



The effect of taxes and transfers on low-earning workers' income.

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Despite misperceptions that the United States is limping through late-stage capitalism, American workers are more highly compensated than ever before—even the lowest earners.

The 20th percentile earner—worse-off than 80 percent of workers—had annual earnings 19 percent higher in 2022 than in 1979, after accounting for inflation and a decline in women choosing to work only part of the year or part of the workweek. That made for an extra \$5,100 for the typical low-earning worker, in today's dollars.¹

These estimates, however, may poorly reflect the evolution of workers' purchasing power for three reasons. For one, they involve *pre-tax* earnings. Workers have less to spend after taxes are deducted from their paychecks. Second, lower-earning workers qualify for government transfers to supplement their pay. Finally, the figures above ignore any nonwage compensation that employees receive, such as health care or retirement benefits. Taking into consideration how these changed, low-earners' disposable income actually rose by 36 percent, or \$8,800.

This report explores how lower-earning workers have fared over the past 45 years. It considers men and women separately, focusing on the impact of tax and transfer policy on their disposable incomes. Compared with 1979, men are doing modestly better, with post-tax and -transfer compensation 17 percent higher in 2022. Average tax rates have fallen over time, while transfer rates have fluctuated with the business cycle. Men's earnings after taxes and transfers rose a bit more than their pre-tax and -transfer earnings.

Low-earning women, in contrast, are better off by an impressive 67 percent compared with 1979. Falling tax rates and fluctuating transfer rates essentially canceled each other out over the long run.

Apart from its impact on long-term trends, the primary importance of changes in tax and transfer policy has been to produce a stronger safety net during downturns. Transfers have long propped up low-earning workers' living standards during recessions, and that has also been true of taxes during the 21st century.

Trends among lower-earning working-age men

Figure 1 shows four trends in the disposable income of lower-earning men, from 1979 to 2022, after adjusting for inflation. In each case, the focus is on the bottom fifth of working-age men (age 25 to 54), as ranked by their pretax earnings. In all of the analyses here, "earnings" includes not just the pay of employees but self-employment income. Looking at *annual* earnings rather than hourly pay is useful because in addition to earnings, the Current Population Survey's Annual Social and Economic Supplement (CPS ASEC) includes information on a variety of taxes and transfers, measured on an annual basis.²

Looking at the bottom fifth's average rather than the 20th percentile of earnings makes it easy to layer on the impact of taxes and transfers.

The trend lines in Figure 1 are scaled so that 1979 equals 100. For example, Line 1, which gives the trend in earnings before deducting any taxes, ends in 2022 at 110. That indicates that earnings for men in the bottom fifth were 10 percent higher in 2022 than they were in 1979. (Table 1, at the end of the paper, presents the actual amounts for 1979 and 2022, in 2022 dollars, for all the figures.)

Figure 1: Annual earnings and compensation for the bottom fifth of working-age men, 1979 to 2022



(1979=100)

Source: Author's analyses of microdata from the Current Population Survey Annual Social and Economic Supplement. See note 1 for details.

Men's earnings were at an all-time high in 2022. Earnings in the bottom fifth were \$22,800—higher by \$2,000 than in 1979. The low earnings levels in Figure 1 partly reflect the fact that many of these men worked only part of the year or worked less than 35 hours a week. As discussed in note 1, I exclude from my analyses workers who gave reasons for working only part of the year of for working part-time that suggest they were acting in accordance with preference.³

The cyclical nature of earnings growth is clear in Figure 1, with earnings rising during most expansions and falling during the recessions of the early 1980s, early 1990s, 2001, 2008-09, and 2020. Earnings gains lag the start of recoveries over much of this period. In contrast, earnings rebounded immediately from the short but deep 2020 recession.

The overall increase in men's earnings over time reflects gains during the 1990s expansion (a 36 percent increase in nine years) and the pre-pandemic expansion (36 percent over 10 years). But earnings fell 24 percent during the double-dip recession of the early 1980s and 23 percent from 2000 to 2009 during the "Lost Decade," in which a minor recession was followed by a slow recovery running smack into a deep and long recession sparked by financial crisis.

