

TAX POLICY CENTER
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A UNIVERSAL EITC: SHARING THE GAINS FROM ECONOMIC GROWTH, ENCOURAGING WORK, AND SUPPORTING FAMILIES

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ABSTRACT

This report analyzes a straightforward mechanism to mitigate middle-class wage stagnation: a wage tax credit of 100 percent of earnings up to a maximum credit of \$10,000, called a universal earned income tax credit. The child tax credit would increase from \$2,000 to \$2,500 and be made fully refundable. A broad-based, value-added tax of 11 percent would finance the new credit. The proposal is highly progressive and would nearly end poverty for families headed by a full-time worker. This report compares the proposal with current law, analyzes its economic effects, compares it to alternative reform options, and considers some complementary policy options.

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INTRODUCTION AND SUMMARY

This report develops a straightforward mechanism to mitigate wage stagnation: a wage tax credit of 100 percent of earnings up to a maximum credit of \$10,000—in other words, a universal earned income tax credit (UEITC). A dedicated, broad-based, value-added tax (VAT) of 11 percent would finance the new credit. The maximum credit would be indexed to economic growth. For the first time in decades, low- and middle-income workers would share in economic gains even if the factors suppressing market wages do not reverse. Workers at all income levels, rather than just the highest earners, would benefit from economic prosperity, finally fulfilling John F. Kennedy’s promise that “a rising tide lifts all boats.”¹

Despite strong economic growth, middle-class wages have stagnated for four decades, barely keeping pace with inflation. Policy makers and presidential candidates are finally focusing on middle-class economic insecurity and rising economic inequality more generally, but many of the actual and proposed policy responses are likely to be counterproductive or infeasible. The trade and immigration restrictions favored by the Trump administration will harm the economy and likely make working people worse off (Clausing 2019). Proposals from the left for a much higher minimum wage and more regulation for employers might, similarly, help some low-skilled workers, but such policies risk harming others while doing little for middle-income workers. Enacting a universal health insurance program such as Medicare for All would translate into higher wages if employers passed their premium savings on to workers, but it would be an expensive and controversial new entitlement.

A substantial wage subsidy is more efficient and direct, and it fits with Americans’ values. Polls show that the public strongly supports assisting working people. The existing 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.

The new wage credit and the corresponding VAT would phase in over four years to minimize disruptions. After the phase-in period, the maximum wage credit would grow with per capita gross domestic product (GDP). Because VAT revenue tends to grow with GDP, the policy would be fiscally sustainable over the long run with little or no adjustment in VAT rates. Because the 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 one employer (limited to one per year to avoid the risk of excess advance credits that would have to be repaid at tax time). Self-employed workers and those with multiple employers would ultimately claim the credit less any advance payments on income tax returns.² Like other income, but unlike the EITC and most other tax credits, the UEITC would be subject to income taxes.

To partially offset the loss of the EITC, which increases in value with the number of qualifying children (up to three), the current-law child tax credit (CTC) would increase from \$2,000 to \$2,500 and be made fully refundable—that is, available to people even if they have no income tax liability. (The CTC currently phases in with earnings; thus, low-income families may receive only a partial credit or none at all.) The proposal would be easier for taxpayers to comply with and for the Internal Revenue Service (IRS) to administer than the current EITC and CTC. All adults with earnings would be eligible for the UEITC, and all low- and middle-income families with qualifying children would be eligible for the full CTC.

Although the VAT is regressive—falling disproportionately on those with lower incomes—the overall proposal is quite progressive. Low- and middle-income workers would receive far more in tax credits than they would pay in additional taxes. The program is similar in design to the Social Security system, which pairs a dedicated regressive tax—the payroll tax—with progressive retirement benefits. Social Security is extremely popular, and the payroll tax is viewed more favorably than other more progressive taxes because voters support what the payroll tax finances.

I assume the UEITC and VAT would phase in between 2020 and 2023. In 2023, when fully phased in, the proposal would cut average tax bills for most people in the four lowest income quintiles. The federal tax cut for the bottom quintile would average almost \$3,890, or 24 percent of after-tax income. The middle quintile would average a tax cut of almost \$2,800, or 4.5 percent of after-tax income. The top quintile would face a tax increase averaging over \$12,000, or almost 5 percent of after-tax income. Primarily because of the VAT, the tax burden on the top 1 percent of earners would increase by over 7 percent of after-tax income (averaging \$125,000).

The proposal is similar in some ways to a universal basic income (UBI)—an unrestricted cash grant—in that the UEITC is universal and highly progressive; however, the UEITC is only available to adults over age 16 who have earned income. This is based on my judgment that the primary failure of the market economy is not that jobs aren't available—unemployment as of March 2019 was 3.8 percent—but that many jobs pay poorly. The proposal has 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).

I intend my proposal to serve as a starting point for discussion about how to address the distributional flaws in the market economy without hampering economic growth. Policymakers might decide to raise or lower the credit rate or maximum amount of earnings eligible for the UEITC or to scale back or increase the CTC, with commensurate changes to the VAT to preserve budget neutrality. I also lay out several design options they might consider. For example, the UEITC could be made available to full-time caregivers or those who are in retraining programs. The Social Security program would also need tweaks to prevent cuts in real benefits.

In the Motivation section, I detail my motivation for the study, explaining the challenges facing lower- and middle-class workers and why a wage subsidy tied to VAT revenues could address those challenges. In the Proposal section, I develop the proposal in detail. In the following section, I compare the UEITC and enhanced CTC to the EITC and CTC under current law. The Distributional Analysis section presents a full distributional analysis of the effects of the proposal (including financing) using the Tax Policy Center’s microsimulation tax model. In Revenue Effects, I discuss the revenue effects of the proposal. The Analysis and Issues section analyzes the economic effects of the proposal, addresses various issues, compares the proposal with other reform options, and considers several possible complementary policies. The final section offers some conclusions.

MOTIVATION

The UEITC is designed to achieve five objectives:

1. Mitigate rising economic inequality and wage stagnation
2. Share the gains from economic growth
3. Encourage work
4. Support families
5. Be universal

Below I outline the positive arguments for objectives 1 through 4 and the political rationale for objective 5.

ECONOMIC INEQUALITY AND WAGE STAGNATION

Inequality has risen dramatically in the United States. Based on a long series of income tax data, Piketty and Saez (2003) found income inequality at levels not seen since the eve of the Great Depression, with most income concentrated among the top 1 percent of earners.³ Piketty, Saez, and Zucman (2018) refined their estimates to include measures of nontaxable sources of income and found similar results.⁴ Rose (2018) performed a meta-analysis of major studies and concluded 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 still significant, increase in wealth inequality over time. 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.

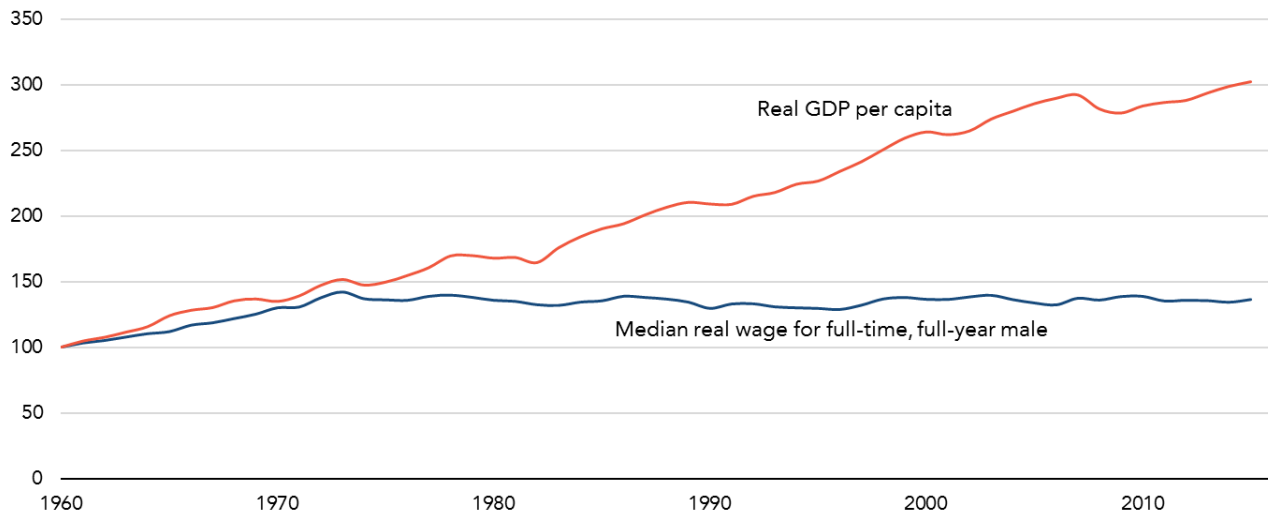
Rising inequality has been accompanied by middle-class wage stagnation. Median real wages for full-time male workers have barely budged in 40 years (figure 1). This metric understates compensation because it excludes fringe benefits, especially the value of employer-sponsored health insurance (Schieber 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.

