductions, living wages can lift a detectable number of families above the poverty line.

Evidence of this nature can be derived from findings reported in Brenner's (2005) study of the Boston living wage. Brenner uses his data to estimate that 1,000 workers experienced direct posi-

tive wage effects stemming from the living wage. Census figures indicate that there were 17,892 poor families in Boston in 1999.²⁷ The wage increase associated with the living wage is quite sharp. As an upper bound, if we assume that the 1,000 families of these workers were lifted out of poverty, then the poverty rate would have fallen by 0.51 percentage point, or 5.6 percent, implying that a 50 percent increase in the living wage would have

reduced poverty by 0.73 percentage point, or 8 percent. Of course, not all living wage workers are in poor families, so this is exaggerated. At the same time, most poor families with full-time workers affected by the living wage should be lifted above the poverty line—given that the living wage targets the poverty threshold—unless they have large families. And wages above the living wage may also increase. Regardless of the exact magnitude, it is interesting that this effect is the same order of magnitude as the estimates we obtain from the CPS data (and may be somewhat smaller because of Boston’s low poverty rate and higher wages). This indicates that if living wages target

poor families well, it does not take huge numbers of affected workers to generate nontrivial changes in poverty.

In addition, it is important to realize that poverty reductions can arise from the effects of living wage laws on those above the bottom 10th of the wage or skill distribution. Recall that Figures 1 and 2 provided some evidence of positive wage effects, and perhaps a hint of positive employment effects, for workers between the 10th and 50th centiles. Positive wage effects could stem from a number of sources, including direct living wage effects, spillovers as employers preserve wage spreads between workers affected by living wages and workers

earning slightly higher wages, or shifts in demand toward more-skilled workers resulting in wage increases for them. But higher employment coupled with higher wages would result only from shifts in demand toward higher-skilled labor. Indeed, one criticism leveled at living wages is that they may induce substitution toward more-skilled workers. This evidence suggests that living wages do not necessarily benefit the most disadvantaged; in fact, the evidence on disemployment effects indicates that some low-skilled workers are hurt by living wage laws. At the same time, it suggests that some low-wage workers and low-skilled individuals—just not the lowest wage and lowest skilled—may be helped.

Moreover, the distribution of wage and employment changes across families can occur in a variety of ways. Although poor families are of course more likely to have low-wage and low-skilled members, many nonpoor families also have such members (Burkhauser, Couch, and Wittenburg, 1996). And many poor families have workers who earn relatively low wages or have relatively low skills but are not necessarily in the bottom 10th of the distribution. Thus, policies that end up helping workers who are in a higher part of the wage distribution can reduce poverty. As partial evidence on this issue, we combine information on imputed wages (skills) and family income (from the March ORG files and ADFs), reported in the top panel of Figure 4. The figure shows that poor families are much more likely than nonpoor families to have an individual in the bottom 10th of the skill distribution (37% of poor families vs. 20% of nonpoor families). However, poor families are also more likely to have members in the 10th through 25th centile range (36% vs. 25%) and the 25th through 50th centile range (66% vs. 34%). This implies that policies that raise earnings of individuals in the latter categories could reduce poverty.

Whether living wages lift a family out of poverty also depends on how close the family is to the poverty line. The second panel in Figure 4 presents evidence on this point, dividing poor families by how far they are below the poverty

This evidence suggests that living wages do not necessarily benefit the most disadvantaged; in fact, the evidence on disemployment effects indicates that some low-skilled workers are hurt by living wage laws. At the same time, it suggests that some low-wage workers and low-skilled individuals—just not the lowest wage and lowest skilled—may be helped.

A Decade of Living Wages

threshold. What the figure reveals is that, not surprisingly, the lowest-skilled individuals are most heavily concentrated in families furthest below the poverty threshold. For example, the lower panel shows that only 29 percent of families within \$2,000 of the poverty threshold have individuals in the bottom 10th of the skill distribution, versus 70 percent of families more than \$10,000 below the threshold.

These figures imply that the wage or employment effects of living wage laws among individuals in the 10th through 50th centile range of the imputed wage distribution may have as much or more to do with poverty than the effects of living wages on those individuals below the 10th centile. In particular, wage or employment gains among the former may well reduce poverty, irrespective of the wage gains and employment losses among the least skilled. Thus, the antipoverty effects of living wages need not be inconsistent with the apparently negative effect of living wages on employment of the lowest-skilled individuals if the antipoverty effects are generated in part by gains among those with higher skills.

