National Tax Journal, December 2020, 73 (4), 1187–1218 https://doi.org/10.17310/ntj.2020.4.12

A UNIVERSAL EITC: MAKING WORK PAY IN THE AGE OF AUTOMATION

Leonard E. Burman

The universal earned income tax credit is a worker subsidy designed to offset wage stagnation. The base proposal would replace existing subsidies for working families with a refundable 100 percent tax credit on individual wages up to $10,000 and a larger, refundable child tax credit. The maximum credit grows with gross domestic product, guaranteeing that low-wage workers benefit from economic growth. The credits are offset by a broad-based value-added tax or income surtax. The proposals are progressive: After-tax income for the bottom quintile would increase by about 25 percent. The tax burden on the top 1 percent would increase by 7–14 percent of income, depending on financing.

Keywords: inequality, EITC, VAT, UBI, CTC

JEL Codes: D63, H24, H25, I38, J30

I. INTRODUCTION

Economists since Adam Smith have marveled at the potential magic of unconstrained competitive markets. Under certain conditions, markets can efficiently allocate resources in such a way that no intervention could make anyone better off without making someone else worse off. Those preconditions are routinely violated in the real world, but the free enterprise system produces a dizzying array of products and gets them to consumers around the world who are willing and able to pay for them. In the process, it produces an enormous amount of wealth. The problem is that the gains from economic activity are increasingly concentrated in a sliver of the population. Half of the population has seen little increase in real wages for decades. This raises normative issues about the desirability of our economic system, but even people with a high tolerance for inequality might be concerned that a system that increasingly leaves most voters behind is not politically sustainable over the long run.

This article develops a straightforward correction to wage stagnation: a refundable wage tax credit, which I call a universal earned income tax credit (UEITC). The credit would match earnings up to a maximum amount. I illustrate two variants: a 100 percent credit on earnings up to $10,000 plus a $2,500 fully refundable child tax credit (CTC)

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and a 50 percent credit on earnings up to $14,000 plus a fully refundable $2,000 per person (adults and children) universal basic income (UBI). The cost of the new tax credits could be offset by a dedicated tax — either a broad-based, value-added tax (VAT) of 11 percent or a surtax of 12 percent of taxable income. The maximum credit would be indexed to economic growth as measured by gross domestic product (GDP) per capita. For the first time in decades, low- and middle-income workers would share economic gains even if the factors suppressing market wages do not reverse. Workers at all income levels, rather than only the highest earners, would benefit from economic prosperity, finally fulfilling John F. Kennedy's promise that "a rising tide lifts all boats."

A substantial wage subsidy is more efficient and direct than the trade and immigration restrictions currently favored by the right and the regulatory responses advanced by the left. Polls show that the public strongly supports assisting working people. The earned income tax credit (EITC), which provides a substantial wage subsidy for lower-income families with children, has garnered broad bipartisan support. But the EITC provides little or no support for workers without children at home or for families with somewhat higher earnings. The proposed UEITC would replace the EITC and provide meaningful assistance for low- and middle-income workers whether or not they have children living with them. Unlike the EITC, the UEITC would not directly penalize two-earner couples.

Because the wage credit is universal and refundable (that is, it does not phase out with income and workers can receive it even if they do not owe income taxes), workers could safely request an advance payment from an employer. Self-employed workers and those with multiple employers would ultimately claim the credit less any advance payments on income tax returns. Like other income, but unlike the EITC and most other tax credits, the UEITC would be subject to income taxes. A UEITC would also be easier for the Internal Revenue Service (IRS) to administer than the current EITC because eligibility would be simpler to determine. All adults with earnings would be eligible for the UEITC.

The proposed options are quite progressive. Low- and middle-income workers would receive far more in tax credits than they would pay in additional taxes. I assume the new credits and their dedicated funding sources would phase in and the EITC would phase out between 2020 and 2023. In 2023, when fully phased in, the proposals would cut average tax bills for most people in the four lowest income quintiles. The federal tax cut for the bottom quintile would average about $3,800–$4,500 (23.2–27.8 percent of after-tax income), depending on the option chosen. The tax cut for the middle quintile would average $2,600–$3,100 (4.2–5.1 percent of after-tax income). High-income people would pay more because the VAT burden or surtax increases with income. The tax increase on the top quintile would average between $12,000 and $22,000 (4.7–8 percent of after-tax income). The tax burden on the top 1 percent of earners would increase by 7.5–13.8 percent of after-tax income ($128,000–$235,000).

By convention, the static distributional estimates ignore behavioral responses, but those responses increase the overall benefit for low-wage workers. Because the proposal significantly increases the reward for working, some individuals would choose to enter the work force or work more hours, raising their income. Over the long run, they would accumulate more human capital (job skills) that would increase their productivity and, thus, wages. The increased labor supply could depress wages, but evidence from the EITC suggests that this effect is small. Watson (2020) estimates that the EITC increases workers' welfare by more than the static estimates despite a substantial labor supply response.[1]

An alternative to the UEITC, which received a boost from Andrew Yang's presidential primary campaign, would be a UBI alone. The UEITC provides no benefit to people who are out of the work force. However, work-based subsidies have strong political advantages. The UEITC and enhanced CTC are targeted at workers and families with children, two groups that many Democrats and Republicans are willing to support. The public is wary of assisting able-bodied adults who do not work. Eighty-seven percent of respondents in a recent poll supported work requirements for public assistance programs (Doar, Bowman, and O'Neil, 2016).

Section II describes the motivation for the study, explaining the challenges facing lower- and middle-class workers and why a wage subsidy could mitigate those challenges. Section III describes the proposal in detail, compares the UEITC and enhanced CTC or UBI to the current-law EITC + CTC, summarizes the distributional and revenue effects of the proposed reforms using the Tax Policy Center's microsimulation tax model, and discusses the overall economic effects. Section IV compares the UEITC variants with other reform options and considers several possible complementary policy changes. Section V offers some conclusions.

II. Objectives

The proposals are designed to achieve four objectives: (1) mitigate rising economic inequality and wage stagnation, (2) broadly share the gains from economic growth, (3) support work and families, and (4) be available to anyone who works. Below, I outline the positive arguments for objectives 1–3 and the political rationale for objective 4.

A. Wage Stagnation and the Brewing Populist Revolt

While much of the recent policy debate has been devoted to rising economic inequality in the United States, the more salient and politically destabilizing factor may be the sense among middle-income workers that they cannot get ahead.[2] Median real wages for full-time male workers have barely budged in 40 years (Figure 1). That conclu-

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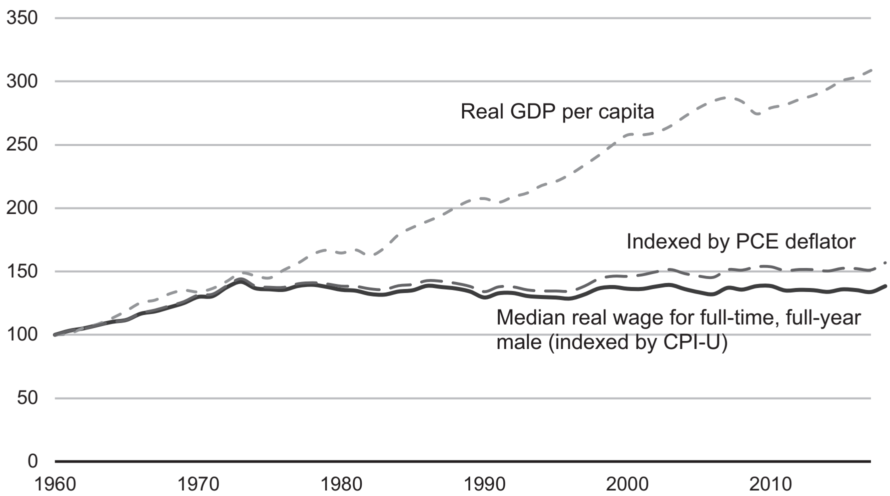
[1] Some higher-income individuals would also alter their behavior to avoid the new taxes — and increase their welfare. Those responses are built into the revenue estimates but not the distributional analysis.

[2] There is evidence of rising income and wealth inequality, although some of the evidence is disputed. Piketty and Saez (2003) and Piketty, Saez, and Zucman (2018) found income inequality at levels not seen since the eve of the Great Depression. Atkinson, Piketty, and Saez (2013) found that although within-country income inequality is rising around the world, it has risen especially rapidly in the United States. Auten and Splinter (2018) made a number of changes to Piketty and Saez's methodology and concluded that income inequality had not changed much since 1960. Piketty, Saez, and Zucman (2019) take issue with several of Auten and Splinter's adjustments. Rose (2018) concluded, based on a meta-analysis of major studies, that the share of income accruing to the top 1 percent grew 3.5 percentage points between 1979 and 2014, which is smaller than the estimates by Piketty, Saez, and Zucman but still substantial. Saez and Zucman (2016) found a steep rise in wealth inequality based on income tax return data; Bricker, Henriques, and Hansen (2018) correct for heterogeneous rates of return on interest-bearing assets and calculated a smaller, but significant, increase in wealth inequality over time.

Figure 1

Real Median Earnings and Economic Growth, 1960–2017
(Indexed to 100 in 1960)



Sources: Real wages, U.S. Census Bureau, Table P-38, https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-people.html.
Real GDP per capita, https://fred.stlouisfed.org/series/A939RX0Q048SBEA.

sion is only slightly dampened when wages are indexed by the deflator for personal consumption expenditures (PCE), which allows for more substitution among consumption items. Median wages understate compensation because of the exclusion of fringe benefits, especially the value of employer-sponsored health insurance (Schieber and Nyce, 2018). However, it is scant consolation to the typical worker that all pay increases since the 1970s have gone to cover the cost of increasingly expensive health insurance.

Recent political discourse has blamed trade and immigration as the main culprits for stagnant wages, but many economists believe that technology is a prime factor (Krueger, 2012; Summers, 2013).[3] The growing availability of machine substitutes for human labor depresses wages. For example, cashiers now compete with self-checkout machines. The cashier's wages will depend only on how much it costs to purchase and operate the machine equivalent. As the price of the machine falls and quality improves, there will be more and more downward pressure on wages.

[3] See also "The Future of Jobs: The Onrushing Wave," *Economist*, January 18, 2014, https://www.economist.com/briefing/2014/01/18/the-onrushing-wave.

