Contents

Executive Summary ...........................................................................................................................................1
Introduction ........................................................................................................................................................2
Unionized Service-Sector Workers Earn More, More Likely to Have Benefits ...........................................3
Conclusion ..........................................................................................................................................................6
References ...........................................................................................................................................................7
Appendix .............................................................................................................................................................8
  Health ..............................................................................................................................................................8
  Pension ............................................................................................................................................................8
  Union ..............................................................................................................................................................8
  Low-Wage Occupations ...............................................................................................................................9
  Data .................................................................................................................................................................9

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Executive Summary

Historically, unionization in the United States has been closely tied to manufacturing, including well paid and highly visible jobs in steel and autos. For decades, however, manufacturing employment has been falling as a share of national employment, contributing to a broader, long-term decline in national unionization rates. As manufacturing employment has declined, the service sector has grown to account for more than three-fourths of all jobs in the United States.

The data suggest that even after controlling for systematic differences between union and non-union workers, union representation substantially improves the pay and benefits received in the sector.

On average, unionization raised service-sector workers’ wages by 10.1 percent – about $2.00 per hour – compared to non-union service-sector workers with similar characteristics.

For service-sector workers, the union impact on health-insurance and pension coverage was even larger. Those in unions were about 19 percentage points more likely to have employer-provided health insurance, and about 25 percentage points more likely to be in an employer-provided pension.

The benefits of unionization are also large for service-sector workers in low-wage occupations. For service workers in the 15 lowest-paying occupations, unionization raises wages by about 15.5 percent. For the same group of service-sector workers in low-wage occupations, unionization is also associated with a 26 percentage point greater likelihood of having health insurance and a 23 percentage point greater likelihood of pension coverage.

The findings demonstrate that service-sector workers who are able to bargain collectively earn more and are more likely to have benefits associated with good jobs. The data, therefore, suggest that better protection of workers’ right to unionize would have a substantial positive impact on the pay and benefits of service-sector workers.
Introduction

Historically – and in the popular imagination – unionization in the United States has been closely tied to manufacturing, including well paid and highly visible jobs in steel and autos. For decades, however, rapid productivity growth and foreign competition have led to a steady decline in manufacturing employment, contributing to a broader, long-term decline in national unionization rates. As manufacturing employment has waned, however, the services have stepped in to fill the employment vacuum and today more than three-fourths of all jobs in the United States are in the service sector.1 Services have also greatly increased their importance in the unionized sector of the labor force. For almost the entire history of the United States, services had a lower unionization rate than manufacturing. By 2006, however, the union presence in the service sector – which includes public-sector employment, where unionization rates are higher than the national average – surpassed that of manufacturing, a feature of the labor market that has continued in 2007 and 2008.2

This paper uses the most recent data available to examine the impact of unionization on the pay and benefits of service-sector workers. The data suggest that even after controlling for systematic differences between union and non-union workers, union representation substantially improves the pay and benefits received in the sector.3 On average, unionization raised service-sector workers’ wages by 10.1 percent – about $2.00 per hour – compared to non-union service-sector workers with similar characteristics.4 The union impact on health-insurance and pension coverage was even larger. Among service-sector workers, those in unions were about 19 percentage points more likely to have employer-provided health insurance,5 and about 25 percentage points more likely to be in an employer-provided pension.6

These union effects are large by any measure. To put these findings into perspective, between 1996 and 2000, a period of sustained, low unemployment that helped to produce the best overall wage growth in the last three decades, the real wages of the median worker increased by about 10 percent.7 The union wage effect estimated here is the equivalent, therefore, to four years of wage growth at the fastest pace seen in the U.S. economy since the end of the 1970s. In dollar terms, the union return to health and pension benefits is likely to be even larger than it is for wages. For example, according to the Kaiser Family Foundation, in 2008, the annual average cost of a health-insurance policy for a family of four was $12,680, for individual coverage, $4,704.8