Line 2 of Figure 1 provides the trend in after-tax earnings. Taxes deducted include federal and state individual income taxes as well as the employee's share of payroll taxes.⁴ The average tax rate among low-earning men fell from 12.3 percent to 5.4 percent.⁵

Taxes reduced the earnings of the bottom fifth by 8 percent in 2022, leaving an average of \$20,900. Nevertheless, the effective tax rate was higher in 1979, reducing earnings by 14 percent.⁶ Therefore, post-tax earnings for low-earning men rose a bit more than pre-tax compensation—by 16 percent. The increase—\$2,900—was 46 percent greater than the increase in pre-tax earnings.⁷

Tax cuts increase disposable income when earnings are stable, but they have another important effect on earnings. In general, progressive tax systems cushion income losses. If someone loses their job and has to take lower-paying work (or fails to find work), they may end up in a lower tax bracket or simply have a lower effective tax rate after deductions and exemptions. Their after-tax income will fall less than their pre-tax income. However, the tax system does not appear to have mitigated income losses among low-earning men during the recessions of the late 20th century.

The reason is that the bottom fifth of earners generally were uniformly in the lowest tax bracket until the creation of a 10 percent federal income tax bracket in 2001 (beginning with 2002 taxes). After that, the lower bracket allowed the income tax to serve as a cushion when someone's income fell enough to move them between the 15 percent and 10 percent brackets. The reduction of the 15 percent bracket to 12 percent in 2017 (beginning with 2018 taxes) also helped low earners, though it reduced the cushioning effect of the tax system in the event of earnings losses.

The post- and pre-tax lines in Figure 1 diverge starting in the early 1990s, reflecting the expansion of the earned income tax credit (EITC) first in 1990 (beginning with the 1991 credit) and then in 1993 (beginning with the 1994 credit). The expansion of refundable tax credits during the 1990s and thereafter enhanced the safety net aspect of the tax system. A worker who spends half the year unemployed and sees his annual earnings reduced by 50 percent generally will not see his refundable tax credits cut in half. Indeed, his credits may increase.⁸

In addition to the early-1990s expansions of the EITC, the same 2001 legislation that created the 10 percent bracket also expanded the EITC and made the child tax credit (CTC, created in 1997) partially refundable. The EITC and CTC were further expanded in 2009, and the CTC was expanded again in 2017 (though offset largely by the elimination of dependent exemptions).

As evident in Figure 1, after 2000, post-tax earnings fell noticeably less than pre-tax earnings during recessions. For instance, instead of falling by 19 percent from 2006 to 2009, as pre-tax earnings did, post-tax earnings fell by only 14 percent.

Line 3 in Figure 1 adds federal transfer income to post-tax earnings. Workers might receive transfers while they are employed—such as when someone qualifies for food stamps—or they may only work part of the year and receive benefits while they are jobless. These transfer benefits include the earner's income from unemployment compensation, worker's compensation, social security (including disability benefits), the supplemental security income program (SSI), public assistance (including aid to families with dependent children and temporary assistance for needy families, AFDC and TANF), and the economic impact payments ("stimulus checks") from 2020 and 2021.⁹ I also allocate a variety of noncash benefits on a per-person basis within families, and the

earner's share is included in his transfers. These include food stamps (benefits from SNAP, the supplemental nutrition assistance program), Medicaid, housing subsidies, free and reduced-price school lunches, and energy subsidies.¹⁰ The transfer rate for low-earning men was 4.5 percent in 1979 and 4.3 percent in 2022.¹¹

From 1979 to 2022, post-tax and -transfer earnings rose 14 percent among the lowest fifth of male earners—to \$21,900. While this added \$1,000 to post-tax earnings, transfers were relatively more important in 1979, causing post-tax and -transfer earnings to rise a bit more slowly than post-tax earnings. After taxes and transfers, the bottom fifth of male earners in 2022 was actually worse off (by \$900) than before considering them. Because tax rates were higher in 1979, however, that was even truer in 1979. So the 14 percent rise in post-tax and transfer earnings was larger than the 10 percent rise in pre-tax and -transfer earnings.¹²

What Figure 1 does reliably show is the role of transfers in cushioning poorer men during recessions. Post-tax earnings fell by 24 percent from 1979 to 1982, but after accounting for transfers, the fall was just 17 percent. Post-tax earnings declined by 14 percent from 2006 to 2009, but adding in transfers, the drop was 6 percent. Stimulus checks and other safety net expansions during the pandemic reversed what was a 13 percent drop in post-tax earnings in 2020, turning it into an 11 percent increase. Transfers pushed earnings up again in 2020 and 2021 to the point where low earners were better off by 26 percent in 2021 relative to 1979.

