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Suspending the Payroll Tax Will Increase Employment and Help Black Workers Most

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President Trump has said on multiple occasions that he supports a payroll tax suspension as a way to get Americans back to work. House Democrats have instead proposed among other policies, an extension until the end of the year of supplemental unemployment benefits as well as \$600 a week in worker payments that are currently scheduled to end on July 31.

This white paper examines the employment impact of the payroll tax suspension for all workers and black Americans in particular. We also compare the impact of the two alternatives. We find that the payroll tax cut would increase employment this year by between two to three million jobs and increase economic growth for the rest of the year by more than one percentage point. Since black Americans pay more payroll tax as a share of their incomes than do white Americans, black Americans would enjoy disproportionate benefits.

The Pelosi plan would, according to the Congressional Budget Office, provide higher pay to roughly five in six workers who lost their jobs during the economy lockdown for staying unemployed than getting back on the job. This policy would reduce employment by approximately ten million and increase the unemployment rate by six to eight points (after adjusting for the ongoing misclassification errors) compared to what they would be without the Pelosi plan.

Payroll Taxes in America

The payroll tax in America finances the Social Security system and Medicare benefits. The tax is levied half on employees and half on employers at a rate of 6.2% for Social Security (OASDI) and 1.45% for Medicare. Self-employed Americans pay the entire combined tax, or 15.3%.¹ The Social Security payroll tax is paid on wages and salaries of up to \$137,700. The Medicare tax is uncapped, with additional Medicare taxes on higher incomes and investment incomes, which combined make up more than a fifth of combined federal, state, and local government revenue.²

While payroll taxes are *de jure* paid by both the employer and employee in equal amounts, payroll taxes are *de facto* paid almost entirely by the employee. Tax incidence, the term indicating who pays the tax, is determined by the characteristics of supply and demand, not by tax legislation. Since labor supply is highly inelastic relative to labor demand, most of the employer-paid payroll tax falls on the employee in the form of lower wages.³

There are all sorts of different ways that the payroll tax could be suspended. One proposal, which has been advanced by economists Arthur Laffer, Steve Forbes, and Stephen Moore, would be to suspend the tax until the end of the year, December 31, 2020. Another proposal that has been suggested would be to simply cut the tax for the employees, but not employers. The U.S. Chamber of Commerce has suggested a suspension of the tax on employers, but not on employees. Some have advocated keeping the payroll tax suspended until the unemployment rate falls below some target rate, such as 10%.

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- 1 For the self-employed in 2020, the first \$137,700 of wages, tips, and net earnings is subject to Social Security and Medicare taxes. Any income over that is still subject to the 2.9% Medicare tax. IRS, "Self-Employment Tax (Social Security and Medicare Taxes)," <https://www.irs.gov/businesses/small-businesses-self-employed/self-employment-tax-social-security-and-medicare-taxes>.
 - 2 OECD, "Global Revenue Statistics Database," https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.
 - 3 Institute for Research on the Economics of Taxation, "Tax Incidence, Tax Burden, and Tax Shifting: Who Really Pays the Tax?" <http://iret.org/pub/BLTN-88.PDF>.

Another proposal would be to suspend the payroll tax for employers with less than 100 workers – which would apply to over 70% of all small businesses.⁴ Another variation of the plan would be to suspend the tax on employees, but only on incomes up to \$75,000 or \$100,000.

Proposals that limit the tax cut would have proportionally lower benefits in terms of the impact on work and hiring incentives and thus would reduce employment and output benefits. They would also distort productivity by generating a tax-induced reallocation of resources away from activities paying the full tax and toward the selected activities afforded the holiday.

All the plans that we have seen would fully compensate the Social Security and Medicare “Trust Funds” of any lost revenues from the temporary tax cut. These funds would be compensated with government bonds so that there would be no negative solvency effects on the ability of the Social Security and Medicare systems to pay benefits now or in the future. This was an approach that was taken under President Barack Obama, when a temporary payroll tax cut was enacted. We assume that, after the recession is over, the additional debt is serviced with permanent budget changes that do not affect marginal tax rates on labor income.