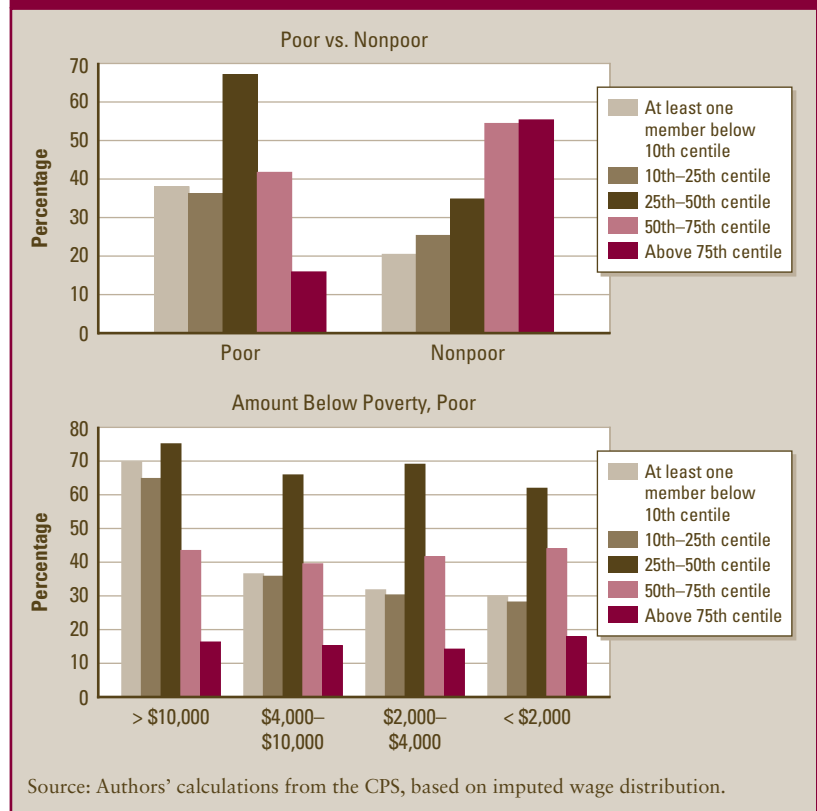
Finally, it is possible that living wages generate either gains or losses for low-income families yet do not result in movements across the poverty threshold. If so, then our estimates of the effects of living wages on the probability that a family is poor could mask either positive or negative effects of living wages on other low-income families. We therefore move beyond a sole focus on the poverty threshold and expand the number of thresholds examined—ranging from one-quarter to three-quarters of the poverty threshold. The results of these analyses are also reported in Figure 3. The other bars show the estimated effects on the proportion of families below one-quarter, one-half, or three-quarters of the poverty line. We generally find no significant evidence that living wage laws either decrease or increase the probability that families are below one-quarter to one-half of the poverty threshold. However, there is some evidence, particularly for business assistance living wage laws, of reductions in the proportion of families with

incomes below three-quarters of the poverty threshold.

Thus, the evidence points to living wages delivering net benefits for families at or near the poverty line, and at none of the thresholds below the poverty threshold do we find any evidence of adverse effects. On the other hand, the results could reasonably be read as suggesting that living wages do not help families well below the poverty line, which is not entirely surprising because such families are less likely to have workers or may have the lowest-wage workers who are most likely to bear the disemployment effects of living wages. It is also important to keep in mind that the reductions in poverty that living wage laws appear to bring about do not come without a cost. Living wage laws, as with other forms of

Thus, the evidence points to living wages delivering net benefits for families at or near the poverty line.

Figure 4. Imputed Wages of Family Members, Family Poverty Status, and Distance from Poverty



government redistribution of income, generally entail some costs and inefficiencies, and it is always important to ask whether there are more effective ways to bring about the particular redistributions of income that voters or policymakers are seeking.

The Effects of Different Types of Living Wage Laws²⁸

To this point, we have focused only on the distinction between contractor-only and business assistance living wage laws. Laws that extend only to city contractors cover very few workers, so perhaps not surprisingly we are unable to detect effects of these narrow living wage laws on the overall population of low-wage or low-skilled individuals in a city. However, for the broader living wage laws that apply also to employers receiving business assistance from the city, we do detect evidence that living wage laws raise wages but lower employment of low-wage, low-skilled individuals.

Aside from the greater breadth of business assistance living wage laws, a few factors could lead to stronger effects from these types of laws. In the case of a contractor-only law, employers

are typically required to pay the mandated wage only for work done as part of the contract. When contractors' employees do some other work in addition to that on city contracts, employers can mitigate the costs of complying with living wage laws by reallocating their high-skilled workers who earn a wage near or above the living wage to the contract work and their low-wage labor to the noncontract work, or they can even reduce wages on noncontract work. In contrast, there may be fewer avenues for mitigating the costs of living wage laws for employers

covered under business assistance provisions. For example, an establishment created with the help of business assistance from a city would appear to have no choice but to pay all employees no less than the mandated living wage for all of their work. In addition, although contractors can reduce the share of their business with the city in response to a living wage, business assistance recipients may have less leeway because they may have accepted long-term benefits, such as bond financing or tax relief, in return for locating in the jurisdiction. However, these possible differences between contractor-only and business assistance living wage laws remain conjecture.

An alternative explanation is that business assistance living wage laws are not, in fact, fundamentally different or stronger in terms of the underlying economics or the share of workers affected. Rather, the broader business assistance living wage laws may have arisen in cities where a constellation of forces—possibly related to the dynamics of living wage campaigns—has resulted in stronger living wage laws generally or perhaps stronger implementation and enforcement because of both how the cities oversee the laws and how much community and other groups remain engaged. More generally, living wage laws differ in a number of respects, such as the extent of coverage specified, the employers or workers exempted, enforcement and implementation, provisions for community hiring (which try to encourage hiring of city residents), and whether living wage laws exist in nearby jurisdictions (which might amplify their effects). Thus, it may be variation in other features of living wage laws that really drives whether the law has stronger or weaker effects, but these other features may happen to coincide with whether the law covers business assistance recipients. Besides this specific question, we are interested in the more general question of how different features of living wage laws influence the effects these laws have on urban labor markets. However, it is difficult to estimate the effects of living wage laws, taking account of a variety of their features, because there are relatively few observations on cities with differ-

Laws that extend only to city contractors cover very few workers. . . . However, for the broader living wage laws that apply also to employers receiving business assistance from the city, we do detect evidence that living wage laws raise wages but lower employment of low-wage, low-skilled individuals.

ent types of living wage laws from which to draw reliable statistical conclusions.