Muro, Maxim, and Whiton (2019) conclude that all occupations will be affected by automation in the future, although the extent of exposure will vary widely. Skilled workers are not exempt. Frey and Osborne (2013) predict that skilled laborers, such as lawyers, accountants, and economists, will also soon face steep competition from computers.[4]

Autor and Dorn (2013) develop the implications in a model where technology substitutes for workers engaged in routine tasks in the manufacturing sector, but less so for those with higher skills, and for low-skilled workers in the service sector. Computers compete for routine tasks performed by production workers (e.g., robots replace assemblers and painters in an automobile plant), but they are less useful as substitutes for low-skilled workers in service jobs. The demand for services has increased dramatically since the 1970s, which has increased wages and employment at the bottom of the skill distribution because many service-sector jobs are not easily mechanized, but computers have driven down demand for workers performing routine tasks. The robots have made managers and other high-skilled workers more productive because firms can now produce more with less labor. Autor and Dorn (2013) argue that this explains patterns in both employment and earnings since 1980, and they rule out globalization as an alternative explanation. If automation of routine tasks is the prime explanation for wage stagnation, these patterns are likely to persist.

Wage stagnation might simply represent a transitional problem as we adjust to new technology. Past waves of technological change initially cost jobs but ultimately vastly improved middle-class workers' living standards (Allen, 2007). However, the historical context is much different now. The 30 years preceding the current malaise corresponded to very rapid real wage increases, and American workers might not be willing to wait decades more for the economy to fully adapt to new technology. The success of populist presidential candidates who proposed radical policies to help the middle class in the 2016 election — Donald Trump and Bernie Sanders — is evidence of growing impatience with working-class wage stagnation.[5]

However, computers and robotics are getting cheaper and better at a remarkable rate. Many activities that reach a large enough scale to overcome the fixed costs of investment in automation will be automated and many workers displaced. Low- and medium-skilled

[4] Arntz, Gregory, and Zierahn (2016), however, counter that the analysis overestimated the pace of displacement by focusing on occupations rather than tasks.

[5] The factors behind Donald Trump's election victory go far beyond wage stagnation. Sides, Tesler, and Vavreck (2018) argue that economic anxiety had not increased significantly between 2012 and 2016. Instead, Trump harnessed and stoked racial resentment in both the Republican primaries, where he repeatedly used racial arguments that his opponents largely avoided, and in the general election, where Hillary Clinton explicitly reached out to racial minorities while Trump used them as scapegoats. Economic concerns mattered, but people experiencing economic distress were more likely to see racial preferences as the source of their problems. "During the 2016 campaign, the most potent political sentiment held that 'people like me' were not getting ahead because of 'people like them'" (see Sides, John, Michael Tesler, and Lynn Vavreck, "Five Myths about the 2016 Presidential Election," *Washington Post*, October 5, 2018).

human workers will still be valuable in small-scale start-up enterprises and in some kinds of service jobs, but 21st century workers will need to be highly adaptable and may find themselves in places where only low-wage jobs are available.[6]

This trend might be exacerbated by the COVID-19 pandemic for at least two reasons. First, robots do not get sick (Bloom and Prettner, 2020).[7] Second, the economic collapse accompanying the pandemic disproportionately hurt smaller businesses, which are the least likely to automate.[8] The new economy with more economic activity in large businesses will automate faster.

Other factors also contribute to wage stagnation. In addition to trade, immigration, and technology, Clausing (2019) identifies declining unionization, the diminishing real value of the federal minimum wage, rent seeking, a winner-take-all economy, and tax policy as important factors in wage stasis. Baker (2016) argues that misguided public policies promote economic concentration, rent seeking, and outsize executive compensation at the expense of rank-and-file workers. Reversing the policies that tilt the economy in favor of the rich would raise incomes for the bottom 99 percent, but those policies have powerful advocates. Raising minimum wages and repealing anti-labor laws could similarly help some low- and middle-income workers, but vigorous debate persists in the economics literature about the costs and effectiveness of such policies.[9]

The evidence, therefore, suggests that wage stagnation is real and unlikely to change in the foreseeable future. Assuming the economy continues to grow, that means middle-class workers' relative positions will continue to erode compared with those at the top of the income distribution. This dynamic will become increasingly politically unstable over time.

Middle-class malaise creates a growing risk of populist responses such as trade barriers, immigration bans, and burdensome wage and employment regulations that could harm the economy (Burman, 2013). Such responses might cause the middle-income worker's position to rise in relative, but not absolute, terms. Inequality would diminish, but everyone could end up worse off. Developing an efficient compensation mecha-

[6] Muro, Maxim, and Whiton (2019) recommend a set of public policies to help workers and communities adapt to the advance of artificial intelligence, including expanded access to retraining and education, enhanced unemployment benefits for displaced workers, wage insurance, subsidized employment, increases in the EITC, and subsidies and technical assistance for communities disproportionately affected by automation.

[7] Leduc and Liu (2020) show how uncertainty about when workers will be able to return to work increases firms' incentives to automate.

[8] Past recessions have been associated with an increase in relative reliance on technology and a permanent reduction in low-skilled jobs (Hershbein and Kahn, 2018; Jaimovich and Siu, 2019). Acemoglu, Lelarge, and Restrepo (2020) found that half of large firms (more than 5,000 employees) in France were "robot adopters" compared with only 1 percent of firms overall. Bartik et al. (2020) report that nearly half of small firms (500 employees or fewer) expect to fail if the shutdown lasts four months.

[9] For example, Meer and West (2016, p. 500) argue that higher state minimum wages reduce employment but acknowledge that the debate is far from a settled matter. "The question of how a minimum wage affects employment remains one of the most widely studied — and most controversial — topics in labor economics, with a corresponding dispute in the political sphere."

nism that would induce middle-class voters to endorse pro-growth policies could, thus, benefit all income groups.

Value judgments aside, there is a positive economic argument for developing efficient public policies to address middle-class wage stagnation directly because they may be necessary to permit pro-growth policies to survive.

B. The Need to Compensate Losers for Pro-Growth Policies

Political and economic discussions often assume that more growth is good (setting aside thorny complications such as pollution). The metaphor of a pie is often used to explain this. A larger pie means that everyone can have more. A smaller pie means at least some people must consume less. But the pie metaphor is less compelling when the gains from growth are concentrated. Wildly unequal growth presents both a political and an ethical challenge.

For one thing, pro-growth policies may be politically untenable if some groups perceive themselves as worse off because of those policies. Free trade and immigration are current examples of pro-growth policies that a growing segment of the population rejects.

Assuming laws reflect voter preferences, pro-growth policies will only be sustained if the median voter benefits from the program or is compensated for their expected losses. When policies create winners and losers, the winners must agree to an effective mechanism for sharing at least a portion of income gains with losers. High-income voters, thus, have a reason to favor this form of *ex ante* redistribution out of pure self-interest: They would expect higher after-tax income than if there were no compensation mechanism and voters rejected pro-growth policies.

There is also an ethical argument for building in such a compensation mechanism. Economists Hicks (1939) and Kaldor (1939) argued that economic policies for which the aggregate benefits exceed the aggregate costs were desirable, even if the people who received the benefits differed from those who incurred the costs, because the winners could compensate the losers, making everyone better off. In that sense, such policies were deemed "potential pareto opima" — that is, policies that could raise economic welfare and are, thus, desirable.[10]

Little (1950) argued that the cost-benefit calculation was fundamentally flawed. If the winners do not *actually* compensate the losers, then the desirability of the policy depends on interpersonal comparison of utility (i.e., an assessment that one person's gain adds more to society than another person's loss subtracts). This pure value judgment cannot be justified on objective grounds. Moreover, in some (possibly many) cases, compensation may be very costly or even impossible because of the high cost of assigning gains and losses to individuals as well as costs from the compensation mechanism itself.[11]

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[10] Other issues arise that can change this calculus. For example, a policy that is admissible on cost-benefit grounds might not be desirable if it precludes another policy with an even larger net social benefit.

[11] For example, if the compensation is done in the form of tax-and-transfer policy, both may distort economic incentives and create additional administrative and compliance costs.

Little's critique undermines the ethical underpinning of several pro-growth policies. For example, almost all economists favor free trade because it makes society much richer, but unimpeded commerce creates winners and losers. Indeed, in the public mind, free trade is associated with a great deal of dislocation and, for that reason, free-trade policies often face political opposition. Some policies are explicitly intended to partially compensate those who lose jobs because of trade, but those policies reach very few people.[12]

The UEITC would build in a compensation mechanism for pro-growth policies. As the economy grows, the maximum credit increases, guaranteeing most working people a portion of the gains, even if economic growth is highly concentrated. The ethical justification for pro-growth policies would be stronger. Perhaps more important, the new tax system would strengthen the stake of individuals at all income levels in pro-growth policies. That is, it would attenuate the class divisions in support of counterproductive policies, increasing the odds that pro-growth policies could succeed politically.

C. Social and Political Benefits of Encouraging Work

As a wage subsidy, the UEITC is designed to encourage work. One might ask why the government should do this. After all, workers earn wages and self-employment income, which in a voluntary system of exchange are sufficient compensation to induce them to participate in the labor market. In the standard economic model, individuals who voluntarily eschew paid work do so because the value of leisure or other nonmarket activities exceeds the value of what they could purchase with their labor earnings. In this idealized economic model, a subsidy to induce people to enter the workforce would distort otherwise efficient market choices.

In fact, there is evidence that individuals might undervalue the benefits of work. Brookings Institution researchers Isabel V. Sawhill and Christopher Pulliam point to the precipitous decline in male labor force participation since the mid-1950s and argue that

> The trend is correlated with rising rates of early death (Krueger 2017), less marriage (Autor, Dorn, and Hanson 2018), and a multitude of other social problems (Krueger et al. 2009), ranging from depression to addiction. It's hard to separate out cause and effect, but lack of work likely leads to social isolation, diminished self-worth, and too much unstructured time. In short, work provides more than income. It provides self-respect, a sense of contributing, an identity, and connection to others.[13]

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[12] Clausing (2019) makes a compelling case for the benefits of trade and globalization and recommends policies that would guarantee that those benefits are widely shared.

[13] Sawhill, Isabel V., and Christopher Pulliam, 2018. "Money Alone Doesn't Buy Happiness, Work Does," *Up Front* (blog), Brookings Institution, November 5, https://www.brookings.edu/blog/up-front/2018/11/05/money-alone-doesnt-buy-happiness-work-does/.

