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LIVING WAGE LAWS: HOW MUCH DO (CAN) THEY MATTER?

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Executive Summary

In recent years many municipalities and counties throughout the nation have enacted living wage laws, which require businesses that benefit from government contracts or other forms of public financial assistance to pay wages well above the federal minimum wage, and sometimes benefits, to their workers. Advocates of these laws often view them as ways to raise the earnings of low-wage workers and reduce wage inequality. Opponents often believe that the laws reduce the number of jobs available to low-wage workers and drive businesses away from the jurisdictions that enact them.

This discussion paper describes the living wage laws that currently exist and reviews the academic evidence on their impact. It focuses on the laws' impacts on labor market outcomes such as wage levels, employment rates, poverty, and inequality. The review's most important findings for policymakers and practitioners are:

1. **Living wage laws affect very few workers directly.** Few workers work for firms that are subject to living wage laws. Most studies suggest that the laws cover only 2-3 percent of the bottom tenth of wage-earners. Even in a city of 1 million people, only about 1500 workers are likely to be covered. However, it is possible that the impacts of living wage laws spill over to other workers who do not work for covered employers.

2. **Living wage laws have both modest benefits and modest costs for low-wage workers.** Living wage laws raise the wages of the lowest-wage workers. They may also result in lower turnover, better worker morale, and modest reductions in poverty. However, they lead to modest reductions in employment for the lowest-wage workers and may also result in reductions in training and in the use of part-time or overtime work.

3. **Living wage laws can be useful but meaningful increases in the earnings of low-wage workers and reductions in poverty require more powerful**

public policies. Because of their limited coverage and modest effects on wages, living wage laws cannot have a large impact on low wages or poverty. Other public policies, such as those to expand collective bargaining, education and training, and publicly financed health insurance and parental leave, are likely to have more impact. Living wage laws can be useful if they raise awareness of pay disparity issues and build support for more powerful policies to raise the earnings of low-wage workers.

Introduction

Living wage laws are “local ordinances requiring private businesses that benefit from public money” to pay above-market wages and benefits to their workers (Living Wage Resource Center, 2006). These laws have been passed and implemented in many municipalities and counties nationwide. They are widely viewed as efforts to aid the working poor and address labor market inequality, particularly as other institutions that have traditionally done so (such as minimum wage laws and collective bargaining) have eroded over time.

But how effective are these laws at helping the working poor? Do they have unintended, and perhaps negative, consequences – such as a drop in their employment rates? Do they affect enough workers to matter one way or another? And, if not, could they potentially be more effective than they are to date?

In this discussion paper I explore this set of issues. I begin by reviewing some facts about living wage laws – such as where and how they have been implemented, whom they cover, etc. I also outline their potential impacts, both positive and negative, on employment and other urban outcomes. Then I review the literature on the impacts of living wage laws before concluding with some final thoughts.

Living Wage Laws: The Facts

Campaigns to pass “living wage” ordinances have become increasingly frequent in American cities during the past two decades. In addition to the basic goal of trying to raise wages among low earners, campaign organizers and sponsors have often had other goals in mind as well – such as preventing the outsourcing of municipal work to lower-wage providers, supporting union organizing, limiting local governments’ use of economic development subsidies to attract large firms, mobilizing a broader social movement to combat low wages and inequality, and even making a symbolic statement about fair wage levels and the appropriateness of government efforts to raise low wages. These efforts began to grow in a context of dramatically widening income inequality in the United States at a time when other policies and institutions that had traditionally been used in efforts to limit such inequality – such as minimum wage laws and unions – have been used less aggressively and are becoming scarcer in the private sector.²

The first “living wage” law in a major U.S. city was passed in Baltimore in 1994. As of May 2006, about 140 municipalities and counties around the country had implemented them – including such large cities as Boston, Chicago, Cleveland, Detroit, Los Angeles, Milwaukee, and San Francisco (Living Wage Resource Center, 2006). A list of these localities and the characteristics of their living wage laws appears in Appendix A. Campaigns to introduce new ordinances are underway in dozens more cities, usually under the active leadership of the community organizing group known as ACORN (Association of Community Organizations for Reform Now) and involving local labor and religious organizations, among others.

Appendix B maps the metropolitan areas in which the living-wage municipalities and counties are located. It shows that living wage laws are unevenly distributed among

metropolitan areas. The largest concentrations of these laws are found in the metropolitan areas of the San Francisco Bay Area, southern California, southeastern Michigan, and, to a somewhat lesser extent, south Florida, Connecticut, New York City, and Washington, DC. Metropolitan areas in the Southeast (except for South Florida) have few localities with living wage laws.

In general, these laws apply to the employees of private firms in one or both of the following categories: 1) Those that have service contracts with the municipality or county with dollar values above some defined minimum level; and/or 2) Those that receive other kinds of financial assistance from the municipal government, in the form of grants, loans, tax abatements, bond financing, and other forms of local economic development policies. In some limited cases, workers at publicly owned but privately operated facilities (like airports or marinas) are also covered.

These firms are required to pay their workers wages well above those specified by federal or state minimum wage laws.³ The wage levels are usually set with the goal of lifting the incomes of year-round full-time workers above the official federal poverty line for a family of four; since the poverty line is now at about \$21,000 per year, this requires an hourly wage of \$10-11, which is a bit below the average wage mandated in these laws.⁴ Though only a few such laws require that health or other benefits be provided to all workers in these firms, many stipulate a somewhat lower mandated wage level when such benefits are provided and a higher one when they are not.

Despite these generally shared characteristics, and in addition to differences in the mandated wage and benefit levels specified, living wage laws vary substantially across local jurisdictions, as Appendix A also implies. For instance, the scope of coverage varies quite a bit even within the categories of firms defined above – with some laws applying only to full-time workers or limited to specific occupational categories.

The administrative apparatus for implementing these laws varies as well across local areas, with some localities hiring officials explicitly to enforce these laws and making them quite accessible to the public while others do not (Luce, 2004). The geographic scope of coverage also varies, as some laws apply to municipalities and others to counties; and, even in the case of the former, some cities face a situation where similar laws are being implemented in contiguous municipalities while many others do not. Finally, some laws also contain provisions that require workers to be hired that live in the covered communities, and some are explicitly superseded by collective bargaining provisions while others are not. All of these characteristics of the policy context and how the laws are designed and implemented will likely affect their impacts on labor market outcomes.

One other characteristic seems to apply almost universally in these efforts: *local living wage ordinances generally seem to affect very few workers directly*. Most studies imply that, even among workers in the bottom tenth of wage levels, only 2-3 percent are covered by these laws, as so few work for firms that benefit from local service contracts or other forms of public financial assistance. Even in larger cities, the absolute number of workers covered will be very modest. For example, consider a city with a total population of 1 million, half of whom are in the workforce.⁵ Of the 50,000 workers in the bottom tenth of earnings, if 3 percent are directly covered by living wage ordinances, then only 1500 workers are affected. In smaller jurisdictions, proportionately fewer workers will be affected.