Features of Living Wage Laws

Table 2 presents a summary of the key features of living wage laws. The table lists cities with contractor-only laws, those with contractor as well as business assistance provisions, and a few with business assistance provisions but without contractor coverage. Aside from contractor and assistance coverage, the table includes information on the breadth of this coverage,²⁹ community hiring provisions, and whether the living wage is superseded by collective bargaining agreements³⁰ (in columns (1)–(3)). We also consider whether the key distinguishing feature of living wage laws is their enforcement and implementation. Column (4) reports information from research by Luce (2004) that categorizes enforcement/implementation efforts by city based on a survey of living wage laws and city staff, as well as auxiliary information.³¹

Finally, columns (5) and (6) of Table 2 record whether the city living wage law is also in a county with a living wage law, as well as whether there are one or more nearby cities with living wage laws. In both cases, the year in which a nearby living wage was first implemented is noted. Both of these characteristics of living wage laws are meant to capture whether a city's living wage law is likely to have its effect amplified by the presence of nearby living wage laws. For example, consider an employer who has business with multiple cities. If only one of the cities with which the employer has contracts is covered, then there will be more scope for mitigating the effects of a living wage law. But if nearby cities have living wage laws, more of the employer's work is likely to be covered by such laws and therefore the employer would have less scope for reducing wages on other work done by its employees, less scope for shifting high-wage workers to the covered contract to avoid having to raise the wages of low-wage workers, and also less scope for shifting business away from the city that imposes the living wage law.

The descriptions of living wage laws provided in Table 2 are useful in seeing how contractor-only and business assistance living wage laws differ along other dimensions that might explain the apparent differences in the effects of these two broad categories of laws. Table 2 suggests that, on some dimensions, other features of contractor-only and business assistance laws do not look very different. For example, roughly equal shares are in counties with their own living wage laws, and the shares with provisions for supersession by collective bargaining are similar. However, business assistance laws are considerably more likely to be in cities in which nearby cities also have living wage laws and in cities with community hiring provisions. With regard to enforcement/implementation, the differences do not appear sharp, although more of the contractor-only living wage laws are classified as having narrow (or relatively weak) enforcement/implementation.

We first present results that modify the methods used above to estimate the effects of business assistance and contractor-only living wage laws but instead estimate differences in the effects of living wage laws depending on the presence or absence in these laws of some of the features highlighted in Table 2. This analysis simply tells us whether the effects of living wage laws differ depending on the presence or absence of the particular feature of the law we study. These estimates are reported in Figure 5. In all cases, we display the estimated effects one year after the enactment of (or change in) a living wage (recall that the results above showed that the effects of living wages tend to show up about one year after implementation). Each pair of bars corresponds to a separate model in which we draw distinctions between living wage laws based on the presence or absence of features of living wage laws, paralleling exactly how we treated business assistance living wage laws above.³²

For example, differences between cities whose living wage laws are or are not accompanied by county living wage laws are reported in the left-most estimates; the wage effects are reported in the upper panel and the employment effects in

Table 2. Features of Living Wage Laws

	Contractor Coverage (1)	Community Hiring (2)	Superseded by Collective Bargaining (3)	Enforcement / Implementation (4)	County (5)	Nearby Cities (6)
Contractor only						
Baltimore				Medium		
Boston		Yes		Broad		Yes (1999)
Burlington			Yes	NA		
Chicago				Narrow	Yes (1998)	
Denver				Narrow		
Durham				Narrow		
Jersey City				Narrow	Yes (1999)	
Milwaukee				Narrow	Yes (1997)	
New Haven		Yes	Yes	Medium		Yes (earliest 1999)
Portland	Narrow			Narrow	Yes (1996)	
San Francisco	Broad		Yes	Broad		Yes (many, earliest 1998)
Tucson		Yes		Broad	Yes (2002)	
Business assistance plus contractor						
Ann Arbor				NA	Yes (2001)	Yes (many, earliest 1998)
Cleveland		Yes		Medium		
Detroit		Yes		Narrow		Yes (many, earliest 1999)
Hartford				Narrow		Yes (earliest 1997)
Los Angeles	Broad		Yes	Broad	Yes (1999)	Yes (earliest 1996)
Madison			Yes	NA	Yes (1999)	
Oakland	Broad		Yes	Medium		Yes (many, earliest 1998)
Rochester				NA		
San Jose			Yes	Broad	Yes (1995)	Yes (many, earliest 1998)
Toledo				NA		
Business assistance only						
Duluth		Yes	Yes	Narrow		
Minneapolis		Yes		Medium		Yes (1997)
San Antonio		Yes		Medium	Yes (2001)	

Notes: This table was compiled using information from <http://www.epionline.org/livingwage/index.cfm>, <http://www.livingwageresearch.org/>, and Luce (2004). In column (1), the absence of an entry indicates that the contractor coverage was neither particularly narrow nor broad compared to other living wage laws. In columns (2), (3), (5), and (6), we have included only “yes” entries; blank spaces indicate the absence of the particular feature of living wage laws to which the column refers.

