

Unions, through collective bargaining arrangements with employers, have historically been able to deliver higher levels of wages and benefits to their workers than those received by non-union workers. This union wage effect is well documented for all workers, but also for women, black and immigrant workers as well as for workers in low-wage occupations.ⁱⁱ Further, unions have the effect of reducing income and wage inequality.ⁱⁱⁱ

In this report we explore the union wage effect in Massachusetts by examining the differences in wages, employer benefits and receipt of public supports of workers covered by union contracts compared to a demographically similar set of non-union workers ages 16-64 in similar industries.^{iv}

During this period, one out of every six Massachusetts workers (16.5%) is in a job covered by a union contract. Workers with higher percentage representation than this average are women, older, more highly educated, US born, and black workers. Almost two-thirds (66.9%) of public sector and 8% of private sector workers are covered by a union over this period. Of all Massachusetts workers covered by unions, 41.3% percent are in the private sector.

Over the 2010-2017 period we find:



Workers covered by unions earn 8.2% more than non-union workers after adjusting for demographic (age, education, race, ethnicity, marital status, nativity) and employment characteristics (hourly vs salaried, full-time vs part-time) as well as industry and occupation.



On average, being covered by a union boosts annual earnings by \$4,545. This union wage premium increased total earnings in Massachusetts by \$2.64 billion.



Workers covered by unions are more likely to receive employment benefits and less likely to receive government benefits than non-union workers, even after adjusting for demographic differences and industry:

- ▶ There is a 24% greater likelihood of receiving employer sponsored health insurance and a 34.4% greater chance of working for an employer that offers a pension or retirement plan for workers covered by a union than those that are not.
- ▶ Workers covered by a union are 22.6% less likely to live in a low-income family, 27% less likely to be enrolled in public support programs and 31.2% less likely to be enrolled in MassHealth (Medicaid and CHIP).

The data confirm that unions are an important vehicle for Massachusetts workers' ability to boost their wages and benefits and reduce family hardship. And while the face of a union worker has changed over time from an autoworker in a factory to a teacher in the classroom, unions remain one of the best tickets to the middle class.

What follows is more information on who is in a union-covered job, the union wage premium, the likelihood of receiving employer-sponsored health insurance or pension, and the difference in the chances of using government supports, like Medicaid (MassHealth or Children's Health Insurance Program (CHIP)), Supplemental Nutritional Assistance Program (SNAP), the Earned Income Tax Credit (EITC), or Temporary Assistance for Needy Families (TANF). The primary source of data we use is the Current Population Survey (CPS) Outgoing Rotation Group (2010-2017). We complement this with data from the Annual Social and Economic supplement of the CPS (2010 to 2017). A full description of the research methods used is in Appendix 1.

Who is in a union in Massachusetts?

The percent of all wage and salary workers who are in a union peaked in 1954 in the United States at 34.8%.^V In 2018, 10.5% of all wage and salary workers in the United States were union members while 11.7% report being in a job that is represented by a union.^{VI} In the 1950s, the bulk of union members were in manufacturing industries like automobiles and steel, while today almost half of all union workers work in the public sector, most often as a teacher.

Table 1 depicts the percent of all, public and private sector Massachusetts workers by gender, race/ethnicity, nativity, and education level that are in a job covered by a union contract. One out of every six workers (16.5%) in Massachusetts is covered by a union, but two-thirds of all public sector workers and only 8% of private sector workers are. Women are slightly more likely to be covered by a union than are men overall, as are workers over age 35. Native-born workers are twice as likely to be covered by a union than are foreign-born workers. While black and white workers are more likely to be covered by a union than Latinx or Asian workers, black workers have the highest percentage. Surprisingly, overall, the more education you have, the more likely you are to be covered by a union.

