

RESEARCH REPORT

Comparing Democratic and Republican Approaches to Fixing Social Security

An Analysis of the Larson and Johnson Bills

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Acknowledgments

This report was funded by the Alfred P. Sloan Foundation. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

We are grateful to Melissa Favreault for valuable comments on an earlier draft. Karen Smith and Melissa Favreault direct DYNASIM development at Urban. Doulas Murray, Damir Cosic, and Aaron Williams also made important contributions to the model.

Comparing Democratic and Republican Approaches to Fixing Social Security

Social Security, the nation's largest federal program that provides crucial cash payments to retirees; peoples with disabilities; and their spouses, survivors, and dependents, is projected to begin running annual deficits next year for the foreseeable future, threatening its ability to pay full benefits within the next 15 years (Board of Trustees 2020). This looming shortfall may soon prompt Congress to address Social Security's finances. But Democrats and Republicans have taken different approaches to changing Social Security, which could make a consensus difficult. Democrats generally emphasize raising revenues, whereas Republicans typically focus on cutting benefits.

In this report, we assess how one prominent Democratic Social Security plan and one prominent Republican Social Security plan would affect workers, beneficiaries, and program finances. The Democratic plan, the Social Security 2100 Act, was introduced in 2019 by Representative John Larson (D-CT), chairman of the Social Security subcommittee of the US House of Representatives' Ways and Means Committee, with more than 200 cosponsors.¹ It would change the benefit formula to increase payments to all beneficiaries, boost cost-of-living adjustments (COLAs), expand the minimum benefit, increase the payroll tax rate, gradually eliminate the cap on earnings subject to the payroll tax, and reduce the number of beneficiaries who pay income taxes on their benefits. The Republican plan, the Social Security Reform Act, was introduced in 2016 by former representative Sam Johnson (R-TX) when he chaired the Social Security subcommittee of the Ways and Means Committee.² Major provisions in his plan include raising the retirement age, changing the benefit formula to increase payments for low lifetime earners and reduce them for high lifetime earners, lowering COLAs, limiting benefits for higherincome spouses and children of beneficiaries, raising the minimum benefit, eliminating federal income taxes on benefits, and boosting payments for long-term beneficiaries.

We simulate how Larson's and Johnson's plans would affect Social Security benefits, payroll tax payments, the share of beneficiaries with low incomes, and program finances. We compare outcomes for each plan to each other and to current law. Our analysis includes two versions of current law, payable and scheduled. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula and ignores any revenue constraints. We report payments to adults receiving disability, old age, or survivor benefits, and we often focus on outcomes in 2065, when each plan's provisions would be fully phased in. Our analysis also examines lifetime outcomes. We compute lifetime measures of Social Security payroll taxes and benefits and compare lifetime benefits with lifetime taxes. When examining payroll taxes, our analysis includes the tax levied on both workers and their employers because we make the standard assumption that employers pass the cost of the payroll tax onto workers through reduced wages. We show how outcomes vary by demographic and economic characteristics, including lifetime earnings quintiles. Our study builds on earlier analyses of these plans by the Congressional Budget Office (2019), the Penn Wharton Budget Model (2019b), and the Social Security actuaries.³

The analysis uses the Dynamic Simulation of Income Model 4 (DYNASIM4), the Urban Institute's unique dynamic microsimulation tool. The current version of DYNASIM4 uses the 2019 Social Security trustees' intermediate demographic and economic assumptions (Board of Trustees 2019), which do not incorporate the potential effects of the COVID-19 pandemic and the associated economic slowdown, which has reduced Social Security's payroll tax revenue. Consequently, our projections may understate Social Security's long-term deficit. After the current recession began, the Congressional Budget Office (2020), which uses different demographic and economic assumptions than the Social Security actuaries, estimated that the trust funds would run out in 2031, one year earlier than its prerecession projection. The appendix details our methods.

