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# Double Jeopardy: Low-wage and Low-income Workers in Massachusetts, 1980–2009

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## Double Jeopardy: Low-wage and Low-income Workers in Massachusetts, 1980–2009

RANDY ALBELDA AND MICHAEL CARR, UNIVERSITY OF MASSACHUSETTS BOSTON

DATA REVEAL A GROWING NUMBER OF WORKERS WHO BOTH EARN LOW WAGES AND LIVE IN LOW-INCOME FAMILIES. THEY FACE "DOUBLE JEOPARDY": AS LOW-WAGE EARNERS, THEY ARE LEAST LIKELY TO RECEIVE EMPLOYER-SPONSORED BENEFITS, YET THEY ARE OFTEN INELIGIBLE FOR MEANS-TESTED GOVERNMENT ANTI-POVERTY PROGRAMS.

Being a low-wage worker in a low-income family creates a particularly vulnerable economic situation. This is because low-wage and low-income workers are at the highest risk of slipping through the cracks of U.S. social and economic protections. In particular, low-wage workers are least likely to receive employer-sponsored benefits and, despite their low income, many are not eligible for means-tested government anti-poverty support programs.

Two key changes over the last thirty years suggest that the number of workers who earn low wages and also live in a low-income family is growing. The first is the increase in earnings inequality since the late 1970s. While inflationadjusted earnings of top earners have steadily increased, earnings have been stagnant for the bottom portion of the earnings scale.1 The second is the dramatic change in antipoverty policies since the late 1980s, directed in particular toward single-mother families, which strongly promote employment as a means of alleviating poverty in place of government assistance. The growth in the number and share of low-wage and low-income workers both in general and across various types of workers suggests a need to re-examine both employment-based policies and anti-poverty programs (for definitions of low wages and low income see box 1).

In this exploration of the trends among and between low-wage and low-income adult workers, we pay particular attention to gender and family status, including if a worker is a male or female primary adult (family head or spouse of head), has one's own children under age 18, if there are other non-primary related adults in the family, and a worker's marital status. Dividing the sample in this way is useful for several reasons. First, the evolution of wages has been quite different for men and women over the last 30 years. Women's inflation-adjusted median earnings are lower than men's, but have been rising faster than men's over this period. Second, the presence of children impacts the earning capacity of parents, with single-parent family income affected quite differently than that of two-parent families. Third, the number of adults in a family affects the family's earnings capacity. Fourth, and most important for policy reasons, is that family status has played a key role in the development of job structures, wages, and social protection policies (i.e., the sets of income-replacement programs that protect families when a breadwinner cannot earn much or no income at all).

## AT THE NEXUS OF BEING LOW-WAGE AND LOW-INCOME

The connection between being a low-wage earner and also being in a low-income family is strongest for single or primary wage earners. Simply put, when a breadwinner is a low-wage earner, his or her family will likely also be low income. There is also a strong connection between

## Box 1. What's a Low Wage? What's Low-income?

There is no universally accepted definition of either a low wage or low income.<sup>2</sup> We use the relative measure commonly employed by those with a labor market focus and consider a worker low wage if she or he has non-zero hourly earnings less than or equal to two-thirds of the state median hourly earnings for all workers with positive wage, salary, and/or self-employment earnings. In 2009, median hourly earnings in Massachusetts were \$20, so the low-wage cut-off was \$13.38 an hour. This is higher than the inflation-adjusted median earnings of \$14.25 and low-wage cut-off of \$9.57 in 1982.

For low income, we adopt the definition that many poverty policy researchers use: family income that is less than 200% of the federal poverty line. Federal poverty income thresholds vary by family size. In 2009, the federal poverty line for a family of three was \$16,781, resulting in a low-income threshold of \$33,562.<sup>3</sup> In a high cost-of-living state like Massachusetts, this designation of low income may still be too low. The Crittenton Women's Union's Economic Independence Calculator estimates that it costs over \$52,000 for a family of three (two adults and a school-aged child) to meet a bare-bones budget in Massachusetts.<sup>4</sup>

Family income differs from wages in two ways. First, income includes other forms of money besides earnings (e.g., rent, government cash transfers, or education funding). Second, it is the sum of all cash income from all family members, while wages refer to what an individual earns. We use U.S. Census Bureau data and with it their definition of income that includes all forms of pre-tax cash income. But, we add to it the Earned Income Tax Credit. While technically a refundable tax credit, it is currently the largest cash transfer program for low-income workers. Each family's value of EITC is estimated using the National Bureau of Economic Research TAXSIM program.

being a breadwinner and the development of U.S. social protection programs, including those that are employment-based, like social security and unemployment insurance, but also for anti-poverty programs such as cash assistance (commonly called "welfare").