The final line in Figure 1 adds nonwage compensation to post-tax and -transfer earnings.¹³ Compensation includes employer contributions to health and disability insurance and to pensions and retirement plans. These are costs of employing someone, and like wages and salaries, they benefit workers. Apart from the distortionary effects of tax subsidies for nonwage compensation, employers are indifferent as to how they compensate employees. They would not offer fringe benefits if employees did not prefer them.

If more workers want health insurance benefits over time, and employers respond accordingly, it makes little sense to track changes in only the wage and salary part of total compensation.¹⁴

Adjusting for compensation raises earnings over most of the period in Figure 1, and it increases the long-term rise modestly. Low-earning men were better off in 2022 by 17 percent compared with 1979, somewhat more than the 14 percent increase in post-tax and -transfer earnings.

Trends among lower-earning working-age women

Trends among low-earning American women are dramatically different than for their male counterparts, as is evident from a glance at Figure 2. The pre-tax earnings of the bottom fifth of working-age female workers rose 63 percent from 1979 to 2022. Nonetheless, earnings did not permanently exceed their 1979 level until after 1996. This year is not entirely arbitrary, as we will see.

As was the case for lower-earning men, the Great Recession hurt their female counterparts, reducing their earnings 18 percent just between 2007 and 2009. However, the bottom fifth of women saw their earnings rise 55 percent from 2012 to 2022, steadily increasing except for a steep 16 percent drop in the pandemic year of 2020. The 2022 level of \$20,300 was the highest on record—\$7,900 higher than in 1979.

Figure 2: Annual earnings and compensation for the bottom fifth of working-age women, 1979 to 2022

(1979=100)



- - 1. Pre-tax and -transfer earnings - - 2. Post-tax, pre-transfer earnings - 3. Post-tax and -transfer

The after-tax earnings of bottom-fifth women have risen faster than pre-tax earnings since the early 1990s. Taxes left low-earning women worse off by \$1,100 in 2022. But they took a bigger bite out of earnings in 1979. (The average tax rate of low-earning women fell from 13.8 percent in 1979 to 2.2 percent in 2022.) As a result, post-tax earnings were 78 percent higher in 2022 than in 1979, down only a little from the 2021 peak. Changes in tax policy, then, affected women's earnings trend more than it did the trend for men.¹⁵

Post-tax and -transfer earnings of women in the bottom fifth of pre-tax and -transfer earnings have grown more slowly than post-tax earnings, a lag dating to 1996. The role of transfers fluctuates with the business cycle but shows little in the way of a long-term trend. In 1979, transfers increased post-tax, pre-transfer earnings among bottom-fifth women by 15 percent. By 2022, transfers only boosted post-tax, pre-transfer earnings by 5 percent. (The average transfer rate fell from 9.4 percent to 5.9 percent.) Looking only at recessions, the transfer rate fell from 12.4 percent in 1982 to 10.2 percent in 1993 to 8.9 percent in 2004, but it rose to 11.6 percent in 2009. In 2020 and 2021, it rose to 27.7 percent and 20.3 percent thanks to dramatic expansions in unemployment benefits and food stamps.

Notably, there is no evidence that in the wake of welfare reform, transfers helped low-earning women any less during downturns. From 2007 to 2012, post-tax earnings fell by 12 percent, but after adding in transfers, they only fell 7-8 percent. More dramatically, in 2020, post-tax earnings dropped 15 percent, but post-tax and transfer earnings rose 14 percent. By 2022, post-tax and -transfer earnings were 63 percent higher than in 1979the same as the increase in pre-tax and -transfer earnings. After taxes and transfers, the bottom fifth of female earners had about the same disposable income as before taxes and transfers (\$20,300). The safety net essentially removes the tax burden of low-earning women.

Source: Author's analyses of microdata from the Current Population Survey Annual Social and Economic Supplement. See note 1 for details.