Our projections show that both plans would balance Social Security's revenue and spending over the next 75 years, eliminating the program's long-term funding shortfall. However, they would take divergent paths to that goal. The benefit enhancements in Larson's plan, made possible by the plan's payroll tax expansions, would increase projected payments to beneficiaries even above what current Social Security benefit rules would provide if adequate funds were available. Projected benefits would increase for all major demographic and economic groups, but beneficiaries with lower incomes and lifetime earnings would gain most on a percentage basis. Johnson's plan would shrink projected benefits, especially for higher-income beneficiaries. However, the plan would pay lower-income beneficiaries more than they would receive under current law if Social Security's trust funds ran out and policymakers did not shore up program funding. We project that both plans would substantially reduce future poverty rates for adult Social Security beneficiaries below the rates that would prevail if the trust funds ran out and all beneficiaries experienced the same percentage cut in payments.

How Each Plan Would Change Social Security Rules

Both Larson's and Johnson's plans would change the rules determining Social Security benefits and the taxes levied to pay for them, but they take different approaches. Table 1 summarizes the key provisions in each plan.

TABLE 1

Key Changes in Johnson's and Larson's Social Security Plans

Provision	Larson	Johnson			
Benefit formula	Increase the first replacement rate from 90% to 93%	Increase the first replacement rate from 90% to 95% and reduce other replacement rates; base benefits on annual earnings in top 35 years			
Cost-of-living adjustments	Increase them by tying them to the CPI for the elderly	Reduce them by tying them to the chained CPI and eliminate them for high-income beneficiaries			
Minimum benefit	Set equal to 125% of the FPL for beneficiaries with at least 30 years of covered employment	Set equal to 35% of the national average wage for beneficiaries with at least 35 years of covered employment			
Full retirement age	No change	Increase gradually from age 67 to 69			
Delayed retirement credit	No change	Extend credits to 3 years beyond the full retirement age			
Bonus for long-term beneficiaries	No	5% bonus for beneficiaries who have been collecting for 20 years			
Spouse and child benefits	No change	Cap at 50% of the PIA for beneficiaries who earned the national average wage throughout their career			
Retired government employees	No change	Change the way Social Security reduces benefits for some government retirees			
Payroll tax rate	Gradually increase the rate, now 12.4%, until it reaches 14.8% in 2043	No change			
Contribution and benefit base	Expand to include all earnings above \$400,000 a year	No change			
Income taxation of benefits	Reduce taxes by increasing income tax thresholds	Gradually eliminate the income tax on benefits			

Source: Social Security 2100 Act; Social Security Reform Act of 2016.

Notes: CPI = consumer price index; FPL = federal poverty level; PIA = primary insurance amount. Johnson's plan would also eliminate the retirement earnings test, drop the age requirement for benefit eligibility for the disabled surviving spouses of deceased beneficiaries, eliminate the seven-year limit on benefits to disabled surviving spouses, and allow beneficiaries to collect part of their delayed retirement credit as a lump sum.

Social Security Benefit Formula

Social Security replaces a portion of the top 35 years of a worker's wage-indexed earnings. The current benefit formula is progressive. For workers turning 62 in 2020, Social Security's basic benefit, known as the primary insurance amount (PIA), equals 90 percent of their first \$960 of average indexed monthly

earnings, or AIME (\$11,520 annually) plus (1) 32 percent of the next \$4,824 in AIME and (2) 15 percent of AIME above \$5,785 (\$69,420 annually). The benefit formula counts only earnings included in the program's contribution and benefit base, which in 2020 is limited to annual earnings up to \$137,700. That limit increases over time with average earnings growth.

Both plans would change the benefit formula. Larson's plan, which would adjust the formula for both new and current beneficiaries, would increase the first replacement rate in the benefit formula from 90 percent to 93 percent, boosting payments to all beneficiaries.