It is possible that higher wages in these firms “spill over” onto firms with whom they must compete in local markets, whether in the same or other geographic jurisdictions. It is also possible that these laws could be implemented in other ways that expand their reach. But, at the moment, it is important to recognize the relatively limited

scope and impacts of existing laws, as their actual or potential economic effects are considered.

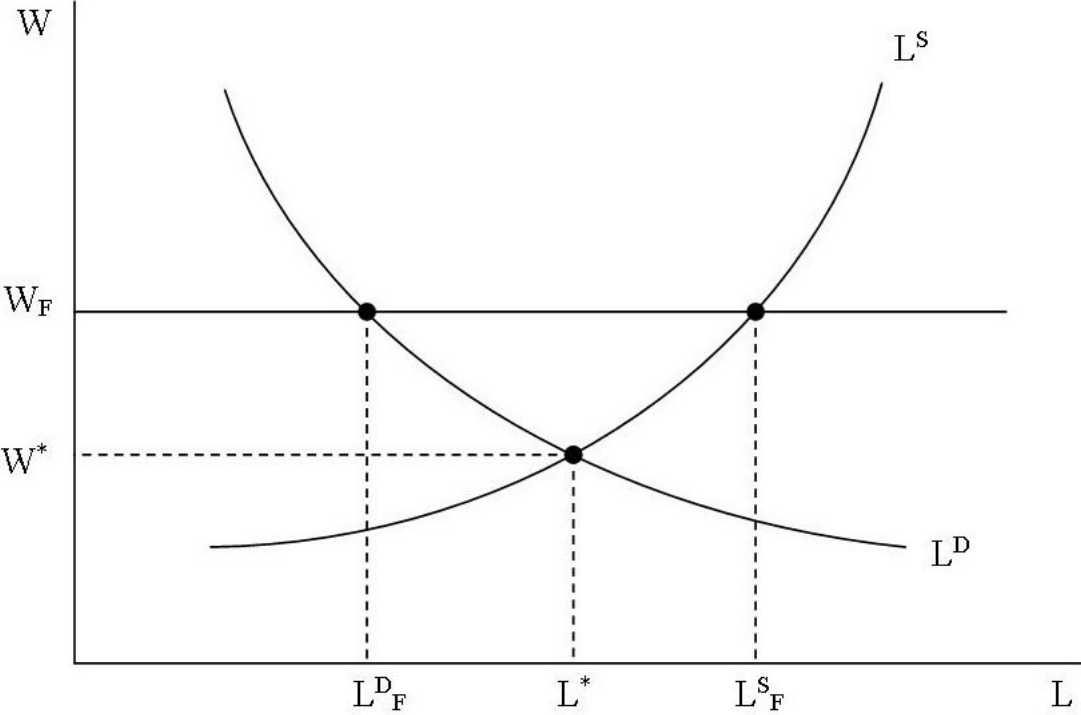
Living Wage Laws: The Issues

Since “living wage” ordinances mandate the payment of higher wages and benefits to workers than might be generated by the labor market, their effects are likely similar to those of minimum wage laws – though the “living wage” ordinances provide substantially higher wages and/or benefits for a much smaller range of workers.

The general concern that economists have about any attempt by government to mandate higher wage payments by private employers is that it might result in lower employment levels. The analysis is based on the notion that employer hiring behavior is reflected in a “demand curve”—in which, all else equal, they will hire fewer workers if they are forced to pay more for each of them.

The expected impact of “living wage” ordinances is depicted in Figure 1. The figure shows the impact of living wage laws, as a type of “wage floor,” on the wages and employment levels (measured on the vertical and horizontal axes respectively) of covered workers, relative to what might be generated in a “competitive equilibrium” in the labor market. As indicated, economists generally expect that any wage floor will generate a “surplus” in the labor market (as indicated by $L^S_F - L^D_F$), with wages above the market level ($W_F > W^*$) and employment below it ($L^D_F < L^*$).

Figure 1. Employment Effects of Wage Floors



But, since this floor will generally cover only a small number of firms in the labor market, any surplus of workers in the covered sector might well shift to the uncovered sectors of the economy – perhaps gaining employment there by driving down wages in the latter.⁶ This implies that the wage gains of some workers might be offset by wage losses among others, though initial employment losses might be offset as well – making it harder to detect impacts on labor market outcomes either way. But, if market rigidities (such as minimum wage laws) make it difficult for the uncovered sectors to absorb the surplus workers, the positive effects on wages and negative effects on employment levels for the covered workers are more likely to be observed in the market overall.

The magnitude of these effects (for any given level of mandated wages and coverage) will also be determined primarily by the “elasticity of labor demand” in the covered sector, which measures the degree to which employer demand for (or hiring of) workers responds to market wages. The more elastic (or flatter) this curve, the greater the responsiveness of employers to wages and the greater the potential negative effect of higher mandated wages on employment levels.

This elasticity, in turn, will be affected by a few characteristics of this labor market. For one thing, firms that supply services to government agencies operate in less competitive “product markets” than most other firms, since public agencies face less competition for the services they provide than does the private sector (Ehrenberg and Smith, 2005). All else equal, less competitive product markets generate lower elasticities of labor demand because it is easier for firms to raise prices to cover the higher wages they pay without reducing product demand and employment. Whether this is also true of firms receiving financial assistance from local governments is less clear *a priori*. Whether or how most local governments can easily absorb the higher costs associated with such labor, in an era of widespread fiscal tightness, is less clear as well.

The size of the jurisdiction covered by these laws could also affect labor demand elasticities. All else equal, firms in larger covered geographic jurisdictions or in those where contiguous municipalities are also covered by similar laws will likely face less competition from other (uncovered) firms than those in smaller areas with fewer covered neighbors, thereby making it easier for the former to raise wages without generating employment losses or displacements. Covered firms might have less incentive to relocate geographically to avoid the higher mandated costs of labor under these circumstances as well.⁷

This, of course, raises the possibility that the laws passed in any particular jurisdiction might create *geographic spillovers* onto other local areas. If the employers directly affected by these laws choose to relocate, this might benefit workers in the uncovered areas (by generating more jobs nearby for them and maybe raising local “wage norms” there) while disadvantaging workers somewhat in the covered area – who now might also face longer commutes to avoid job loss.

Also, the higher wages at these firms might also generate some positive effects on their worker retention rates, job performance, and perhaps even skills, as workers with more ability might now apply for these jobs and try harder to keep them after being hired. These effects are associated with the notion of “efficiency wages” in the economics literature; (Katz, 1986); they suggest that sometimes it is in the interest of employers to pay above-market wages, since the quality of the workers whom they hire and retain might fully or partially offset their higher costs. They also imply that demand for some groups of slightly more-skilled workers might actually rise over time, even while those of the least skilled decline.