There is considerable historical evidence that black and female workers were largely excluded from higherpaying jobs as well as jobs covered by employment-based government and employer-sponsored programs. This resulted from occupational sorting in which some jobs pay well, have well-defined job ladders and stronger social protections. The mechanisms by which women and people of color were initially excluded from these "good" jobs varied, but included employer and employee discrimination and precluded particular occupations from coverage in government-mandated employment-based supports.<sup>5</sup>

Even today, government-mandated employment protections do not cover many low-wage workers. Old-age, survivors, and disability insurance (commonly referred to as Social Security) and unemployment insurance (UI), cover most workers when employment is not possible due to injury at work, death or disability, or seasonal or cyclical unemployment. But eligibility is related to length of employment, and in the case of UI also on earnings levels. As a result, these programs can fail to cover some intermittent workers and with UI, also low-wage workers. Minimum wage laws are the most obvious protection for low-wage workers, as they place a wage floor on most jobs, but the floor is low. The minimum wage in Massachusetts is currently \$8 per hour, which amounts to an annual income of \$16,640 working year-round and full-time, just below the 2010 Federal Poverty Guidelines for a family of three. Employers voluntarily provide job and income protections. However, workers in low-wage jobs are much less likely than other workers to receive employer-sponsored benefits such as health insurance, paid family or medical leave, and retirement plans.<sup>6</sup>

Anti-poverty policies are another form of social protection. Historically these have focused on job creation for breadwinners (e.g., married men and non-elder, single workers) and cash and other in-kind assistance for families without traditional breadwinners (e.g., elders, disabled and single mothers). Key anti-poverty income and in-kind supplement programs like Medicaid (health care coverage), SNAP (Supplemental Nutritional Assistance Program, formerly Food Stamps), housing assistance, and Temporary Assistance for Needy Families (TANF, the predecessor to the cash assistance program Aid to Families with Dependent Children) were developed to support people with very little or no income. Income eligibility levels for these programs are typically low (close to the federal poverty line) and the benefits received tend to phase out quickly, around the federal poverty level. The one major exception is the Earned Income Tax Credit, which phases in and out differently and covers parents at higher levels of income than other anti-poverty programs.

Over the last three decades, with the growth of mothers' labor force participation, cash and in-kind assistance anti-poverty programs have been reformed to encourage or demand employment as a pathway out of poverty for all but the elderly and disabled. However, while employment-promotion policies have worked to boost employment, especially in low-wage employment, they have not necessarily improved the resource base of many families as income eligibility rules and benefit levels have not changed to supplement earnings. Even at low levels of earnings, someone can lose all or portions of their cash assistance, government-sponsored health care coverage, and food assistance. If the worker is receiving more than one program, the total loss could be equal to or even more than the gain in earnings.<sup>7</sup> Single childless workers with low levels of earnings have lower eligibility levels than workers with children for Medicaid, SNAP and EITC in Massachusetts, making it even less likely for them to receive assistance when employed, despite need. The upshot is that many low-income adults in low-wage jobs are likely to find themselves betwixt and between, lacking both employer-based and government antipoverty protections.

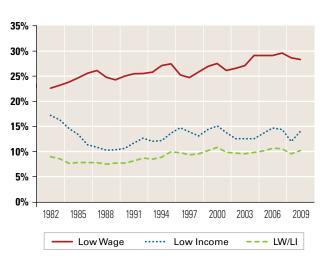
## LOW-WAGE AND LOW-INCOME WORKERS OVER TIME

Using  $\frac{1}{2}$  of the state median wage as a cut-off for a low wage, and 200 percent of the federal poverty level as the cut-off for being low income, we estimate the share of workers who are both low-income and low-wage by family status over a thirty-year period. We rely on the Census Bureau's definition of family (two or more persons related by blood, marriage, or adoption living in the housing unit) and add to it "families of one" (a single individual residing in a household who is unrelated to anyone in that household). We assume that family members share resources only with other family members living in their household. While this may not be a good assumption in households with complicated living arrangements, any alternative assumptions create more problems.