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1 The service sector, as analyzed here, includes all jobs excluding those in agriculture, forestry, fishing, mining, manufacturing, construction and the Armed Services. For the time period covered in this report, service-sector workers made up 77.8 percent of all employment (author's analysis of CEPR CPS ORG extract 2004-2007).
3 Earlier research finds substantial union effects on wages and benefits for workers overall; among many others see Blanchflower and Bryson (2007), and Schmitt (2008).
4 Over the period 2004-2007, the average wage of service-sector workers, in constant 2007 dollars, was $19.30 per hour. The union wage premium at the mean wage estimated here is 10.1 percent, or $1.95 per hour.
5 An employer- or union-sponsored plan for which the employer paid at least a portion of the insurance premium. To be clear, we believe that universal health care, where eligibility is not connected to an individual's employment status or particular employer, would be a substantial improvement over the current system, which leaves many workers and their children without health insurance.
6 The employer- or union-provided pension may or may not include an employer contribution to the plan.
7 Author's analysis of CEPR's CPS ORG extract. For a discussion of the economic and social benefits of sustained low unemployment, see Bernstein and Baker (2003).
8 See Kaiser Family Foundation and Health Research & Educational Trust (2008).
Unionized Service-Sector Workers Earn More, More Likely to Have Benefits

Over the period 2004-2007, 13.3 percent of service-sector workers were unionized, about equal to the 13.5 percent share for all workers. Unionized service workers typically earned substantially more than their non-union counterparts. In 2004-2007, the median unionized service worker earned about $20.19 per hour, compared to $14.42 per hour for the median non-union worker in the same sector. Unionized service workers were also much more likely to have health insurance (77.2 percent) than service workers who weren’t in unions (52.1 percent), and also much more likely than non-union workers to have a pension plan (75.6 percent, compared to 42.6 percent).

In the service sector, wages and benefit coverage vary substantially by gender and union status. In 2004-2007, men were somewhat more likely to be unionized (13.8 percent) than women were (12.9 percent). Female service-sector workers in unions earned more ($19.04) than those who were not in unions ($13.19), and were also much more likely to have health insurance (74.7 percent) and a pension (76.3 percent) than young women who were not in a union (49.6 percent for health insurance, 41.9 percent for pension coverage). On average, male service-sector workers in a union also earned substantially more ($21.63 per hour) than their non-union counterparts ($16.34 per hour), and were much more likely to have health insurance (80.4 percent) and a pension (74.9 percent) than if they were not in a union (55.2 percent for health insurance, 43.6 percent for pension coverage).

The data presented in the first three rows of Table 1 cover all service-sector workers, including those at the bottom, middle, and top of the wage distribution. The last row of the table looks only at service-sector workers in the 15 lowest-wage occupations. As was the case for service workers as a whole, unionized service-sector workers in low-wage occupations earned substantially higher salaries and were much more likely to have health insurance and a pension plan than were their non-union counterparts in the same occupations. The median unionized service-sector worker in a low-wage occupation earned almost three dollars per hour more ($11.84) than the median non-union worker in the same sector ($9.00). Unionized service-sector workers in these same low-wage occupations also had large advantages over non-union service workers with respect to non-wage benefits. About 62.9 percent of unionized workers in low-wage occupations in services had health insurance, compared to just 29.3 percent of the non-union service workers in the same occupations. For pension plans, the union gap was even larger: 57.7 percent of unionized service-sector workers in low-wage occupations had a pension, compared to only 21.6 percent of their non-union counterparts.

The data in Table 1, however, may overstate the union effect because union workers may be more likely to have characteristics associated with higher wages such as being older or having more formal education. Table 2, therefore, presents a second set of results using standard regression techniques.