All else equal, the effects of higher wages on firm costs (and therefore on product prices and employment levels) will be higher if the production process for the firm’s goods or services is more labor-intensive, and most services provided by municipal

contractors are likely quite labor-intensive. On the other hand, if the numbers of covered workers at these firms are relatively small in comparison to their overall workforces, the effects of the mandate might not be very large, even on the quantities and prices of services provided. Indeed, Pollin and Luce (1998) argue that living wages in Los Angeles have raised operating costs for contractors by 1-2 percent and costs to the city by less than 1 percent.

A few other caveats should be noted that might further reduce the likelihood of adverse employment effects associated with “living wage” ordinances. For one thing, other imperfections, such as limited market competition, might render the analysis above less valid and concerns about job losses less pressing.⁸ If these laws are passed in strong labor markets where job growth has been robust, any fears regarding job loss might also be less of a concern, as job availability might still be ample to provide jobs to most or all who seek them.⁹ And even the notion of a well-defined “demand curve” might be challenged, since local governments and voters must make choices without any real information about how employers will actually respond to higher mandated wages—though the latter will no doubt plead hardship and predict reduced hiring during any such campaign.¹⁰ In this case, the nature of the interaction between public and private actors is more uncertain than the analysis above would indicate.

Finally, the effects of living wage ordinances might also go beyond the labor market outcomes considered above. For example, if higher mandated wages do generate higher costs and prices at contractor firms, local public services might be reduced or taxes might have to rise to offset the higher costs. These developments, in turn, might disproportionately hurt lower-income residents of cities, who are relatively more dependent on these services than are other residents. But if there is already some “slack” in city budgets, or if the magnitudes of services affected by these higher costs

are small, any impacts on the costs or availability of services in urban areas will be mitigated.

In sum, the mandating of higher wages in a very limited sector of the local workforce might reduce employment there, but the magnitudes of these effects will depend on a variety of market factors and might well be offset by a variety of forces in that market.

Evidence on the Effects of Living Wage Laws

How are the effects of “living wage” laws on outcomes such as wages, employment, family incomes, and poverty rates inferred? The literature can be largely divided into two categories: (a) studies of differences *across* cities that have or have not implemented these laws; and (b) studies *within* cities that compare firms and workers covered with those that are not.

In both cases, studies of the effects of these laws are somewhat limited by data availability, especially at the level of the firm. Furthermore, in both cases, major questions exist about identifying comparable workers, from whom the counterfactual wage and employment levels for affected workers in the absence of these laws can then be inferred.

Cross-city Studies

Most of the studies of the effects of living wage laws based on evidence across cities have been generated by Scott Adams and David Neumark (2004, 2005). Adams and Neumark use data from the Outgoing Rotation Groups of the Current Population Survey (CPS-ORG) for their analyses. The CPS-ORG is a large monthly survey of about

50,000 households, used by the federal government to calculate monthly employment rates. Since participating households stay in the sample for four months in each of two different time periods (separated by eight months), the ORG sample limits the sample to include only those answering the survey for the last time, thus ensuring they will appear in any statistical analysis only once.

Using CPS-ORG data for the period 1996-2002, Adams and Neumark have estimated regression equations in which the wages, employment levels, and poverty status of individuals are associated with whether or not their city has a minimum wage law, controlling for many other characteristics of the individuals and where they live. The details of this estimation are provided in Appendix C.

Generally, the Adams-Neumark papers show the following:

- Wages of low-wage workers are modestly higher in cities that have passed living wage ordinances than in those that have not;
- Employment levels of these workers are modestly lower in these cities; and
- Poverty rates are lower there as well.

The magnitudes of these estimated effects often differ quite substantially between those in the bottom tenth of workers and those between the 10th and 50th percentiles.¹¹ Furthermore, the estimated effects also differ between laws covering contractors v. those covering firms obtaining financial assistance, and also vary according to the lag imposed on the law's passage.

For example, in Adams and Neumark (2005), a 50 percent increase in any type of specified living wage (relative to the minimum wage) raises wages of workers in the bottom tenth by 2 percent after a one-year lag, though this effect is not statistically significant.¹² It raises wages by about 1 percent for those between the 10th and 50th percentiles, regardless of how long a time lag is allowed between the effective date of

the living wage law and the time at which potential effects of the law are measured (with a six-month lag showing the most significant results). But contractor-only laws generate few significant positive effects on wages at all, while those for business assistance laws are more consistently positive and significant for both groups.¹³

As for employment effects, Adams and Neumark find that a 50 percent increase in the living wage reduces employment 6 percent with a one year lag among those in the bottom tenth of wages; the effect is again largest (nearly 9 percent) for business assistance laws and smallest (and insignificant) for contractor laws. No negative employment effects are observed for those in the 10th-50th percentiles of the wage distribution. Regarding poverty, Adams and Neumark estimate that a 50 percent increase in the living wage reduces the number of families below the poverty line by 1-2 percent, with much smaller changes below sub-poverty thresholds.

The last of these findings is quite striking, since it implies that the positive effects of living wage ordinances on wages more than offset their negative effects on employment, even though the estimated magnitudes of the former are not always greater than the latter. This finding is also noteworthy, since it is the opposite of what Neumark found (in his work with William Wascher) on the effects of minimum wage increases at the state or federal levels (Neumark and Wascher, 2006).

Adams and Neumark attribute their findings on poverty to the apparent fact that employers in covered firms shift employment away from those in the bottom tenth of workers and towards those somewhat higher in the wage distribution, whose skills are presumably stronger and more likely merit the now-higher wages that are mandated. Indeed, this interpretation is consistent with the changes in the relative employment rates of the two groups associated with “living wages” in their studies.

To bolster this interpretation, Adams and Neumark also show that poor families are more likely to include both categories of lower-wage workers; but that those further

below the poverty threshold contain relatively more workers from the lowest tenth of wages, while those nearer top the threshold contain relatively more workers between the 10th and 50th percentiles.¹⁴ They argue that those in the latter group are more likely to be pushed just over the poverty threshold by living wage laws, while those in the former group were and remain further below that threshold.

Thus, the improvement in poverty rates associated with living wage laws does not necessarily imply uniformly positive effects of these laws on labor market outcomes of the working poor; rather, their estimates suggest somewhat more negative effects for the bottom rung of workers in these cities, whose employment is most reduced by the presence of these laws; and more positive effects for those slightly higher (but still well below average) in the distribution of workers, who show no negative employment effects associated with these laws.

If correct, this interpretation might also account for why the effects on poverty rates of living wage laws appear negative in their work, while those of minimum wage laws are more positive. Adams and Neumark speculate that living wage laws affect workers high enough in the skills distribution to maintain employment, while those affected by minimum wage laws are more concentrated among the bottom rung of adults whose employment is more negatively affected by either type of law.