Finally, as shown in Line 4, adding nonwage compensation to post-tax and -transfer earnings increases longterm growth modestly for the bottom fifth of female earners. The rise from 1979 to 2022 was 67 percent. The \$23,000 average for this group in 2022 was higher than at any time in the past, excepting the pandemic years of 2020 and 2021. The tax and transfer system, along with nonwage compensation, left low-earning women better off by 13 percent compared with their pre-tax and -transfer earnings.

Conclusion

Men and women have experienced markedly different trajectories in their earnings over the past 45 years. While women have seen strong gains, the disposable income of low-earning men rose by only 17 percent, or \$3,500. The bottom fifth of women had post-tax and -transfer compensation 35 percent lower than the bottom fifth of men in 1979. By 2022, they made only 7 percent less than their male counterparts.

The relative stagnation of men's pay has been widely noted, but observers often fail to recognize that the worst of times for men seem behind us. From 1979 to 1989 (both business cycle peaks), the post-tax and -transfer compensation of low-earning men fell by 12 percent. From 1989 to 2019 (another peak), it rose by 31 percent. (The figures for low-earning women are an increase of 1 percent and a rise of 54 percent.)¹⁶

Over the long run, tax and transfer policy changes have caused the disposable income of low-earning workers to grow modestly faster than pre-tax and -transfer earnings, as we have seen. More importantly, they have cushioned earnings losses during recessionary periods. For example, in the recession year of 2009, the average pre-tax and -transfer earnings of the bottom fifth of men was down 22 percent from 1979. But after accounting for taxes and transfers, it was only down 5 percent. That's a much bigger impact than tax and transfer policy had on the 1979-to-2022 trend.

The analyses above suggest that tax policy was more important in increasing long-run earnings growth than transfer policy (which affects earnings counter-cyclically). However, in an important way, these charts understate the impact of transfer policy on earnings. Transfer policy can encourage or discourage work, raising or lowering average pre-tax and -transfer earnings without it registering in charts like Figures 1 and 2.

For example, the increase in pre-tax and -transfer earnings, particularly among low-earning women, is partly due to the effects of social policy changes during the 1990s, including transfer policy reforms. Specifically, the 1996 federal welfare reform and the state reforms preceding it complemented the EITC expansion and the creation and expansion of the CTC. The expanded EITC and the CTC raised the income of lower-earning workers, increasing the pay-off to working. (Indeed, at very low earnings, these tax credits encourage workers not only to be employed but to work additional hours.) Meanwhile, welfare reform, with its work requirements and time limits, made it more difficult for parents not to work. The result was an unprecedented increase in employment among single mothers during the 1990s, which increased pre-tax earnings (as well as post-tax earnings).

Other transfer policies have discouraged work, as in the case of disability programs in which able-bodied adults, with persistence, can enroll and receive benefits until they are old enough to qualify for old-age benefits. The effective tax on additional earnings as safety net benefits are correspondingly reduced is another work disincentive.

Policymakers must be attuned not only to the ways that tax and transfer policies increase the disposable income of low earners over the long run and during recessions. They must also consider how policy affects labor supply itself.

	1979	2022	Change	Pct. change
Men				
Pre-tax and -transfer earnings	20,821	22,810	1,989	10%
Post-tax, pre-transfer earnings	18,001	20,899	2,898	16%
Post-tax and -transfer earnings	19,244	21,874	2,630	14%
Post-tax and -transfer compensation	21,258	24,774	3,515	17%
Women				
Pre-tax and -transfer earnings	12,476	20,348	7,872	63%
Post-tax, pre-transfer earnings	10,842	19,289	8,447	78%
Post-tax and -transfer earnings	12,442	20,256	7,814	63%
Post-tax and -transfer compensation	13,768	22,958	9,191	67%

Table 1: Annual earnings and compensation, bottom fifth of workers, 1979 to 2022

Source: Author's analyses of microdata from the Current Population Survey Annual Social and Economic Supplement. See note 1 for details.