Results

One of us, Mulligan, has estimated the employment and output impacts of several variations of the payroll tax cut. It uses the neoclassical growth model with factor-income taxes as implemented by Mulligan (2012).⁵

Table 1 shows the simulation results. For the moment, we depart from the President’s proposal of a temporary tax holiday and begin with the conceptually simpler case of a permanent tax cut. With a baseline marginal labor income tax rate of 48% and a Frisch wage elasticity of labor supply of $\frac{1}{2}$, eliminating the employee part of OASDI taxes by itself increases long-run full-time equivalent (FTE) employment by 4.5 million and the level of GDP by 2.0 percent.⁶ Eliminating all OASDI taxes (i.e., employer and employee) increases FTE employment by 8.6 million and GDP by 3.8 percent. Eliminating all payroll taxes (including 2.9% Medicare) increases FTE employment by 10.7 million and GDP by 4.9 percent.

The employment effects shown in the first column are the long-run effects of a permanent tax cut. In order to begin making short-run inferences from the long run effects, the GDP effects in the second column have been scaled by labor’s share (0.7) in order to abstract from changes in the capital stock, which, by definition, would be insignificant in the short run.

4 United States Census Bureau, “2017 SUSB Annual Data Tables by Establishment Industry,” March 2020, <https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html>.

5 Mulligan, C. (2012). Is Macroeconomics Off Track? In Edlin A., Stiglitz J., DeLong B., Gale W., Hines J., & Zwiebel J. (Eds.), *The Economists’ Voice 2.0: The Financial Crisis, Health Care Reform, and More* (pp. 181-187). New York: Columbia University Press. doi:10.7312/edli16014.25

6 Each employee contributes to our definition of full-time equivalent according to the ratio of his/her weekly work hours to 34.7, which was the average weekly hours in May 2020. United States Bureau of Labor Statistics, *Average Weekly Hours of All Employees, Total Private [AWHAETP]*, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/AWHAETP>, June 27, 2020.

In the short run, the additional employment might be less, as employers take time to adjust, or the additional employment might be greater, to the extent that the tax cut is temporary and thereby having less of an effect on permanent income. The final columns of Table 1 show the impact of a payroll tax cut for six months, perhaps July 1, 2020 through December 31, 2020, assuming that they are one fourth of what we estimated in the first two columns. The full suspension of the tax results in 2.7 million additional jobs and a boost of the level of GDP by 1.2 percent. In other words, for 2020, instead of having a growth rate of, say, -5% for the year, the growth rate with the payroll tax suspension would be -3.8%.

Table 1. The Economic Impact of Cutting Payroll Taxes, Permanently and for Six Months

Scenario	Long Run		After 6 Months	
	Millions Employed	Real GDP, %	Millions Employed	Real GDP, %
Cut Employee OASDI Only	4.5	2.0%	1.1	0.5%
Cut all OASDI	8.6	3.8%	2.1	0.9%
Cut employee OASDI & HI	9.6	4.3%	2.4	1.1%
Cut all payroll tax	10.7	4.9%	2.7	1.2%

In the appendix below, we summarize the methodology of these estimates.

Impact of Payroll Tax Cut on Black Americans

Many analyses have shown that black Americans have suffered a disproportionately adverse impact of the Coronavirus shutdown from March through June.⁷ This is partly because low wage workers suffered the largest wage losses. The Federal Reserve reported that 40% of workers earning less than \$40,000 a year lost their jobs.⁸ These are much heavier job losses than those with incomes above \$100,000 and because black earnings are lower, they saw severe job losses. The WSJ has reported this disparate impact on blacks.⁹

Furthermore, black businesses suffered heavy and disproportionate losses. An NBER report by Professor Robert Fairle, an economist at University of California, Santa Cruz, in June 2020 found that from February through April, the number of active black businesses fell by 41%. Immigrant businesses

7 United States Bureau of Labor Statistics, "Table A-2. Employment Status of the Civilian Population by Race, Sex, and Age," <https://www.bls.gov/news.release/empst.t02.htm>.