A few other findings by Adams and Neumark are noteworthy as well. For one thing, their results suggest that the impacts of minimum wage laws depend on geographic coverage and implementation. Specifically, they show that county-wide living wage laws, and those in cities where other nearby cities also have such laws, have the largest positive effects on observed wages of workers in the bottom tenth. In the case of county-wide laws, negative effects on employment are also reduced – consistent with the notion mentioned above of more limited competition from other lower-wage firms in these situations. The magnitudes of both wage gains and employment losses for these

workers are also greater (though not always significantly so) when community hiring is specified, when these laws are superseded by collective bargaining, when contractor coverage is relatively broad, and when enforcement and implementation of the laws are stricter and more aggressive.¹⁵ These findings thus confirm the notion that the context and specific features of how these laws are designed and implemented have important effects on their outcomes.¹⁶

One troubling aspect of the Adams-Neumark work is that their results, both positive and negative, seem too large, especially given the small numbers of workers directly affected by these laws. For example, if just 2-3 percent of workers in the bottom tenth are directly affected by these laws, then a 50 percent increase in the living wage must generate more than that amount of wage increase for the affected workers to raise their overall wages by 2 percent, as specified above. Since four times as many workers are found in the 10th-50th percentiles as in the bottom tenth, fewer than 1 percent of workers in the former category should be affected by living wage laws. Yet 50 percent increases in the living wage raise wages for this entire category of workers by 1 percent or more in their estimates. The employment declines estimated for those in the bottom tenth and noted above (as large as 6-9 percent in some cases) also seem too big, especially relative to the wage increases estimated for this group.

Brenner, Wicks-Lim, and Pollin (2002) also criticize the Adams and Neumark work.¹⁷ Specifically, they claim that: 1) Limiting their samples to workers in the bottom tenth (or even the 10th-50th percentiles) generate sample selection biases;¹⁸ 2) Subminimum-wage workers are very unlikely to be covered by “living wage” ordinances and therefore should not be in the sample; 3) Business assistance laws are often enforced very weakly, and cannot really generate the kinds of stronger effects estimated by Adams and Neumark; and 4) Coverage of cities in their sample is heavily tilted

towards Los Angeles along with some other very large cities. Indeed, they argue that the Adams-Neumark results are quite sensitive to these specification issues.

In turn, Adams and Neumark (2004) have responded to many of these criticisms, especially the ones regarding sample selection bias and the reach of business assistance laws. Though I find their arguments more compelling than those of their critics on many of these issues, some concerns over sample sizes and representativeness both within and across their cities remain. And questions about why some cities implement “living wage” ordinances in the first place while others do not – even within a sample of cities in which campaigns are attempted – raise concerns about whether treatment and control cities are truly comparable in all other dimensions but the living wage measure.

Studies Within Cities

A series of studies has also been done that focus on specific cities in which “living wage” ordinances have been implemented. Generally, these studies attempt to define groups of workers or firms that are relatively comparable to one another, except that one group should be affected by the passage of these laws and the other should not be. They then compare wage growth across the two groups of workers or firms after the passage of the “living wage” ordinance.¹⁹ Of course, open to question in virtually every study are: 1) the extent to which the two groups are really comparable; 2) the extent to which the living wage law affects one group but not the other; and 3) the extent to which the living wage law differentially affects the two groups.

For instance, Reich, Hall and Jacobs (2005) have analyzed the extension of San Francisco’s living wage law in 1999 to cover workers at San Francisco International Airport. They combined data from establishments at the airport, surveys of

workers there, and administrative data. The study finds strong positive effects on the lowest-paid workers' wages and reductions in inequality across worker groups. The positive effects at the bottom of the spectrum generate "ripple" effects on wages above those levels. They also find evidence of lower turnover and improved morale among workers. Additional costs to employers are estimated to be less than 1 percent of revenue. Finally, they find no evidence of reduced employment between 1998 and 2001. In fact, employment at the airport rose considerably over this time period.

However, it is noteworthy that this study contained no control group at all. A new international terminal was opened at the airport during this time period, and no doubt the terminal contributed importantly to rising employment. Absent the extension of the living wage law, it is impossible to know what the counterfactual level of employment would be, and whether or how much decline there might have been because of that extension.

David Fairris (2005) analyzes the effects of a living wage ordinance in Los Angeles. He analyzes data on 75 contractor firms and 210 non-contractors. Controlling for observable characteristics of these firms (size, union status, and profits), he finds higher wages for low-wage workers, though no change in benefit levels. He also finds reductions in turnover and absenteeism, as well as cuts in overtime hours and job training. And he finds modest reduction of employment of 1.6 percent overall at contractor relative to non-contractor firms, which presumably is concentrated among (and represents an even higher percentage of) low-wage worker employment.²⁰ In another study using these data, Fairris and Bujanda (2005) find that newly hired workers after the passage of the ordinance were older, more educated, and had already been earning higher wages elsewhere, thus offsetting as much as 40 percent of the wage gains generated by the ordinance (in their estimates).

Finally, Brenner (2005) concentrates on the effects of a new living wage law in Boston, by analyzing 15 service contractor firms that were affected by the law (because

they hired low-wage workers) and 51 firms unaffected (because they did not). Like the other studies, Brenner finds that wages rose among the least-paid workers and that inequality declined at the firms affected by the new law. He finds little effect on turnover and absenteeism, and he finds a reduction in the fraction of part-time workers. While Brenner claims that there was no reduction in employment at the affected firms, Adams and Neumark (2005) point out that employment grew relatively more rapidly (by about 10 percent) at the unaffected firms over the same period.

From these types of studies, it is impossible to infer the broader effects of living wage ordinances on the local labor markets in which they occur, and the magnitudes of effects on both wages and employment there; for instance, when employment grows less rapidly at covered firms, we do not know whether or where the workers who otherwise would have worked at these firms become employed, nor at what wages. But the observed reductions in part-time (or over-time) employment and in relative employment at these firms in both the Brenner and Fairris papers are consistent with modest reductions in labor demand and a reallocation of labor across firms, as emphasized in basic economic models of the labor market. Positive effects on turnover and morale are additional benefits that likely offset part of the higher costs to employers, but these do not necessarily offset those costs entirely. Whether or not the affected employers shift their hiring to those with more skills in response to the mandated payments of higher wages, as Adams and Neumark suggest, has also not been determined in any of these studies.

Conclusion

In this discussion paper I have reviewed the likely effects of “living wage” ordinances on employment outcomes, at least according to economic theory; as well as evidence on their actual effects. The evidence includes studies across cities that have or have not implemented these ordinances, using data from the Current Population Survey; as well as several studies focusing on smaller samples of workers and/or firms within specific cities that have passed these ordinances.

Both types of studies have clear limitations. Yet there is some consensus across most of them that wages rise among the least-paid workers, while their employment levels modestly decline (at the covered firms and maybe more broadly), as a result of these laws. There appears to be some evidence of lower turnover and better morale as well, though this might be partly driven by changes in the nature of workers hired as a result of the laws. There is also some evidence of reduced training and reduced use of part-time or over-time laws on the part of employers, as additional ways of offsetting their now-higher labor costs.