Although recent political discourse has focused on trade and immigration as culprits for stagnant wages, many economists believe that technology is a prime factor (Krueger 2012; Summers 2013).⁵ 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.

FIGURE 1

Real Median Earnings Have Lagged Far Behind Economic Growth



Source: 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>.

And mechanization may threaten skilled workers as well. Frey and Osborne (2013) predict that skilled laborers, such as lawyers, accountants, and economists, will also soon face steep competition from computers.⁶

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 (for example, 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 they can now produce more with less labor. Autor and Dorn 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. The *Economist* produced a telling chart, adapted as figure 2, showing a similar pattern of real wage stagnation in the UK at the start of the industrial revolution.⁷ After 60 years of anemic wage growth, average wages increased by nearly one-third in the subsequent 40 years. If the current technological revolution follows a similar pattern, US wages will take off in two decades. 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

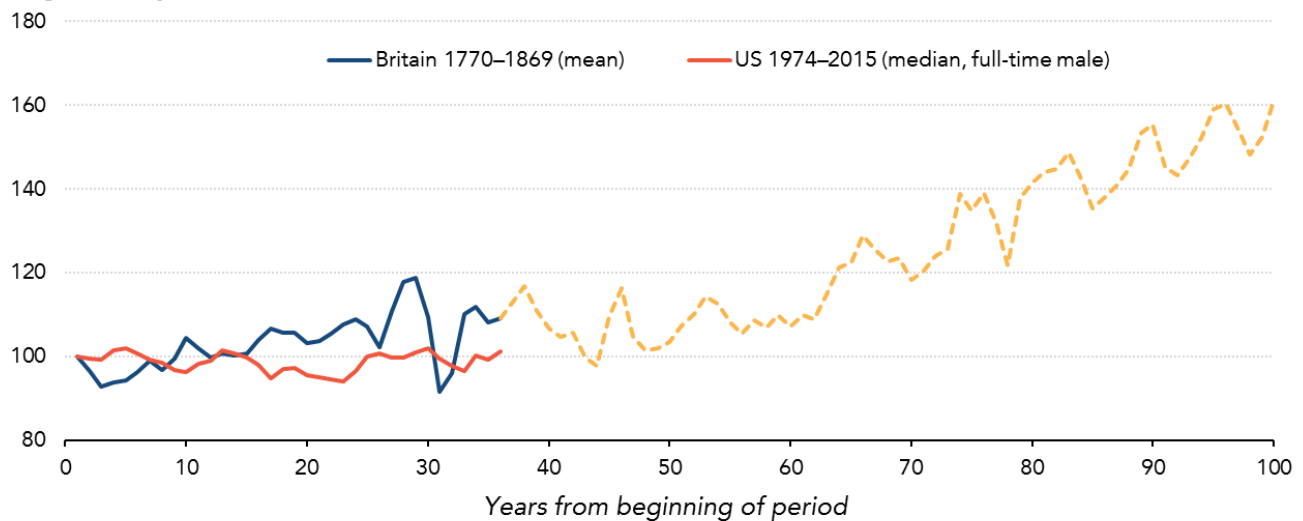
might not be willing to wait decades for the economy to fully adapt to new technology. The success of populist presidential candidates who proposed radical policies to help the middle class in the 2016 election—Trump and Bernie Sanders—is evidence of growing impatience with economic stagnation.⁸

FIGURE 2

Real Wage Stagnation in the US compared with Britain during Industrial Revolution



Wage index (year 1 = 100)



Source: British average real wages from Allen (2007). US real median wages for full-time, full-year workers from census table P-43.
Note: Figure has been adapted and updated from “The Future of Jobs: The Onrushing Wave,” *Economist*, January 18, 2014, <https://www.economist.com/briefing/2014/01/18/the-onrushing-wave>.

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 most of the workers displaced. Low- and medium-skilled 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.⁹

Moreover, other factors 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 policy mistakes 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 antilabor laws could similarly help low- and middle-income workers, but vigorous debate persists in the economics literature about the costs and effectiveness of such policies.¹⁰

Middle-class malaise also creates a serious risk of potential 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 mechanism 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.

THE POLITICAL AND ETHICAL RATIONALE FOR SHARING THE GAINS FROM ECONOMIC GROWTH

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 policies that promote growth 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 his or her 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.¹¹

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.¹²

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.¹³

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 the 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 for counter-productive policies, increasing the odds that pro-growth policies could succeed politically.

SOCIAL AND POLITICAL BENEFITS OF ENCOURAGING WORK

The UEITC is a wage subsidy 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 (figure 3) 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.¹⁴

Moreover, work builds skills that make employees more valuable over time (human capital), which means even higher future income. And more family income is correlated with many positive long-term outcomes for children. Greenstein and colleagues (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, 5).

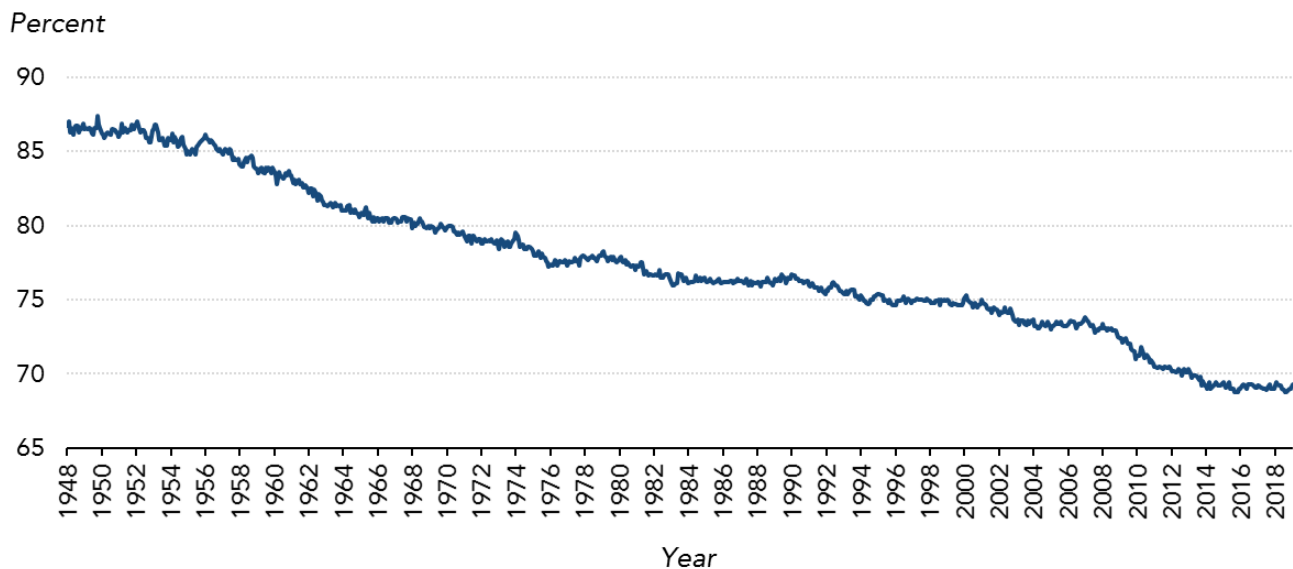
Hoynes and Rothstein (2019) review evidence of the effects of expanding the EITC:

"The EITC also leads to increases in children's achievement (Dahl and Lochner 2012; Chetty, Friedman, and Rockoff 2011) and educational attainment (Bastian and Micheltore 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." (21)

There is even evidence that boosting wages can save lives. Dow et al. (2019) estimate that a 10 percent increase in the EITC reduces non-drug 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. All told, they estimate that a 10 percent increase in both the EITC and the minimum wage would prevent about 1,230 suicides per year.

FIGURE 3

Labor Force Participation Rate, Male 16 and Over Monthly, seasonally adjusted



Source: Bureau of Labor Statistics via FRED. <https://fred.stlouisfed.org/series/LNS11300001>.

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" (100). Although this attitude is more prevalent among Republicans, it also bothers some Democrats who tend to be supportive of those who cannot help themselves.

Political scientists have found ample evidence that people all over the world categorize people in terms of "deservedness" (Peterson 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. Peterson (2012) argues that the universality of the willingness to help people deemed deserving, but not those deemed undeserving, speaks to an evolutionary advantage that pervades the human species.