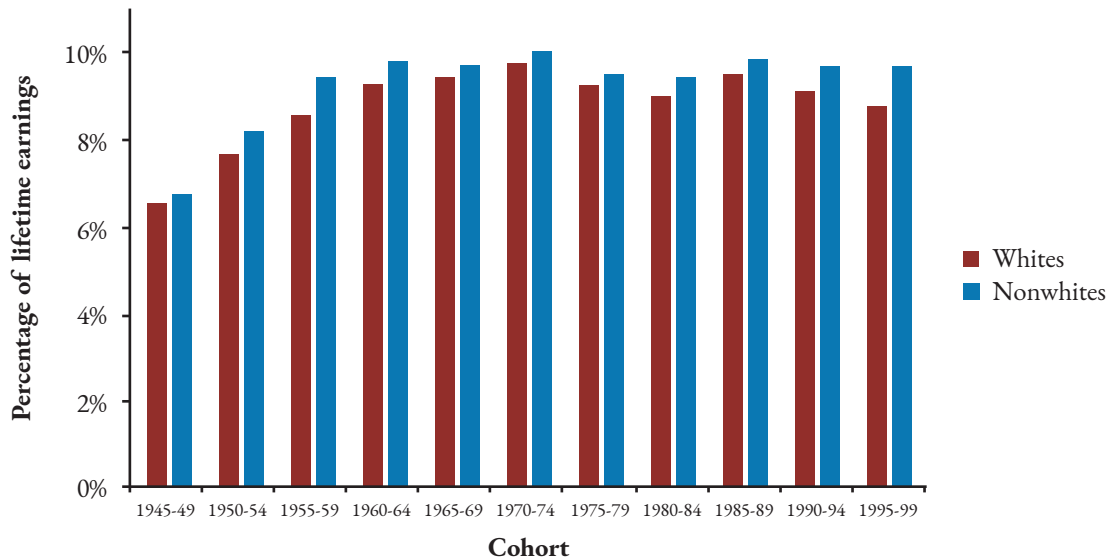
8 Board of Governors of the Federal Reserve System, Speech, "Current Economic Issues," by Chair Jerome Powell, May 13, 2020, <https://www.federalreserve.gov/newsevents/speech/powell20200513a.htm>.

9 The Wall Street Journal, "Lockdowns Hit Minority Businesses," June 14, 2020, <https://www.wsj.com/articles/lockdowns-hit-minority-businesses-11592167529>.

fell by roughly 37%. Latino businesses fell by 32% and all businesses fell by roughly 24%. About 440,000 black businesses “disappeared” over this period.¹⁰

It may make sense for temporary public policies designed to alleviate the job loss and business bankruptcy damage to focus on those who suffered the most. If that is the objective of Congress and the White House, the benefits of the payroll tax cut clearly target minorities. This is because blacks pay a larger share of their income in payroll taxes than do whites.¹¹ Earlier cohorts are shown in Figure 1.

Figure 1. Average Payroll Tax Rates are Greater for Nonwhites



Source: Caldwell et al. NBER working paper No. 6603, June 1998. Tables 6 and 7.

Blacks pay a higher share of their income in payroll taxes for several reasons. First, their earnings are lower, and fewer blacks hit the earnings ceiling on the OASDI tax. One study found that whites are 2-3 times more likely to earn over the earnings cap for OASDI taxes.¹² Second, employer-sponsored health insurance is deductible from the payroll tax (and income tax too), but blacks are less likely to have that (47% versus 71%).¹³

10 The National Bureau of Economic Research, “The Impact of Covid-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey,” <https://www.nber.org/papers/w27309>.

11 Millennial nonwhites are expected to pay an 11 percent greater share of their lifetime earnings in payroll tax than whites of the same age, 0.097 versus 0.088. The National Bureau of Economic Research, “Social Security’s Treatment of Postwar American,” <https://www.nber.org/papers/w6603>.

12 Urban Institute, “African American Economic Security and the Role of Social Security,” https://www.urban.org/sites/default/files/publication/100697/african_american_economic_security_and_the_role_of_social_security.pdf.

13 Kaiser Family Foundation, “Health Coverage by Race and Ethnicity: The Potential Impact of the Affordable Care Act,” <https://www.kff.org/disparities-policy/issue-brief/health-coverage-by-race-and-ethnicity-the-potential-impact-of-the-affordable-care-act/>.

The Impact of Extending the Unemployment Bonus

Earlier this year, the House of Representatives passed a bill that would extend full unemployment benefits and the extra \$600 a week bonus to unemployed workers through the end of 2020. Currently, these extra benefits are expected to end on July 31, 2020.

Prior to the Cares Act, maximum regular unemployment benefits per week for a single person ranged from \$235 in Mississippi to \$823 in Massachusetts. Benefits generally provided unemployed workers between one-third to one-half of their salaries.