Moreover, work builds skills that make employees more valuable over time, which means even higher future income. And more family income is correlated with many positive long-term outcomes for children. Greenstein et al. (2018) cite evidence that modest increases in income lead to better educational attainment; higher lifetime incomes; longer life expectancy; and reduced incidence in adulthood of obesity, diabetes, and heart disease. Although the evidence of effects of income gains for middle-income families is ambiguous, "… income support is likely to have considerably larger impacts when it is targeted on protecting children against poverty, particularly deep poverty" (Greenstein et al. 2018, p. 5).

Hoynes and Rothstein (2019, p. 21) review evidence of the effects of expanding the EITC:

> The EITC also leads to increases in children's achievement (Dahl and Lochner, 2012; Chetty, Friedman, and Rockoff, 2011) and educational attainment (Bastian and Michelmore, 2018; Manoli and Turner, 2018). It is not clear whether the EITC effects reflect the value of additional financial resources — which could operate through greater consumption or through improved parenting behavior due to reduced stress (Mullainathan and Shafir, 2013) — or the impact of increased maternal employment.

Boosting wages might even save lives. Dow et al. (2019) estimate that a 10 percent increase in the EITC reduces nondrug suicides among adults with a high school education or less by 5.5 percent. A 10 percent increase in the minimum wage reduces suicides by 3.6 percent in this group. If both the EITC and the minimum wage increased by 10 percent, they estimate 1,230 suicides per year would be averted.

Tying subsidies to work is also supported by a strong political argument. Williamson (2017) reports that individuals' attitudes toward public assistance depend heavily on whether the recipients are working. About half of survey respondents who expressed negative feelings about welfare explicitly mentioned lack of effort. One respondent complained that tax dollars support "lazy people unwilling to work" (Williamson, 2017, p. 100). Although this attitude is more prevalent among Republicans, it also bothers some Democrats who want to support those who cannot help themselves.

Political scientists have found international evidence that people categorize others in terms of "deservedness" (Petersen et al., 2011; van Oorschot, 2000, 2006). Most people are willing to help someone who is unlucky but are less eager to support someone who they perceive as lazy. Petersen (2012) argues that the universality of the willingness to help people deemed deserving, but not those deemed undeserving, suggests an evolutionary advantage that pervades the human species.

A related issue is that most people want to support children. Williamson (2017) reports that support for public education crosses party lines and is not limited to parents. In this light, it is perhaps surprising that relatively few federal resources are devoted to supporting children, especially compared with the growing share of resources devoted to supporting the elderly.[14]

The deservingness heuristic explains why the largest refundable tax credits are tied to work, children, health, or schooling, and it helps explain the growing prevalence of work requirements in means-tested transfer programs. Thus, a work-based tax credit would be much more likely to win public support than an unrestricted cash grant (such as UBI).

D. Universality

One key to Social Security's popularity is that recipients do not think of it as welfare and believe that their taxes pay for the benefits they receive. In a survey of poll data on attitudes toward poverty, Schneider (2016, pp. 3–4) concluded that middle-class voters view programs geared toward the poor with suspicion. "It means the programs are likely to help other people, and the middle class will end up paying for them. When politicians talk about the rich and the poor, what the middle class hears is 'not me.'" In contrast, Schneider (2016, p. 3) argues, "Entitlements are only incidentally redistributive. In effect, middle-class voters are bribed to support entitlement programs because they, too, get benefits." This is a key to their durability: "Neither Trump nor Clinton proposed curtailing entitlement spending in any significant way." Skocpol (1991, 2000) has argued that universal programs with broad, cross-class constituencies and secure funding sources are much more likely to succeed and endure, citing Social Security and its dedicated payroll tax as examples.

Greenstein (1991) responded that while universality is appealing, it also makes such programs expensive, which can undermine support. Greenstein (1991) argued that programs, such as the earned income tax credit, show that programs targeted at appealing constituencies, such as working families or the elderly, can be quite successful. *Vox* writer Mark Schmitt argues that the ultimate success of the Medicaid expansion as part of the Affordable Care Act suggests that a program only needs to have wide enough purview that it covers people who middle-class voters can empathize with — the working poor, for example.[15] However, this lesson may be unique to health care, where the vast majority of middle- and upper-middle-income households have access to health insurance through employers or through public programs, such as Medicare, and the Affordable Care Act provided generous tax credits to subsidize premiums for most middle-class households without insurance. In contrast, concerns about wage stagnation pervade much of the middle class. A program targeted only at the working poor would leave most of those voters out.

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[14] The Urban Institute has published a series of data digests documenting the direct spending and tax expenditures directed at children. See, for example, Isaacs et al. (2018).

[15] Schmitt, Mark, "Medicaid Saved the Affordable Care Act. Liberals Should Take Notice," *Vox*, August 2, 2017, https://www.vox.com/the-big-idea/2017/8/2/16083310/medicaid-targeted-aca-univeral-programs-safety-net.

Soss and Shram (2007) conclude that work requirements alone are not sufficient to build strong support for traditional welfare programs because people see them as benefiting other people. The most successful programs, they argue, are both proximate and visible. That is, people must know about the program and understand it and they must believe that it benefits them or people close to them. The key advantage of a universal program is that it is both proximate and visible. People will see it as benefiting people just like them and, therefore, will be more likely to support it.

III. DISTRIBUTIONAL, REVENUE, AND ECONOMIC EFFECTS

This section discusses the distributional and revenue implication of two variants on the UEITC with two possible financing mechanisms. The variants are simply illustrative as the exact design could be tailored to meet targeting goals and feasible revenue sources.

A. Comparison with Current-Law EITC + CTC

The first variant is a 100 percent of earning credit up to $10,000 plus a fully refundable $2,500 CTC — up from a $2,000 partially refundable credit under current law.[16] The second option combines a small UBI and a smaller UEITC. It includes a 50 percent of earnings credit up to $14,000 plus a $2,000 per person fully refundable credit available to adults and children. Like the current CTC, the proposed CTC or UBI would not be indexed for inflation. The EITC would be repealed. The UEITC would be treated as earnings for calculating federal income tax. The cost of the new tax credits would be offset either by a broad-based 11 percent VAT or a surtax of 12 percent of taxable income added to federal income tax liability before credits.

Table 1 shows the parameters of the two options compared with the current-law EITC + CTC and the maximum and minimum value of the tax credits for households in different situations.

A universal wage credit is not unprecedented, although one on the scale proposed here is. In 2010, a 2-percentage-point payroll tax cut was enacted as a Keynesian stimulus. This was equivalent to a refundable 2 percent wage credit for earnings up to the Social Security taxable maximum earnings ($106,800 in 2010). Like the UEITC, it applied on an individual basis. And the Trump Administration reportedly favors a payroll tax holiday as a way to speed the recovery from the COVID-19 recession.

The UEITC and VAT would phase in over four years, and the EITC would phase out over the same period.[17] The CTC expansion or UBI would take full effect in 2020. My analysis assumes that the program starts in 2020 and the estimates ignore the effect of

[16] The CTC is partially refundable under current law. The refundable portion (called the additional CTC) equals 15 percent of earnings in excess of $2,500 up to a maximum of $1,400 per child, which is indexed for inflation after 2018. The maximum total credit (refundable and nonrefundable portions combined) is $2,000 per child and is not indexed for inflation. The credit phases out at a 5 percent rate for married filers with incomes over $400,000 ($200,000 for other filers).

[17] Burman (2019) details the design and implementation details of the UEITC, CTC, and VAT.

Table 1

Comparison of Two Wage Credit Options with Current-Law EITC + CTC, 2023

Parameters	Wage Credit Rate (%)	Max Earnings ($)	Per Child Credit ($)	Per Adult Credit ($)
UEITC + CTC	100	10,000	2,500	0
UEITC + UBI	50	14,000	2,000	2,000
Current EITC (no kids)	7.65	7,530	2,000	0
Current EITC (2 kids)	40	15,870	2,000	0

		Single Parent		Married Filing Jointly	
	Single	1 Child	2 Children	0 Children	2 Children
Maximum Credit Amount ($)					
UEITC + CTC	10,000	12,500	15,000	20,000	25,000
UEITC + UBI	9,000	11,000	13,000	18,000	22,000
EITC + CTC	576	3,842	6,348	3,842	6,348
Minimum Credit Amount ($)					
UEITC + CTC	0	2,500	5,000	0	5,000
UEITC + UBI	2,000	4,000	6,000	4,000	8,000
EITC + CTC	0	0	0	0	0

Notes: CTC and UBI are fully refundable under the options; current-law CTC is only partially refundable. EITC credit rate varies with number of children up to three. EITC phases out at higher incomes; the UEITC does not phase out. The UEITC is included in taxable income, which progressively reduces its net value in higher tax brackets; the EITC is not taxable. EITC parameters in 2023 are estimates. See https://www.cbo.gov/system/files/2020-01/53724-2020-01-tax-parameters_0.xlsx.

the recession created by COVID-19. The actual start date would probably need to be at least two years after the date of enactment to allow the IRS time to implement it and for businesses to adopt systems to comply with the law.

Starting in 2024, the maximum earnings level eligible for the credit would be indexed to nominal GDP per capita subject to the provision that the credit would not be allowed to decline, as might otherwise occur in recessions.[18] That is, the credit would automatically grow with the economy, guaranteeing that low- and middle-income American workers would share in economic gains.[19]

[18] The current-law EITC similarly is annually adjusted for inflation except in years when inflation is negative. Thus, statutory EITC benefits never decline in nominal terms.

[19] Burman et al. (2006) proposed a different mechanism for sharing the gains from economic growth more broadly — indexing the income tax for inequality. The income tax would automatically become more progressive when inequality grew and less progressive when inequality abated. There were serious practical drawbacks of this proposal, including the fact that it would require impossibly high top income tax rates, but the concept and conversations with coauthor Bob Shiller inspired the UEITC proposal.

The wage credit is a radical departure from current income-support programs. First, it is based on individual rather than household income.[20] Second, the UEITC depends only on wages, not other income or family composition. In contrast, the maximum EITC depends on wages, but it phases out based on total household income. And the EITC varies with number of children. The maximum EITC for a taxpayer who does not live with and support a child was only $519 in 2018. A taxpayer with one child could claim an EITC of up to $3,461; two children, $5,716; and three children, $6,431. The child requirements make determining eligibility for EITC complex, especially for low-income households whose living situations may change frequently (Maag, Peters, and Edelstein, 2016). And it is the largest factor contributing to erroneous EITC claims (Internal Revenue Service, 2002, 2014).