The following analysis relies on data from the Annual Social and Economic (ASEC) Supplement of the Current Population Survey for the years 1981 to 2010 (corresponding to employment and income statistics for 1980–2009). The final sample has 66,113 observations. Because the sample size for each year is too small to provide reliable estimates, we combine years into three-and sometimes four-year groups.

Figure 1 depicts the percentage of all workers 18 years and older in Massachusetts who earned low wages, had low family income, and were both low-wage and low-income (LW/LI).

There has been a rise in the percentage of workers who earn less than  $\frac{2}{3}$  s of the median wage over the last 30 years from 23 percent in the early 1980s to 28 percent in the later part of the 2000s. However, the percentage of workers who are low-income fell during the 1980s, the Massachusetts Miracle years, increased in the 1990s, and has fluctuated between 12 and 15 percent since. The percentage of all workers who earn low wages and reside in a low-income family rose from the early 1980s to the mid 1990s and has since fluctuated closely around 10 percent. The percentage of all low-income workers who are also low-wage, however, has increased steadily from just under 50 percent in the early 1980s to around 75 percent in the late 2000s. In the 1980s and early 1990s, about 30 percent of low-wage adult workers were also in a low-income family. Since the mid-1990s, that has risen to about 40 percent.



## Figure 1. Share of Low-wage, Low-income, and Low-wage/Low-income (LW/LI) Workers, 1982–2009

Source: Authors' calculation using the Annual Social and Economic (ASEC) Supplement of the Current Population Survey. Each year depicted is the average of the current year and the two preceding it. For example, data listed for 1982 is the three year average of income/ wages from years 1980, 1981, and 1982 while data for 2009 are the three-year averages for 2007, 2008 and 2009.

To get a better sense of the characteristics of those who are low-wage and low-income, Table 1 provides descriptive statistics for the entire group of workers and the low-wage, low-income (LW/LI) sub-group for all 30 years (1980-2009). The patterns in the data reflect what one might expect-younger, female, less educated, and part-time/partyear workers are more likely to be LW/LI than other workers. While women comprise 47.3 percent of workers, they are 55.9 percent of LW/LI workers. Similar disparities exist for African American and Hispanic workers who represent, respectively, 4.1 and 3.9 percent of the sample but 8.6 percent and 13.7 percent of LW/LI workers in Massachusetts. For white workers, the opposite pattern holds. They comprise 89 percent of the sample, but only 73.4 percent of LW/ LI workers. Still, LW/LI workers include people with characteristics that one would not expect: 40.4 percent of those who are LW/LI worked full-time and year-round while 13.1 percent had a college degree or more.

We define family status by gender, each earner's relationship to other family members in the household, and the presence of their own children under age 18. We are able to identify six mutually exclusive family relationships for all positive earners age 18 and older for each gender, creating 12 possible family statuses. See Table 2 for the complete taxonomy.<sup>8</sup>

Table 2 depicts the distribution of people across family statuses in March 1981 and March 2010 as well as the change over this period.<sup>9</sup> Seven family statuses saw an increase in their respective shares, while five saw a decrease. The largest increase was among single males with no children, who experienced a 3.05 percent increase, followed by single females without children and married women without children. The largest decreases were among married males with children and related males at 4.07 and 2.8 percent, respectively.

Table 3 depicts the distribution of all earners across family statuses (column 1), the distribution of LW/LI earners across family status (column 2), and the percentage of earners who are LW/LI within each family status (column 3) for all years. Single mothers (SF, C) are the most overrepresented group

## Table 1. Characteristics of Workers by LW/LI Status: 1979–2009

Percent of all workers who are:	Not LW/LI	LW/LI	Total
Female	46.4%	55.9%	47.3%
Worked Full-time/Full-year	66.1%	40.4%	63.8%
Average Age	39.9	36.0	39.5
Race:			
White	90.5%	73.4%	89.0%
Black	3.7%	8.6%	4.1%
Hispanic	2.9%	13.7%	3.9%
Other	2.9%	4.4%	3.0%
Highest Education Level			
Less than high school	8.0%	23.9%	9.4%
High school	30.6%	39.8%	31.4%
Some college	24.8%	22.3%	24.5%
College	22.9%	9.9%	21.8%
Advanced degree	13.7%	4.2%	12.9%
Total	60,242	5,871	66,113

Source: Authors' calculation using the Annual Social and Economic (ASEC) Supplement of the Current Population Survey