The cross-city work of Adams and Neumark has generated the additional finding that the implementation of living wage laws might be associated with modest reductions in poverty. This stands in sharp contrast to earlier work by Neumark on the effects of minimum wage increases. But Adams and Neumark also suggest that the poverty reductions are likely driven by improved wage and employment outcomes among workers whose wages are below the median but above the bottom tenth. In contrast, their work suggests that employment declines most for those in the bottom group.

Finally, it is clear from all of these studies that any effects of living wage laws – both positive and negative – are extremely modest in magnitude, since very few low-wage workers are actually affected by these laws, and the impacts per worker are quite

modest. The possibility that living wage ordinances on their own might help build a “middle class” is very remote. Indeed, one might apply a version of Henry Kissinger’s description of academic politics to the study of living wage laws – namely, that the politics are so fierce while (or maybe because) the stakes are so very small.

It is not at all clear how the scope of “living wage” laws might be expanded so that they might affect more workers. But, even if it was known how to do so, their potential negative as well as positive effects might grow in overall magnitude. As such, the usefulness of this particular tool as a means of combating growing labor market inequality will necessarily be limited.

This does not mean, in my view, that “living wage” laws should not be passed. Generating some very modest net benefits for workers with below-average wages, especially in poor households, is arguably better than generating none at all. In a world where few other tools might realistically be available to directly raise the wages of low earners, perhaps “living wage” ordinances should be thought of as one of the few policy tools available in a very imperfect and constrained situation for the advocates of low-wage workers. Moreover, perhaps other goals - such as limiting the outsourcing of municipal work and the use of public money to subsidize large companies through “economic development” - have been accomplished through “living wage” ordinances as well.

Furthermore, if placed within the context of broader campaigns to improve the wages and benefits of less-skilled workers in the private sector, the “living wage” battles might play some useful symbolic role and raise awareness of pay disparity issues. Expanding collective bargaining, for example, would likely have far greater impacts, and perhaps “living wage” campaigns can be part of broader efforts to do so. But “living wage” campaigns must then be viewed as complements, not substitutes, for these other efforts.

It seems that a few other lessons might be derived from this work. For one thing, attempts to address labor market inequality through public mandates alone inevitably generate the risks of tradeoffs between wage levels and employment. The possibility of tradeoffs does not necessarily imply that these mandates have no role – but only that they entail potential costs as well as benefits. This notion is also true of higher minimum wages and expanded collective bargaining – especially in a world where new technologies, immigration and offshoring present employers with many more options for offsetting higher wages than they had in the past. In other words, labor demand has likely grown more “elastic” (wage-sensitive) over time – which results both in greater inequality and more serious constraints in our efforts to reverse it through government dictates.

Efforts to reverse wage inequality will likely require a wide range of efforts, including much more education and training, and publicly financed benefits (like health insurance and parental leave) that do not induce employers to respond to higher labor costs with employment reductions. Efforts to support the creation of higher-wage jobs – through tax credits for training or job upgrading and technical assistance as well as mandates – also need to be part of the equation (Holzer, 2007). Battles to expand “social justice” by directly raising the wages of a small group of workers might contribute to these broader efforts, but their own limited direct effects should be acknowledged.

Appendix A. Summary of U.S. Living Wage Ordinances

Municipality/County	Adoption Date	Living Wage		Coverage			Local Minimum Wage	Notes
		with Health Insurance	w/o Health Insurance	Local Government Employees	Public Contracts	Financial Assistance		
Ventura, CA	May 2006	\$9.75	\$12.50	Y	Y	N	N	
Manchester, CT	April 2006	\$11.06	\$14.00	N	Y	Y	N	
Miami, FL	April 2006	\$10.58	\$11.83	Y	Y	N	N	
Albuquerque, NM	April 2006	n/a	\$7.50	Y	N	N	N	Final wage level of \$7.50 to be phased in by 2009.
Sandia Pueblo, NM	April 2006	n/a	\$8.18	Y	Y	Y	Y	
Santa Barbara, CA	March 2006	\$12.00	\$14.00	N	Y	N	N	Living wage set at \$11.00 for employers who provide additional benefits to employees.
Washington, DC	January 2006	n/a	\$11.75	N	Y	Y	N	Additionally, a citywide minimum wage is set at \$7.00 per hour or \$1.00 above the federal minimum wage, whichever is greater.
Nassau County, NY	December 2005	n/a	\$12.50	N	Y	N	N	Final wage level of \$12.50 to be phased in by 2010.
Albany, NY	September 2005	n/a	\$10.25	N	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Brookline, MA	May 2005	n/a	\$10.30	N	Y	N	N	
Syracuse, NY	May 2005	\$10.08	\$11.91	N	Y	N	N	Living wage level is indexed to rise with the consumer price index. Only employees working 30 years or more are covered.
Philadelphia, PA	May 2005	n/a	\$7.73	Y	Y	N	N	Living wage level is set to 150 percent of the higher of federal or state minimum wage.
Eau Claire, WI	* May 2005	n/a	\$5.65	Y	Y	Y	Y	Repealed by state law in June 2005.
Lacrosse, WI	* April 2005	n/a	\$5.70	Y	Y	Y	Y	Repealed by state law in June 2005.
Santa Monica, CA	March 2005	n/a	\$12.10	N	Y	N	N	Previous living wage ordinance passed in 2001, repealed in 2002.
Bloomington, IN	March 2005	\$8.50	\$10.00	N	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Milwaukee, WI	* February 2005	n/a	\$7.98	Y	Y	Y	Y	Repealed by state law in June 2005.

Sonoma, CA	July 2004	\$11.70	\$13.20	Y	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Durham County, NC	June 2004	n/a	\$10.34	Y	Y	N	N	Living wage level is set at 7.5 percent above the federal poverty level for a family of four.
Lincoln, NE	March 2004	\$9.62	\$10.58	N	Y	N	N	Living wage level is set at 100 percent (w/health insurance) or 110 percent (w/o health insurance) of the federal poverty level for a family of four.
Sacramento, CA	December 2003	\$9.67	\$11.17	Y	Y	N	N	Living wage level is indexed to rise with the consumer price index.
Sebastopol, CA	December 2003	**	\$13.20	Y	Y	Y	N	Employers may deduct health-care costs from the wage level. Living wage level is indexed to rise with the federal cost of living adjustment for the San Francisco area.
Lawrence, KS	October 2003	\$11.00	\$12.50	N	N	Y	N	Living wage level is set at 130 percent of the federal poverty level for a family of three.
Port Hueneme, CA	October 2003	\$9.00	\$11.50	N	Y	N	N	
Lansing, MI	September 2003	\$10.60	\$13.25	N	Y	Y	N	Employers may deduct health-care costs from the wage level (up to 20 percent of the wage). Living wage level is set at 125 percent of the federal poverty level for a family of four.
Orlando, FL	August 2003	\$8.50	\$10.20	Y	Y	N	N	
Lakewood, OH	July 2003	\$10.28	\$11.39	Y	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Dayton, OH	July 2003	\$9.30	\$11.16	N	Y	N	N	Living wage level is set at 100 percent (w/health insurance) or 120 percent (w/o health insurance) of the federal poverty level for a family of four.
Arlington, VA	June 2003	n/a	\$11.20	N	Y	N	N	