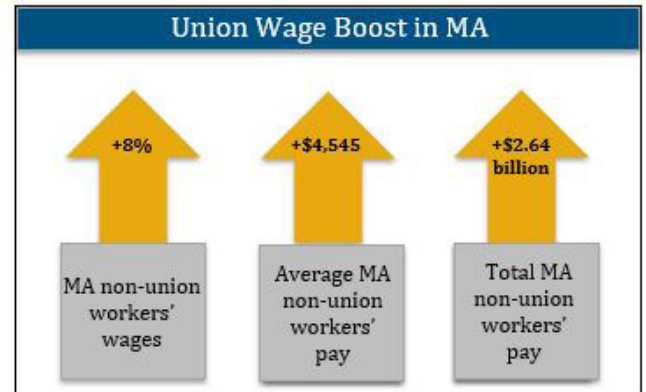
Table 1: Share of Massachusetts workers covered by a union contract, 2010-2017

	All Workers % Union	Public Sector % Union	Private Sector % Union
All Workers	16.5%	66.9%	8.0%
Gender			
Female	16.9%	66.1%	7.5%
Male	16.1%	68.2%	8.5%
Age			
18-24	5.4%	30.6%	4.0%
25-34	13.9%	67.4%	6.6%
35-44	19.0%	73.4%	8.7%
45-54	18.5%	66.3%	9.2%
55-64	20.9%	67.1%	10.1%
Race			
White (not Latinx)	17.2%	68.7%	7.7%
Black (not Latinx)	18.9%	58.8%	12.3%
Latinx	16.2%	68.2%	10.1%
Asian (not Latinx)	7.1%	34.6%	4.9%
Other	13.5%	33.3%	9.7%
Nativity			
U.S. Born	18.0%	68.6%	8.1%
Foreign-born	9.8%	46.5%	7.4%
Education			
High school diploma or less	16.0%	63.6%	9.8%
Some college	15.2%	61.6%	8.7%
Bachelor's or more	17.4%	69.5%	5.9%

Source: 2010-2017 Current Population Survey Annual Social and Economic Supplement

Finding 1: Unions Boost Wages

As Table 1 suggests, since union workers are more educated, native-born, and older you would expect them to earn more, as those traits tend to pay off in the labor market. That is why we use regression analysis to pinpoint the effect of being represented by a union once you adjust for a host of worker and employment characteristics. After taking into account workers' gender, age, race/ethnicity, marital status, nativity, educational attainment, area of residence (urban, suburban, or rural), full-time vs. part-time work status, type of job (hourly wage or salaried), industry, and occupation we find that **workers covered by a union make 8.2% more than non-union workers.**^{vii}

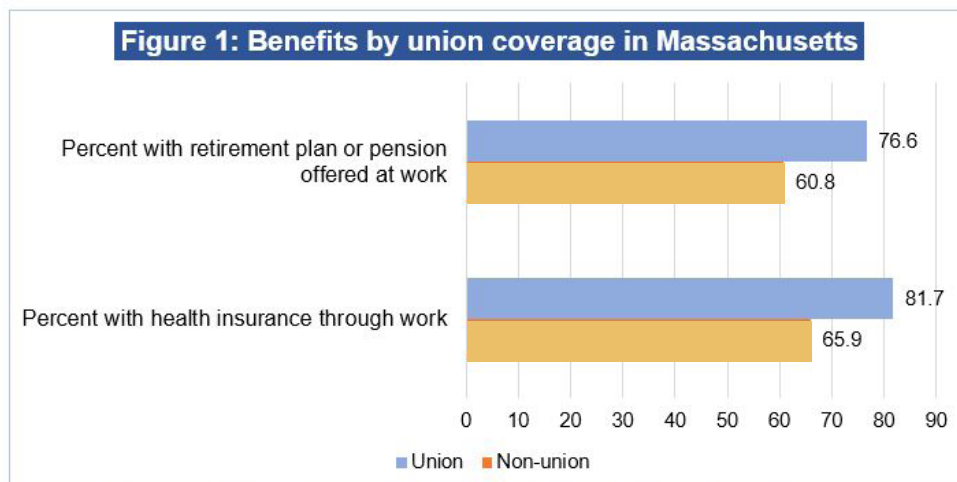


Given workers' wages and salaries in Massachusetts, this averages out to an additional \$4,545 per year for workers covered by unions than those who are not, again adjusting for demographic and employment characteristics. Based on the number of wage and salaried workers in Massachusetts, **this amounts to \$2.64 billion more wages paid annually due to unions.**