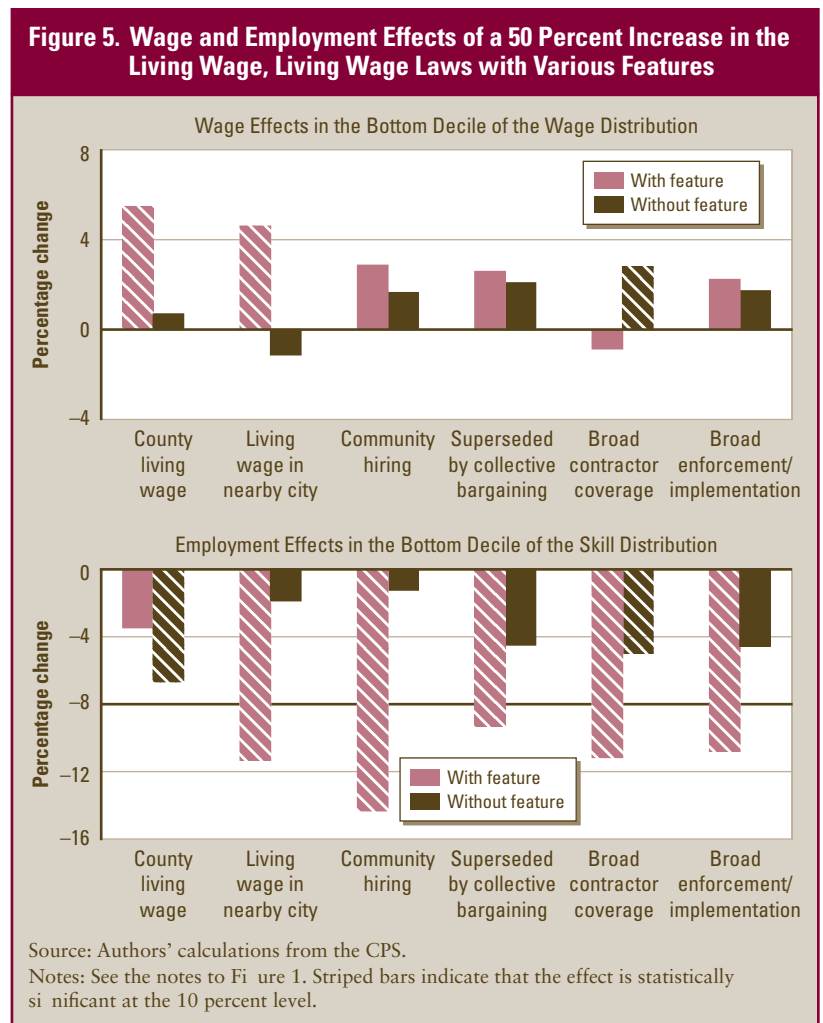
A Decade of Living Wages

the lower panel. The findings suggest a large and significant wage effect in living wage cities with a county law but not in living wage cities without an accompanying county law. The employment effect, on the other hand, is larger (and statistically significant) in the cities without a county living wage law. These ambiguous findings do not provide a clear-cut case that county living wage laws either strengthen or weaken the effects of city living wage laws.

Next, living wage laws are divided by whether there are living wages in nearby cities. The results suggest that this distinction is quite important. Living wage laws coupled with those in nearby cities boost wages, with a positive and statistically significant effect implying that a 50 percent living wage increase boosts wages at the bottom of the wage distribution by over 4 percent. Similarly, the negative employment effect appears only for living wage laws that are coupled with those in nearby cities, with a 50 percent living wage increase reducing employment of the least skilled by over 11 percent. In contrast, the estimated effects of living wage laws that are not accompanied by laws in nearby cities are small and insignificant.³³

The next two sets of estimates turn to whether living wage laws have community hiring provisions or provisions that they can be superseded by collective bargaining. The evidence suggests that, in both cases, living wage laws with these types of provisions tend to have greater positive effects on wages, although the differences are small. Correspondingly, living wage laws with these provisions have stronger negative net employment effects; in this case the differences are marked.

The penultimate estimates in Figure 5 look at living wage laws distinguished by breadth of coverage of contractors. All else the same, to the extent that the contractor provisions of living wage laws have an effect, we would expect the effect to be greater when broader coverage is specified. The estimates reflect this in the employment effects of living wage laws but not in the wage effects. The ambiguity between the wage and employment results suggests that the evidence of greater nega-



tive net employment effects of living wage laws with broader contractor coverage should be viewed cautiously.

Finally, the last estimates turn to Luce's classification of living wage laws in terms of enforcement/implementation. Here, the estimated employment effect is large and significant only for those living wage laws with broad enforcement, which is sensible. With regard to the wage effects, the point estimates are larger for living wage laws with broader enforcement and implementation, although the difference is small and not statistically significant. All in all, though, this evidence is best interpreted as suggesting that the living wage laws Luce classifies as hav-

ing broader enforcement/implementation do have sharper effects.

Do Other Features of Living Wage Laws Explain the Stronger Effects of Business Assistance Laws?

The next question is whether other provisions or features of living wage laws can account for the stronger effects of business assistance living wage laws compared with contractor-only living wage laws. We examine this by simultaneously allowing the effects of living wage laws to differ based on the business assistance/contractor-only distinction, as well as the presence or absence of each feature of living wage laws considered in Figure 5. These estimates tell us whether allowing living wage laws with some particular feature (such as

an accompanying county living wage) results in a finding that contractor-only and business assistance living wage laws no longer look so different, and instead that the important difference is between those living wage laws accompanied or not accompanied by county living wages. Such evidence would suggest that the earlier evidence on differences between contractor-only and business assistance living wage laws actually reflected the fact that these two types of laws were differentially accompanied by county living wages.

Of course, this is likely to be the case only for provisions or features of these laws that differ across business assistance and contractor-only laws, as summarized in Table 2. Moreover, it is likely to be the case for those provisions that appear to be associated with stronger (or weaker) effects of liv-

ing wage laws. With respect to Table 2, we noted above that the differences appearing to stand out are that business assistance laws are more prevalent in cities for which nearby cities also have living wage laws and in cities with community hiring provisions or with broader enforcement/implementation. Interestingly, the estimates in Figure 5 suggested that the wage and employment effects are sharper when living wages are accompanied by those in nearby cities or include community hiring provisions and to some extent also when enforcement/implementation is more broad.

The results from this analysis are reported in Figure 6. The first set of estimates indicates that where county living wage laws exist along with city living wage laws, the estimated wage effect of business assistance laws becomes weaker and is no longer statistically significant. But the negative net employment effect of business assistance living wage laws becomes stronger and remains statistically significant. Given that county living wage laws do not show up more frequently among cities with business assistance provisions, we find it unlikely that county living wage ordinances drive the stronger results for business assistance cities.