Third, the UEITC is available to all adults with earnings. The credit amount does not phase out, which distinguishes it from other refundable tax credits. Universality adds to the cost of the credit, but it eases compliance because eligibility depends only on individual earnings. Consequently, the credit may safely be advanced by employers, although workers who have multiple employers will only be able to claim the advance credit for one job.[21] Some employees may prefer not to get the credit in advance, and they could choose to claim it on their tax returns as a refundable credit.

To illustrate the effects of the proposals, I calculated their effects on three hypothetical households: a single parent with two children, a single person with no children, and a married couple with two children. To simplify the calculations, I assume that all income is from wages, that children are eligible for both the EITC and the CTC, and that each household claims the standard deduction. The only current-law tax subsidies considered are the EITC and the CTC. The comparison is in 2023, when the UEITC would be fully phased in.

Panel A of Figure 2 compares the credits for an unmarried parent with two children. At every income level, that parent would receive a larger amount of credits under either the UEITC + CTC option or the UEITC + UBI hybrid than under current law. Not surprisingly, the UBI option is somewhat more generous if the parent has no market wages — the three family members each qualify for a $2,000 UBI for a total of $6,000 compared with $5,000 for CTCs for two children. The UBI hybrid grows more slowly than the full UEITC since the credit rate is 50 percent in the former case and 100 percent in the latter. Thus, the UEITC + CTC option is worth more for the single parent beginning at a very low earnings level ($3,333). From that point on, the value of the UEITC + CTC option exceeds the value of the UBI hybrid until a very high earnings level because the CTC phases out (as under current law) while the UBI does not.

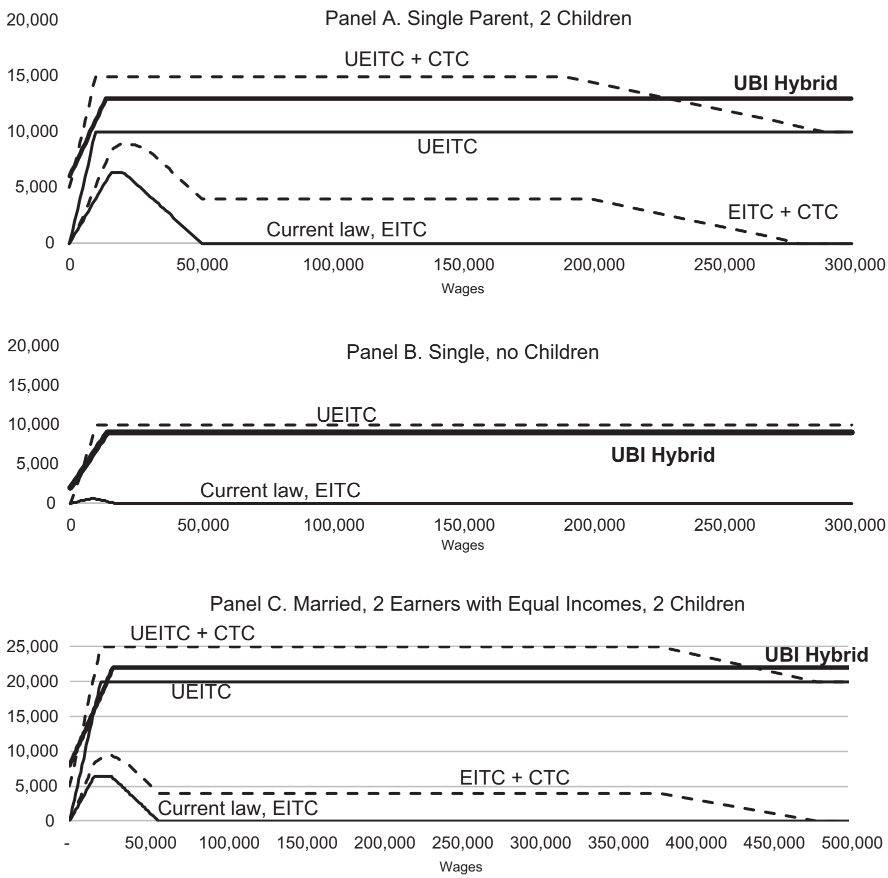
As noted, both options provide more benefits than the current-law EITC + CTC. The current-law credits phase in with earnings, reach a maximum, and start to phase out.

[20] The separation of the EITC into wage and child credit components is not, however, a new idea. See, for example, Carasso et al. (2008). In 2003, the United Kingdom converted its working families tax credit (similar to the EITC) into a separate working tax credit and a CTC (U.S. Department of the Treasury, 2003).

[21] This restriction is necessary to avoid advancing more than the maximum allowed credits in a year, which would require an end-of-year reconciliation on an income tax return. Because lower-income households tend to have low savings, many would have difficulty repaying excess credits.

Figure 2

Comparison of Value of UEITC Tax Credit Options with Current Law, 2023, in Dollars



Notes: Values in 2023 (when the UEITC will be fully phased in). Calculations assume all income is from wages or self-employment and that the taxpayer claims the standard deduction and no other credits or deductions.

The EITC phases out starting at modest income levels, while the CTC does not start to phase out until $200,000 of adjusted gross income (AGI). Eventually, at an income level of about $270,000, the current-law CTC is completely phased out, while the UEITC is worth $10,000 and the UBI hybrid is at $13,000.

High-income people would incur much higher tax burdens under the proposal because the UEITC is included in taxable income and the VAT or income surtax collects much more in revenue from high-income individuals than they receive in tax credits. I discuss the net effects of subsidies and taxes in the next section.

The difference is even more dramatic for a single person without children (Panel B). The maximum EITC is only $578, and it phases out at very low earnings levels, whereas the maximum UEITC is $10,000 and the maximum value for the hybrid option is $9,000.

The difference is similarly dramatic for a two-earner married couple with two children (Panel C). If earnings are split evenly in the couple, the UEITC reaches a maximum at income of $20,000 ($10,000 of earnings per spouse) and the CTC would be worth $5,000. The maximum for the UBI hybrid is $14,000 plus $8,000 in UBI. At the point where the EITC is phased out, the current-law CTC is worth $4,000, making for a difference of $21,000 with the UEITC + CTC option or $18,000 for the UBI hybrid.

These examples illustrate how effective either option would be at reducing poverty. Almost anybody working full time would have income (including credits) well in excess of federal poverty guidelines.[22] A single full-time worker at the current $7.25 minimum wage would earn almost $25,000 including the UEITC under the first variant and almost $24,000 with the UBI hybrid. Two full-time minimum-wage earners would have net family income (after income tax and credits) of over $45,000 under the first option. That is, even those with low skills would be able to achieve a middle-class income.

B. Distribution of Tax Changes

As noted, high-income households face substantial net tax increases for two reasons. First, the UEITC raises AGI and, thus, taxable income. This translates into additional income tax liability (before credits) of between 10 percent and 37 percent of the UEITC, and more for high-income households subject to the 0.9 percent Medicare payroll surtax. Some households could also lose part or all of certain tax credits and deductions because of AGI-related phaseouts. Effectively, the income tax claws back a rising portion of the UEITC as income increases.

Second, either of the two financing options — an 11 percent VAT or a 12 percent surtax on taxable income — collects much more tax from high-income people than from those with lower incomes. The surtax is more progressive, but both represent substantial burdens on high-income households.

In 2023, when the tax credit and VAT or surtax are fully phased in, the proposal would cut average tax bills for most people in the three lowest income quintiles.[23] The average federal tax cut for the bottom quintile would be 24 percent of after-tax income (about $3,900) for the first option, 23.2 percent (about $3,800) for the second, and 27.8 percent

[22] The federal poverty guideline for a single person without children living in the continental United States in 2019 was $12,490; the guideline rises by $4,420 per child, which is more than the proposed $2,500 CTC. See “2019 Poverty Guidelines,” https://aspe.hhs.gov/2019-poverty-guidelines. If the UEITC were available in 2019, a single person working full time at minimum wage with six or more children would have income (including credits) slightly below the poverty level. Price levels will likely be higher in 2023, when the UEITC and VAT are fully phased in, in part because of introduction of the VAT. Higher prices would translate into commensurately higher poverty guidelines. However, the minimum wage might also increase between now and 2023.

[23] The distributional effect of the first option — UEITC + CTC + VAT — is discussed in more detail in Burman (2019). Detailed distributional tables are available at https://www.taxpolicycenter.org/simulations/universal-earned-income-tax-credit-ueitc-options-july-2020. The population estimates rank tax units adjusted for family size.

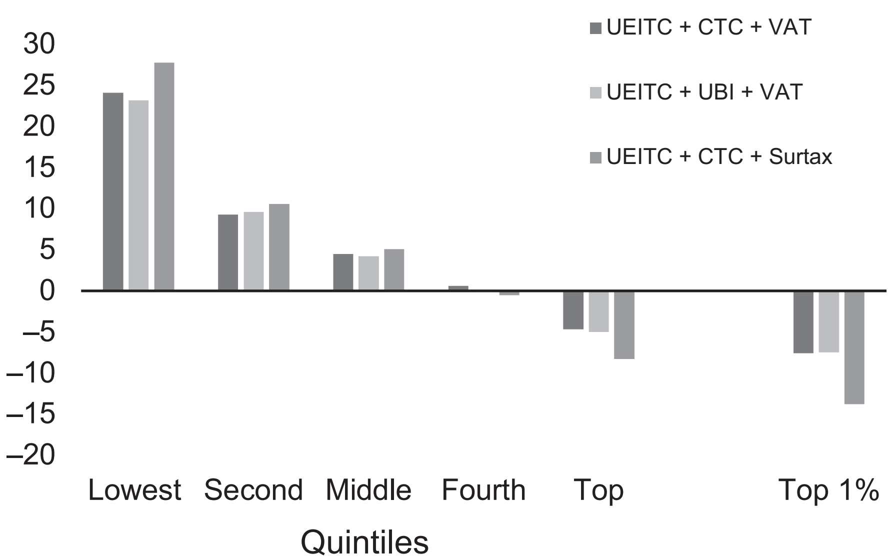
($4,500) for the proposal financed by income surtax (Figure 3). The middle quintile would see average tax cuts of 4.5 percent of after-tax income ($2,800), 4.2 percent ($2,600), and 5.1 percent ($3,100), respectively. The top quintile would face a tax increase averaging 4.7 percent of after-tax income ($12,500), 5 percent ($13,200), or 8 percent ($21,900), respectively. The tax burden on the top 1 percent would increase from 7.5 percent of after-tax income (for the VAT financed options) to 13.8 percent of income (for the surtax), or from $128,000 to $235,000.