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¹Author's analysis of data from the Current Population Survey (CPS) Annual Social and Economic Supplement. Estimates for 1980 to 2012 are from files provided by the Unicon Research Corporation, a company no longer in existence. Estimates for 2013 to 2022 are from files offered by the Minnesota Population Center at the University of Minnesota. (See Flood, et al., 2023.) The Unicon files have data on taxes going further back than the Minnesota Population Center files. The most recent year of annual earnings data available is 2022. The sample I use for all of the earnings analyses in this essay includes noninstitutionalized civilian adults ages 25 to 54 with positive earnings (where earnings is the sum of wage and salary income and self-employment income). I focus on this restricted age range to account for changes in the age distribution and in earnings trajectories as workers age. Sensitivity checks revealed similar trends when restricting to narrower age ranges between 25 and 54, but because of these issues, expanding to younger and older workers produces stronger earnings growth. In addition to excluding adults who did no work during the year, I exclude adults who worked only part of the year for reasons that may be considered voluntary (specifically, workers who were part-year because they were taking care of a home or family, were in school, were retired and at least 50 years old, or were in the Armed Forces). The annual earnings of such workers is less meaningful when included in trend analyses than is the case for full-year workers and involuntarily partyear workers. Voluntary part-year workers may be at the beginning or end of a spell of work that normally is year-round, such as when students graduate and enter the workforce mid-year. In contrast, I include part-year workers who worked only some of the year if they were disabled or sick, said they were retired and were under 50 years old, indicated no work was available, or cited an "other" reason. While the case could be made that the disabled and sick should be completely excluded from the trend analyses, one could argue that many part-year workers calling themselves disabled (or younger workers calling themselves retired) might have dropped out of the labor force because of economic conditions (receiving disability benefits to get by). Disability benefit rolls increase during recessions, and there has been a secular rise in receipt of disability benefits

that is difficult to square with better health and more generous workplace accommodations for disabled workers. (See Scott Winship, "How to Fix Disability Insurance," National Affairs, Spring 2015,

https://www.nationalaffairs.com/publications/detail/how-to-fix-disability-insurance.) Finally, I also exclude adults who worked less than 35 hours a week at least some of the time they were employed if they did so because they wanted or were only able to work part-time. I do so because I do not want earnings trends to reflect changes in work hours that reflect worker preferences. If one way that a richer people "spend" their money is by working less, their annual earnings might decline even though their economic status would be no worse or better. I include in the sample part-time workers who could not find full-time work or were working part-time due to "slack or material shortage." I do want earning trends affected by changes in the number of involuntary part-time workers, since those changes can reflect the strength of labor markets. All the annual estimates after 2013 have been adjusted to account for a change in survey methodology that creates an artificial break in the CPS ASEC time series between 2013 and 2014. In the 2014 survey, measuring 2013 earnings, the Census Bureau asked some people the set of survey questions that had been asked in previous years while asking others the set that would be asked in subsequent years. I adjust the post-2013 estimates by shifting them upward or downward by the difference between the 2013 estimate using the old questions and the 2013 estimate using the new questions. This methodological issue does not affect the hourly estimates described in the previous note. I adjust annual earnings for inflation using the Bureau of Economic Analysis's Personal Consumption Expenditures (PCE) implicit price deflator. On the superiority of that price index, see Scott Winship, "Poverty after Welfare Reform," Manhattan Institute, August 2016, Appendix 2, https://media4.manhattan-institute.org/sites/default/files/R-SW-0816.pdf.

² Author's analysis of the Current Population Survey (CPS) Annual Social and Economic Supplement. (Flood et al., 2023). See note 1 for details.

³ The remaining part-year and part-time workers included 38 percent of the bottom fifth of male earners in 2022. However, that was down from 50 percent in 1979, so changes in part-year and part-time employment worked to push up the earnings of bottom-fifth men over time. In contrast, the non-worker share of men who were either in the bottom fifth of earnings or had no earnings rose from 20 percent to 40 percent.

⁴ Income taxes in the CPS ASEC data are assigned to the tax unit head and apply to the entire tax unit. To allocate income taxes to individual workers, I create tax units, sum market income (including income other than earnings) and federal and state income taxes (after refundable tax credits), and compute the resulting income tax rate for the tax unit. I then apply that rate to a worker's earnings. Finally, I add the worker's individual payroll taxes and (if applicable) mandatory federal employee retirement contributions, included in the CPS ASEC.

