Research

Income Support Programs and Low-Wage Work

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The starting salary for an employee at Walmart is below the poverty line. Now, the American government subsidizes Walmart to the tune of 7.8 billion dollars a year, by issuing food stamps to over one in ten of its workers. But here's the scary part. Fifteen percent of all food stamps are actually used at Walmart. Meaning Walmart gets to double dip into the federal government's coffers.

–Heather Dunbar, House of Cards

Introduction

Heather Dunbar may be fictional, but the argument is quite real and oft-repeated. It is also 1000 percent wrong. The reality is that low-wage employers compete with income support programs for the time of workers. If the programs become more generous, the value of not working increases, and employers have to raise wages to attract workers. Far from subsidizing the employers of low-wage workers, the income support raises their cost of doing business. In the process, those programs may contribute to pricing low-skilled workers out of jobs and increasing the incentive to substitute modernization and technologies.

This is not an argument against the provision of income support or a social safety net. Even valuable government programs, however, have economic consequences, and these should be clearly understood.

In this brief essay, I pursue this objective by exploring the economic foundations and real-world magnitudes of the Welfare Wage Multiplier (WWM) – the percent increase in market wages driven by the expansion of income support programs. To anticipate the results, I find that expansions in the scale of taxpayer-provided support will raise wages by as much as 19 percent.

Economic Foundations[1]

The economics of the impact of more generous income support programs on wages and low-wage work are quite simple. Other things being the same, more generous programs will lure some workers or, for others, some part of their current hours of work out of the employment market. This is an entirely understandable and predictable response to having more money. At the same time, restaurants, drinking establishments, retail stores and other low-wage employers will find themselves competing for shrunken pool of workers and forced to raise pay to get the employees needed to satisfy their customers.

The actual increase in wages in response to more generous income support relies on the “welfare wage multiplier” (WWM). A shorthand capturing this relationship is: %w = W %s, where %w is the percent increase in low-skill wages and it equals %s or the percentage increase in the generosity of the income support times W, which is the WWM. The WWM is, in turn, built upon the characteristics of the labor market, specifically: W = (qh)/(e-g). The multiplier, while arcane, makes intuitive sense. For example, h measures the sensitivity of

workers to having a larger income. If being more affluent does not affect desire for work, it is equal to zero, income support lacks a channel to influence wages, and %w is zero. Alternatively, the more sensitive workers are, the greater the impact on wages.

Similarly, q is the fraction of potential income contributed by income support programs. Obviously, if programs are not a key component of income, making them more generous will not affect wages. However, when they is a central part of the economic lives of workers, it will have a bigger impact.

The final pieces of the WWM are the responsiveness of employers (e) and workers (g) to increases in wages; negatively for employers and positively for workers. So when employers or workers are more responsive to increases in wages, the denominator (e-g) grows in absolute value, which reduces W and the WWM. That makes sense. If employers are quite sensitive to wage increases, it will only take a small increase to bring jobs down to the new level of labor supply after an expansion of income support. Similarly, if workers are quite sensitive, it will take only a small increase in wages to offset the lure of more generous income support programs.

How Big is the WWM?

A formula and a pile of Greek letters is great, but what does it tell us about the impact of government programs on low-skill wages. Let's start plugging in some numbers. A rough summary of the evidence on the responsiveness of workers to income (h) is that it is quite limited (-0.1 to -0.2), while the responsiveness to wages (g) is similar (0.1 to 0.3).

Using the Survey of Income and Program Participation (SIPP), I compute a rough measure of transfer income as a fraction of potential income (q). Transfer income includes household income received from energy assistance, social security, supplemental security income, unemployment insurance, veteran's assistance, Supplemental Nutrition Assistance Program (SNAP, "food stamps"), and Temporary Assistance for Needy Families (TANF). The figure does not include value of Medicaid (an in-kind form of income support). While SIPP tracks if someone receives Medicaid, it does not report the value of the insurance; in this regard the estimates are likely on the conservative side.

Potential Income: Potential income includes total potential labor earnings in a household (hourly pay rate x 84 hours x 50 weeks for each household worker), total household property income, and total transfer income.

If one focuses on those that receive public assistance and work, the average value of transfer income as a proportion of potential income is roughly 0.15. Of course, it could be that the programs generate high enough wage barriers and sufficient income that some people do not work at all. Using the value for all those households that receive assistance at all yields a value of 0.28.

The final piece of the puzzle is the sensitivity of employers to more costly labor (e). The limited research suggests this could range from a moderate response (-0.2) to great sensitivity (-1.0).

Collecting these estimates, the information suggests that the WWM could be as small as 0.01 and as large as 0.19. Put differently, suppose that one expanded income support by $1,000 annually. As a fraction of the average receipt ($13,228) in the SIPP, this would constitute a 7.6 percent increase in the generosity of income support. In turn, this would raise low-skill wages by as little as 0.076 percent to as much as 1.4 percent.

Or, consider that the data underlying the House Budget Committee report on poverty programs indicates that

income support spending – excluding the Earned Income Tax Credit, which has a clear positive impact on labor supply – has expanded by roughly 50 percent since 2003. Using the range (above), this implies that the expansion has driven up wages by anywhere from 0.5 percent to nearly 10 percent.

These examples may or may not seem significant, but consider the cumulative impact of small expansions income support by imagining the reverse: a 100 percent elimination of the net. This would generate as much as a 19 percent decline in wages.

[1][1] The logic in this section is the same that underlies Hagedorn et. al (2013): Marcus Hagedorn, Fatih Karahan, Iourii Manovskii, and Kurt Mitman, "Unemployment Benefits and Unemployment in the Great Recession: The Role of Macro Effects,"

Federal Reserve Bank of New York Staff Reports, no. 646

October 2013; revised February 2015 who examined how the duration of unemployment benefits impacted unemployment during the great recession. They note that higher unemployment is due to an increase in the equilibrium wage, which reduces vacancies and labor market tightness (defined by ratio of vacancies to unemployment).