Ingham County, MI	June 2003	\$10.00	\$12.50	Y	Y	N	N	Employers may deduct health-care costs from the wage level (up to 20 percent of the wage). Living wage level is set at 125 percent of the federal poverty level for a family of four.
Prince George's County, MD	June 2003	n/a	\$11.25	N	Y	N	N	Living wage level is indexed to rise with the consumer price index.
Palm Beach County, FL	February 2003	n/a	\$10.39	N	Y	N	N	
Santa Fe, NM	February 2003	n/a	\$10.50	Y	Y	Y	Y	Living wage level is indexed to rise with the consumer price index.
Cincinnati, OH	November 2002	\$9.23	\$10.80	Y	Y	N	N	Living wage level is adjusted annually by the percentage increase in the federal poverty guidelines.
Louisville, KY	November 2002	\$11.00	n/a	Y	N	N	N	Health care must be provided on top of the living wage. Living wage level is indexed to rise with the federal cost of living adjustment.
Bellingham, WA	November 2002	\$10.81	\$12.43	N	Y	N	N	Living wage level is adjusted annually by the percentage change in the Implicit Price Deflator.
Westchester County, NY	November 2002	\$11.50	\$13.00	N	Y	Y	N	
Taylor, MI	November 2002	\$9.67	\$12.09	N	Y	N	N	Living wage level is set at 100 percent (w/health insurance) or 125 percent (w/o health insurance) of the federal poverty level for a family of four.
Broward County, FL	October 2002	\$10.15	\$11.48	Y	Y	N	N	
Watsonville, CA	September 2002	\$12.43	\$13.56	N	Y	N	N	Living wage level is indexed to rise with the federal cost of living adjustment.
Fairfax, CA	August 2002	\$13.00	\$14.75	Y	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Southfield, MI	July 2002	\$10.00	\$12.50	N	Y	Y	N	Living wage level is set at 100 percent (w/health insurance) or 125 percent (w/o health insurance) of the federal poverty level for a family of four.
Oxnard, CA	July 2002	n/a	\$12.88	N	Y	N	N	

Montgomery County, MD	June 2002	n/a	\$11.60	N	Y	N	N	
New Orleans, LA	February 2002	n/a	\$6.85	Y	Y	Y	Y	Citywide minimum wage is set at \$1.00 above the federal minimum wage.
Hazel Park, MI	* February 2002	n/a	n/a	n/a	n/a	n/a	n/a	Repealed in June 2002.
Marin County, CA	January 2002	\$9.50	\$10.75	Y	Y	N	N	
Pima County, AZ	January 2002	\$8.60	\$9.67	Y	N	N	N	Living wage level is indexed to rise with the consumer price index.
Bozeman, MT	December 2001	\$9.00	\$10.06	Y	N	Y	N	Living wage level is indexed to rise with the consumer price index.
Santa Cruz County, CA	December 2001	\$12.43	\$13.56	N	Y	N	N	Living wage level is indexed to rise with the consumer price index.
New Britain, CT	December 2001	n/a	\$10.97	N	Y	Y	N	Living wage level is set at 118 of the federal poverty level for a family of four.
Cumberland County, NJ	December 2001	\$10.87	\$8.50	N	Y	N	N	Employers who do not provide a pension benefit must add a further \$1.25 to the hourly wage.
Camden, NJ	* December 2001	\$8.00	\$9.50	N	Y	N	N	Repealed in January 2003.
Burlington, VT	November 2001	\$12.02	\$13.49	Y	Y	Y	N	Living wage level is indexed to rise with the state-level cost of living adjustment.
Charlottesville, VA	November 2001	n/a	\$9.73	N	Y	N	N	
Richmond, CA	October 2001	\$11.42	\$12.92	N	Y	Y	N	Living wage level is adjusted annually by the percentage increase in wages under citywide employee labor agreements.
Washtenaw County, MI	October 2001	\$9.87	\$11.58	N	Y	N	N	
Hempstead, NY	* October 2001	\$9.00	\$10.25	N	Y	Y	N	Repealed in December 2001.
Monroe County, MI	* October 2001	\$8.70	\$10.20	Y	Y	N	N	Repealed in March 2003.
Ashland, OR	September 2001	**	\$12.43	Y	Y	Y	N	Employers may deduct health-care costs and other benefits from the wage level. Living wage level is indexed to rise with the consumer price index.
Oyster Bay, NY	August 2001	\$9.00	\$10.25	N	Y	N	N	Only employees in janitorial and security jobs are covered.

Gloucester County, NJ	August 2001	\$8.50	\$10.87	N	Y	N	N	Living wage level is set at the greater of \$8.50 per hour or the federal poverty level.
Suffolk County, NY	July 2001	\$10.02	\$11.41	N	Y	Y	N	
Pittsburgh, PA	* May 2001	\$9.12	\$10.62	Y	Y	Y	N	Repealed in March 2002.
Ventura County, CA	May 2001	\$9.00	\$2.00	N	Y	N	N	
Miami Beach, FL	April 2001	\$8.56	\$9.81	Y	Y	N	N	Living wage level is indexed to rise with the consumer price index.
Pittsfield Township, MI	April 2001	\$9.88	\$11.58	N	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Eastpointe, MI	March 2001	\$10.00	\$12.50	N	Y	Y	N	Living wage level is set at 100 percent (w/health insurance) or 125 percent (w/o health insurance) of the federal poverty level for a family of four.
Missoula, MT	March 2001	\$9.22	n/a	N	N	Y	N	Living wage level is set to at least match the pay of the lowest-paid city full-time employee. Health benefits must also be provided.
Ann Arbor, MI	March 2001	\$9.91	\$11.48	N	Y	Y	N	Living wage level is adjusted annually by the percentage increase in the federal poverty guidelines.
Ferndale, MI	February 2001	\$8.50	\$9.75	N	Y	N	N	
Rochester, NY	January 2001	\$9.68	\$10.81	N	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Salem, OR	* January 2001	\$9.50	\$11.00	Y	N	N	N	Repealed in January 2003.
Meriden, CT	November 2000	\$10.64	**	N	Y	N	N	Living wage level is set at 110 percent (w/health insurance) of the federal poverty level for a family of four. If health insurance is not provided, the employer must pay an additional hourly sum determined by the city based on average costs of comprehensive health insurance in the state.
Santa Cruz, CA	October 2000	\$12.43	\$13.56	Y	Y	N	N	
Eau Claire County, WI	* September 2000	\$7.53	\$8.29	N	Y	N	N	Repealed by state law in June 2005.