Poor single filers would get the most economically significant boost to income. The average tax cut for the bottom quintile would be about 28 percent of after-tax income in 2023 for either the UEITC + CTC or UEITC + UBI options, assuming VAT financing (Figure 4). Poor people would be affected by the VAT but not the surtax; thus, the surtax option would be even more beneficial for singles in the bottom quintile, raising their after-tax incomes by 31.3 percent (not shown).

Married tax filers would get the largest average tax cut — almost $5,500 for the bottom quintile — but the tax cut would be a smaller share of income than for the average bottom quintile single person because married filers have higher incomes. The bottom four quintiles would see tax cuts, on average.

Figure 3

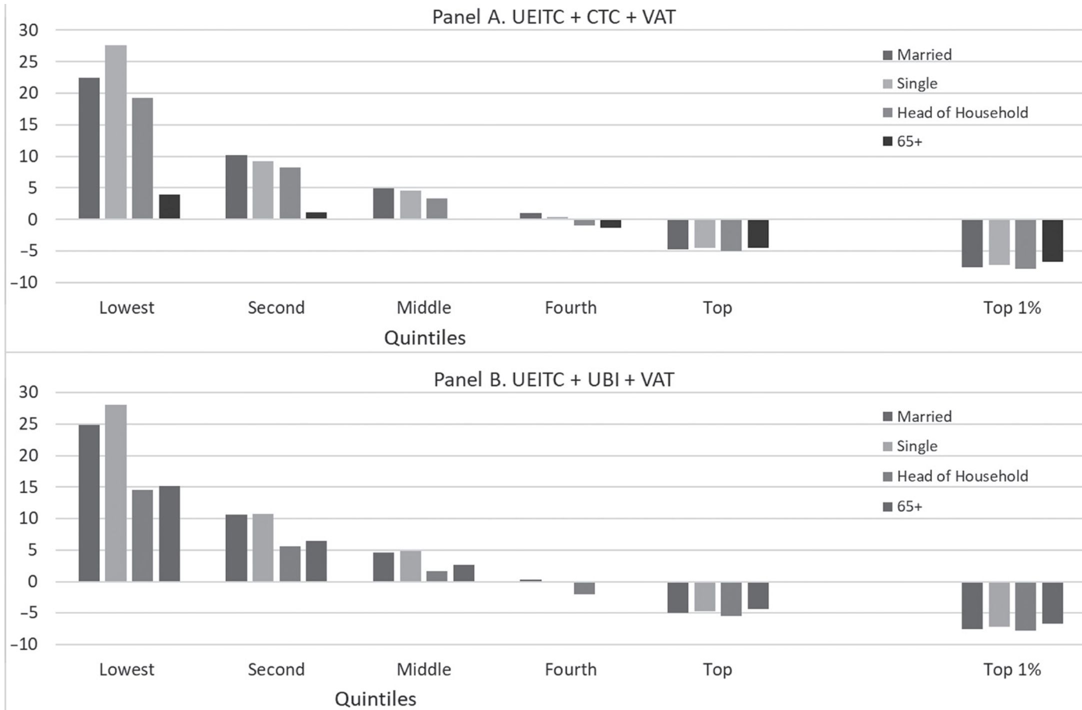
Percent Change in After-Tax Income under Three Reform Options, by Expanded Cash Income Percentile, 2023



Notes: Income groups exclude those with negative AGI and dependents. Tax unit income is adjusted for family size before sorting into quintiles.
Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).

Figure 4

Distribution of Two UEITC Options by Type of Household, 2023 (Percent Change in After-Tax Income)



Notes: Income groups exclude those with negative AGI and dependents. Tax unit income is adjusted for family size before sorting into quintiles.
Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).

For single heads of household, the overall pattern is similar, but the top two quintiles would see an average tax increase. However, the tax cuts in the bottom quintiles are smaller as a share of income because heads of household benefit from generous EITC + CTC benefits under current law. Low- and middle-income heads of household also do slightly worse under the UBI than under the larger UEITC + CTC (as was clear in Panel A of Figure 2).

Not surprisingly, people age 65 and over benefit the most from the UBI. Many of them are retired and, thus, do not qualify for the UEITC and they tend not to have children at home. Thus, even the small UBI is much more valuable than the UEITC, CTC, or EITC. More than half of people in this age group would face a tax increase under the base UEITC + CTC + VAT proposal, whereas about two-thirds would receive a net tax cut under the UEITC + UBI + VAT option.

The distributional analysis assumes that the supply of labor does not respond to the UEITC.[24] As a result, all the benefit of the wage credit accrues to workers. If the credit significantly increases labor supply, wages for low-income workers will likely decline. Researchers have tried to measure wage responses to the EITC by examining the effects of policy changes over time and across states. Nichols and Rothstein (2016) survey the evidence and conclude that employers could capture one-third of the EITC in the short run, although that estimate is highly imprecise. Workers eligible for the EITC are still, on net, better off, while low-wage workers who are ineligible (workers without children) are worse off because market wages decline. Leigh (2010) finds that low-skilled single workers without children suffer significant wage declines from state EITC expansions, although Nichols and Rothstein (2016) show that the point estimates imply implausibly large labor supply responses. Looney (2019) shows that virtually all of the labor market response to past EITC expansions can be explained by welfare reform, which slashed cash transfers for nonworking families with children at the same time that the EITC significantly expanded for that group. Kleven (2020) similarly questions the labor supply responses. Both analyses would suggest little or no wage capture. Watson (2020) analyzes the EITC in a general equilibrium context and estimates a significant labor supply response, but the effect on market wages is attenuated by the effects on the productivity of workers not directly affected by the EITC.[25] Overall, Watson concludes that workers' welfare increases by more than would be implied by the static (no

[24] Neither changes in market wages nor gains in income for those induced to work more are reflected in the standard distribution tables. By convention, distributional analysis shows the long-run incidence. It does not reflect the immediate burden of the VAT on old capital. And the analysis also assumes that market wages and labor supply are unaffected by the large wage credit. These behavioral responses are also not reflected in the determination of the revenue-neutral VAT rate. A significant expansion in earnings eligible for the UEITC would increase the direct cost of the program. However, Hoynes and Patel (2015) concluded that the EITC program produces indirect budget savings because it encourages people to earn more and, thus, reduces reliance on welfare programs. The net effect on revenue of these offsetting effects is unclear.

[25] Peri (2016) illustrates how increases in labor supply in one segment of the market can have positive spillover effects in another. An influx of low-skilled refugees in Denmark caused wages for native workers to increase because "native low-skilled workers made a transition towards less manual and more complex (communication- and cognitive-intensive) occupations in response to the inflow of refugees, who specialized in manual jobs, and this increased their wages" (Peri, 2016, p. 24).

behavioral response) model because the higher return to work induces workers to work more, raising their incomes and consumption levels. This effect more than offsets the loss in welfare from declining market wages.

If many low-skilled workers enter the above-ground labor market in response to the UEITC, the wage offset could be larger than estimated based on relatively modest changes in the EITC, which provide little or no benefit for single workers. However, because single workers would be eligible for a substantial UEITC, they would be better off even in the short run because any wage decline would be only a fraction of the new wage credit. And the market response could be tempered if it were enacted at a time when the economy is near full employment. Federal and state minimum-wage laws also set a floor on wages, which would limit the downward movement of market wages, but that could also mean that some of the workers drawn into the labor market by the generous new credit could have trouble finding work.

Labor market responses are not incorporated into the revenue effects reported in the next section. Their implications for the assessment of the economic effects of the proposal are discussed in Section III.D.

C. Revenue Effects

The proposal is designed to be approximately revenue neutral — that is, the revenue raised by the VAT or surtax is enough to offset the cost of the UEITC and increase in CTC or UBI. The Tax Policy Center estimates that the overall proposal reduces federal revenues by \$100–\$400 billion over the 10-year budget period (2020–2029, Table 2).

The broad-based 11 percent VAT would increase federal tax revenues by \$1.3 trillion in 2024 and by \$11.2 trillion over the budget window. These estimates reflect the net effect of new VAT revenues, offset partially by reductions in other tax revenues (Toder, Nunns, and Rosenberg, 2011). Wages and self-employment income would fall, reducing both individual income and payroll tax revenues. The VAT also reduces corporate income tax revenues slightly. VAT receipts would total about \$1.7 trillion in 2024, but income and payroll tax revenues would decline by \$0.4 trillion, for a net revenue gain of \$1.3 trillion. A phased-in 12 percent of taxable income surtax would have similar revenue effects.

The overall budgetary effect (including macroeconomic effects) would deviate somewhat from these estimates. They suggest that a very broad-based VAT in the range of 10–12 percent would likely suffice to finance the UEITC and expanded CTC or UBI. If the VAT base were narrower, as is common in Europe, the revenue-neutral rate would have to be about 25 percent.

D. Economic Effects

The UEITC proposal with broad-based VAT financing is designed to minimize the economic cost of the program. The UEITC financed by an income surtax would be less efficient but more progressive. The long-run effects of the policy would further reduce the net economic costs. If the policy supplants highly inefficient populist responses, it might, on net, result in a stronger economy.

Table 2

Effect of Reform Options on Revenues in Billions of Dollars, Fiscal Years 2020–2029

Option	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020–2029
UEITC + CTC + VAT	−37	−87	−69	−28	2	1	17	36	34	31	−100
UEITC + UBI + VAT	−137	−298	−180	−39	58	72	54	15	29	48	−378
UEITC + CTC + Surtax	−59	−145	−122	−51	13	21	13	−6	−4	−3	−342
Addendum											
11% VAT	127	446	774	1,111	1,337	1,389	1,430	1,461	1,517	1,601	11,193

Notes: Revenue estimates are for fiscal years and use a 40-60 split. Proposals are effective January 1, 2020 and fully phased in on January 1, 2023.