⁵ The mean tax rate excludes a small number of outliers with FICA tax rates in excess of 20 percent. For comparison, one study found that adding federal, state, and local income taxes and payroll taxes, the average American in the bottom fifth of the income distribution was taxed at a rate of 5.0 percent in 1979. By 2019, it was -2.4 percent. These estimates are not confined to workers or working-age families. See Gerald Auten and David Splinter, "Income Inequality in the United States: Using Tax Data to Measure Long-Term Trends," *Journal of Political Economy*, forthcoming, Appendix Table C9b, available at <u>https://davidsplinter.com/AutenSplinter-IncomeIneq.xlsx</u>. The authors rank individuals according to their size-adjusted tax unit pre-tax, post-transfer income. I calculate taxes to include only federal, state, and local income taxes and payroll taxes, excluding corporate, property, estate, gift, sales, and other taxes. The denominator of the rates is pre-tax, post-transfer income. Other estimates indicate that the average tax rate of the bottom fifth of families with children fell from 5.6 percent to -10.1 percent from 1979 to 2019. These figures are confined to working-age adults but not to workers per se, nor to men. See Congressional Budget Office, "The Distribution of Household Income, 2019," November 2022,

https://www.cbo.gov/publication/58353#data. Using the Table Builder spreadsheet, I look at individuals in households with children in the bottom fifth of all individuals, ranked by size-adjusted household market income. I look at federal income and payroll taxes (excluding corporate and excise taxes) as a share of household market income.

⁶ These differ from the 12.3 percent and 5.4 percent mean tax rates because one is a mean percentage while the other is a difference of means expressed as a percent of another mean.

⁷ The drop in marriage over this period also affected average tax rates, since single and married filers face different income tax rates in any year. Because average tax rates were higher for low-earning single men than for married men, and because tax rates fell more for low-earning married men than for single men, the decline in marriage actually prevented post-tax earnings from rising by more than indicated in Figure 1.

⁸For example, a single father with one child who earned \$30,000 in 2022 received an EITC of \$1,577. If he instead were out of work for half the year, making just \$15,000, his EITC would increase to \$3,733. That reduces a 50 percent decline to a 41 percent decline. Instead of showing up in the data as having \$15,000, he will have \$18,733, keeping mean earnings in the bottom fifth higher than it would otherwise be.

⁹ All benefits are measured at the individual, rather than family or household, level. Refundable tax credits are incorporated into the post-tax estimates.

¹⁰ The CPS ASEC includes amounts at the family level for food stamps, school lunches, housing subsidies, and Medicaid. I divide by the number of family members. The data includes energy subsidies at the household level, so I divide by the number of household members. Food stamp and school lunch benefits are available for all years, and energy subsidies are available starting in 1981 (when the Low-Income Home Energy Assistance Program began). Housing benefits are available until 2014. I impute housing subsidies for 2015–2022 using CPS ASEC variables that identify residents of public housing and recipients of housing vouchers. In each year, I give these beneficiaries an amount equal to the average inflation-adjusted housing subsidy in 2014, with averages estimated separately by sex and marital status. The housing amounts are on a monthly basis. I multiply them by 11, which is roughly equivalent to assuming 80 percent receive subsidies year-round while 20 percent receive them for half a year. Medicaid benefits are available in the Unicon data until 2013, but I only use that data source through 2012. I impute Medicaid benefits for 2014–2022 using CPS ASEC variables in the IPUMS data that identify Medicaid recipients and beneficiaries of the Children's Health Insurance Program. In each year, I give these beneficiaries an amount equal to the average inflation-adjusted Medicaid benefit in 2012, with averages again estimated separately by sex and marital status. The Medicaid estimates in the CPS ASEC data involve the market value of benefits, as estimated by the Census Bureau. Following Winship (2016)—see Appendix 1—I discount this value by 75 percent to account for the fact that the value of health insurance to many beneficiaries, relative to receiving cash, is less than the market value. This is a conservative approach. CBO, for example, uses the full market value. (Congressional Budget Office, 2022.)