Johnson's plan, which would take effect in 2023, would shift benefits from higher-income people to lower-income people by increasing the benefit formula's replacement rate for the first dollars earned by a worker; reducing the replacement rate for higher earnings; and creating a new, very low replacement rate for the highest earnings. Under his plan, for workers turning 62 in 2023, Social Security would replace 95 percent of their first \$1,211 of average indexed monthly earnings (\$14,532 annually), 27.5 percent of the next \$3,632 in average monthly earnings, 5 percent of the next \$1,210 in average monthly earnings, and 2 percent of covered earnings above \$6,053 (\$72,636 annually). Johnson's plan would tie the benefit formula bend points to the national average wage index. The first bend point would equal 25 percent of the national average wage, the second bend point would equal 100 percent of the average wage, and the third bend point would equal 125 percent of the average wage. Instead of applying the benefit formula to AIME computed over a worker's top 35 years, Johnson's plan would compute the PIA by applying the formula to a worker's AIME each year, adding those benefit amounts for a worker's top 35 highest earning years and dividing the sum by 35. This provision would generate a lower benefit for workers with high earnings and relatively few work years than for workers employed for many years at low wages. His plan would phase in the new benefit formula for new beneficiaries between 2023 and 2032.4

The benefit formula change in Larson's plan would increase payments 3.3 percent for beneficiaries with the lowest lifetime earnings and only about 1 percent for beneficiaries with the highest earnings (figure 1). The benefit formula change in Johnson's plan would increase benefits 5.6 percent for the lowest lifetime earners and reduce benefits about 30 percent for the highest lifetime earners.

FIGURE 1

Current law Johnson Primary insurance amount Larson \$3,500 \$3,000 \$2,500 \$2,000 \$1,500 \$1.000 \$500 \$0 \$0 \$1,000 \$2,000 \$3,000 \$4,000 \$5,000 \$6,000 \$7,000 \$8,000 \$9,000 \$10,000 \$11,000 Average indexed monthly earnings

Relationship between Social Security's PIA and AIME, 2023

Under current law and the Larson and Johnson plans

Source: Authors' calculations.

Notes: Larson's benefit provisions would go into effect for all beneficiaries beginning in 2020. Johnson's benefit provisions would go into effect for new beneficiaries beginning in 2023 and would phase in over 10 years. The figure shows outcomes under current law and each plan for workers who turn 62 in 2023, and assumes that Johnson's plan has fully phased in.

Minimum Benefit

Both plans would increase Social Security's minimum benefit, especially for beneficiaries with long careers. Social Security currently includes a minimum benefit, but it is too low to help many beneficiaries (Feinstein 2013). Larson's plan would include a new minimum benefit equal to 125 percent of the federal poverty level (FPL) for a single adult; it would be available to beneficiaries with at least 30 years of covered employment. In 2020, the plan's rollout year as specified in the 2019 bill, the minimum benefit would be tied to the 2019 poverty guidelines, and the minimum benefit would subsequently increase with the change in the average wage index, which generally grows faster than inflation. In

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2023, the full minimum benefit would equal \$17,399 annually. Beginning in 2023, Johnson's plan would include a new minimum benefit equal to 35 percent of the national average wage index two years before initial benefit eligibility, or \$20,399 annually in 2023, for beneficiaries with at least 35 years of covered employment.

Both Larson's and Johnson's plans would prorate the minimum benefit for beneficiaries with at least 11 years of covered employment but not enough years to qualify for the full minimum benefit, so the minimum would increase with years of covered employment.⁵ Johnson's plan would provide a larger benefit than Larson's plan for all covered workers (figure 2). However, Johnson's plan would set a higher earnings threshold than Larson's plan to qualify for a year of employment. In 2023, workers would need to earn at least \$12,559 annually to qualify for a year of employment under Johnson's plan, compared with only \$6,280 under Larson's plan. Those thresholds increase over time with the change in the average wage index. Under both plans, the minimum would cover only new beneficiaries, so its full impact would not be felt for decades.