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).

SUPPORT FAMILIES

A related issue is that children are generally seen as worthy of support. 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.¹⁵

As noted, increases in family income produce long-lasting positive effects for children along many dimensions. And the current-law EITC and CTC almost exclusively benefit families with children in residence. Thus, the UEITC probably must provide at least as much support for families with children to be politically feasible.

UNIVERSALITY

One key to Social Security's popularity is that recipients do not think of it as welfare and believe that their taxes paid for the benefits they receive. In a survey of poll data on attitudes toward poverty, Schneider (2016) 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'" (3–4). In contrast, Schneider argues, "Entitlements are only incidentally redistributive. In effect, middle-class voters are bribed to support entitlement

programs because they, too, get benefits” (3). This is a key to their durability: “Neither Trump nor Clinton proposed curtailing entitlement spending in any significant way” (3).

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 (an inference that is often racially tinged in the United States). 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.

As I discuss below, universality also makes the UEITC easier to administer. The drawback is that universal programs are much more expensive than targeted subsidies. The wage credit and expanded CTC would reduce income and payroll tax revenues by \$1.3 trillion in fiscal year 2024 when fully phased in. As I explain below, the UEITC is effectively phased out by the VAT and the fact that the credit is subject to income tax, but a more targeted credit could be financed by a lower VAT rate, which could have both economic and political advantages. 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.¹⁶ 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 virtually all 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.

THE PROPOSAL

The UEITC is a universal refundable wage tax credit of 100 percent of earnings up to a maximum of \$10,000 financed by a broad-based dedicated VAT of about 11 percent.¹⁷ The CTC would increase from \$2,000 to \$2,500 and be made fully refundable, increasing its value dramatically for very low-income parents and increasing it 25 percent for most other parents.¹⁸ Like the current CTC, the amount would not be indexed for inflation. The EITC would be repealed. The UEITC would be treated as earnings for calculating federal income tax.¹⁹

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.

The UEITC and VAT would phase in over four years, and the EITC would phase out over the same period to minimize market disruption. My analysis assumes that the program starts in 2020, but 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 the new VAT and for businesses to adopt systems to comply with the law.²⁰ Wages and modified adjusted gross income for purposes of computing the EITC would not include the wage credit. The CTC expansion would take full effect in 2020.²¹

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.²² That is, the credit would automatically grow with the economy, guaranteeing that low- and middle-income American workers would share in economic gains.²³ The enacting legislation would stipulate that the VAT rate would be adjusted if necessary to guarantee that the package is revenue neutral over the business cycle. The VAT rate would not be raised in a recession when revenues would fall short of spending for a few years, because that would exacerbate the economic downturn. Because VAT revenues tend to track economic growth closely, any adjustments in rates would be modest.

The wage credit is a radical departure from current income-support programs. First, it is based on individual rather than household income.²⁴ 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. For example, the EITC, CTC, American opportunity tax credit (a subsidy for higher-education expenses), and the adoption tax credit all phase out with income. 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.²⁵ 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.

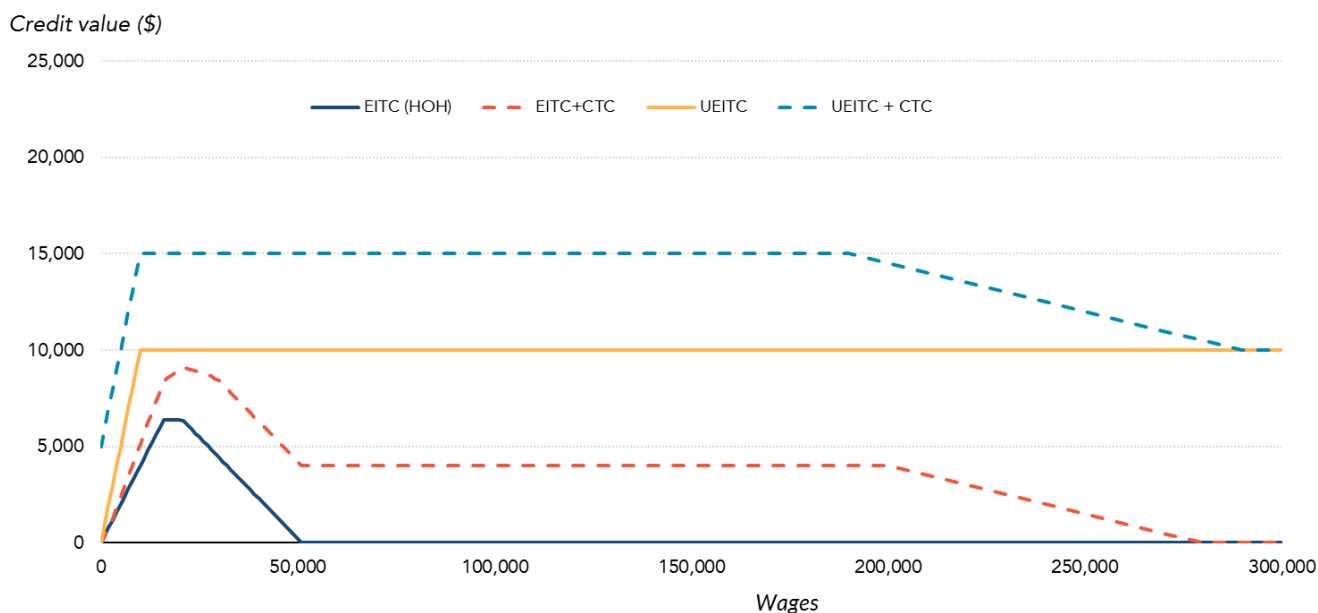
Instead of explicitly phasing out the credit, the UEITC is implicitly phased out through the VAT and the inclusion of the credit in earnings for determining income tax liability. This combination makes the program very progressive and budget neutral. Revenues from the VAT, additional income taxes, and repeal of the EITC would cover the costs of the UEITC and expansion of the CTC.

COMPARISON OF PROPOSED UEITC AND CTC WITH CURRENT LAW

To illustrate the effects of the proposal, I calculated its effect 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.²⁶ The only current-law tax subsidies considered are the EITC and the CTC; those are compared with the the UEITC and the expanded CTC amounts under the proposal. Finally, the comparison is in 2023, when the UEITC would be fully phased in.

FIGURE 4

Comparison of Current-Law Credits with Proposed Credits Single parent with two children, 2023



Source: Author's calculations.

Notes: CTC = child tax credit; EITC = earned income tax credit; HOH = head of household, UEITC = universal earned income tax credit. Values are for 2023 (when the UEITC will be fully phased in). Calculation assumes all income is from wages or self-employment and that the taxpayer files as head of household and claims the standard deduction.

Figure 4 compares the credits for an unmarried parent with two children. At every income level, she would receive a larger amount of credits under the proposal than under current law:

- If she does not work, she will not be eligible for either the EITC or CTC under current law. Similarly, she would not be able to claim the UEITC under the proposal because she has no earnings. However, she would receive \$5,000 from the CTC under the proposal.
- If she enters the workforce, she will be eligible for the EITC under current law and the UEITC under the proposal, but the UEITC is larger than the EITC at all earnings levels. First, the UEITC equals 100

percent of earnings up to \$10,000, while the EITC equals 40 percent of earnings up to \$15,920.²⁷ Second, the value of the EITC falls once her earnings exceed \$20,790 and is eliminated when her earnings reach \$51,027. In contrast, she would be entitled to the maximum \$10,000 UEITC at all earnings levels of \$10,000 or higher.

- Until the CTC phaseout, its value would also always be larger under the proposal than under current law. The difference between the current-law and proposed CTCs is greatest at very low income levels. The difference diminishes with earnings for two reasons. First, the refundable portion of the current law CTC phases in with earnings: it equals 15 percent of earnings in excess of \$2,500 up to a maximum of \$1,500 per child (in 2023). Taxpayers may use the nonrefundable part of the CTC to offset income tax liability, but a head of household (her filing status as the mother of two children) would not have any income tax liability until her income exceeds the standard deduction, which is expected to be \$20,050 in 2023. When the current-law credit is fully phased in, the difference is \$500 per child, or \$1,000 for the two children. Eventually both CTCs phase out (slightly sooner under the proposal because the UEITC raises adjusted gross income by \$10,000).

Figure 4, however, does not fully reflect the effect of the inclusion of the UEITC in adjusted gross income or the VAT. The additional income tax liability attributable to the UEITC plus the VAT eventually more than offset the benefits of the new credits for people with higher incomes, as reflected in the distribution tables in the next section.