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9 The 15 low-wage occupations are: food preparation workers, cashiers, cafeteria workers, child-care workers, cooks, housekeeping cleaners, home-care aides, packers and packagers, janitors, grounds maintenance workers, nursing and home-health aides, stock clerks, teachers' assistants, laborers and freight workers, and security guards. Together, these occupations represent about 15 percent of total U.S. employment. See the data appendix and Schmitt, Waller, Fremstad, and Zipperer (2008) for a complete description of the occupations.
to control for these potential differences in the union and non-union workforces.\(^{10}\) Controlling for these other effects does reduce the union wage and benefit effect, but the impact of unionization on the wages and benefits of young workers remains large.

**TABLE 1**

Hourly wages and union share for service-sector workers, 2004-2007

<table>
<thead>
<tr>
<th>Union share (percent)</th>
<th>Median hourly wage (2007$)</th>
<th>Health-insurance coverage (percent)</th>
<th>Pension coverage (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Union</td>
<td>Non-union</td>
<td>Union</td>
</tr>
<tr>
<td>All</td>
<td>13.3</td>
<td>20.19</td>
<td>14.42</td>
</tr>
<tr>
<td>Women</td>
<td>12.9</td>
<td>19.04</td>
<td>13.19</td>
</tr>
<tr>
<td>Men</td>
<td>13.8</td>
<td>21.63</td>
<td>16.34</td>
</tr>
<tr>
<td>In low-wage occupations</td>
<td>11.4</td>
<td>11.84</td>
<td>9.00</td>
</tr>
</tbody>
</table>

Notes: CEPR analysis of CEPR extract of the Current Population Survey Outgoing Rotation Group and UNICON extract of March Current Population Survey data. Union refers to union membership or union coverage. Health insurance refers to participation in an employer- or union-sponsored plan where the employer pays some or all of the premium. Pension refers to participation in an employer-sponsored plan, with or without employer contribution. See Appendix Table for further details on sample. Health and pension coverage refer to 2004-2006; wages refer to 2004-2007. Service sector covers all workers outside agriculture, forestry, fishing, mining, manufacturing, construction, and the Armed Services.

**TABLE 2**

Regression-adjusted union wage, health, and pension premiums for service-sector workers, 2004-2007

<table>
<thead>
<tr>
<th>Union Share (percent)</th>
<th>Hourly wage (percent)</th>
<th>Health-insurance coverage (p.p.)</th>
<th>Pension coverage (p.p.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>13.3</td>
<td>10.1</td>
<td>19.1</td>
</tr>
<tr>
<td>Women</td>
<td>12.9</td>
<td>10.4</td>
<td>19.0</td>
</tr>
<tr>
<td>Men</td>
<td>13.8</td>
<td>9.4</td>
<td>19.2</td>
</tr>
<tr>
<td>In low-wage occupations</td>
<td>11.4</td>
<td>15.5</td>
<td>25.9</td>
</tr>
</tbody>
</table>

Notes: All regressions include controls for age, education, gender (where appropriate), state, and two-digit industry. Union wage premiums in percent are converted from log points; all are statistically significant at at least the one-percent level. Union health insurance and pension coverage figures are the percentage-point (p.p.) increases associated with union coverage or membership; all estimates are significant at the one-percent level. See Appendix Table for further details about sample. Health and pension coverage refer to 2004-2006; wages refer to 2004-2007. Service sector covers all workers outside agriculture, forestry, fishing, mining, manufacturing, construction, and the Armed Services.

After controlling for workers’ characteristics, the union wage premium for all service-sector workers is 10.1 percent or about $2.00 per hour.\(^{11}\) For service workers, the union advantage with respect to health insurance and pension coverage also remains large even after controlling for differences in workers’ characteristics. Unionized service workers were about 19 percentage points more likely to

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\(^{10}\) The regressions control for age (and age squared), education (five levels of educational attainment), gender (wherever observations for men and women appear in the same regression), state of residence, and two-digit industry. The wage regressions use ordinary least squares; the health-insurance and pension regressions are probits.