In the estimates considering supersession by collective bargaining agreements, broad contractor coverage, and broad enforcement/implementation (the fourth through sixth sets of bars in Figure 6), the estimates continue to indicate strong (if anything, stronger) wage and employment effects of business assistance living wage laws. Thus, these differences among living wage laws do not account for the stronger wage effects and negative employment effects of living wage laws that cover business assistance recipients. The estimates examining living wage laws with community hiring provisions present a different picture. First, community hiring provisions appear to account for the larger employment effects of business assistance living wage laws, as business assistance laws without these provisions have essentially no detectable employment effect. On the other hand, the wage effect of business assistance laws is not explained by this feature of living wage laws. Coupled with

... whether nearby cities have living wage laws appears to account more successfully for the stronger wage and employment effects of business assistance laws. For both the wage and the employment effects, the large point estimates (positive for wages and negative for employment) exist for living wage laws coupled with living wages in nearby cities but not for business assistance living wage laws in the absence of living wages in nearby cities.

A Decade of Living Wages

the expectation that community hiring provisions should if anything lead to weaker disemployment effects, we do not view this evidence as overturning in a decisive way the findings regarding business assistance laws.

However, whether nearby cities have living wage laws appears to account more successfully for the stronger wage and employment effects of business assistance laws. For both the wage and the employment effects, the large point estimates (positive for wages and negative for employment) exist for living wage laws coupled with living wages in nearby cities but not for business assistance living wage laws in the absence of living wages in nearby cities. These findings, combined with the expectation that living wage laws are likely to have stronger effects when they also exist in nearby labor markets, suggest that geographic concentration of living wage laws may in fact be more significant than the distinction between business assistance and contractor-only living wage laws.³⁴ On the other hand, none of the evidence reported in this section supports the hypothesis that stronger effects associated with broader enforcement or implementation explain the stronger wage and employment effects of business assistance living wage laws that we find.

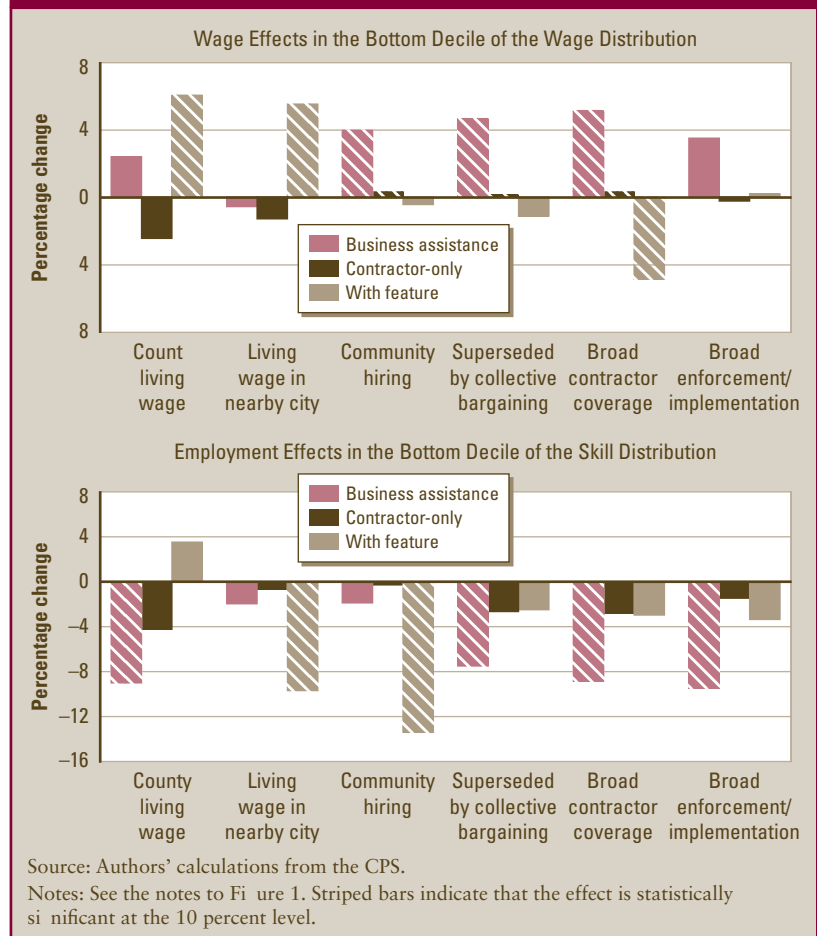
Conclusions

In the past 10 years, living wage campaigns moved from their first victory in enacting a living wage in Baltimore to widespread success resulting in around 100 living wage laws across the United States, including 18 in California. This article takes stock of the decade of experience with living wage laws to assess their economic effects. The emphasis is on the effects of living wages on low-wage workers and low-income families, in large part because the central goal of living wages is to raise the incomes of low-wage workers to reduce poverty.

The research leads to a few main conclusions:

- Living wage laws boost the wages of the lowest-

Figure 6. Wage and Employment Effects of a 50 Percent Increase in Business Assistance and Contractor-Only Living Wages, Controlling for Other Features of Living Wage Laws



wage workers but at the cost of disemployment effects for the least-skilled. These findings hold more strongly for the broader living wage laws that also cover employers receiving business assistance from cities and perhaps even more so for living wage laws accompanied by similar laws in nearby cities.³⁵

- Living wage laws reduce poverty in the urban areas in which they have been enacted. Again, this holds more strongly for the broader living wage laws that also cover employers getting business assistance from cities. In addition, families somewhat below the poverty line are also helped by living wages.

- The poverty reductions associated with living wage laws need not stem from income gains for individuals at the very bottom of the wage or skill distribution but instead appear to stem in part from gains for other workers whose wages are nonetheless influenced by living wages. This suggests that the beneficial distributional effects of living wages are actually somewhat mixed—reducing poverty but not necessarily by helping the very lowest-wage, lowest-skilled individuals.

... the beneficial distributional effects of living wages are actually somewhat mixed—reducing poverty but not necessarily by helping the very lowest-wage, lowest-skilled individuals.