FIGURE 2

Annual Minimum Benefit Provided by Larson's and Johnson's Plans by Years of Covered Employment, 2023



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Notes: Figure shows the annual minimum benefit that each plan would provide in 2023.

Source: Authors' calculations for a hypothetical beneficiary.

Cost-of-Living Adjustments

Both Larson's and Johnson's plans would change the way Social Security adjusts payments to beneficiaries for changes in the cost of living. Currently, these COLAs are based on changes in the consumer price index for urban wage earners and clerical workers. Larson would instead tie them to changes in the consumer price index for the elderly, which is based on spending by adults age 62 and older and their families. The elderly index weights health care spending more than the standard index and generally increases faster than the standard index as well (Bureau of Labor Statistics 2012). The Social Security actuaries assume this change would increase COLAs 0.2 percentage points each year.⁶

Johnson's plan would eliminate COLAs for high-income beneficiaries and generally reduce them for other beneficiaries. Under his plan, beneficiaries would not be eligible for a COLA if their income was high enough to require them to pay income-related premiums for Medicare Part B. That income threshold, which increases with the change in the consumer price index, is \$87,000 for a single adult and \$174,000 for a married couple in 2020.

For beneficiaries who qualify, Johnson's plan would tie COLAs to the change in the chained consumer price index. The chained consumer price index, a supplement to the consumer price index computed by the Bureau of Labor Statistics, is designed to provide a more realistic measure of how consumers' costs change than the standard index. The consumer price index measures changes in living expenses by comparing over time the cost of a fixed basket of goods and services. But people usually alter their spending patterns when relative prices shift, substituting more expensive items with similar, less expensive items. By accounting for this tendency, the chained consumer price index grows more slowly than the standard index. Between 2000 and 2020, the chained index grew at an average annual rate of 1.8 percent, compared with 2.1 percent for the standard consumer price index.⁷ Johnson's proposal, then, would generally reduce Social Security COLAs.

Other Benefit Changes

Johnson's plan would also gradually increase Social Security's full retirement age from 67 to 69. Under current law, the full retirement age is 67 for people who turn 62 in 2022.⁸ Johnson's plan would increase the full retirement age to 67 years and three months for people who turn 62 in 2023, and it would increase the retirement age an additional three months for each successive birth cohort until it reaches 69 years for people turning 62 in 2030. People would still be able to collect benefits as early as age 62, the early entitlement age, but early retirees would be subject to steeper actuarial reductions. Beneficiaries turning 62 in 2030 who begin collecting at that age would receive monthly benefits equal

to 50 percent of their full scheduled benefit under Johnson's plan, compared with 70 percent of their full scheduled benefit under current law. Consequently, the proposed increase in the full retirement age is equivalent to an across-the-board benefit cut.

People who delay collecting Social Security past their full retirement age are entitled to delayed retirement credits that increase their monthly benefits 8 percent for every year they delay up to age 70. Johnson's plan would extend delayed retirement credits to three years past the full retirement age, meaning to age 72 for people who turn 62 in 2030 and beyond. Beneficiaries also would be allowed to collect part of those credits as a lump sum.

Johnson's plan includes several other benefit changes. It would provide a bonus to beneficiaries who had been collecting payments for 20 years if their income fell below a threshold. The plan would set the threshold at \$25,000 in 2023, the first year that the bonus would be available, and adjust it in subsequent years with the change in the chained consumer price index. The bonus would equal 1 percent of a lifetime average earner's PIA after 20 years of receipt and would increase to 5 percent of a lifetime average earner's PIA after 24 years of receipt.⁹ Johnson's plan would also cap spouse and child Social Security benefits at 50 percent of the PIA assigned to workers who earned the national average wage throughout their careers.