Finding 2: Unions Increase Access to Employer-based Health Insurance and Pensions

Unions bargain collectively for all the workers they represent and have historically been effective at negotiating employer benefits. This is true in Massachusetts. As depicted in Figure 1, the percentage of Massachusetts workers that participate in health care coverage through an employer and received an employer sponsored pension or retirement plan, respectively, is considerably higher for those covered by unions than those that are not.

Again, to get at the effect that unions have, when we controlled for demographic factors and industry, **we find that workers covered by a union contract are 24% more likely to participate in employer-based health insurance plans and 34.4% more likely to have a pension or retirement plan through an employer.**

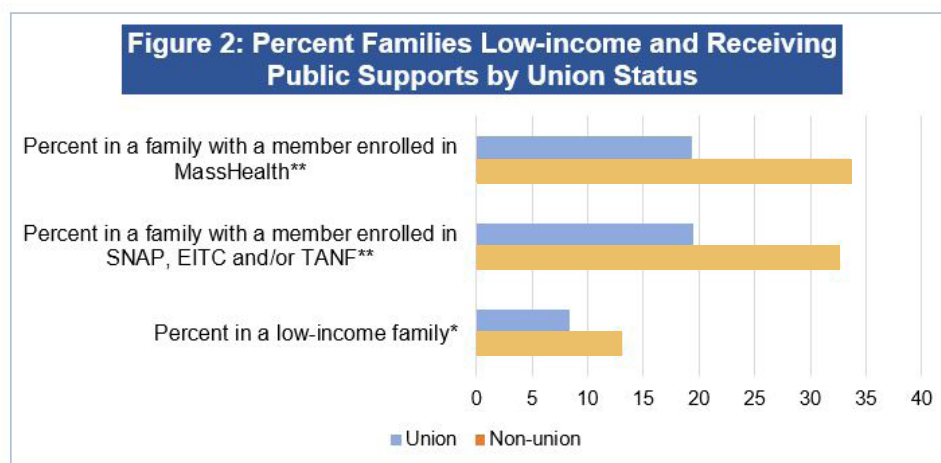


Source: Authors' analysis of the Current Population Survey Annual Social and Economic supplement (2010-2017)

Finding 3: Unions Improve Family Well-Being and Reduce Use of Public Support Programs

Because unions boost wages, you would expect being employed in a job covered by a union would also improve family income and wellbeing. To see if this is true in Massachusetts we calculate the percent of families who are low-income (family income is less than 200% of the federal poverty income threshold) and if they or someone in their family receives Medicaid (MassHealth or Children's Health Insurance Program) or one of three other sets of public supports that include Supplement Nutrition Assistance Program (SNAP), the Earned Income Tax Credit (EITC) or Temporary Aid to Needy Families (TANF) for those covered by a union and those that are not. These results are depicted in Figure 2.

When we control for demographic factors and industry, workers covered by a union contract are 22.6% less likely to be in a low-income family, 27% less likely to use SNAP, EITC or TANF; and 31.2% less likely to have a family member using Medicaid.



* Source: Authors' analysis of the Current Population Survey Outgoing Rotation Group (2010 to 2017)

**Source: Authors' analysis of Annual Social and Economic (ASEC) supplement of the CPS (2010 to 2017).

In conclusion, being represented by a union, even after controlling for a large host of worker characteristics and the industries workers work in, boost wages, improve the change of receiving employer benefits, and increase family income. Unions provide the mechanisms for workers to bargain for what they need to keep their families out of poverty reducing the need for government support.