Source: Urban-Brookings Microsimulation Model (version 0217-1).

As noted in Section III.B, labor market responses could increase economic welfare. Boosting wages would increase labor force participation while having little or no effect on hours worked for those currently in the work force. Higher wages have ambiguous effects on hours because there are conflicting income and substitution effects. Some people work more because the higher net wage allows the purchase of more consumer goods for every hour of leisure forgone (the substitution effect). Some people work less because the higher net wage makes it possible to consume both more market goods and more leisure (the income effect). Empirical evidence suggests that these two effects roughly offset in the aggregate (Nichols and Rothstein, 2016). However, the credit clearly boosts the incentive to enter or remain in the labor force because a higher net wage only affects consumption possibilities if someone chooses to work. Empirical evidence suggests that this is an important factor in women's labor force decisions but not in men's (Nichols and Rothstein, 2016).

For higher-income workers, the wage credit is inframarginal — it does not change if employees work more hours or take on a second job, because the maximum credit is reached at a low earning level. The VAT is equivalent to a small tax on labor income (plus economic rents). This would be expected to reduce labor force participation and hours a small amount. The effect on total labor supply is ambiguous.

Both the VAT and the income surtax would entail economic costs, but the VAT is the more efficient financing mechanism for two reasons. First, the proposed VAT would have a very broad base, whereas the taxable income base is subject to numerous deductions, exemptions, and exclusions. Second, unlike the income surtax, a VAT is neutral with respect to saving. The VAT raises the price of future and current consumption by the same amount, so it does not affect the choice of spending now versus later.

The redistributive effects of the proposal could, however, dampen savings even with VAT financing. The options analyzed would all raise after-tax incomes in the bottom quintiles and cut incomes at the top. High-income people save a larger share of their income than those with low incomes; thus, the policy would be expected to cut overall saving.

In the long run, the alleviation of child poverty discussed in Section II.C improves the health, education, and lifetime incomes of children, which increases economic welfare. Hendren and Sprung-Keyser (2020) surveyed 133 social policy changes in the United States and concluded that those focused on children produce the largest long-run benefits. Several key child programs that focus on child education, health, and college appear to pay for themselves because they produce more productive and healthier adults who pay more taxes and receive fewer subsidies.

The most intriguing possibility is that sharing the gains from economic growth more broadly could boost political support for pro-growth policies and forestall economically damaging policies such as trade and immigration restrictions or onerous labor market regulation. The indirect positive economic effects might, thus, offset part or all of the negative direct effects of the tax and transfer program.

IV. OTHER REFORM OPTIONS

As noted, these options are intended to illustrate the concept. An actual legislative proposal would differ. This section discusses some other options.

A. Why Not Simply Expand the EITC?

The EITC is an effective antipoverty program, but it leaves out most low-skilled single people who do not live with children (mostly men who may be noncustodial parents). There is bipartisan support for increases in the EITC or CTC. However, increases in the tax credit for single workers would increase the already formidable marriage penalties in the EITC. The EITC phaseout, with its high implicit taxes on second earners (who are mostly women), may discourage some of those earners from labor force participation (Eissa and Hoynes, 2004). The connection between the EITC and the presence and support of children makes it complex and susceptible to errors.

Expanding the EITC retaining its current structure would reduce the overall outlay compared with the UEITC. This would mean that the need for offsetting revenue could be substantially lower. It would raise marginal effective tax rates for filers in the phaseout range, possibly by a great deal. However, taxpayers with incomes above the phaseout range would not be directly affected by the EITC expansion. And they would face lower burdens from the VAT or alternative financing mechanism because the required tax rates would be lower.

As noted, the UEITC would be simpler to comply with and for the IRS to administer than the EITC. Eligibility for the UEITC is straightforward for wage earners, although there would still be compliance issues among the self-employed because their earnings are difficult to verify.

The biggest advantage of the UEITC may be that universality could make it more politically attractive and sustainable.

B. Why Not Adopt a UBI Alone?

Another approach to stagnant middle-class incomes and rising economic inequality is a UBI — an annual cash transfer that would go to every adult regardless of income, family status, or work status.[26] Seventy years ago, Milton Friedman proposed a UBI, which he called a negative income tax, as an efficient replacement for means-tested transfer programs. Alaska has run a modest version of this program for decades (redistributing royalties from oil, gas, and mineral extraction) and it is very popular. Economic theory and evidence from developing countries suggest that cash is more valuable to low-income households than other kinds of assistance (Blattman and Niehaus, 2014).

[26] Hoynes and Rothstein (2019) analyze how the UBI would be expected to work in economic models and assess the available evidence on its effects from several pilot programs as well as what may be gleaned from the response to programs such as the EITC. They conclude that it is hard to draw inferences from the small pilot programs and that a true UBI in the United States would be “extremely expensive.”

Whereas the UEITC encourages labor force participation, the UBI, which increases income regardless of work effort, would be expected to reduce labor force participation since leisure is a normal good (Hoynes and Rothstein, 2019). Unlike the UEITC, the UBI does not encourage the development of job-related skills for low-skilled workers. Hoynes and Rothstein (2019) point out that delinking the subsidy from work could be an advantage if robots ultimately make jobs scarce. For most of the past few decades, jobs were in ample supply, but they often did not pay well. A wage credit deals with this shortcoming directly.

The politics of a UBI are also daunting. As discussed in Section II.B, most voters are willing to support children and work, but many object to unconditional cash transfers because they think those programs aid people who are not trying to help themselves. Indeed, the recent trend has been to add work requirements to means-tested transfer programs such as Medicaid and the Supplemental Nutrition Assistance Program.

It is possible that the COVID-19 pandemic, which plunged the economy into the deepest recession since the Great Depression, could change that calculus. A UBI would help millions more low-income households than the UEITC. The challenge of finding low-income households and getting economic stimulus payments to them has hampered efforts to boost the economy out of recessions. If a UBI is in place during the next economic downturn, it will be easy for the government to direct cash payments into the bank accounts of virtually all households by temporarily increasing the UBI payment.[27]

In the long run, if machines ultimately supplant human labor, it would be straightforward to transform the UEITC into a UBI. An efficient funding mechanism would already exist, which could make it politically easier to adopt a UBI, either as a supplement to the UEITC or as a replacement.

C. Why Propose a VAT?

My favorite financing option is a broad-based VAT, but it is a hard sell in the United States, which is why I show that other financing mechanisms are possible. There has never been much support for a VAT in the United States, even though every other rich country in the world has one. The proposed VAT would be big, raising about $1.3 trillion in fiscal year 2024. The assumption is that the VAT base would be very broad, but only New Zealand taxes such a broad base of consumption. A narrower base would require higher rates and be more prone to evasion, although it could be less regressive than the broad-based tax.

The proposed VAT rate of about 11 percent is in line with international norms. New Zealand has a VAT rate of 15 percent.[28] VAT rates in Scandinavia average 25 percent,

[27] Since a UEITC would induce almost all workers to participate in the tax system, it would also make it easier to make direct payments to households during economic downturns. However, a UBI would do this automatically.

[28] See "2018 Worldwide VAT, GST and Sales Tax Guide," Ernst & Young Global Limited, https://www.ey.com/gl/en/services/tax/worldwide-vat--gst-and-sales-tax-guide---rates.

although they apply to a smaller tax base. Other countries in the Organisation for Economic Co-operation and Development typically levy VATs (also on a narrower base) in the 20–25 percent range.

Liberal commentators on earlier drafts of this paper have objected that the VAT is regressive, and they would prefer to finance new programs with taxes only on the rich. However, there is limited public support for surtaxes on millionaires to expand programs aimed at the poor (see the discussion of universality in Section II.D). Even if politically feasible, the required taxes could ultimately prove counterproductive because very high tax rates spur tax avoidance and evasion and can slow economic growth.

Finally, some suggest leaving financing unspecified. I think the dedicated revenue source is a feature of the proposal. Dedicating Social Security payroll taxes to paying for a very popular public program has been a key to that tax's durability. When the payroll tax was reduced in 2009 in an effort to stimulate the economy, there was concern that the public would resist returning it to prerecession levels, but the public's desire to fund Social Security trumped its desire to cut taxes. The temporary payroll tax cut was eventually allowed to expire.

It would be important to make the connection between the VAT and the UEITC very clear and explicit. Voter support for a VAT would require understanding that it is part of a progressive social insurance program. Concerns from conservatives about a VAT fueling a rise in federal spending might be assuaged somewhat if the enacting legislation limits the revenue to only finance the UEITC.

Beyond the political imperatives, our unprecedented peacetime deficits and debt require that any major new social insurance program be self-financing. A program that added trillions to the debt would be a political nonstarter.

One might question whether VAT revenues would suffice to pay for the credits without major rate increases. VAT revenues tend to grow with GDP. Over the past 15 years, the ratio of consumption to GDP in the United States has remained in a narrow band of 67–69 percent (Burman, 2019).

States object that a federal VAT could undermine the largest revenue source for most states — sales taxes. Although the combined federal and state consumption tax rates could become high enough to increase evasion, the states could also piggyback on federal enforcement resources, as they do in administering state income taxes (Burman, 2009).

D. Other Possible Enhancements

Ideally, the wage credit would be only part of a package of proposals designed to help workers thrive in the 21st century workforce. For example, it is likely that most workers in the future will have multiple employers over the course of their careers. They might work for a company that becomes successful enough to make automation economically feasible, or they might work for one that fails. In either case, they would have to look for work. Successful workers will retrain to qualify for comparatively high-paying jobs in new enterprises — perhaps multiple times over the course of a career. Policy should support that.

One possibility would be to allow workers to treat time spent in an accredited training program, such as those offered at community colleges, as paid work at a rate of $833 a month (equivalent to $10,000 if they were in training for the full year) for purposes of calculating the UEITC. A drawback is that the government cannot easily distinguish well-run retraining programs from fly-by-night schemes. Nontax approaches, such as an overhauled unemployment insurance program, might be more effective. The UEITC might be paired with more robust unemployment insurance on the logic that the wage credit provides a stronger incentive to get back to work, which reduces the moral hazard problem from unemployment insurance.