Other benefit changes included in Johnson's plan would affect relatively few beneficiaries. His plan would change the way Social Security reduces benefits for workers receiving significant government pensions from jobs not covered by Social Security. Under Johnson's plan, Social Security would include both covered and noncovered earnings in the AIME calculations to calculate a government worker's PIA and then multiply the PIA by the ratio of covered to total earnings. This method effectively pays workers with uncovered earnings a benefit that reflects the replacement rate applicable for workers with the same career earnings who received only covered earnings. The program currently provides benefits to the disabled surviving spouses of deceased beneficiaries only if they are at least 50 years old and the survivor's disability began no more than seven years after the deceased spouse's death. Johnson's plan would eliminate both conditions. His plan would also eliminate the retirement earnings test. This test reduces payments to beneficiaries younger than the full retirement age who receive earnings above a certain level (\$20,400 in 2023), although affected beneficiaries eventually recoup those losses through higher future payments.

Tax Changes

Payroll taxes, the primary revenue source for Social Security, would increase substantially under Larson's plan. The program now levies a 12.4 percent payroll tax, split equally between workers and their employers, on annual earnings up to \$137,700 in 2020. That contribution base, which also determines future benefit payments, increases over time with wage growth. Beginning in 2020, Larson's plan would raise the payroll tax 0.1 percentage points a year until it reaches 14.8 percent in 2043.

Larson's plan would also create a second contribution and benefit base consisting of earnings above \$400,000. All earnings above that level would be subject to Social Security's payroll tax. Payroll contributions from high earners would stop temporarily after their earnings exceed the first contribution base and resume once their earnings exceed the threshold for additional contributions. Larson's plan would not index the second contribution-base threshold, so all covered earnings eventually would be taxed once wage growth increases the limit for the first contribution base above \$400,000 in about three decades. Workers would earn future benefits on contributions made on those higher earnings, but the revised benefit formula would replace only 2 percent of indexed earnings in the second contribution and benefit base.

Social Security also collects revenue from the taxation of Social Security benefits. Since 1984, beneficiaries with modified adjusted gross income above \$25,000 if single or \$32,000 if married have paid federal income taxes on some of their Social Security benefits. Taxing a portion of Social Security treats those benefits the same way as private pension benefits by requiring beneficiaries to pay taxes on employer payroll contributions that they did not have to declare as income for tax purposes when they were working. Those tax thresholds do not adjust with inflation or earnings growth, so the share of beneficiaries subject to income taxes grows over time. Both Larson's and Johnson's plans would reduce the federal income taxes paid by Social Security beneficiaries by increasing those income thresholds. Larson's plan would immediately increase the thresholds to \$50,000 for a single adult and \$100,000 for a married couple in 2020. Johnson's plan would gradually increase the thresholds beginning in 2045, and it would eliminate the taxation of Social Security benefits in 2053.¹⁰

Projected Impact on Social Security Finances

Under current law, Social Security revenues, excluding interest, will increase slightly over time relative to taxable payroll (figure 3). Between 2020 and 2065, we project that program revenues will grow from 12.9 percent of taxable payroll to 13.6 percent, a 5 percent boost. This increase comes from a surge in income taxes paid on Social Security benefits: more benefits will become taxable over time because the existing income tax thresholds are not indexed.

Larson's plan would substantially increase Social Security revenues by increasing the payroll tax rate and extending the payroll tax to higher earnings. As a percentage of current-law taxable payroll, we project that his plan would boost program revenues relative to current law 11 percent in 2025. Revenue gains will accelerate over time as the plan's higher payroll tax rates fully phase in and the share of aggregate earnings above the \$400,000 threshold for the second contribution and benefit base grows. Relative to current law, Larson's plan would increase projected revenues 30 percent in 2040 and 38 percent in 2048. Revenue gains would then stabilize because the first contribution and benefit base would exceed \$400,000 in 2048, making all earnings from covered employment subject to Social Security's payroll tax. We project that in 2065, Larson's plan would increase program revenues 37 percent over current law.

FIGURE 3



Social Security's Annual Noninterest Revenue as a Percentage of Taxable Payroll, 2020–95 *Under current law and the Larson and Johnson plans*

Source: DYNASIM4, ID980.