The difference is much more dramatic for a single person without children (figure 5). The maximum EITC is only \$578, and it phases out at very low income levels, whereas the maximum UEITC is \$10,000.

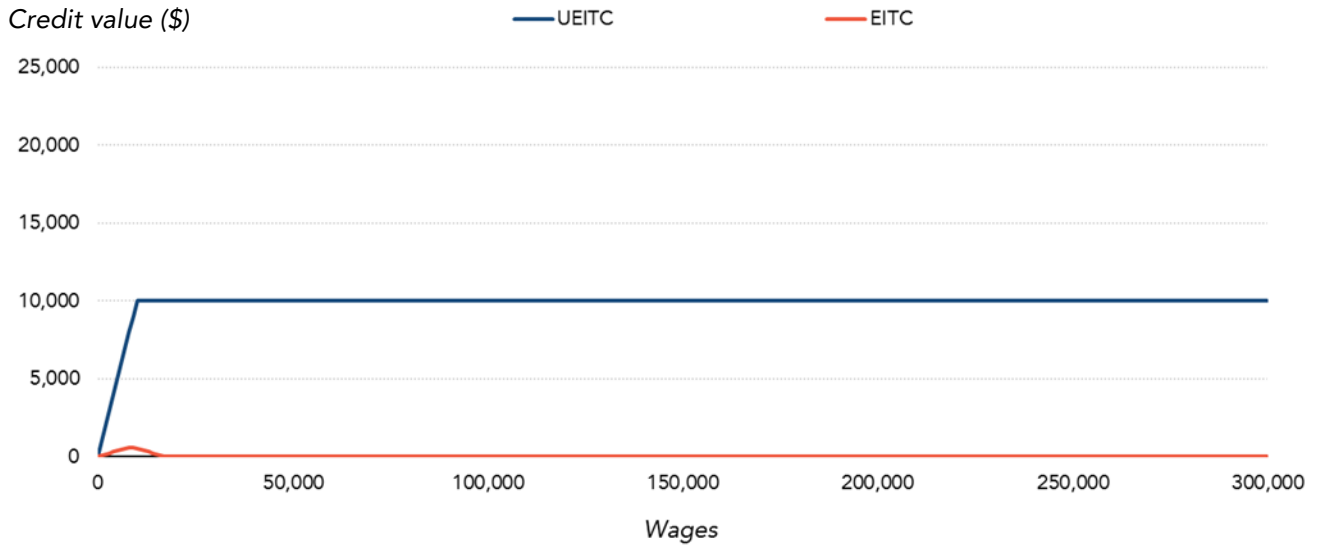
The difference is similarly dramatic for married couples who both have earnings. Figure 6 assumes earnings are split evenly in the couple. Thus, the UEITC reaches a maximum at income of \$20,000 (\$10,000 of earnings per spouse). At the point where the EITC is phased out, the difference would be \$21,000 (\$10,000 of UEITC per spouse plus the \$1,000 increase in CTC).

Another case, not shown, is a married couple with only one earner. This will appear qualitatively similar to the head-of-household case, but some lower-middle-income households will receive a smaller net benefit because the EITC phase-out for a married couple occurs at a higher income level.

These examples illustrate how effective the proposal would be at reducing poverty. Almost anybody working full time would have income (including credits) well in excess of federal poverty guidelines.²⁸ A single full-time worker at the current \$7.25 minimum wage would earn almost \$25,000 including the UEITC. Two full-time minimum-wage earners, assuming it stays at the current \$7.25, would have net family income (after income tax and credits) of over \$45,000. That is, even those with low skills would be able to achieve a middle-class income.

FIGURE 5

Comparison of Current Law Credits with Proposed Credits Single filer with no children, 2023

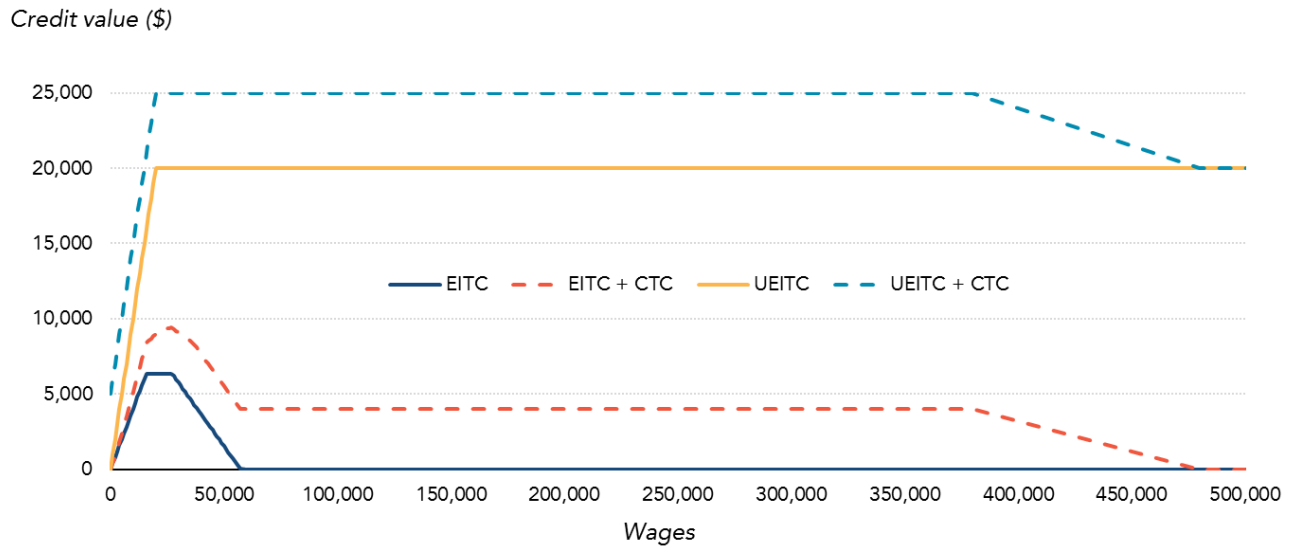


Source: Author's calculations.

Note: EITC = earned income tax credit; UEITC = universal earned income tax credit. Values are for 2023 (when the UEITC will be fully phased in). Calculation assumes all income is from wages or self-employment and that the taxpayer claims the standard deduction.

FIGURE 6

Comparison of Current-Law Credits with Proposed Credits Married filers filing jointly with two earners and two children, 2023



Source: Author's calculations.

Notes: CTC = child tax credit; EITC = earned income tax credit; UEITC = universal earned income tax credit. Values are for 2023 (when the UEITC will be fully phased in). Calculation assumes all income is from wages or self-employment, that spouses have identical earnings, and that the taxpayer claims the standard deduction.

High-income households face substantial net tax increases because of the VAT. Some might support the program because they place a value on more inclusive economic growth. Or they may view policy responses to rising inequality as inevitable and believe that the proposed pro-work, pro-family policy is more efficient than populist alternatives such as trade restrictions.

People who do not have labor income do not benefit from the wage credit, but many with children would benefit from the increase in the refundable CTC. Those without children would be made worse off by the VAT. With accommodative Federal Reserve policy, prices would rise by the amount of the tax, which would reduce the real value of assets and wages. If price levels are not allowed to adjust, nominal values of equity would fall immediately, and wages would tend to decline to reflect the tax (since wages are not deductible under a VAT; see Toder, Nunns, and Rosenberg 2011). Retirees with savings would receive no benefit from the UEITC and would see the real value of their assets decline.

Lower-income current retirees would be largely unaffected because, to the extent that the VAT translates into higher prices, indexed Social Security benefits will automatically adjust. However, workers close to retirement could be worse off if prices rise because their nominal Social Security benefits would ordinarily be based on their wage history. The policy simulations shown below assume that wage histories used to calculate average indexed monthly earnings are implicitly adjusted to account for any effect of the VAT on the price level so that real Social Security benefits for workers near retirement are not reduced. (I discuss issues and options related to Social Security in a later section.)

DISTRIBUTIONAL ANALYSIS

The previous discussion assumes that the VAT is passed to consumers in the form of higher prices. However, the VAT, like all consumption taxes, is a business tax with expensing of new investment, meaning it exempts the normal return on capital. Toder, Nunns, and Rosenberg (2011) conclude that in the long run, part of the incidence falls on supernormal returns, which are disproportionately earned by those with very high incomes, and part falls on wages. In the short run, the tax burdens old capital, which is also very concentrated among those with very high incomes.