Table 2. Percent Distribution of Earners by Family Status,

March 1980–1982 and March 2008–2010

#### 1980 - 1982 **Family Status** 2008-2010 Change Single Female with Children 3.13 3.89 0.76 Single Male with Children 0.58 0.89 0.31 Married Female with Children 13.39 0.93 12.47 Married Male with Children 15.11 -4.07 19.18 Single Female with no Children 10.48 8.25 2.23 Single Male with no Children 12.32 3.05 9 28 Married Female with no Children 10.09 12.11 2.02 Married Male with no Children 12.2 -1.43 13.64 Single Female with Related Adult 1.84 -0.04 1.88 Single Male with Related Adult 0.78 1.11 0.33 **Related Female** 8.77 7.49 -1.29 **Related Male** 11.97 9.17 -2.80 100.0 Total 100.0

Source: Authors' calculation using the Annual Social and Economic (ASEC) Supplement of the Current Population Survey

Note: The sample is one of individuals broken down by family status, but not by how many earners are in the family.

in the LW/LI subsample, comprising 3.69 percent of all employment but 14.12 percent of LW/LI workers. Single fathers, single males without children, and single females without children are also highly overrepresented. While single women not living with any other adult family members (SF, C and SF, no C) together comprise just over 13 percent of workers, they are 45 percent of LW/LI workers. Single males living with other related adults are slightly less represented among LW/LI earners than they are among all earners as are related males and females (RM and RF). Married males and females without children (MM, no C and MF, no C) are the most underrepresented among LW/LI earners.

Of course, the family statuses that are overrepresented in LW/LI have the highest overall rates of LW/LI. By far the highest rate is among single mothers at 34.53 percent, followed by single females without children (18.94 percent) and single fathers (18.67 percent). The family

statuses with the lowest rates of LW/LI are married males without children (2.66 percent) and married females without children (2.97 percent). The substantially higher rate of LW/LI among married females with children versus married females without children, and single females with children versus single females without children, is further evidence of the effect of children and family status more generally on labor market outcomes.

## **CHANGES ACROSS TIME**

To get a better handle on changes over time, we look at the share of earners who are LW/LI using 3- and 4-year averages. We have pooled years in this way to best compare over business cycles, to assure 3-year pooled samples that span recession years. Even after pooling for three years, the sample sizes for three family statuses — single fathers (SM, C), single males living with other related adults (SM, RA), and single females living with other related adults (SF, RA) — are too small to provide reliable estimates, so we exclude them here. Figures 2 and 3 depict the percentage of earners who are LW/LI by family status and gender from 1980–2009. The levels are considerably higher for single adults than for other family statuses, but patterns over time differ considerably by family status. Single males without children and single

Table 3. Distribution of All Earners, of LW/LI Earners
and Percent Who Are LW/LI Earners by Family Status,
March 1980–2010

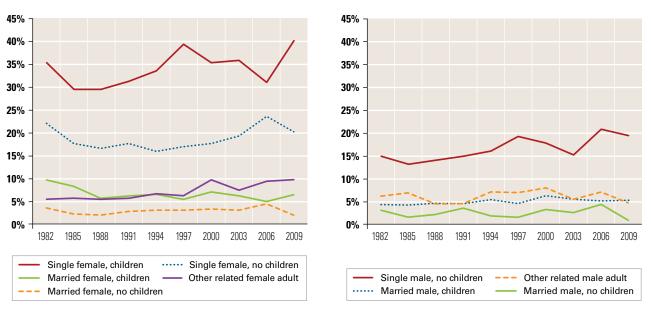
Family Status	Distribution of All Earners	Distribution of LW/LI Earners	Percent Who Are LW/LI Earners
Single Female with Children	3.69	14.12	34.53
Single Male with Children	0.70	1.44	18.67
Married Female with Children	12.90	9.71	6.79
Married Male with Children	16.35	9.36	5.17
Single Female with no Children	9.64	20.22	18.64
Single Male with no Children	11.09	20.90	17.03
Married Female with no Children	11.28	3.70	2.97
Married Male with no Children	12.86	3.78	2.66
Single Female with Related Adult	1.90	1.80	8.57
Single Male with Related Adult	1.04	1.14	9.86
Related Female	7.87	6.35	7.29
Related Male	10.69	7.50	6.34
Total	100.0	100.0	9.03

Source: Authors' calculation using the Annual Social and Economic (ASEC) Supplement of the Current Population Survey

mothers follow a similar pattern over time: the percentage of LW/LI earners decreases in the early 1980s, then increases in the 1990s, dips in the early 2000s and then increases. Married fathers show a slight increase, while married mothers see their share of LW/LI earners fall over the period.