Appendix 1: Data and Methods

This report relies on the Massachusetts sample of the Current Population Survey (CPS) for the years 2010-2017. Specifically, for union coverage data we rely on the Center for Economic and Policy Research (CEPR) data files of the CPS Outgoing Rotation Group (ORG) and an IPUMS extract of the Annual Social and Economic (ASEC) supplement of the CPS. The sample is limited to the working age population (ages 18-64) and does not include military service members or self-employed workers. Workers with wages or working hours imputed by the BLS are also dropped from the sample. We define union workers as workers that are union members or work in a job covered by a union contract.

Wages

The union wage premium is estimated using an ordinary least squares (OLS) regression of log wages on union status with controls for age, age squared, gender, race (five categories), marital status, education, full time status, paid hourly status, lives in metropolitan area, two-digit industry, two-digit occupation and year fixed effects. We then exponentiate the coefficient of union status and subtract one to convert from log points to a percent estimate. The estimate of the total amount of additional wages earned is derived from the predicted average wage difference between non-union and union workers (\$4545) multiplied by the number of union members (estimated by multiplying 16.5% times the number of wage and salaried workers in Massachusetts from the 2011-2015 American Community Survey).

Employer-based benefits, low-income, and public supports

Estimates of the percentages of workers that participate in health insurance through work, receive retirement benefits through work, and percent with low income family, use an IPUMS extract of the Annual Social and Economic (ASEC) supplement of the CPS including the years 2010 to 2017. Estimates of percent with a family member enrolled in a social safety net program or a family member enrolled in Medicaid use CEPR data files of the CPS ORG including the years 2014 to 2016.

Estimates of the likelihood of using employer provided health and retirement benefits, family low-income status, and family use of public safety net programs are estimated with logit regressions with controls for age, age squared, two-digit major industry, education, race, gender, marital status, nativity, and year fixed effects.

In order to get the percent difference (percent change in likelihood) between union and nonunion members we take the difference of union and non-union regression adjusted estimates of program use and divide by the regression adjusted union estimate (e.g. $([\text{union Medicare estimate}] - [\text{non-union Medicare estimate}]) / [\text{union Medicare estimate}] * 100$).

Endnotes

- i. This report is modeled on the report *The Union Effect in California #1: Wages, Benefits and use of Public Safety Net Programs*, UC Berkeley Labor Center (2018) by Ken Jacobs and Sarah Thompson. We thank Sarah Thompson and the UC Berkeley Labor Center for allowing us to replicate their work and sharing their computer coding.
- ii. See Henry Farber, Daniel Herbst, Ilyana Kuziemko, and Suresh Naidu (2018) “Unions and Inequality Over the Twentieth Century: New Evidence from Survey Data,” Working Paper 24587, National Bureau of Economic Research. <https://doi.org/10.3386/w24587>; John Schmitt, Margy Waller, Shawn Fremstad, and Ben Zipperer (2008), Unions and Upward Mobility for Low-wage Workers, Working USA: The Journal of Labor and Society, vol 11: pp. 337-348; and publication by Center for Economic and Policy Research listed on “The Benefits of Unionization” at <http://cepr.net/documents/publications/benefits-of-unions.pdf>.
- iii. See Farber et al. 2018 and David Card, Thomas Lemieux, and W. Craig Riddell (2018), Unions and Wage Inequality: The roles of gender, skill and public sector employment), Working paper 25313, National Bureau of Economic Research.
- iv. Appendix 1 describes the research methodology used in this report.
- v. Gerald Mayer (2004) Union Membership Trends in the United States, Washington DC, Congressional Research Service.
- vi. Bureau of Labor Statistics (2019), Economic News Release January 18, 2019, Table 1 (Union affiliation of employed wage and salary workers by selected characteristics, 2017-2018 annual averages) <https://www.bls.gov/news.release/union2.t01.htm>
- vii. This is statistically significant at the .01% level.

About This Report and Series

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