Another possibility is to make the credit available to unpaid caregivers of young children or disabled relatives. Eligible full-time caregivers could be deemed to earn $10,000 a year for their services and receive a credit of $833 a month. The caregiver credit would be relatively straightforward to administer for parents of dependent children. The credit could also be made available to those who care for relatives who have a minimum number of limitations in activities of daily living as verified by a medical professional. However, it would be difficult for the IRS to enforce compliance with a credit for caring for disabled relatives. It might be more effective to finance long-term care through a social insurance program (Long-Term Care Financing Collaborative, 2016).

Another issue is that the proposed CTC and UBI option, like the current-law CTC, is fixed in nominal terms. Over time, inflation erodes its value. Congress might implicitly address this by increasing the credit through legislation as it has done twice since the first $500 CTC was introduced in 1997. An automatic and permanent solution would be to index the CTC or UBI — like many other tax parameters, including the EITC — so that the maximum credit automatically increases to reflect the effects of inflation.

There are many other design choices. The UEITC rate could be more or less than 100 percent. The rate, rather than the maximum wage eligible for credit, could be designed to increase over time with revenues. The CTC amount could be increased with a commensurate cut in the UEITC. This would make the program more like current law in the sense that single people would receive much smaller subsidies than households with children and large families could receive much more than under current law where a family reaches the maximum EITC at three children.

V. CONCLUSIONS

The UEITC and the expanded CTC would substantially increase incomes for low- and middle-income workers. The proposal would guarantee that people who work full time are not in poverty. Two-earner couples, even in low-wage jobs, would be able to achieve middle-class incomes. Indexing the UEITC amount to VAT revenues would guarantee that most workers would share the benefits from economic growth, something that has not happened for low-skilled workers in decades.

The UEITC could make it politically easier to pursue pro-growth policies such as free trade and more open immigration. To see why, reconsider Figure 1, which showed flat real wages for the median full-time, full-year male worker. Suppose the baseline scenario is that real wages increase at the same rate they did starting in 1980. Then add a $10,000 wage credit that grows with real GDP. If GDP grows at the 2 percent rate currently expected, real after-credit wages will increase modestly. After 35 years, real after-credit wages are $20,000 higher than in the baseline. If, alternatively, growth could increase to 4 percent, which seems unlikely at present, real after-credit wages would be almost $40,000 higher.

The proposal has many other advantages over the status quo. It would reduce economic inequality. It could encourage labor force participation by noncustodial fathers, which could help them build human capital, make them more attractive as marriage partners, and encourage them to make child support payments and stay connected with their children. More engaged fathers might even help slow the intergenerational transmission of poverty and boost economic mobility.

As a universal program that supports work and children, it could win much wider support than traditional welfare programs. And, although a VAT is regressive, Social Security is financed by an even more regressive tax — the payroll tax, which is capped at $137,700 of earnings in 2020. Polls show less opposition to the payroll tax than other federal taxes because voters strongly support Social Security. A question is whether similar support could develop for the UEITC.

As noted, there is an argument for including a caregiver credit in the proposal. And benefits may need to be increased for retirees. These changes would require a higher VAT rate or a cut in the credit amount to preserve revenue neutrality.

The 2016 election disrupted the status quo in a way that is unlikely to ameliorate wage stagnation and may exacerbate it. In the run-up to the 2020 election, a diverse pool of candidates offered radical policy proposals. The policy proposed here is also radical in its scale and in the introduction of a new tax to finance it, but this proposal could address middle-class voters' concerns without hampering long-term growth.

ACKNOWLEDGMENTS AND DISCLAIMERS

I am grateful to Rosanne Altshuler, Ellen Aprill, Jerry Auten, Reuven Avi-Yonah, Jared Bernstein, Karlyn Bowman, Melissa Burman, Kim Clausing, Stacy Dickert-Conlin, Chris Faricy, Melissa Favreault, Jonathan Barry Forman, Howard Gleckman, Dan Hiller, Steve Holt, Janet Holtzblatt, Chris Hughes, Greg Leiserson, Elaine Maag, Mark Mazur, Ed McCaffery, Deirdre McCloskey, Madonna Harrington Meyer, Jim Nunns, Ben Page, Katie Pratt, Joe Rosenberg, Ted Seto, Robert Shiller, Marshall Steinbaum, Eric Toder, Steve Wamhoff, Bob Williams, Vanessa Williamson, and seminar participants at the Loyola Law School, the Maurer School of Law at Indiana University, and the Tax Economists Forum for helpful comments and discussions. Nikhita Airi, Philip Stallworth, and Noah Zwiefel provided exceptional research assistance. Ann Cleven and Katrina Rose Fiacchi helped in preparing the manuscript. This research was supported, in part, by Arnold Ventures and the Wyss Foundation. The views expressed are mine alone and should not be attributed to my employers or their funders.

DISCLOSURES

The author has no financial arrangements that might give rise to conflicts of interest with respect to the research reported in this paper.

REFERENCES

Acemoglu, Daron, Claire Lelarge, and Pascual Restrepo, 2020. "Competing with Robots: Firm-Level Evidence from France." *AEA Papers and Proceedings* 110 (May), 383–388.

Allen, Robert C., 2007. "Pessimism Preserved: Real Wages in the British Industrial Revolution." Working Paper No. 314. Oxford University Department of Economics, Oxford, UK.

Arntz, Melanie, Terry Gregory, and Ulrich Zierahn, 2016. "The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis." Social, Employment and Migration Working Paper No. 189. Organization for Economic Co-operation and Development, Paris.

Atkinson, Anthony B., Thomas Piketty, and Emmanuel Saez, 2013. "Top Incomes in the Long Run of History." *Journal of Economic Literature* 49 (1), 3–71.

Auten, Gerald, and David Splinter, 2018. "Income Inequality in the United States: Using Tax Data to Measure Long-Term Trends." Working Paper. Joint Committee on Taxation, Washington, DC, http://davidsplinter.com/AutenSplinter-Tax_Data_and_Inequality.pdf.

Autor, David H., and David Dorn, 2013. "The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market." *American Economic Review* 103 (5), 1553–1597.

Autor, David, David Dorn, and Gordon Hanson, 2018. "When Work Disappears: Manufacturing Decline and the Falling Marriage-Market Value of Young Men." NBER Working Paper No. 23173. National Bureau of Economic Research, Cambridge, MA.

Baker, Dean, 2016. *Rigged: How Globalization and the Rules of the Modern Economy Were Structured to Make the Rich Richer*. Center for Economic and Policy Research, Washington, DC.

Bastian, Jacob, and Katherine Michelmore, 2018. "The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes." *Journal of Labor Economics* 36 (4), 1127–1163.

Blattman, Christopher, and Paul Niehaus, 2014. "Show Them the Money: Why Giving Cash Helps Alleviate Poverty." *Foreign Affairs* 93 (3), 117–126.

Bloom, David, and Klaus Prettner, 2020. "The Macroeconomic Effects of Automation and the Role of COVID-19 in Reinforcing Their Dynamics." VoxEU, https://voxeu.org/article/covid-19-and-macroeconomic-effects-automation.

Bricker, Jesse, Alice Henriques, and Peter Hansen, 2018. "How Much Has Wealth Concentration Grown in the United States? A Re-Examination of Data from 2001-2013." Finance and Economics Discussion Series 2018-024. Board of Governors of the Federal Reserve System, Washington, DC, https://doi.org/10.17016/FEDS.2018.024.

Burman, Leonard E., 2009. "A Blueprint for Tax Reform and Health Reform." *Virginia Tax Review* 28, 287–323.

Burman, Leonard E., 2013. "Taxes and Inequality." *Tax Law Review* 66 (4), 563–592.

Burman, Leonard E., 2019. "A Universal EITC: Sharing the Gains from Economic Growth, Encouraging Work, and Supporting Families." Urban-Brookings Tax Policy Center, Washington, DC, https://www.taxpolicycenter.org/publications/universal-eitc-sharing-gains-economic-growth-encouraging-work-and-supporting-families.

Burman, Leonard E., Robert J. Shiller, Greg Leiserson, and Jeffrey Rohaly, 2006. "The Rising Tide Tax System: Indexing the Tax System for Changes in Inequality." Working Paper. The Urban Institute, Washington, DC, https://www.researchgate.net/publication/242259594_The_Rising_Tide_Tax_System_Indexing_the_Tax_System_for_Changes_in_Inequality.

Carasso, Adam, Harry J. Holzer, Elaine Maag, and C. Eugene Steuerle, 2008. "The Next Stage for Social Policy: Encouraging Work and Family Formation among Low-Income Men." Discussion Paper No. 28. Urban-Brookings Tax Policy Center, Washington, DC.

Chetty, Raj, John N. Friedman, and Jonah Rockoff, 2011. *New Evidence on the Long-Term Impacts of Tax Credits*. Internal Revenue Service, Washington, DC, http://www.irs.gov/pub/irs-soi/11rpchettyfriedmanrockoff.pdf.

Clausing, Kimberly A., 2019. *Open: The Progressive Case for Free Trade, Immigration, and Global Capital*. Harvard University Press, Cambridge, MA.

Dahl, Gordon B., and Lance Lochner, 2012. "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit." *American Economic Review* 102 (5), 1927–1956.

Doar, Robert, Karlyn Bowman, and Eleanor O'Neil, 2016. *2016 Poverty Survey: Attitudes Toward the Poor, Poverty, and Welfare in the United States*. American Enterprise Institute, Washington, DC, http://www.aei.org/wp-content/uploads/2016/08/2016-Poverty-Survey_AEI_Los-Angeles-Times_Topline.pdf.

Dow, William H., Anna Godøy, Christopher A. Lowenstein, and Michael Reich, 2019. "Can Economic Policies Reduce Deaths of Despair?" NBER Working Paper No. 25787. National Bureau of Economic Research, Cambridge, MA.

Eissa, Nada, and Hilary Williamson Hoynes, 2004. "Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit." *Journal of Public Economics* 88 (9–10), 1931–1958.

Frey, Carl Benedikt, and Michael A. Osborne, 2013. *The Future of Employment: How Susceptible Are Jobs to Computerization?* University of Oxford Press, Oxford, UK.

Greenstein, Robert, 1991. "Universal and Targeted Approaches to Relieving Poverty: An Alternative View." In Jencks, Christopher, and Paul E. Peterson (eds.), *The Urban Underclass*, 437–459. Brookings Institution Press, Washington, DC.