As can be seen in Table 1, there are important demographic and human capital differences between LW/LI and non-LW/LI individuals. Further, the distribution of these characteristics changes through time. Therefore, studying average time trends of LW/ LI by family status could lead to misleading results. We address this issue with regression analysis, which estimates the probability that an individual in a given family status and year will be LW/LI, controlling for race/ethnicity, education level, age, job class of worker, and full-time and full-year employment.<sup>10</sup> We use this set of controls because they have been shown to be important in both determining wage levels and describing changes in the wage distribution over the last 30 years.<sup>11</sup> From these regressions, we can test whether changes through time in the likelihood of being LW/LI are statistically significant.

Over the entire period, all family statuses show an upward trend in the share of earners who are LW/LI. Further, for four of the nine groups — single mothers, married fathers, single men without children, and related females — the increase is substantial at about 5 percentage points or more.



## Figure 2. Share of Female LW/LI Earners by Family Status, 1980–2009



Source: Based on authors' calculations using CPS data for all earners over 18, pooled in groups of three and four years, and labeled with the last year of the group (i.e., 1982 is the average of 1980, 1981 and 1982; 1986 is average for 1983, 1984, 1985 and 1986)

Note: We did not include single men with children in Figure 3 because the sample size was too small for reliable results.

In summary, the observed changes in the incidence of LW/LI for the different family statuses appear to be quite varied, with some increasing and some decreasing. The changes, however, are confounded by changes in demographics, job characteristics, and human capital. Once these factors are controlled for, there is still variation in the magnitude of the increase in LW/LI status, but every family status experiences an increase in percent LW/LI between 1982 and 2009 and for some workers the increase is substantial. In short, the number and percentages of workers who are LW/LI, including those who are breadwinning adults, has grown.

## GOVERNMENT AND EMPLOYER SUPPORTS FOR LOW-WAGE AND LOW-INCOME WORKERS

There is also evidence that low-wage workers are particularly likely to slip through the cracks of employer-based economic and social protections. At the same time there is evidence that some low-income workers may be earning too much to be eligible for many government support programs. Here we examine if low-wage workers who are also low-income are in fact more likely to be in this vulnerable situation. We expect to see that LW/LI earners are less likely than other workers to get employer benefits, and are also less likely than other low-income families (including those with zero earnings) to receive government anti-poverty benefits. In addition, as we argued earlier, because both government anti-poverty and employer benefit policies are shaped by family status, we expect to see variation across family statuses in the receipt of benefits. First, traditional breadwinners (married men and through them their wives) should be more likely to be eligible for and receive employer benefits, even after controlling for LW/LI status. Second, wage-earning single mothers traditional recipients of income-based anti-poverty programs — should be more likely to receive anti-poverty government benefits than other family statuses that are also low-income. Once again, we test these two hypotheses using regression analysis in which we control for age, education level, race/ethnicity, job class of worker, year, and family status in all of the regressions.

## **Employer supports**

First we test for whether LW/LI earners are less likely to receive two employer-sponsored benefits — health insurance and a retirement plan. We estimate the probability of being covered by any health insurance (including government-provided), the probability of being covered by employer-provided health insurance, and the probability of being eligible to participate in an employer-provided pension plan.

Compared with all non-LW/LI workers, LW/LI workers are 15 percentage points less likely to be covered by any health insurance plan (including a government-sponsored plan), 30 percentage points less likely to be covered by an employer-provided health insurance plan, and 18 percentage points less likely to be eligible

to participate in an employer-provided pension plan. These results are statistically significant, so we can reliably claim that LW/LI workers are much less likely to get employer-based supports.

We also find support for the claim that employmentbased social protections are more likely to go to traditional breadwinners. Compared with single mothers, the base group in our regressions, only married mothers and fathers were more likely to receive any type of insurance. However, considering only employer-provided insurance, the traditional breadwinner model becomes more sharply focused. All four married family statuses (married men and women with and without children) are at least 20 percentage points more likely to get employer-provided health insurance compared with single mothers. The other seven family statuses are also more likely to get employersponsored health insurance than single mothers, though the magnitudes are much smaller (ranging from 11 percent for single females without children to 6 percent for related males). These relative magnitudes indicate that coverage rates among married individuals are considerably higher than they are among unmarried individuals. In all cases the differences in likelihood are statistically significant.