TABLE 1

Distribution of Federal Tax Change by Expanded Cash Income Percentile Adjusted for Family Size
All tax units, 2023



Expanded Cash Income Percentile	Share of Tax Units (%)		Change in After-tax Income (%)	Average Federal Tax Change (\$)
	With tax cut	With tax increase		
Lowest quintile	70.0	9.6	24.1	-3,910
Second quintile	60.9	23.3	9.3	-3,330
Middle quintile	69.3	27.6	4.5	-2,810
Fourth quintile	59.5	39.9	0.6	-640
Top quintile	12.8	87.0	-4.7	12,540
All	55.6	35.6	0.0	-20
Addendum				
80–90	22.0	77.7	-2.0	2,860
90–95	5.2	94.6	-3.7	7,430
95–99	1.2	98.8	-5.6	18,570
Top 1 percent	0.3	99.6	-7.6	128,710
Top 0.1 percent	0.1	99.9	-7.7	588,040

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

Many households would also face an increase in income taxes owed before credits. Because the UEITC is included in taxable income, taxable income will generally increase. For those who would have positive taxable income before the UEITC, their taxable income would increase by the amount of the credit. 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 because of adjusted gross income–related phaseouts. Effectively, the income tax claws back a rising portion of the UEITC as income increases. In 2023, when the tax credit and VAT are fully phased in, the proposal would cut average tax bills for most people in the four lowest income quintiles (table 1).²⁹ The average federal tax cut for the bottom quintile would be \$3,910, or 24 percent of after-tax income.

The middle quintile would see an average tax cut of \$2,810, or 4.5 percent of after-tax income. The top quintile would face a tax increase averaging over \$12,540, or 4.7 percent of after-tax income. Primarily because of the VAT, the tax burden on the top 1 percent would increase by 7.6 percent of after-tax income (averaging \$128,710).

Poor single filers would get the most economically significant boost to income (table 2). The average tax cut for the bottom quintile would be almost 28 percent of after-tax income in 2023. Because single people are more likely than others to be retired, the average single person would actually pay somewhat higher taxes, but the bottom four quintiles pay lower taxes on average. In addition, the distribution tables do not account for behavioral response. If many low-wage single people chose to enter the work force in response to the tax credit, the proposal would be even more progressive than estimated here.

TABLE 2

Distribution of Federal Tax Change by Expanded Cash Income Percentile Adjusted for Family Size Single tax units, 2023



Expanded Cash Income Percentile	Share of Tax Units (%)		Change in After-tax Income (%)	Average Federal Tax Change (\$)
	With tax cut	With tax increase		
Lowest quintile	60.3	12.3	27.6	-3,280
Second quintile	46.5	31.9	9.2	-2,600
Middle quintile	61.7	34.1	4.6	-2,140
Fourth quintile	63.9	35.0	0.4	-250
Top quintile	6.5	93.2	-4.5	7,410
All	51.5	34.0	2.6	-1,260
Addendum				
80–90	9.6	90.2	-2.5	2,610
90–95	4.1	95.4	-4.0	5,690
95–99	0.9	99.0	-5.6	12,810
Top 1 percent	0.4	99.3	-7.2	83,460
Top 0.1 percent	0.2	99.6	-7.2	361,040

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

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 tax unit because married filers have higher incomes (table 3). The bottom four quintiles would see tax cuts on average.

For single heads of household, the overall pattern is similar, but the top two quintiles would see an average tax increase (table 4).

TABLE 3

Distribution of Federal Tax Change by Expanded Cash Income Percentile Adjusted for Family Size

Married tax units filing jointly, 2023



Expanded Cash Income Percentile	Share of Tax Units (%)		Change in After-tax Income (%)	Average Federal Tax Change (\$)
	With tax cut	With tax increase		
Lowest quintile	76.3	6.9	22.5	-5,480
Second quintile	73.8	13.1	10.2	-5,210
Middle quintile	72.0	25.2	4.9	-4,000
Fourth quintile	59.3	40.4	1.0	-1,210
Top quintile	16.5	83.4	-4.8	15,050
All	50.9	45.4	-1.7	2,730
Addendum				
80-90	30.6	69.2	-1.7	2,870
90-95	5.8	94.2	-3.5	8,140
95-99	1.1	98.9	-5.5	20,980
Top 1 percent	0.3	99.7	-7.6	139,020
Top 0.1 percent	*	100.0	-7.8	653,990

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

TABLE 4

Distribution of Federal Tax Change by Expanded Cash Income Percentile Adjusted for Family Size

Head-of-household tax units, 2023



Expanded Cash Income Percentile	Share of Tax Units (%)		Change in After-tax Income (%)	Average Federal Tax Change (\$)
	With tax cut	With tax increase		
Lowest quintile	96.3	2.5	19.3	-4,840
Second quintile	94.2	5.5	8.2	-3,760
Middle quintile	87.5	12.4	3.3	-2,340
Fourth quintile	37.7	62.1	-0.9	900
Top quintile	5.9	93.8	-5.0	10,780
All	82.0	17.5	4.1	-2,470
Addendum				
80-90	6.8	93.2	-3.2	4,510
90-95	4.7	94.5	-5.1	9,840
95-99	4.9	94.3	-5.9	16,580
Top 1 percent	0.2	99.8	-7.8	162,470
Top 0.1 percent	0.9	99.2	-7.6	829,660

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

Finally, table 5 shows how the policy would affect tax units with a head of household age 65 or over. The bottom two quintiles face somewhat lower taxes on average because a significant fraction of older households have labor income and would qualify for the UEITC. However, because most people in this age group are out of the labor force and do not live with children, more households face tax increases than cuts in every income group.

TABLE 5

Distribution of Federal Tax Change by Expanded Cash Income Percentile Adjusted for Family Size
Tax units age 65 and over, 2023



Expanded Cash Income Percentile	Share of Tax Units (%)		Change in After-tax Income (%)	Average Federal Tax Change (\$)
	With tax cut	With tax increase		
Lowest quintile	14.3	27.2	3.9	-590
Second quintile	12.8	49.8	1.1	-360
Middle quintile	24.7	67.5	-0.1	30
Fourth quintile	32.6	66.3	-1.3	1,250
Top quintile	13.9	85.8	-4.5	11,810
All	19.4	58.6	-2.3	1,830
Addendum				
80-90	21.9	77.9	-2.6	3,530
90-95	10.2	89.1	-3.6	6,770
95-99	1.6	98.3	-4.6	13,900
Top 1 percent	0.6	99.2	-6.7	113,470
Top 0.1 percent	0.0	100.0	-7.1	519,140

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

The distributional analysis assumes that the supply of labor does not respond to the UEITC.³⁰ 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.

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.

In the long run, demand for labor is more elastic, especially for low-skilled workers whose labor supply is most likely to respond to the UEITC (Lichter, Peichl, and Siegloch, 2015; Hamermesh, 1986). This means that market wages would eventually return closer to their pre-UEITC levels.

The distribution tables could over- or underestimate changes in well-being. On one hand, the decline in market wages because of the expansion of labor supply would offset part of the benefit of the UEITC to current workers, especially in the short run. On the other hand, workers induced to join the labor force or those who opt to work more in response to the larger reward for working would be better off than the static distributional estimates, which do not account for behavioral changes, suggest.³¹

REVENUE EFFECTS

The proposal is designed to be approximately revenue neutral—that is, the revenue raised by the VAT is sufficient to offset the cost of the UEITC and increase in CTC. I estimate that the overall proposal reduces federal revenues by \$97 billion over the 10-year budget period (2020 to 2029; table 6).

TABLE 6

Effect of Implementing UEITC, Enhanced CTC, and 11% VAT on Revenues

Billions of dollars, fiscal years 2020–29



	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020–29
UIETC + CTC	-203	-564	-871	-1,165	-1,137	-1,390	-1,407	-1,426	-1,484	-1,579	-11,424
VAT	158	478	806	1,143	1,340	1,393	1,427	1,460	1,516	1,607	11,328
Total	-46	-86	-65	-22	3	3	20	34	33	28	-97

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

Notes: CTC = child tax credit; UEITC = universal earned income tax credit; VAT = value-added tax. Revenue estimates are for fiscal years and use a 40-60 split. Proposals are effective January 1, 2020 and are fully phased in on January 1, 2023.

The UEITC and enhanced CTC would cut federal revenues by \$1.3 trillion in fiscal year 2024 and by \$11.4 trillion over the 10-year budget period.³² This reflects the net effects of replacing the EITC with the UEITC, increasing the CTC, and including the UEITC in taxable income.

The broad-based 11-percent VAT would increase federal tax revenues by \$1.3 trillion in 2024 and by \$11.3 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.