According to a recent CBO study: “extending that \$600 per week benefit increase for six months through January 31, 2021, would mean ... roughly five of every six recipients would receive benefits that exceeded the weekly amounts they could expect to earn from work during those six months.”¹⁴

The directional effect of the unemployment bonus is clear: when you subsidize something, you get more of it.¹⁵ Extending the unemployment bonus will result in more unemployment. Estimating the amount is challenging because the \$600 bonus is approximately twenty times the bonus paid in the 2009 Recovery Act and thereby well outside the range of historical experience. The current congestion of state unemployment systems is also well outside the range of historical experience. Our best estimates provided here are therefore nonetheless uncertain.

We have modeled the congestion of the unemployment system together with labor market equilibrium to obtain a conservative estimate for the employment effect of the \$600 bonus. The model is shown in the appendix and illustrates why extending the bonus would likely reduce employment by more than ten million below what it would be if the bonus ended on schedule, on July 31. Ten million unemployed is more than 6 percent of the labor force and would therefore add more than 6 points to the unemployment rate.

Using Okun’s law and other aggregate rules of thumb, Drew Gonshorowski and Rachel Greszler (2020) estimate that the \$600 bonus could increase unemployment by 13.9 million (an addition of more than eight points to the unemployment rate) and reduce annualized GDP by about \$1.49 trillion.¹⁶ We presume that some of the extra unemployment comes from out of the labor force and the other part from reduced employment. Therefore, their results are remarkably similar to ours despite the fact that the methods and empirical inputs have little in common.

14 Congressional Budget Office, “Economic Effects of Additional Unemployment Benefits of \$600 per Week,” <https://www.cbo.gov/publication/56387>.

15 In principle an unemployment bonus changes the composition of national spending, such as increasing spending on necessities and reduced spending on luxuries. As analyzed in detail by Mulligan (2012), the composition of spending is different from the total amount of spending (including investment spending), which is reduced by an unemployment bonus. Moreover, because the \$600 bonus causes many of its recipients to earn more than they do at work, it might increase spending on luxuries.

16 The Heritage Foundation, “The Impact of Additional Unemployment Insurance Benefits on Employment and Economic Recovery: How the \$600-per-Week Bonus Could Backfire,” <https://www.heritage.org/jobs-and-labor/report/the-impact-additional-unemployment-insurance-benefits-employment-and-economic>.

Conclusion

The major argument against suspending the payroll tax is that “it only helps those who already have a job.” Even putting aside the fact that many jobless people live in a household with somebody employed¹⁷, this analysis refutes that claim.

The payroll tax suspension increases the benefit from working via a higher after-tax income and reduces the cost of hiring to employers. The net effect of these incentive shifts would be to create somewhere between 2 to 3 million jobs for the rest of the year. These are benefits to those who would otherwise be unemployed. This is a far superior economic outcome than the Pelosi proposal to extend unemployment benefits through the end of the year, which would mean 10 million jobs lost. That proposal, according to the CBO, would pay at least three of four workers who lost jobs during the economic shutdown more money in unemployment benefits than those workers made while employed. This would cost the economy several million jobs in 2020 while reducing GDP.

Finally, black Americans, who lost the most income from the economic lockdown, would benefit from the payroll tax cut more than their white counterparts. If the goal of a Phase 4 plan is to grow the economy and put Americans back to work, then the right choice is the payroll tax cut, and it isn’t even a close call.

17 The National Bureau of Economic Research, “Households vs. Personal Accounts of the U.S. Labor Market, 1965-2000,” <https://www.nber.org/papers/w10320>.

Appendix

The Macroeconomic Effects of Payroll Taxes

We model the steady state of the economy with and without payroll taxation. In the baseline with full payroll taxation, labor income taxes finance various social programs. r denotes the total spending on those programs. The marginal labor income tax rate in the baseline is denoted τ .

We use the following utility function over real consumption c and work n :

$$u(c, n) = \ln c - \gamma \frac{\eta}{\eta + 1} n^{(\eta+1)/\eta}$$

where the constant γ is positive. The function has its Frisch wage elasticity of labor supply equal to the constant $\eta > 0$.