The relative rates of eligibility for retirement plans are much closer than they are for employer-provided health insurance plans. Both married men with children and those without are 9 percentage points more likely to be eligible for an employer-sponsored retirement plan than single mothers. All other workers with the exception of single men living with related adults (at 5 percent) are at most 2 percentage points more likely to be eligible. These findings are consistent with the argument that family status shapes the types of jobs individuals wind up in, which in turn shapes the types of employer benefits they receive.

### **Government supports**

Low-wage workers in low-income families, especially those whose income is between 100 and 200 percent of the federal poverty line, often make too much to be eligible for government supports in Massachusetts. Just under 69 percent of all LW/LI workers from 1980–2009 fall within this income range. We look at the likelihood of using two government supports.<sup>12</sup> One of the most widely used benefits, and one that has uniform eligibility income thresholds for families with children at 200 percent of the federal poverty line in Massachusetts, is Food Stamps.<sup>13</sup> The other government support that we explore is receipt of government-sponsored health insurance, which includes Medicare, Medicaid, and CHAMPUS (the program directed towards veterans).

The relevant sample for these comparisons is all low-income adults, with and without earnings. We have 20,821 adults in our sample who have family income below 200 percent of the poverty line. As predicted, LW/ LI earners are 10 percentage points less likely to be in a household with Food Stamps and 20 percent less likely to be covered by public health insurance than those with low income only but not low wages (either because they have higher earnings or no earnings at all).

Among the low-income population, the likelihood of single mothers being in a household with Food Stamps is 19 percent higher than it is for single fathers, and 33 percent higher than for married mothers and fathers. The same holds true for health insurance, with single mothers being 28 percent more likely than single fathers, 33 percent more likely than married mothers, and 36 percent more likely than married fathers to be covered by government-sponsored health insurance.

Put simply, LW/LI workers do face a form of double jeopardy; they are employed in jobs that are considerably less likely to provide health insurance and pensions, but earn too much to be eligible for government-provided supports aimed at low-income individuals. Further, family status plays a role in determining which type of social protection an earner is likely to receive. Employer-based benefits are more likely to go to traditional breadwinners, while anti-poverty programs are still more likely to aid single mothers. This is occurring as we witness the breakdown of the traditional breadwinner model with the rise of single-adult families, the decline in male earnings, and the rise of wives' earning contributions to families. Similarly, being poor and employed is a problem many single mothers face, but as we have shown, it is a growing problem for many other adults.

## CONCLUSION

Our findings that the share of LW/LI earners has increased among earners in all family statuses, but especially among breadwinners, are consistent with earnings inequality trends, particularly among male earners. They also reflect one likely outcome of employment-promotion policies directed toward single mothers who often lack the set of work supports needed to accompany work while taking care of young children. This growth in economically vulnerable workers should be a policy concern generally, but especially because it suggests that employment may not be a path out of poverty for many. Even though the data offer limited ways to measure the availability and use of employer-based and government-provided benefits, we find unequivocally that low-wage and low-income workers do in fact face this double jeopardy - caught without either form of protections. This calls into question larger issues about fairness when a prosperous society has a growing portion of the employed population, including main breadwinners, that struggle to earn adequate levels of income and are largely unprotected by policies intended for people in their situation. It calls for a modernization of both types of social protection policies to recognize that not all breadwinners have breadwinning jobs with employer-based benefits, and that anti-poverty programs should better cover all low-income earners, including those without children.

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## ENDNOTES

1.) In Massachusetts, the real wage rate for those at the 20th percentile has hovered around \$10 per hour from 1981 to 2010, but the gap between the 20th and 80th percentile has grown from \$13.84 in 1981 to \$23.80 in 2010 (Sarah Nolan and Kurt Wise, "The State of Working Massachusetts" *Massachusetts Budget and Policy Priority*, January 2012; p, 15 http://www.massbudget.org/reports/pdf/state\_of\_working\_mass\_2011.pdf).