The overall budgetary effect (including macroeconomic effects) could deviate somewhat from these estimates because of economic responses discussed below. I interpret my estimate as suggesting that a very broad-based VAT in the range of 10 to 12 percent would likely suffice to finance the UEITC and expanded CTC. If the VAT base were narrower, as is common in Europe, the revenue-neutral rate would be about 25 percent.

ECONOMIC EFFECTS

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 both consume 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. As noted, however, 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 overall effect on labor supply is ambiguous.

Unlike the income tax, 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 saving. The combination of the VAT and UEITC and expanded CTC raise after-tax incomes of the bottom 80 percent of tax units 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.

Finally, if sharing the gains from economic growth more broadly boosts support for pro-growth policies and forestalls economically damaging policies such as trade and immigration restrictions and onerous labor market regulation, the indirect positive economic effects might be as significant as the direct effects.

EFFECTS ON LOW-INCOME FAMILIES

The UEITC would eliminate the impact of the EITC-related marriage penalties, which can be substantial under current law, on low- and moderate-income families. Some analysts argue that marriage could be an important route out of poverty. For example, Haskins and Sawhill (2003) point out that poor families are half as likely as nonpoor families to be headed by a married couple. Rector (2010) estimates that if single mothers in fragile families married the biological father of their child, their poverty rate would fall from 56 percent to 18 percent.

Some analysts are skeptical that pro-marriage policies could cure poverty. Ellwood (2000) finds little evidence that EITC marriage penalties discourage marriage.³³ However, given that many conservatives believe that marriage is an important path out of poverty, eliminating EITC marriage penalties might help build bipartisan support for the proposal.

To see how the proposal would affect low-income marriage penalties, consider a couple in which each partner earns \$20,000. Under the proposal, each would receive \$10,000 in wage credits, whether or not they are married, for a combined total of \$20,000. Under current law, if those two people were single and each had one child, each would qualify for \$3,856 in EITC in 2023, for a total of \$7,711. If they married, they would only qualify for \$3,658 in EITC because their combined income of \$40,000 would put them well into the EITC phaseout region. That amounts to a \$4,054 marriage penalty—a substantial disincentive to marry for a couple with modest income.

The UEITC could also help poor children even if it doesn't prompt their parents to marry. Many low-income single men have noncustodial children. Getting these men into the workforce with decent pay helps them develop work-related human capital (raising future earnings prospects), makes them more likely to make child support payments and stay connected with their children, and makes them a better role model for their children and more attractive as potential partners (Edelman, Holzer, and Offner 2006). And, as noted, higher family income has long-lasting positive effects on children.

COMPLIANCE ISSUES

The proposed UEITC will be simpler for households to comply with than the current-law EITC. Unlike the EITC, the UEITC does not conflate eligibility with presence of children, so the current-law tiebreaker tests that determine who claims the child in extended families are unnecessary. Many erroneous claims for the EITC are likely mistakes arising from the complex eligibility requirements rather than fraud.

In addition, workers with a single employer may arrange for that employer to advance the credit as a supplement to wages. Employers could be encouraged to participate by allowing them to claim credit for the advance UEITC payments against payroll and income tax withholding obligations. Most employers paying average wages of \$50,000 or more (excluding the UEITC) should have enough withholding to be able to offset the advance credit payments.³⁴ Those without sufficient withholding tax liability could claim a refundable credit against their business income taxes for any amounts advanced to employees. Employers who advance the credit to employees would have to report the credit on Form W-2.

Workers with only one employer who receive the advance credit would have no filing obligation to claim the UEITC. Workers with more than one employer who do not earn at least \$10,000 in any single job would have to claim all or part of the credit on their income tax return. Some workers may choose not to receive the advance

credit, or their employer may not offer the advance credit as an option. They would also have to claim the UEITC on their income tax return, as would self-employed people.

As under current law, several people might claim a CTC for the same child. The IRS has a procedure to detect multiple CTCs, but there is no guarantee that the credit is issued to the person authorized to claim it. As under current law, miscreants might try to steal children's Social Security numbers and use them to claim a refundable CTC before the IRS could determine that the filers were not eligible for the credits. This problem may be more severe under the proposal because the full amount of the credit is available even for taxpayers with no other income.

The biggest concern is that fraudsters would invent phantom self-employment income to claim the refundable UEITC. Self-employed people often evade taxes because their income is rarely verified by third parties. Higher-income filers tend to understate income and overstate deductions to avoid income tax, but EITC compliance studies have found many examples of low-income individuals overstating their income to claim a larger credit. Because the UEITC is larger than the EITC, the incentive to overstate income would be even greater.

President George W. Bush's tax reform panel (President's Advisory Panel on Federal Tax Reform 2005) proposed business tax simplifications that could improve compliance of self-employed people with all aspects of the income tax, including the UEITC. The panel proposed that small businesses use simplified cash basis accounting and special dedicated and easily audited bank accounts to track cash flow:

"To improve recordkeeping and compliance, the Simplified Income Tax Plan would require that small and medium-sized businesses use designated business bank accounts into which they would deposit all receipts and from which they would make business expenditures. Businesses would be prohibited from making personal expenditures out of, or from commingling personal and business funds in, these segregated business bank accounts. To aid small businesses in filing their returns and to improve compliance, banks would be required to provide small businesses with an annual summary of account inflows and outflows" (128).

Banks would report beginning and ending balances to the IRS. Fraud would not be impossible, but it would be much more difficult than it is under current law. And honest business owners would find meeting their tax obligations to be simpler.

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). While there is bipartisan support for modest increases in the tax credit for single workers, such increases 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), depresses those earners' labor force participation. 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. And they'd face lower burdens from the VAT or alternative financing mechanism.

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 is that universality would make it much more politically attractive and sustainable, as discussed previously.

WHY NOT ADOPT A UNIVERSAL BASIC INCOME?

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.³⁵ Milton Friedman suggested this 70 years ago 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 much more valuable to low-income households than other kinds of assistance.

The main disadvantage is that it does not encourage human capital formation and discourages labor force participation. And it could lead to increased dependency on government.

The politics of a UBI are daunting. Most voters are willing to support children and work, but many object to unconditional "welfare programs" because they think those programs aid "slackers" and people who aren't like them. Indeed, the recent trend has been to add work requirements to means-tested transfer programs like Medicaid and the Supplemental Nutrition Assistance Program.

In the short run, the effects of the UEITC and enhanced CTC might not differ that much from a UBI. The primary market problem at present is not that jobs are unavailable, but that they pay poorly. A wage credit deals with this shortcoming directly. However, if machines ultimately supplant human labor, it would be straightforward to transform the UEITC into a UBI. An efficient funding mechanism (the VAT) would already exist, which could make it politically easier to adopt a UBI, either as supplement to UEITC or as a replacement.

WHY PROPOSE A VAT?

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. (See the Revenue Effects section earlier in this report.) 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.³⁶ VAT rates in Scandinavia average 25 percent, 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 to 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 my discussion of universality in the Motivation section.) 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 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.

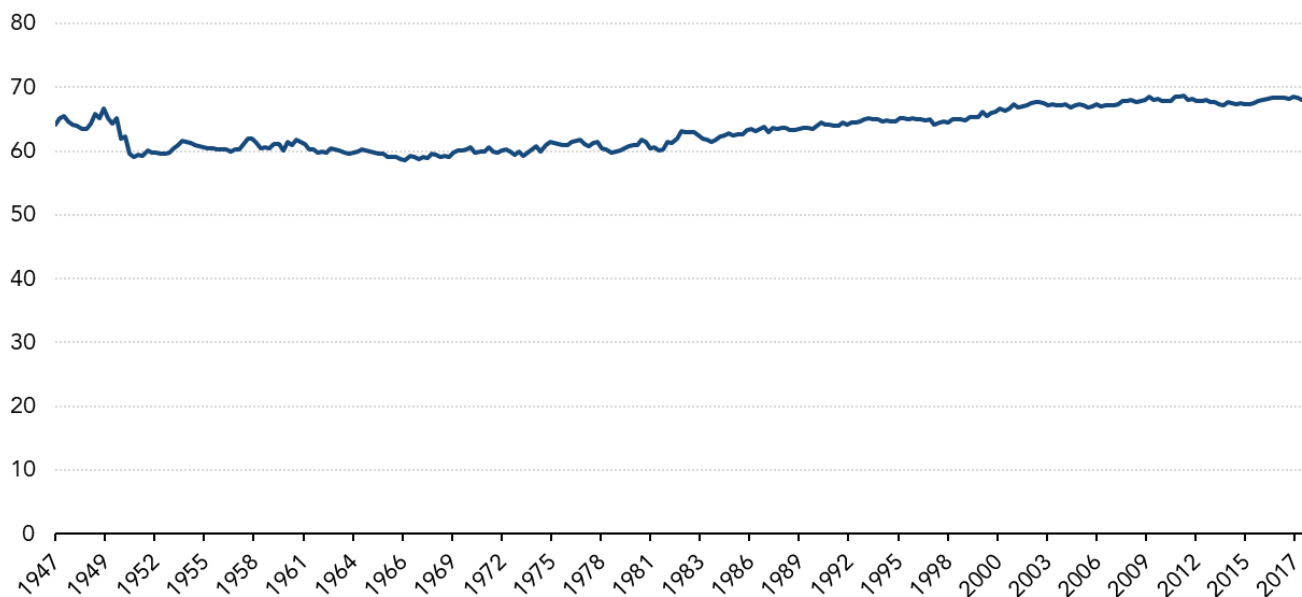
It would be important to make the connection between the VAT and the UEITC very clear and explicit. Voter support for a VAT would require understanding that it is part of a progressive social insurance program. Concerns from conservatives about a VAT fueling a rise in federal spending might be assuaged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