San Francisco, CA	August 2000	**	\$11.03	N	Y	N	N	Covered employers must provide health insurance or pay \$1.25 per worker per hour into the city's public health system fund. Additionally, a citywide minimum wage is set at \$9.36 per hour and is indexed to rise with the consumer price index.
St. Louis, MO	August 2000	\$10.31	\$13.18	N	Y	Y	N	Living wage level is defined as a wage sufficient to lift a family of three above the eligibility level for food stamps.
Berkeley, CA	June 2000	\$11.39	\$13.28	Y	Y	Y	N	Amended in October 2000 to include all employees at the city marina.
Cleveland, OH	June 2000	n/a	\$10.00	N	Y	Y	N	Only employees working at least 30 hours per week are covered.
Alexandria, VA	June 2000	n/a	\$12.75	N	Y	N	N	Living wage level is indexed annually to the poverty threshold for a family of four in combination with costs for health insurance.
Toledo, OH	June 2000	\$10.57	\$12.50	N	Y	Y	N	Living wage level is set at 110 percent (w/health insurance) or 130 percent (w/o health insurance) of the federal poverty level for a family of four.
Omaha, NE	* April 2000	n/a	n/a	Y	Y	Y	N	Repealed in September 2001. Living wage level was set at 100 percent (w/health insurance) or 110 percent (w/o health insurance) of the federal poverty level for a family of four.
San Fernando, CA	April 2000	\$7.75	\$8.82	N	Y	Y	N	Wages are adjusted annually based on changes in the state employment retirement system.
Denver, CO	February 2000	n/a	\$9.62	N	Y	N	N	Only employees in the following jobs are covered: parking lot attendant, security guard, clerical support worker, childcare worker. Living wage level is set at 100 percent of the federal poverty level for a family of four.

Warren, MI	January 2000	\$9.68	\$12.09	N	Y	Y	N	Living wage level is set at 100 percent (w/health insurance) or 125 percent (w/o health insurance) of the federal poverty level for a family of four.
Corvallis, OR	November 1999	n/a	\$10.47	N	Y	N	N	Living wage level is indexed to rise with the consumer price index.
Hartford, CT	September 1999	\$10.58	\$15.39	N	Y	Y	N	Living wage level is set at 110 percent (w/health insurance) of the federal poverty level for a family of four.
Tucson, AZ	September 1999	\$9.17	\$10.32	N	Y	N	N	Living wage level is indexed to rise with the consumer price index.
Buffalo, NY	August 1999	\$9.03	\$10.15	N	Y	N	N	
Los Angeles County, CA	June 1999	\$8.32	\$9.46	N	Y	N	N	
Ypsilanti, MI	June 1999	\$8.50	\$10.00	N	Y	Y	N	
Ypsilanti Township, MI	June 1999	\$8.50	\$10.00	N	Y	Y	N	
Somerville, MA	May 1999	n/a	\$10.51	Y	Y	N	N	Living wage level is set at 100 percent of the federal poverty level for a family of four.
Miami-Dade County, FL	May 1999	\$9.81	\$11.23	Y	Y	N	N	
Cambridge, MA	May 1999	n/a	\$12.19	Y	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Hayward, CA	April 1999	\$9.71	\$11.20	Y	Y	N	N	Living wage level is indexed to rise with the area cost of living adjustment.
Madison, WI	March 1999	n/a	\$10.92	Y	Y	Y	N	Living wage level is set at 110 percent of the federal poverty level for a family of four.
Dane County, WI	March 1999	n/a	\$9.31	Y	Y	Y	N	Living wage level is set at 100 percent of the federal poverty level for a family of four.
Hudson County, NJ	January 1999	\$7.73	n/a	N	Y	N	N	Living wage level is set at 150 percent of the federal minimum wage. Only employees in security, food service, and janitorial jobs working at least 20 hours per week are covered. Health benefits must also be provided.

San Jose, CA	November 1998	\$12.20	\$13.52	N	Y	Y	N	
Detroit, MI	November 1998	\$10.00	\$12.50	N	Y	Y	N	Living wage level is set at 100 percent (w/health insurance) or 125 percent (w/o health insurance) of the federal poverty level for a family of four.
Multnomah County, OR	October 1998	**	\$10.63	N	Y	N	N	Living wage level is indexed to rise with the consumer price index. Only employees in security, food service, and janitorial jobs are covered. Mandated wage level is the hourly value of the wage and benefits package paid to the employee.
Pasadena, CA	September 1998	\$9.16	\$10.73	Y	Y	N	N	Living wage level is indexed to rise with the consumer price index.
Cook County, IL	September 1998	\$9.43	\$11.78	N	Y	N	N	
Chicago, IL	July 1998	n/a	\$10.33	N	Y	N	N	Living wage level is set at 100 percent of the federal poverty level for a family of four.
San Antonio, TX	July 1998	n/a	\$9.62	N	N	Y	N	Covered employers must also pay at least 70 percent of their workers a higher wage (\$11.14 for services involving durable goods and \$10.86 for services involving non-durable goods).
Oakland, CA	March 1998	\$10.07	\$11.58	N	Y	Y	N	Living wage level is indexed to rise with the consumer price index.
Durham, NC	January 1998	n/a	\$9.51	Y	Y	N	N	Living wage level is set at 105 percent of the federal poverty level.
West Hollywood, CA	October 1997	\$8.67	\$9.92	N	Y	Y	N	
Boston, MA	September 1997	n/a	\$11.95	N	Y	N	N	Living wage level is set to the higher of 100 percent of the federal poverty level for a family of four or 110 percent of the state minimum wage.
Duluth, MN	July 1997	\$7.61	\$8.49	N	N	Y	N	Living wage ordinance mandates that covered employers pay at least 90 percent of their employees the living wage.

Milwaukee County, WI	May 1997	n/a	\$7.88	N	Y	N	N	Living wage level is indexed to rise with the consumer price index. Only employees in janitorial, security, and parking lot attendant jobs are covered.
New Haven, CT	April 1997	n/a	\$11.50	N	Y	N	N	Living wage level is set at 120 percent of the federal poverty level for a family of four.
Los Angeles, CA	March 1997	\$9.39	\$10.64	N	Y	Y	N	Wages are adjusted annually based on changes in the benefits paid to the members of the city employees' retirement system.
Minneapolis, MN	March 1997	n/a	\$10.57	N	N	Y	N	Living wage level is set at 110 percent of the federal poverty level for a family of four.
St. Paul, MN	January 1997	n/a	\$10.57	N	N	Y	N	Living wage level is set at 110 percent of the federal poverty level for a family of four.
New York City, NY	September 1996	\$10.00	\$11.10	N	Y	N	N	
Jersey City, NJ	June 1996	\$7.50	n/a	N	Y	N	N	Only employees in clerical, food service, janitorial, and security jobs are covered. Health and vacation benefits must also be provided.
Portland, OR	June 1996	\$8.91	\$10.57	N	Y	N	N	Only employees in temporary janitorial, parking lot attendant, clerical, and security jobs are covered.
Santa Clara County, CA	October 1995	\$10.00	n/a	N	N	Y	N	Covered employers must provide health insurance or a suitable alternative to permanent employees.
Baltimore, MD	December 1994	n/a	\$9.30	N	Y	N	N	
Gary, IN	January 1991	**	n/a	N	N	Y	N	Covered employers must pay a prevailing wage and provide a complete health care package to employees working over 25 hours per week.
Des Moines, IA	January 1988	\$9.00	n/a	N	Y	N	N	Living wage ordinance covers urban renewal projects and mandates an average wage of \$9.00 with benefits.