These conclusions are quite important to local policymakers in California (and elsewhere) facing decisions about implementing or raising living wages. First, mandating a higher wage floor via a living wage will entail some employment losses. Advocates of living wages tend to deny that these employment losses will occur, whereas opponents argue that because of the employment losses, living wages are unambiguously a bad idea. But a more subtle perspective is needed.

Many government rules and regulations are likely to cause some employment losses somewhere; for example, restrictions on logging hurt loggers, and inducements to reduce the use of coal hurt coal-miners. As a society, though, we have to decide whether the potential benefits of these rules and regulations outweigh the costs. Ideally, too, we should try to cushion the blow to those who are adversely affected, which we do to some extent through the social safety net, subsidies for retraining and education, and so on.

With respect to living wages, a reasonable criterion for thinking about the potential benefits that should be weighed against the employment losses is whether living wages help low-income families, perhaps by reducing poverty. The answer to this question is not as simple as might be suggested by the evidence that living wages boost the wages of low-wage workers, because low-wage workers are

not synonymous with low-income families; in particular, many are in nonpoor families. Nonetheless, it does appear to be the case that living wage laws have some beneficial effects in reducing poverty.

At the same time, the beneficial distributional effects of living wage laws most likely do not arise from gains for the lowest-wage workers and least-skilled individuals, because they bear the brunt of the employment losses. This does not necessarily undermine the case for living wages on distributional grounds. It may simply be an uncomfortable fact that trying to help low-income families by mandating higher wage floors tends to have negative consequences for the least-skilled workers, because such wage floors may amount to a “tax” on the employment of such workers. Instead, what these results imply is that even if wage floors deliver some benefits to low-income families—as appears to be the case for living wages—additional policies are needed to help the most disadvantaged, such as a safety net to help those left without jobs, or strategies to enhance skills and make them more employable and employable at higher wages. And finally, we need to think about policies that can deliver beneficial distributional effects *without* the adverse employment effects, which do, of course, entail considerable private and social costs, many of which are not taken into account in the evidence on the distributional effects of living wages. Existing research suggests that variants of the earned income tax credit fit this description, raising the incomes of low-income families and encouraging employment among the least skilled, while also more effectively targeting low-income families rather than low-wage workers.³⁶

Other questions about the effects of living wages also remain unanswered. In particular, questions about the longer-run effects of living wage laws on the economies of the cities where they are passed have not been addressed. These effects probably stem most directly from the costs that living wage laws impose on businesses, which may in turn affect property values, tax receipts, and so on. Another remaining question is the very difficult one of how living wages compare to other policies

aimed at raising the incomes of low-wage workers and low-income families. Finally, additional questions will arise if cities drastically change their coverage, expanding from narrow living wages to broad minimum wages, as occurred recently in San Francisco and Santa Fe, both of which implemented citywide minimum wages of \$8.50. Conclusions drawn regarding the effects of narrow living wages do not carry over to the effects of broader minimum wages; in particular, the distributional effects may differ considerably. ❖

Notes

¹ See www.epionline.org and www.livingwageresearch.org/factsheets/adopted.asp.

² See Brenner (2005).

³ San Diego passed a living wage ordinance in April 2005, but it does not take effect until next year.

⁴ See Table 1 in Neumark and Adams (2003a).

⁵ In addition, living wage laws often impose an even higher wage if health insurance is not provided.

⁶ See www.epinet.org.

⁷ See Burkhauser, Couch, and Wittenburg (1996) and Carrington and Fallick (2001).

⁸ This evidence on wage, employment, and poverty effects is based on Adams and Neumark (2005a). More limited earlier results using data from fewer years are reported in Neumark (2002).

⁹ For example, see Brenner (2005) and Fairris (2005), discussed later.

¹⁰ This prediction is not unambiguous. Living wages cover a small share of workers, and it is possible that workers who are displaced from the covered sector as employers reduce employment move into the uncovered sector, with the outward labor supply shift reducing wages there. However, any such effects are likely to be minor, for two reasons. First, for relatively low-wage workers, the minimum wage provides a wage floor. And second, the covered sector is relatively small, and hence any labor supply shift to the uncovered sector is unlikely to have much effect on wages in the uncovered sector. Indeed, most of our estimates point to either positive wage effects or no wage effects, but there is occasionally evidence in the opposite direction. In contrast, the prediction that employment should fall as a result of the living wage is unambiguous, at least in the standard economic model (Mincer, 1976).

¹¹ See Sander and Lokey (1998).

¹² Specifically, we use a regression model that controls for both living wages and minimum wages, because in the absence of a living wage, the minimum wage provides a legally binding wage floor. The model also includes city dummy variables to allow for differences in the levels of wages (and other outcomes) across cities that might be associated with living wages—such as high-wage cities enacting higher living wages. And it includes year and month dummy variables to net out changes in aggregate economic conditions that might influence wages, employment, and income but also be correlated with living wages. Thus, the model identifies the effects of living wages only from changes in wages and other outcomes associated with imposing or changing a living wage.

A Decade of Living Wages

¹³ These effects after 12 months better capture the effects of living wage laws that persist.

¹⁴ Estimates that are not significant at the 10 percent level may still be suggestive of an effect. Certainly an insignificant effect should not be equated with an effect equal to zero. However, an insignificant effect means that we have less confidence that the true effect is different from zero. Literally, statistical significance at the 10 percent level implies that there is a probability of 0.1 or less that the true estimate equals zero, given the estimate we obtain.

¹⁵ This effect is referred to as “labor-labor substitution.”

¹⁶ Criticism of our estimation of the effects of living wages on the lowest-wage workers has been raised quite forcefully by Brenner, Wicks-Lim, and Pollin (2002). These criticisms are rebutted in Adams and Neumark (2005a).

¹⁷ Note that this implies that the employment effects are not estimated for the same sample as the wage effects.