\(^{11}\) These estimates of the union wage premium are likely to be underestimates of the true union effect on the wages of younger workers. Hirsch and Schumacher (2004) have documented that the procedure that the Census Bureau uses to impute wages for workers who fail to report wages in the CPS imparts a substantial downward bias in standard union wage-premium regressions such as the ones reported here.
have health insurance and about 25 percentage points more likely to have a pension than their non-
union counterparts.

The union wage premium and health insurance and pension advantages are large for both women
and men. The regression-controlled union wage premium is about 10.4 percent for women and
about 9.4 percent for men. The union effect on health insurance coverage for service-sector workers
is about 19 percentage points for both women and men; the union pension advantage for service-
sector workers is about 25 percentage points for women and 24 percentage points for men.

The benefits of unionization also remain large for service-sector workers in low-wage occupations.
For service workers in the 15 lowest-paying occupations, unionization raises wages by about 15.5
percent. For the same group of workers, unionization is also associated with a 26 percentage point
greater likelihood of having health insurance and a 23 percentage point greater likelihood of pension
coverage.
Conclusion

If historical trends continue, service-sector employment will comprise a steadily rising share of overall employment and the unionized work force. The most recent data suggest that even after controlling for differences between union and non-union workers, unionization substantially improves the pay and benefits received by workers in this large and growing sector. After controlling for key workers’ characteristics, the union wage premium for all service-sector workers is 10.1 percent or about $2.00 per hour. The union advantage for service workers is even larger with respect to health insurance and pension coverage. Unionized service-sector workers were about 19 percentage points more likely to have health insurance and about 25 percentage points more likely to have a pension than their non-union counterparts.

The substantial wage and benefit advantages of unionization also apply to service workers in otherwise low-wage occupations. Among service-sector workers in the 15 lowest wage occupations, after controlling for differences in worker characteristics, unionization raised wages about 15.5 percent, the likelihood of having health insurance about 26 percentage points, and the likelihood of having a pension about 23 percentage points.

These findings demonstrate that service-sector workers who are able to bargain collectively earn more and are more likely to have benefits associated with good jobs. The data strongly suggest that better protection of workers’ right to unionize would have a substantial positive impact on the pay and benefits of workers in this large and growing sector of the economy.12

12 For recent discussions of the benefits for workers and for overall economic inequality of unionization, see: Blanchflower and Bryson (2007); Freeman (2007); Levy and Temin (2007); Mishel, Bernstein, and Allegretto (2007); and Schmitt (2008).
References


Appendix

In order to have a sample that is sufficiently large to analyze the unionized work force, our analysis combines data from consecutive years of the Current Population Survey (CPS), a nationally representative monthly survey of about 60,000 households. For wage-related data, we use the 2004 to 2007 merged Outgoing Rotation Group (ORG) from the CPS. The ORG includes a series of questions about the respondent’s current job, asked of one-quarter of the monthly participants in the CPS. For health- and pension-related data, we use the March supplement to the CPS for the years 2005 to 2007. The March CPS survey asks respondents about their health- and pension-coverage in the preceding calendar year, so the health and pension data in the report refers to coverage during the calendar years 2004, 2005, and 2006. (The wage data refer to calendar years, 2004, 2005, 2006, and 2007; in both cases, we use the most recent data available as we write this report.)

Health
The March CPS asks whether an individual was covered by an employer-provided health-insurance plan and, if so, whether the employer paid all, part, or none of the premiums for that plan. We treat workers as having health-insurance coverage if their employer (or union) offered a plan and the employer paid at least part of the premiums associated with the plan. Respondents answer the health-coverage question in March of each year, but their response refers to their coverage status in the preceding calendar year.

Pension
The March CPS asks whether an individual’s employer participated in an employer-sponsored pension plan. Unfortunately, the survey does not distinguish between defined-contribution and defined-benefit plans and does not ask if the employer makes a contribution to the plan. We treat workers as having pension coverage if their employer offered a retirement plan, whether or not the employer made a contribution to that plan. As with health insurance coverage, respondents answer the pension question in March of each year, but their response refers to their coverage status in the preceding calendar year.