2.) Some researchers use  $\frac{2}{3}$  of median wage as the definition of low wage (see Jérôme Gautié, and John Schmitt eds., Low-wage Work in the Wealthy World, New York: Russell Sage Foundation, 2010). Others define low-wage relative to the poverty income threshold (see Gregory Acs, Pamela Loprest, and Caroline Ratcliffe, Progress toward Self-sufficiency for Low-wage Workers, Washington, DC: The Urban Institute, 2010). Low-income is often defined as a percent of the federal poverty level, although that level is not uniform. For example, the poverty-focused research think tanks, Urban Institute and the National Center for Children in Poverty use 200 percent of the federal poverty line, while the U.S. Department of Education uses 150 percent. Other researchers use family income that falls below the amount necessary to buy a subsistence level of necessities in the city or region in which they live. For example, Wider Opportunities for Women has developed a Family Economic Security Measure for many states (including Massachusetts working with the Crittenton's Women's Union), while the Economic Policy Institute has constructed a Basic Family Budget.

3.) Income thresholds also vary by age of householder, with families with a householder who is age 65 and older having lower income thresholds than other families. Poverty thresholds for all years used can be found at http://www.census.gov/hhes/www/poverty/data/threshld/.

4.) Economic Independence Calculator at http://www.livework-thrive.org/research\_and\_tools/economic\_independence\_calculator).

5.) For how this happened historically, see for example, Michael Brown, *Race, Money and the American Welfare State.* Ithaca, NY: Cornell University Press, 1999; Suzanne Mettler, *Dividing Citizens: Gender and Federalism in New Deal Public Policy*, Ithaca, NY: Cornell University Press, 1998; and Deborah Figart, Ellen Mutari and Marilyn Power, *Living Wages, Equal Wages: Gender and Labour Market Policies in the United States*, London: Routledge, 2002. 6.) Table 2 of Families and Work Institute. "What Do We Know About Entry-Level Hourly Employees?" Research Brief No. 1, November, 2006 (http://familiesandwork.org/site/research/ reports/brief1.pdf). Data from a representative sample of employees in 2002 indicate that compared to other workers, low-wage workers were much less likely to have employer-sponsored health insurance, paid sick days, paid vacation, and any retirement plan to which an employer contributes.

7.) For how this works in Massachusetts, see Rebecca Loya, Ruth Liberman, Randy Albelda and Beth Babcock, <u>Fits and Starts: The</u> <u>Difficult Path for Working Single Mothers</u>, Boston, MA: Crittenton Women's Union and Center for Social Policy, 2008 (http://scholarworks.umb.edu/cgi/viewcontent.cgi?article=1009&context=csp\_ pubs).

8.) In these family statuses, children refer to persons younger than 18 years. To be designated as a single parent (male or female), there must be no other related adults living in the family, except for one's own children 18 and older. Further, we include single grandparents when no adult parent is present as single parents. Similarly, single males and females without children live with no other related adults (although they may live with other unrelated adults). Those designated as married male and female may have other related adults living in the family. Single male and female living with related adults may also have children under 18 in the family. So for example, a woman head of household who also lives with her daughter who has a child under 18, would be classified as a single female with related adults. The daughter in this family, even though she is a single mother, would be classified as a related female.

9.) As mentioned, the income and employment questions in the CPS are retrospective, while the demographic questions are not. Thus, income and employment data range from 1979 to 2009, while demographic data range from 1980 to 2010.

10.) We use a cross-section regression with a large set of dummies and interactions to approximate a time trend for each family status. The regression we use is: pr(LW/LI) iff  $= \alpha + \delta f + \tau t + \omega f t + \gamma Xift + uift, where i indexes individuals, f indexes family status, t indexes time, <math>\delta f$  is a family status fixed effect,  $\tau t$  is a year fixed effect,  $\omega f t$  is an interaction between  $\delta f$  and  $\tau t$ , X are the regression controls (race/ ethnicity, education level, age, age squared, job class of worker, full-time and full-year employment) and u represents the error term. Details on this regression analysis are available from the authors.

11.) For example, David H. Autor, Lawrence F. Katz, and Melissa S. Kearney, "Trends in U.S. Wage Inequality: Revising the Revisionists," *Review of Economics and Statistics* 90(2): 300-323, 2008.

12.) See Randy Albelda and Jennifer Shea, "Bridging the Gaps between Earnings and Basic Needs in Massachusetts," *Mass*Benchmarks, 2008 (volume 10, Issue 2), pp. 13-19.

13.) In all other states the gross income eligibility is 130 percent of the federal poverty line (FPL). There are also net income eligibility requirements which may result in not all families with children whose income is below 200 percent FPL being eligible.