¹⁸ A more complete discussion appears in Adams and Neumark (2004). We do not discuss a small set of studies of the effects of living wages on contract costs. These studies are unconvincing because they do not measure possible changes in services provided under contracts and are uniformly missing a control group of similar cities without living wage ordinances to control for other factors that may have been changing contracting behavior over time.

¹⁹ The 9/11 attacks play no role here, because they occurred after the measurement of the 2001 employment figure.

²⁰ The survey also asked some direct questions about whether staffing levels for city contracts changed, which provided no indication of declines in staffing levels as a result of the city’s living wage. But because the data only establish slower employment growth at affected firms, rather than employment declines, we would not necessarily expect reductions in employment on city contracts.

²¹ Despite this evidence, Brenner ignores the changes experienced by the control firms, incorrectly concluding that the Boston living wage increased employment, despite the relative employment decline in affected firms. Note that the evidence of relative employment declines among affected firms is precisely the type of evidence of employment declines that we obtain from the CPS data, where instead the counterfactual is what happened in the cities where living wages were not passed. There is never an assumption that employment would have remained unchanged absent the living wage, because other factors besides living wages may affect employment.

²² The firms in the living wage sample report an average of 39 percent of workers in four low-wage occupations that Fairris lists. If low-wage workers were 39 percent of the workforce, then the employment decline for these workers stemming from a 50 percent increase in the living wage would be 7.7 percent, two-and-one-half times as large as what Fairris reports.

²³ At the same time, note that some of the evidence of dis-employment effects (for example, Brenner’s) comes from living wage laws that cover contractors only, for which the CPS data did not reveal either wage or employment effects. This points to the potential power of the micro-level evidence in testing for behavioral responses to living wage laws, even when the city-level analysis does not reveal net effects of the policy.

²⁴ This section is also based on Adams and Neumark (2005a).

²⁵ One difference is that we use annual data on family income from the ADFs. In addition, the statistical regression model is estimated for the full sample for most of our analyses rather than for some subset of low-wage or low-skilled workers.

²⁶ The estimate for contractor-only living wage laws is larger, but it is statistically insignificant. This does not contradict the earlier findings that business assistance living wage laws have stronger effects on wages and employment, because the stronger positive wage effects and negative employment effects of business assistance living wage laws are likely to offset each other in influencing poverty.

²⁷ See the website of the U.S. Bureau of the Census (<http://factfinder.census.gov>).

²⁸ This section is based on Adams and Neumark (2005b).

²⁹ For example, Portland’s living wage law applies only to custodial, security, and parking attendants and is therefore classified as “narrow,” whereas the laws in Los Angeles and Oakland cover some leaseholders (and in the case of Oakland, the port) and are therefore classified as “broad.”

³⁰ In other words, the living wage law does not apply to workers covered by a collective bargaining agreement.

³¹ Luce classifies a city as having “broad” enforcement/implementation when there is at least “one full-time person assigned to oversee ordinance administration, who can answer questions about the law and who can be held accountable for problems” and the “staff actively monitors the ordinance by reviewing payroll records and inspecting worksites” (p. 96). In contrast, she classifies cities without full-time staff, in which it is difficult to find someone to answer questions, and where cities do the minimum to fulfill technical requirements, as having “narrow” enforcement/implementation. She also classifies some intermediate cases as “medium.”

³² It would be ideal if we could estimate the effects of all features of living wage laws simultaneously. However, data limitations—in particular, the relatively small number of cities with specific features of living wages laws—preclude this. Attempts at this simultaneous estimation yielded very imprecise estimates.

A Decade of Living Wages

³³ The effects of living wage laws in nearby cities may be more important than those in the county because cities typically have a lot more contracts and provide a lot more business assistance.

³⁴ We state this conclusion cautiously because the cities that have business assistance living wage laws and do not have a living wage in a nearby city tend to be quite small (for example, Madison and Toledo). Thus, identification of the separate effects of business assistance provisions and living wages in nearby cities comes from a relatively small number of observations, and changes in the set of cities included in the analysis can lead to results in which living wages in nearby cities no longer matter, and the differences associated with business assistance living wage laws (irrespective of living wages in nearby cities) reemerge. Specifically, this occurs when we eliminate the three cities with laws that have business assistance provisions but no contractor coverage (Minneapolis, Duluth, and San Antonio).

³⁵ In Adams and Neumark (forthcoming), we verify that these results are also valid when we compare what happened in living wage cities to a narrower control group of cities—in particular, cities in which living wage campaigns went quite far but failed or were annulled after passage (for example, by a court ruling). These cities are more comparable to those in which living wages were enacted because, for example, living wage campaigns arose in them and almost succeeded. Hence, evidence based on comparisons with this narrower control group is particularly compelling.

³⁶ See, for example, Neumark and Wascher (2001) and Eissa and Liebman (1996).