¹¹ This mean excludes a small number of outliers with transfer rates in excess of 100 percent. For comparison, from 1979 to 2019, transfers among the bottom half of working-age Americans (not necessarily working Americans) rose from 7 percent of national income to 10 percent. See Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, "Distributional National Accounts: Methods and Estimates for the United States," *Quarterly Journal of Economics* 133(2): 553-609, 2018. See the

PSZ2022AppendixTablesII(Distrib) spreadsheet at https://gabriel-zucman.eu/files/PSZ2022AppendixTablesII(Distrib).xlsx, Tab TG4c. These estimates rank individuals by individual post-tax national income (splitting the incomes of married couples equally between spouses). Transfer income is comprehensive, including Medicaid, Medicare, food stamps, and other non-cash benefits. Estimates are unavailable for the bottom fifth. Looking at families with children, using a different source, the transfer rate among the bottom fifth (transfers as a fraction of pre-tax and -transfer income) fell from 69.5 percent in 1979 to 42 percent in 2019. However, adding in the value of federal health benefits, the transfer rate rose from 85.5 percent to 102 percent. See Congressional Budget Office, "The Distribution of Household Income, 2019." Individuals are ranked by their size-adjusted household market income. Using the Table Builder spreadsheet, I look at individuals in households with children in the bottom fifth of all individuals. Transfer income includes a comprehensive set of benefits. The estimates in these studies are not confined to workers (nor men), however, the safety net has expanded over the past 20 years in ways that have disproportionately benefited families with workers. See Carolina Cardona, Robert A. Moffitt, and Gwyn Pauley, "Recent Trends in the Distribution of Social Safety Net Support: Inequality in Government Transfers," Research note, February 2022, https://www.econ2.jhu.edu/people/moffitt/cardona-moffitt-pauley-2022.pdf.

¹² My estimates exclude Obamacare premium subsidies, Medicare benefits (available to disabled former workers), benefits from the Women, Infants, and Children (WIC) program, educational benefits, and all state and local benefits other than public assistance. Some of these benefits have grown more generous over time. Including Obamacare subsidies and Medicare prescription drug benefits (available to disabled former workers), for instance, would produce a larger increase in post-tax and -transfer earnings than shown in Figure 1.

¹³ I adjust wage and salary income to account for nonwage benefits by using figures from the Bureau of Economic Analysis's National Income and Product Accounts, NIPA Table 2.1, "Personal Income and Its Disposition." For each year, the adjustment equals the ratio of ("Wages and salaries" (Line 3 of the table) plus "Employer contributions for employee pension and insurance funds" (Line 7)) to "Wages and salaries". Note that the earnings of the self-employed are not adjusted at all. For an extended discussion of measuring nonwage compensation in the CPS, see the Appendix to Scott Winship, "Bringing Home the Bacon: Have Trends in Men's Pay Weakened the Traditional Family?" American Enterprise Institute, 2022, https://www.aei.org/wp-content/uploads/2022/12/Bringing-Home-the-Bacon-Have-Trends-in-Mens-Pay-Weakened-the-Traditional-Family.pdf?x85095.

¹⁴ My approach assumes that nonwage compensation inflates earnings among lower-paid workers by the same percentage as for workers as a whole. This assumption may seem questionable to some readers. After all, many part-time workers do not receive the full benefits enjoyed by their full-time counterparts, and part-time workers are relatively more numerous among those with low earnings. Nevertheless, I have found in earlier work that applying a compensation-to-wages ratio based on the *observed* employer health benefits of low earning men produced very similar results as the method I use here. See the Appendix to Scott Winship, "Bringing Home the Bacon." One reason for this may be that federal regulations limit the extent to which company benefits may differ across employees with different pay, meaning that nonwage compensation actually boosts the pay of low-earning workers who get benefits by more than it boosts pay generally. Note that by adjusting compensation for inflation, the increased price of medical care is accounted for in these estimates. It is not simply that the same benefit just costs more over time and crowds out wages; after adjusting for inflation, what is left is increasingly valuable health benefits. ¹⁵ While the temporary 2021 expansion of the CTC into a near-child-allowance was partly responsible for the 30 percent increase in post-tax earnings that year, pre-tax earnings rose 24 percent. Moreover, the Census Bureau assigned the entire increase in the CTC to calendar year 2021, but post-tax earnings remained high in 2022. Most of the benefits of this expansion went to non-workers.

¹⁶ Elsewhere, I have argued that the earlier decline among men was due to two factors. First, a recalibration of men's pay put it back in line with the productivity of male workers. Pay had outpaced productivity in an earlier era when many men received "breadwinner rents" meant to top off pay to support sole breadwinning. Second, as women's economic options expanded, the lessened responsibility on men for supporting a family lowered their earnings. See Scott Winship, "Bringing Home the Bacon," pages 15–16.