* = Ordinance has been repealed. ** = See notes for more information. n/a = Not available.

Sources: Living Wage Resource Center; Web sites of respective jurisdictions.

Appendix C. The Adams-Neumark Estimation Methodology

Using CPS-ORG data for the period 1996-2002, Adams and Neumark have estimated equations of the following form:

$$Y_{ikt} = f(LW_{kt}; X_{it}; X_{kt}) + u_{ikt}$$

where Y represents the log(wage), employment, or poverty status of the individual; LW represents the log of the living wage for city k and month/year t (and is set to zero where no such wage exists); the X represent certain control variables for characteristics of people or their cities/states; u is a residual; and i, k and t denote a person, city, or month/year respectively.

The samples are frequently limited to workers aged 16–70 in the bottom tenth of workers in each metro area, or sometimes those between the 10th and 50th percentiles. Personal characteristics for which controls are included are generally age, sex, race, education and marital status. Time and city dummies are included to control for average local unemployment rates and average wages; state-level statutory minimum wages during the relevant period, as well as time trends for cities with and without living wages at any point in time, are included as controls as well.

LW appears either contemporaneously or in lagged form (by six months or 1 year). Sometimes a single LW variable is used to represent the presence of “living wage” laws, while in other cases separate variables are included for cities with provisions covering contractors v. firms receiving city assistance.

Only those cities with at least 25 low-wage workers appearing in the sample in any specified month are included in the sample. This condition, along with the fact that the CPS only identifies the larger metropolitan areas to start with, implies that the sample of cities is quite highly skewed towards the largest. Finally, to account for differences in unobserved characteristics between cities that choose to implement living wage laws v. those that do not, at least one of the Adams-Neumark papers limits the

sample only to those cities that have at least tried to pass a living wage law in a local referendum, either successfully or not.²¹

1. I am grateful to Igor Kheyfets for excellent research assistance. I also benefited from helpful comments made by Doug Wissoker, Howard Wial, and other participants in the 2008 Conference on Urban and Regional Policy and Its Effects.

2. Until the most recent rounds of increases in the federal minimum wage that were implemented in 2007 and 2008, the statutory minimum had fallen to only about 30 percent of the mean wage in the private sector—its lowest level in five decades. The fraction of private sector workers organized into unions, at under 8 percent, has also fallen to a 50-year low (Mishel, Bernstein, and Shierholz 2006).

3. The federal minimum wage is \$6.55 and is scheduled to rise to \$7.25 in July 2009. Nearly thirty states currently have minimum wage laws exceeding the federal level. See Economic Policy Institute (2007).

4. Some cities instead use the poverty rate for a family of three, at roughly \$18,000, as a guideline in setting their required wage levels. The official poverty lines rise annually with the rate of inflation (as measured by the Consumer Price Index), though the locally required wages do not always rise as well. But comparisons of annual incomes based on year-round full-time work at these wage levels with poverty rates assume only one worker per household and no other income supplements, such as the Earned Income Tax Credit, which is available to low-income workers with children. For a discussion of the limits of the current poverty measures see Blank (2008).

5. On average, only about three-fourths of the U.S. population falls between the ages of 16 and 64, and labor force participation rates for them generally average 60-70 percent.

6. The extra jobs in the uncovered sectors are generated because wages are reduced in those sectors to accommodate the workers who move there after losing their jobs in the covered sector and create enough extra jobs to employ them. These are known as “general equilibrium” effects in the labor market . See, for example, Mincer (1976) and Johnson and Mieszkowski (1970).

7. This discussion assumes that the covered employers are all located nearby in the same geographic area. For firms with municipal contracts, that might not actually be the case.

8. If, for instance, the labor market is characterized by “monopsony” – in which employers face very little competition for the workers whom they hire – then market forces generate wages below the competitive level, and a government wage mandate could actually raise employment levels as well as wages . See Ehrenberg and Smith(2005). But whether the labor markets in question might really be characterized by monopsony power is quite doubtful, in my view.

9. Even in these cases, there might be job losses relative to what might exist in the absence of the “living wage” ordinance, but the employment prospects of low wage workers might not be negatively affected, as the losses are fully offset by other sources of job growth. As an example, when the federal minimum wage was raised in 1996-97, job growth in U.S. labor markets at that time seemed sufficiently strong to offset any losses that might otherwise have been observed.

10. Economists might characterize this situation as one of “asymmetric information,” in which employers know how they intend to respond to the passage of prospective “living wage” ordinances, but the public does not and can only speculate about that.

11. By definition, 10 percent of workers earn less than the 10th percentile and 90 percent earn more. Half of workers earn less than the 50th percentile and half earn more.

12. Statistical significance is measured at the .10 level in this discussion paper.

13. Specifically, wages rise by about 3 percent for the lowest tenth of workers with a 50 percent increase in the living wage relative to the minimum wage after a one-year lag; and they

raise the wages of those in the 10th-50th percentiles by 1-2 percent regardless of how long a time lag is allowed.

14. Of course, very young workers in middle- or upper-income families can also be found in large numbers among those in the bottom tenth or 10th-50th percentiles of the wage distribution.

15. See Adams and Neumark (2004, 2005) for exactly how they define each of these characteristics.

16. The effects of other design features, such as the handling of health insurance and other benefits, has not been studied to date.

17. Brenner, Wicks-Lim, and Pollin (2002) actually focus on an earlier paper by Neumark (2002) in their critique. But most features of that paper to which they object have been retained in subsequent analyses by Adams and Neumark.

18. Sample selection biases may occur when statistical estimates are based on a sample (in this case, low-wage workers) that is not representative of the entire population (in this case, all workers regardless of wage level). Such biases may be an especially important problem when, as in Adams and Neumark's work, the dependent variable in the regressions (i.e., the wage) is being used to define the sample.

19. In so doing, these studies mostly generate "difference-in-difference" estimates of the impacts of the ordinances on workers' wages.

20. Indeed, Adams and Neumark claim that the reduction in employment among low-wage workers is likely 2-3 times as large in magnitude as the 1.6 percent figure suggests, since low-wage workers constitute one-third to one-half of total employment.

²¹ Adams and Neumark (2003).

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