Union
The CPS ORG asks workers if they are a member of, or represented by, a union at their current job. We define a union worker as any worker who says that he or she is a member of or represented by a union. Unfortunately, the March CPS does not ask workers about their union status during the preceding calendar year. We use workers’ union status in their current job in March of each year as a proxy for their union status in the preceding calendar year. Using workers’ status in March has two drawbacks for our analysis. First, since we must rely on union status in March, which comes from the ORG for the same month, we are limited to only one-fourth of the full March CPS sample – the fourth of the full monthly sample that also participated in the ORG. The smaller sample reduces the precision of our estimates of the union effect on health and pension, making it more difficult for us to find a statistically significant union effect if one exists. Second, using union status in March as a proxy for union status in the preceding year introduces measurement error into the union variable in the health and pension regressions. Measurement error will bias the coefficient of the variable measured with error toward zero, making it less likely that we will find a statistically significant union effect if there is one.
Low-Wage Occupations

Following Schmitt, Waller, Fremstad, and Zipperer (2008), Tables 1 and 2 present analysis of 15 low-wage occupations as defined by the “Standard Occupational Classification 2000” system used in the Current Population Surveys for 2004-2007. The specific occupations selected were the 15 occupations with the lowest non-union median wage meeting the following two criteria: first, the occupation had to be at least 0.25 percent of the total workforce over the combined period 2004-2007; and second, the unionization rate had to be at least five percent over the same period.

The selected occupations include only one deviation from the above formula: the two lowest-wage occupations “combined food preparation and serving workers, including fast food” and “food preparation workers,” which are conceptually closely related and both of which, separately, met the selection criteria, were combined into a single occupation.

The final list of low-wage occupations were: food preparation workers, cashiers, cafeteria workers, child-care workers, cooks, housekeeping cleaners, home-care aides, packers and packagers, janitors, grounds maintenance workers, nursing and home-health aides, stock clerks, teachers’ assistants, laborers and freight workers, and security guards. See Schmitt, Waller, Fremstad, and Zipperer (2008) for more details.

Data

All data and programs used to produce this analysis are available upon request. The underlying CEPR extracts of the CPS ORG analyzed in this paper are available to download from http://www.ceprdata.org.

APPENDIX TABLE

Service-sector sample sizes for regressions in Table 2

<table>
<thead>
<tr>
<th></th>
<th>CPS ORG</th>
<th>March CPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wages</td>
<td>Health</td>
</tr>
<tr>
<td>All</td>
<td>559,802</td>
<td>33,185</td>
</tr>
<tr>
<td>Women</td>
<td>315,796</td>
<td>18,961</td>
</tr>
<tr>
<td>Men</td>
<td>244,006</td>
<td>14,224</td>
</tr>
<tr>
<td>In low-wage occupations</td>
<td>100,727</td>
<td>3,855</td>
</tr>
</tbody>
</table>

Notes: The March CPS sample is smaller than the ORG sample because: (1) the CPS ORG is one-fourth of the full CPS for 12 months of the year, while the March CPS is the full CPS for only one month of the year; and (2) the March CPS has union affiliation in the current month for only one fourth of the participants in the survey that month. Union affiliation data from the March CPS refer to the respondent's job in March of each year, while health and pension benefits refer to the respondent's main job in the preceding calendar year, as a result the, union, health, and pension variables in Tables 1 and 2 are measured with error; the measurement error in the dependent variable in Table 2 will increase the standard errors of the coefficient estimates, but will not bias the estimates; the measurement error in the union variable will bias the estimated union effect toward zero. See text for further discussion. Service sector covers all workers outside agriculture, forestry, fishing, mining, manufacturing, construction, and the Armed Services.