One might question whether VAT revenues would suffice to pay for the credits without major rate increases. VAT revenues tends to grow with GDP because the VAT base—personal consumption expenditures—does not vary much as a share of GDP. Over the past 15 years, the ratio of consumption to GDP remained in a narrow band of 67 to 69 percent (figure 7).³⁷

FIGURE 7

Quarterly Personal Consumption Expenditures as Percentage of GDP 1947 to 2018



Source: FRED. <https://fred.stlouisfed.org>. Series DPCERE1Q156NBEA.

Note: Not seasonally adjusted.

EFFECTS ON THE SOCIAL SECURITY PROGRAM

The UEITC could have complex interactions with the Social Security program. If it encourages more people to work, to work more hours, or to delay retirement, it would increase payroll tax revenues. However, the people most responsive to the work incentives are likely those with low earning potential who already can expect the highest replacement rate in future benefits. The UEITC would thus boost Social Security's finances in the short run, but not the long run.

The UEITC could boost the Social Security disability insurance (DI) program because it would significantly increase the incentive to return to work for disabled people who are able to work. Substantial impediments would remain for those on DI, including loss of disability insurance and Medicaid, the difficulty of getting back on DI if necessary, and often meager wages, but the UEITC would make working a more attractive option for some people.

A drawback of the proposal, as noted above, is that it would reduce the real value of current workers' expected Social Security benefits. The VAT could raise prices, which would erode the real value of workers' benefits, or it could translate into lower wages, which would reduce average indexed monthly earnings, which are the basis for Social Security benefits.

One solution would be to subject the UEITC to the Social Security payroll tax. Both the employer's and employee's share could be credited to the trust fund, and the UEITC could be included in wages for purposes of determining future benefits. The credit could be reduced by the amount of the payroll taxes. I do not show this in the distribution table because the additional payroll taxes would correspond to additional future benefits—and on favorable terms for low- and middle-income workers—so the lifetime burden of these additional taxes is negligible. However, it is an important design consideration if this proposal is implemented.

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 that offered at a community college, 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—those taking care 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, 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 credit was introduced in 1997. An automatic and permanent solution would be to index the CTC—like many other tax parameters, including the EITC—so that the maximum CTC automatically increases in nominal terms 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 VAT 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 would favor large families much more than current law. (A family reaches the maximum EITC at three children.)

And the program might be phased in more slowly to minimize market disruptions—both the upward pressure on prices from the VAT and the effect on labor markets of new entrants encouraged to work by the UEITC.

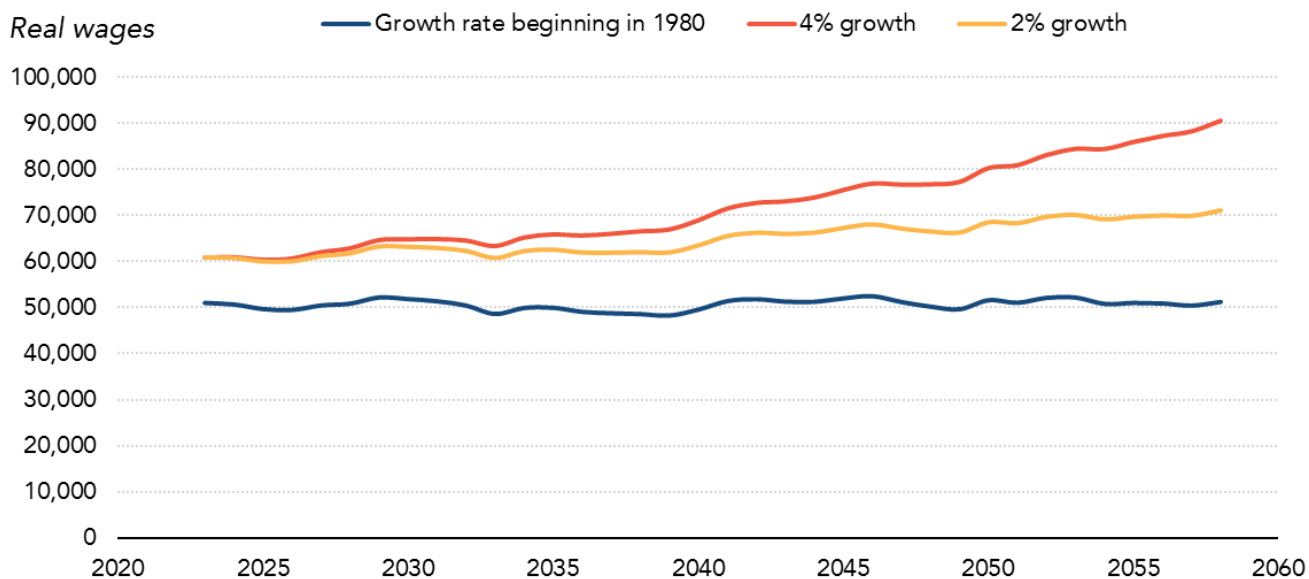
CONCLUSIONS

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 hasn't 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 (figure 8). 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.

FIGURE 8

How the UEITC Gives Middle-Skill Workers a Stake in Economic Growth



Source: US Census Bureau table P-38, and author calculations.

Note: Assumes wage is for full-time, full-year male worker, assumed to be the same in 2023 as in 1980.

The proposal has many other advantages over the status quo. It would reduce economic inequality. It would encourage labor force participation by noncustodial fathers, which would 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 \$132,900 of earnings in 2019. 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 is ready with 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.

APPENDIX

This appendix provides more detail about the assumptions inherent in the UEITC, expanded CTC, and VAT.

UNIVERSAL EARNED INCOME TAX CREDIT

In 2023, when fully phased in, the UEITC is a \$1 for \$1 refundable credit on individual earnings up to a \$10,000 cap. A married couple filing jointly could claim up to \$20,000 if both individuals earned \$10,000 or more. The cap would be phased in at \$2,500 per year between 2020 and 2023. The current-law EITC would be phased out proportionately over the same period.

The credit is available for all adults over age 16 who have wages or income from self-employment.

The UEITC would be included in adjusted gross income. The credit would also be included in modified adjusted gross income for calculating taxable Social Security benefits and for the limitation of IRA deductions. The credit would also be included in earnings for the 0.9 percent hospital insurance surtax.

Employee elective deferrals (i.e., contributions to defined-contribution retirement accounts) are included in earnings when calculating the UEITC. Other excluded fringe benefits (most notably, contributions to employer-sponsored health insurance, employer contributions to retirement accounts, and the employer portion of payroll taxes) are not included in the earnings base for calculating the credit.

People with self-employment earnings are eligible for the credit. Their credit is based on their earnings less their Self-Employed Contributions Act tax deduction.

CHILD TAX CREDIT

The CTC would increase by \$500 to \$2,500 per child for tax years 2020 through 2025 and to \$1,500 per child thereafter (when the current-law credit returns to \$1,000). The credit would be made fully refundable. This change would likely lead many current nonfilers to file to take the credit. I assume 80 percent of eligible nonfilers take the expanded credit in 2020, with that share increasing 2 percentage points a year to reach a final participation rate of 90 percent in 2025. Finally, I allow all child dependents to qualify for the newly expanded credit, rather than only children under age 17. We do not change the current-law requirement (through 2025) that only children with Social Security numbers are eligible for the full credit.