The steady-state equilibrium is described by:

$$\begin{aligned} c &= n \\ (1 - \tau) &= cn^{1/\eta} \end{aligned}$$

where we have normalized the efficient amount of labor, and therefore the disutility parameter γ , to one.¹⁸ The government budget constraint is . The economy is assumed to be on the upward-slope part of the Laffer curve and therefore steady-state tax rate cuts result in cuts in the spending r .¹⁹

The marginal tax rate exceeds the average rate in this model only due to the implicit tax expenditure on private health insurance. In practice, exemptions and benefit phase-ins are another reason that marginal exceeds average.²⁰ For example, the National Bureau of Economic Research shows the average marginal Federal personal income tax rate to be about 23 percent, whereas Federal personal income tax revenue is only about 14 percent of aggregate Adjusted Gross Income, or about nine percentage points less than the average marginal rate.²¹ Inclusive of implicit employment and income taxes (Mulligan 2012, 2015) finds that the average marginal rate likely exceeds the average rate by 15 to 20 percentage points.

18 This is the same model used in the 2019 Economic Report of the President to simulate effects of “Medicare for All.” The notation suppresses reference to capital. The neoclassical growth model has constant returns to capital and labor and an infinitely elastic long-run supply of capital, thereby pinning down the steady state marginal product of labor and the steady state ratios for capital-labor, gross output-labor, and net output-labor independent of the labor-tax rate (Mulligan 2012, Chapter 5). A normalization of the productivity parameter therefore makes the net output-labor ratio equal to one, so that n in our notation refers to both labor and net output.

19 Reducing spending itself could raise or lower marginal tax rates, depending on how the spending cuts are related to means-testing. To the extent that a payroll tax cut is temporary and corresponding spending cuts spread over time, the near-term effects on employment through spending may be negligible.

20 On the other hand, social security benefits linked to earnings histories (Feldstein and Samwick 1992) and caps on parts of the payroll tax reduce marginal tax rates without commensurate reductions in average tax rates.

21 <https://www.irs.gov/pub/irs-soi/14in11si.xls>. Spending in our notation therefore also includes any negative-income tax aspects of government programs, such as the earned-income tax credit.

We take 15 percentage points to be conservative as to the baseline marginal tax rate.

According to the BEA, total tax collections at all levels of government are 33 percent of national income. We therefore take the baseline marginal rate to be 48 percent. Our simulation assumes 6 percent of employees have baseline marginal OASDI of zero. It assumes that 23 percent of baseline labor income is generated by these employees.

Unemployment bonuses and benefit congestion in labor market equilibrium

Four parameters are sufficient to bound the employment impact dn of a UI benefit cut. Those parameters are: the number UI of people on UI, an impact $db < 0$ on the UI benefit level (expressed as a share of equilibrium after-tax income from work at the lower benefit level), the labor supply elasticity $es > 0$, and the labor demand elasticity $ed < 0$. The bounding formula is

$$dn > \frac{ed}{es - ed} d(b UI) > \frac{-ed}{es - ed} UI db > 0$$

The second term is what the employment impact would be if all of the unemployed were indifferent between UI and no UI due to costs of program participation (PP cost) associated with hassle, congestion, or stigma. In other words, equilibrium requires that reducing the bonus by \$600 is associated with a \$600 reduction in the PP cost.

In reality, some of the workers on the margin between work and not do not experience such a large reduction in their PP costs and are thereby drawn into work by a benefit cut more than the second term suggests, which is why the first inequality is an inequality rather than an equation.

The comparison of the second and third terms follows from the assumption that a benefit cut reduces UI as well as b .

Ganong, Noel, and Vavra (2020) find the median replacement rate of UI under the CARES act of 134 percent. At a benefit level of \$1000 per week, the corresponding weekly earnings is $1000/1.34 = \$746$. Cutting UI benefits by \$600 per week is therefore $db = -600/746 = -0.8$. Using $ed = -2$ and $es = 1/2$ and bounding with the third term above, the bound is:

$$dn > 0.8 UI 0.8 = 0.64 UI$$

In other words, almost two-thirds of those on UI are out of work because of the \$600 bonus. Evaluated at UI participation of 20 million (at the time of our writing this), cutting UI benefits by \$600 per week increases employment by at least 12.8 million. If UI participation has fallen to 15 million by August, when the original bonus would no longer be in effect, then the employment bound is 9.6 million.



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