References

- Adams, Scott, and David Neumark, "The Economic Effects of Living Wage Laws: A Provisional Review," *Urban Affairs Review*, Vol. 40, No. 2, November 2004, pp. 210–245.
- Adams, Scott, and David Neumark, "The Effects of Living Wage Laws: Evidence from Failed and Derailed Living Wage Campaigns," *Journal of Urban Economics*, forthcoming.
- Adams, Scott, and David Neumark, "Living Wage Effects: New and Improved Evidence." *Economic Development Quarterly*, Vol. 19, No. 1, February 2005a, pp. 80–102.
- Adams, Scott, and David Neumark, "When Do Living Wages Bite?" *Industrial Relations*, Vol. 44, No. 1, January 2005b, pp. 164–192.
- Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan, "How Much Should We Trust Differences-in-Differences Estimates?" NBER Working Paper No. 8841, Cambridge, Massachusetts, 2002.
- Brenner, Mark D., "The Economic Impact of the Boston Living Wage Ordinance," *Industrial Relations*, Vol. 44, No. 1, January 2005, pp. 59–83.
- Brenner, Mark D., Jeannette Wicks-Lim, and Robert Pollin, "Measuring the Impact of Living Wage Laws: A Critical Appraisal of David Neumark's 'How Living Wage Laws Affect Low-Wage Workers and Low-Income Families,'" Working Paper No. 43, Political Economy Research Institute, University of Massachusetts, Amherst, Massachusetts, 2002.
- Burkhauser, Richard V., Kenneth A. Couch, and David C. Wittenburg, "'Who Gets What' from Minimum Wage Hikes: A Re-Estimation of Card and Krueger's Distributional Analysis in Myth and Measurement: The New Economics of the Minimum Wage," *Industrial and Labor Relations Review*, Vol. 49, No. 3, April 1996, pp. 547–552.
- Carrington, William J., and Bruce D. Fallick, "Do Some Workers Have Minimum Wage Careers?" *Monthly Labor Review*, Vol. 124, No. 5, May 2001, pp. 17–27.
- Eissa, Nada, and Jeffrey Liebman, "Labor Supply Response to the Earned Income Tax Credit," *Quarterly Journal of Economics*, Vol. 112, No. 2, May 1996, pp. 605–637.
- Fairris, David, "The Impact of Living Wages on Employers: A Control Group Analysis of the Los Angeles Ordinance," *Industrial Relations*, Vol. 44, No. 1, January 2005, pp. 84–105.
- Luce, Stephanie, *Fighting for a Living Wage*, Cornell University Press, Ithaca, New York, 2004.
- Mincer, Jacob, "Unemployment Effects of Minimum Wages," *Journal of Political Economy*, Vol. 84, No. 4, Pt. 2, August 1976, pp. S87–S104.
- Neumark, David, *How Living Wage Laws Affect Low-Wage Workers and Low-Income Families*, Public Policy Institute of California, San Francisco, California, 2002.
- Neumark, David, and Scott Adams, "Detecting Effects of Living Wage Laws," *Industrial Relations*, Vol. 42, No. 4, October 2003a, pp. 531–564.
- Neumark, David, and Scott Adams, "Do Living Wage Ordinances Reduce Urban Poverty?" *Journal of Human Resources*, Vol. 38, No. 3, Summer 2003b, pp. 490–521.
- Neumark, David, and William Wascher, "Using the EITC to Help Poor Families: New Evidence and a Comparison with the Minimum Wage," *National Tax Journal*, Vol. LIV, No. 2, June 2001, pp. 281–317.
- Reich, Michael, Peter Hall, and Ken Jacobs, "Living Wages and Economic Performance: The San Francisco Airport Model," unpublished manuscript, Institute of Industrial Relations, University of California, Berkeley, California, 2003.
- Sander, Richard H., and Sean Lokey, "The Los Angeles Living Wage in Operation: A Preliminary Evaluation," *California Labor & Employment Law Quarterly*, Vol. 12, No. 4, Winter 1998, pp. 5–7.

About the Authors

Scott Adams is an assistant professor of economics at the University of Wisconsin, Milwaukee, and David Neumark is a senior fellow at the Public Policy Institute of California.

For comments on various parts of this research the authors are grateful to Timothy Bartik, Julian Betts, Marianne Bitler, Mark Brenner, David Fairris, Kevin Hallock, Jon Haveman, Judith Hellerstein, Christopher Jepsen, Lori Kletzer, Michael Reich, Howard Shatz, Aaron Yelowitz, and participants at the Living Wage Research Conference at the University of California (UC) Riverside, and at research seminars at PPIC, UC Merced, UCLA, and the University of Southern California. The views expressed are those of the authors and do not reflect the views or policies of the Public Policy Institute of California.

The Public Policy Institute of California is a private, nonprofit research organization established in 1994 with an endowment from William R. Hewlett. The Institute conducts independent, objective, nonpartisan research on the economic, social, and political issues affecting Californians. The Institute's goal is to raise public awareness of these issues and give elected representatives and other public officials in California a more informed basis for developing policies and programs. PPIC does not take or support positions on any ballot measure or on any local, state, or federal legislation, nor does it endorse, support, or oppose any political parties or candidates for public office.

PUBLIC POLICY INSTITUTE OF CALIFORNIA
500 Washington Street, Suite 800
San Francisco, California 94111
Telephone—(415) 291-4400
Fax—(415) 291-4401
www.ppic.org

ISSN #1553-8737

Board of Directors

Thomas C. Sutton, Chair
Chairman and CEO
Pacific Life Insurance Company

Edward K. Hamilton
Chairman
Hamilton, Rabinovitz & Alschuler, Inc.

Gary K. Hart
Founder
Institute for Educational Reform
California State University, Sacramento

Walter B. Hewlett
Director
Center for Computer Assisted
Research in the Humanities

David W. Lyon
President and CEO
Public Policy Institute of California

Cheryl White Mason
Chief Litigator
Hospital Corporation of America

Arjay Miller
Dean Emeritus
Graduate School of Business
Stanford University

Ki Suh Park
Design and Managing Partner
Gruen Associates

Constance L. Rice
Co-Director
The Advancement Project

Raymond L. Watson
Vice Chairman of the Board Emeritus
The Irvine Company

Carol Whiteside
President
Great Valley Center

If you missed our last issue of . . .

California Economic Policy

Take this opportunity to be added to the mailing list

*By using the tear-out card inside, you can receive
upcoming issues by U.S. mail or electronically
(or visit our website at www.ppic.org/main/maillinglist.asp)*

***All CEP issues are available
on PPIC's website, www.ppic.org***

PUBLIC POLICY INSTITUTE OF CALIFORNIA
500 Washington Street, Suite 800
San Francisco, California 94111

NON-PROFIT ORG.
U.S. POSTAGE
PAID
BRISBANE, CA
PERMIT #83

In This Issue of **CEP**

**Living Wage Laws:
Who wins?
Who loses?**