Greenstein, Robert, Elaine Maag, Chye-Ching Huang, Emily Horton, and Chloe Cho, 2018. *Improving the Child Tax Credit for Very Low–Income Families*. Center on Budget and Policy Priorities, Washington, DC, https://www.cbpp.org/sites/default/files/atoms/files/urban_ctc_paper.pdf.

Hendren, Nathaniel, and Ben Sprung-Keyser, 2020. "A Unified Welfare Analysis of Government Policies." *Quarterly Journal of Economics* 135 (3), 1209–1318.

Hershbein, Brad, and Lisa B. Kahn, 2018. "Do Recessions Accelerate Routine-Biased Technological Change? Evidence from Vacancy Postings." *American Economic Review* 108 (7), 1737–1772.

Hicks, John, 1939. "The Foundations of Welfare Economics." *Economic Journal* 49 (196), 696–712.

Hoynes, Hilary W., and Ankur J. Patel, 2015. "Effective Policy for Reducing Inequality? The Earned Income Tax Credit and the Distribution of Income." NBER Working Paper No. 21340. National Bureau of Economic Research, Cambridge, MA.

Hoynes, Hilary W., and Jesse Rothstein, 2019. "Universal Basic Income in the US and Advanced Countries." NBER Working Paper No. 25538. National Bureau of Economic Research, Cambridge, MA.

Internal Revenue Service, 2002. *Compliance Estimates for Earned Income Tax Credit Claimed on 1999 Returns*. Internal Revenue Service, Washington, DC, https://www.irs.gov/pub/irs-soi/compeitc.pdf.

Internal Revenue Service, 2014. *Compliance Estimates for the Earned Income Tax Credit Claimed on 2006-2008 Returns*. Research, Analysis & Statistics Report, Publication 5162, https://www.irs.gov/pub/irs-soi/EITCComplianceStudyTY2006-2008.pdf.

Isaacs, Julia B., Cary Lou, Heather Hahn, Ashley Hong, Caleb Quakenbush, and C. Eugene Steuerle, 2018. *Kids' Share 2018: Report on Federal Expenditures on Children through 2017 and Future Projections*. Urban Institute, Washington, DC, https://www.urban.org/sites/default/files/publication/98725/kids_share_2018_0.pdf.

Jaimovich, Nir, and Henry E. Siu, 2019. "Job Polarization and Jobless Recoveries." *Review of Economics and Statistics* 102 (1), 129–147.

Kaldor, Nicholas, 1939. "Welfare Propositions in Economics and Interpersonal Comparisons of Utility." *Economic Journal* 49 (195), 549–552.

Kleven, Henrik, 2020. "The EITC and the Extensive Margin: A Reappraisal." NBER Working Paper No. 26405. National Bureau of Economic Research, Cambridge, MA.

Krueger, Alan B., 2012. "The Rise and Consequences of Inequality." Speech given at the Center for American Progress, January 12, Washington, DC, https://www.americanprogress.org/events/2012/01/12/17181/the-rise-and-consequences-of-inequality/.

Krueger, Alan B., 2017. "Where Have All the Workers Gone? An Inquiry into the Decline of the US Labor Force Participation Rate." *Brookings Papers on Economic Activity* 2017 (2), 1–87.

Krueger, Alan B., Daniel Kahneman, David Schkade, Norbert Schwarz, and Arthur A. Stone, 2009. "National Time Accounting: The Currency of Life." In Krueger, Alan B. (ed), *Measuring the Subjective Well-Being of Nations: National Accounts of Time Use and Well-Being*, 9–86. University of Chicago Press, Chicago.

Leduc, Sylvain, and Zheng Liu, 2020. "Can Pandemic-Induced Job Uncertainty Stimulate Automation?" Working Paper 2020–19. Federal Reserve Bank of San Francisco, San Francisco, CA, https://www.frbsf.org/economic-research/publications/working-papers/2020/19/.

Leigh, Andrew, 2010. "Who Benefits from the Earned Income Tax Credit? Incidence among Recipients, Coworkers and Firms." *B.E. Journal of Economic Analysis & Policy*, 10 (1).

Little, I. M. D., 1950. *A Critique of Welfare Economics*. Clarendon Press, Oxford, UK.

Long-Term Care Financing Collaborative, 2016. *A Consensus Framework for Long-Term Care Financing Reform*. Convergence Center for Policy Resolution, Washington, DC, https://www.convergencepolicy.org/wp-content/uploads/2016/02/LTCFC-FINAL-REPORT-Feb-2016.pdf.

Looney, Adam, 2019. "Re-Examining the Labor Supply Effects of the EITC and Welfare Reform in the 1990s." Unpublished presentation at the NTA 112th Annual Conference on Taxation, Tampa.

Maag, Elaine, H. Elizabeth Peters, and Sara Edelstein, 2016. *Increasing Family Complexity and Volatility: The Difficulty in Determining Child Tax Benefits*. Urban-Brookings Tax Policy Center, Washington, DC, https://www.urban.org/research/publication/increasing-family-complexity-and-volatility-difficulty-determining-child-tax-benefits.

Manoli, Day, and Nicholas Turner, 2018. "Cash on Hand and College Enrollment: Evidence from Population Tax Data and the Earned Income Tax Credit." *American Economic Journal: Economic Policy* 10 (2), 242–271.

Meer, Jonathan, and Jeremy West, 2016. "Effects of the Minimum Wage on Employment Dynamics." *Journal of Human Resources* 51 (2), 500–522.

Mullainathan, Sendhil, and Eldar Shafir, 2013. *Scarcity: Why Having Too Little Means So Much*. Times Books, New York.

Muro, Mark, Robert Maxim, and Jacob Whiton, 2019. *Automation and Artificial Intelligence: How Machines Are Affecting People and Places*. Brookings Institution, Washington, DC, https://www.brookings.edu/research/automation-and-artificial-intelligence-how-machines-affect-people-and-places/.

Nichols, Austin, and Jesse Rothstein, 2016. "The Earned Income Tax Credit." In Moffitt, Robert A. (ed.), *Economics of Means-Tested Transfer Programs in the United States, Volume I*, 137–218. University of Chicago Press, Chicago.

Peri, Giovanni, 2016. "Immigrants, Productivity, and Labor Markets." *Journal of Economic Perspectives* 30 (4), 3–30.

Petersen, Michael Bang, 2012. "Social Welfare as Small-Scale Help: Evolutionary Psychology and the Deservingness Heuristic." *American Journal of Political Science* 56 (1), 1–16.

Petersen, Michael Bang, Rune Slothuus, Rune Stubager, and Lise Togeby, 2011. "Deservingness versus Values in Public Opinion on Welfare: The Automaticity of the Deservingness Heuristic." *European Journal of Political Research* 50, 24–52.

Piketty, Thomas, and Emmanuel Saez, 2003. "Income Inequality in the United States, 1913–1998." *Quarterly Journal of Economics* 118 (1), 1–41.

Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman, 2018. "Distributional National Accounts: Methods and Estimates for the United States." *Quarterly Journal of Economics* 133 (2), 553–609.

Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman, 2019. "Simplified Distributional National Accounts." Working Paper No. 2019/01. World Inequality Lab, World Inequality Database, Paris, https://eml.berkeley.edu/~saez/PSZ2019simplifiedDINA.pdf.

Rose, Stephen, 2018. *How Different Studies Measure Income Inequality in the US: Piketty and Company Are Not the Only Game in Town*. Urban Institute, Washington, DC, https://www.urban.org/sites/default/files/publication/99455/how_different_studies_measure_income_inequality.pdf.

Saez, Emmanuel, and Gabriel Zucman, 2016. "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data." *Quarterly Journal of Economics* 131 (2), 519–578.

Schieber, Sylvester J., and Steven A. Nyce, 2018. *Health Care USA: A Cancer on the American Dream*. Willis Towers Watson, London, https://www.willistowerswatson.com/en-US/Insights/2018/08/health-care-usa-a-cancer-on-the-american-dream.

Schneider, Bill, 2016. *Polling the Poor and the Non-Poor on Poverty: 1985 and 2016*. American Enterprise Institute, Washington, DC, https://www.aei.org/research-products/report/polling-the-poor-and-the-non-poor-on-poverty-1985-2016/.

Sides, John, Michael Tesler, and Lynn Vavreck, 2018. *Identity Crisis: The 2016 Presidential Campaign and the Battle for the Meaning of America*. Princeton University Press, Princeton, NJ.

Skocpol, Theda, 1991. "Targeting within Universalism: Politically Viable Policies to Combat Poverty in the United States." In Jencks, Christopher, and Paul E. Peterson (eds.), *The Urban Underclass,* 411–436. Brookings Institution Press, Washington, DC.

Skocpol, Theda, 2000. *The Missing Middle: Working Families and the Future of American Social Policy*. W.W. Norton, New York.

Soss, Joe, and Sanford F. Schram, 2007. "A Public Transformed? Welfare Reform as Policy Feedback." *American Political Science Review* 101 (1), 111–127.

Summers, Larry, 2013. "Economic Possibilities for Our Children: The 2013 Martin Feldstein Lecture." *NBER Reporter* 2013 (4), 1–7.

Toder, Eric, Jim Nunns, and Joseph Rosenberg, 2011. *Methodology for Distributing a VAT*. Urban-Brookings Tax Policy Center, Washington, DC, http://www.taxpolicycenter.org/sites/default/files/alfresco/publication-pdfs/1001533-Methodology-for-Distributing-a-VAT.PDF.

U.S. Department of the Treasury, 2003. *Report to the Congress on Return-Free Tax Systems: Tax Simplification Is a Prerequisite.* U.S. Department of the Treasury, Washington, DC, https://www.treasury.gov/resource-center/tax-policy/Documents/Report-Return-Free-2003.pdf.

van Oorschot, Wim, 2000. "Who Should Get What, and Why? On Deservingness Criteria and the Conditionality of Solidarity among the Public." *Policy and Politics* 28 (1), 33–48.

van Oorschot, Wim, 2006. "Making the Difference in Social Europe: Deservingness Perceptions among Citizens of European Welfare States." *Journal of European Social Policy* 16 (1), 23–42.

Watson, C. Luke, 2020. "The General Equilibrium Incidence of the Earned Income Tax Credit." Manuscript. Michigan State University, East Lansing, MI, https://clukewatson.github.io/files/papers/clw_GenEqEITC.pdf.

Williamson, Vanessa S., 2017. *Read My Lips: Why Americans Are Proud to Pay Taxes*. Princeton University Press, Princeton.