VALUE-ADDED TAX

The VAT would be a credit-invoice VAT, which is the model used almost everywhere in the world because it is easiest to administer. Sellers at every stage of production of goods and services consumed in the United States

are subject to tax on the price of goods sold; however, they receive a credit for VAT paid by their suppliers provided that the supplier can produce an invoice showing that the tax had been paid. Like other VATs, there would be a border tax adjustment designed to subject all sales to domestic consumers to the VAT regardless of whether they are produced here or overseas. Exporters thus receive a rebate for taxes paid. That is, they are exempt from US tax (although would often be subject to VAT in the importing country). Imports would be subject to the VAT.

I propose that the VAT apply to most consumption. It is very broad by international standards: most countries exempt food, medical care, and housing, and sometimes other items. A broader base simplifies the tax and makes it less prone to evasion. Perhaps most importantly, it allows significant revenue to be collected at relatively low tax rates. The primary disadvantage is that taxing necessities makes the broad-based VAT more regressive. A narrow-based VAT comparable to the taxes implemented in most other countries would require a rate of about 25 percent to raise the same amount of revenue.

As described by Toder, Nunns, and Rosenberg (2012), the broad-based tax excludes (zero-rates) a variety of consumption items for policy or administrative reasons. In addition, about 15 percent of the base would be lost to evasion and exemption of small businesses. And the net revenue is reduced by the burden the tax imposes on government; there would be grants to state and local governments to allow them to hold their real spending constant without raising taxes.

Overall, the adjustments make the effective VAT base about 60 percent of GDP.

- ¹ From a speech in Pueblo, Colorado, August 17, 1962.
- ² Self-employed workers could effectively get an advance on part or all of the anticipated tax credits by reducing their estimated tax payments. Those with lower income would receive the excess of the UEITC over their income and payroll tax liability as a refund on their income tax return.
- ³ Piketty and Saez posted updated estimates through 2017 at <https://eml.berkeley.edu/~saez/TabFig2017.xls>.
- ⁴ A working paper by Auten and Splinter (2018) made a number of changes to the way Piketty and Saez sort households into quantiles and measure income 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) surveys the evidence and concludes that both Auten and Splinter (2018) and Piketty and Saez (2003) are outliers.
- ⁵ "The Future of Jobs: The Onrushing Wave," *Economist*, January 18, 2014. <https://www.economist.com/briefing/2014/01/18/the-onrushing-wave>.
- ⁶ Arntz, Gregory, and Zierahn (2016), however, counter that the analysis overestimated the pace of displacement by focusing on occupations rather than tasks.
- ⁷ "The Future of Jobs: The Onrushing Wave."
- ⁸ 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 John Sides, Michael Tesler, and Lynn Vavreck, "Five Myths about the 2016 Presidential Election," *Washington Post*, October 5, 2018).
- ⁹ 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 earned income tax credit, and subsidies and technical assistance for communities disproportionately affected by automation.
- ¹⁰ For example, Meer and West (2016) 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" (500).
- ¹¹ 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.
- ¹² 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.
- ¹³ 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.
- ¹⁴ Isabel V. Sawhill and Christopher Pulliam, "Money Alone Doesn't Buy Happiness, Work Does," *Up Front* (blog), Brookings Institution, November 5, 2018, <https://www.brookings.edu/blog/up-front/2018/11/05/money-alone-doesnt-buy-happiness-work-does/>.
- ¹⁵ 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).

- ¹⁶ Mark Schmitt, “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-universal-programs-safety-net>.
- ¹⁷ The credit is available to workers age 16 and older who are not claimed as dependents on another tax return. (See the appendix.) Toder, Nunns, and Rosenberg (2012) define a very broad VAT base similar to the one applied in New Zealand. After accounting for changes in other taxes and outlays, VAT revenues approximately equal the VAT rate times 60 percent of GDP.
- ¹⁸ 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).
- ¹⁹ The wage credit is not included in the payroll tax base for several reasons. (1) The payroll tax is more regressive than the VAT because the Social Security portion is capped; thus, excluding the credit from the payroll tax base and increasing the VAT rate on a revenue-neutral basis raises the after-tax income of low- and middle-income people. (2) Including the credit in the payroll tax base complicates the proposal for people who have multiple jobs; they would have to compute self-employment tax—both the employer and employee portion of payroll tax on any credit they claim on their income tax return. (3) Employers would want to pass on the employer payroll tax on the credit in the form of a wage reduction, but it is unclear how that wage cut would be distributed.
- ²⁰ The wage credit rate would start at 25 percent and rise in 25 percentage-point increments until taking full effect in 2023. The VAT rate would start at 2.75 percent and increase in 2.75 percentage-point increments until reaching 11 percent in 2023. The EITC would be 75 percent of the amount allowed under current law in 2020, 50 percent in 2021, 25 percent in 2022, and zero thereafter.
- ²¹ Design and implementation details on the proposed wage credit, CTC, and VAT are in the appendix.
- ²² 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.
- ²³ Burman et al. (2005) 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.
- ²⁴ The separation of the EITC into wage and child credit components is not, however, a new idea. Jim Nunns suggested it to me in the late 1990s and my Tax Policy Center colleagues and others have made similar suggestions in the past. See, for example, Carasso et al. (2008). In 2003, the UK converted their working families tax credit (similar to the EITC) into a separate working tax credit and a CTC. “Eligibility for the basic Working Tax Credit is based on employment status and annual income, without regard to the presence of children” (US Department of the Treasury 2003, 48).
- ²⁵ 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.
- ²⁶ The likelihood of itemizing deductions rises with income, but the Tax Policy Center estimates that most married filers with incomes under \$500,000 and most single and head of household filers with incomes under \$200,000 will claim the standard deduction in 2018. See “Table T18-0001 – Impact on the Number of Itemizers of H.R. 1, the Tax Cuts and Jobs Act (TCJA), by Expanded Cash Income Level, 2018,” Urban-Brookings Tax Policy Center, accessed April 30, 2019, <https://www.taxpolicycenter.org/model-estimates/impact-itemized-deductions-tax-cuts-and-jobs-act-jan-2018/t18-0001-impact-number>.
- ²⁷ The 2023 tax parameter projections are from the supplemental tables to CBO, *Budget and Economic Outlook:2019 to 2029*. See <https://www.cbo.gov/system/files/2019-01/53724-2019-01-tax.xlsx>.
- ²⁸ The federal poverty guideline for a single person without children living in the continental United States in 2019 is \$12,490; the guideline rises by \$4,420 per child, which is more than the proposed \$2,500 CTC. See “2019 Poverty Guidelines,” accessed April 30, 2019, <https://aspe.hhs.gov/2019-poverty-guidelines>. If the UEITC were available in

2019, a single person working full time at the 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.

- ²⁹ All of the distributional tables adjust income for family size by dividing expanded cash income by the square root of the number of people in the tax unit. So a single person's income is unaltered; the income of a married couple with no children or a single head of household with one child would be divided by the square root of two; and a married couple with two children would have income divided by two.
- ³⁰ Neither changes in market wages nor gains in income for those induced to work more are reflected in 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.
- ³¹ The incidence effects could be significantly more complex. For example, Peri (2016) reports that 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" (24).
- ³² This differs from the federal government's budget accounts, which treat the refundable portion of tax credits as outlays (spending) rather than tax reductions. TPC treats refundable tax credits like other tax expenditures as reductions in tax receipts.
- ³³ *New York Times* reporter Annie Lowrey presents a nice survey of evidence. See Annie Lowrey, "Can Marriage Cure Poverty?" *New York Times*, February 14, 2014, <https://www.nytimes.com/2014/02/09/magazine/can-marriage-cure-poverty.html>.
- ³⁴ The break-even average salary depends on many factors. In 2023, a single worker earning \$50,000 would owe about \$11,836 in income and payroll tax (including the employer's share); a single head of household would owe about \$10,941 before credits, and a married filer would owe about \$10,022. The UEITC would increase income tax liability by \$1,200 (or more for the single filer), but the CTCs would reduce liability by \$2,500 per child for households with children. A further complication is that income tax withholding usually exceeds final income tax liability (most people get refunds). The distribution of salaries within a firm also matters. If there is a wide dispersion of salaries, average tax liability will be higher than if wages are more equal (because of progressive tax rates).
- ³⁵ 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 US would be "extremely expensive."
- ³⁶ See "2018 Worldwide VAT, GST and Sales Tax Guide," Ernst & Young Global Limited, accessed April 30, 2019, <https://www.ey.com/gl/en/services/tax/worldwide-vat-gst-and-sales-tax-guide---rates>.
- ³⁷ States sometimes object that a federal VAT could undermine the primary source of revenue in most states—sales taxes. Although the combined federal and state consumption tax rates could become high enough to make evasion a concern, the states could also piggyback on federal enforcement resources, as they do in administering state income taxes (Burman 2009).

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