Notes: Revenue estimates exclude interest income and are measured as a percentage of current-law taxable payroll.

Social Security revenues relative to taxable payroll would fall under Johnson's plan because it would reduce Social Security benefits, which are now sometimes subject to federal income taxes, and then gradually eliminate the federal income taxation of those benefits. We project that under Johnson's plan, 2065 Social Security revenue would equal 12.4 percent of taxable payroll, 9 percent less than under current law.

Social Security costs scheduled under current law are projected to increase over time as the number of beneficiaries grows faster than the number of workers. The beneficiary-to-worker ratio is increasing because the large Baby Boomer cohort is retiring, people are living longer, and fertility rates are projected to remain low. We project that between 2020 and 2065, program costs under the current-law-scheduled scenario will increase from 13.6 percent of taxable payroll to 17.2 percent, a 26 percent hike (figure 4). These costs exceed Social Security's noninterest revenue. The program's trust funds can cover this shortfall for slightly more than a decade, but our projections indicate that the trust funds will run out in 2037 under current law, requiring benefit cuts of about 20 percent in subsequent years unless federal policymakers add more revenue to Social Security.¹¹ Under the current-law-payable scenario, we project that 2065 Social Security costs as a percentage of taxable payable will be roughly equal to 2020 costs.

FIGURE 4





Source: DYNASIM4, ID980.

Notes: Costs are computed as a percentage of current-law taxable payroll. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Scheduled benefits will grow more rapidly under Larson's plan, and they will fall under Johnson's plan. Because of Larson's plan's benefit expansions, projected costs under it will grow between 2020 and 2065 from 13.7 percent of current-law taxable payroll to 18.5 percent, a 35 percent increase. In 2065, projected costs under Larson's plan would be 39 percent higher than under the current-law-payable scenario and 8 percent higher than under the current-law-scheduled scenario. By contrast, projected costs under Johnson's plan would fall 11 percent between 2020 and 2065, to 12.0 percent of current-law taxable payroll. We project that in 2065, costs under Johnson's plan would be 10 percent lower than under the current-law-payable scenario and 30 percent lower than under the current-law-scheduled scenario.

FIGURE 5



Combined Social Security Trust Fund Ratio, 2020–95 Under current law and the Larson and Johnson plans

Source: DYNASIM4, ID980.

Notes: The combined trust fund ratio is the percentage of Social Security's annual costs that could be covered by the reserves held by the trust funds of the old-age and survivor insurance program and the disability insurance program.

Our projections indicate that under both Larson's and Johnson's plans, the combined Social Security trust fund, which finances the old-age and survivor insurance program and the disability insurance program, would be fully solvent over the next 75 years, meaning that the program could pay all scheduled benefits over the period and that the payable-benefits scenario is equivalent to the scheduled-benefits scenario for both plans.¹² The combined trust fund ratio, defined as the combined Social Security trust fund reserves expressed as a percentage of annual program cost, exceeds zero for both plans throughout the projection period and is growing over about the final 50 years of the projection (figure 5). By contrast, we project that under current law, the trust fund will run out in 2037 and the trust fund ratio will continue to fall in later years under the current-law-scheduled scenario.

Projected Impact on Social Security Benefits

Larson's plan would substantially increase annual Social Security benefits. In 2065, the average annual Social Security benefit would reach \$25,500 (in inflation-adjusted 2018 dollars) under Larson's plan, 36 percent more than what the system could pay under current tax rates and 5 percent more than what the current benefit formula would provide if adequate funds were available (figure 6).

FIGURE 6

Average Annual Social Security Benefits, 2025, 2045, and 2065

Under current law and the Larson and Johnson plans, 2018 inflation-adjusted dollars



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Source: DYNASIM4, ID980.

Notes: Figure reports annual Social Security benefits, net of any income tax paid on them, received by all adult Social Security beneficiaries, expressed in inflation-adjusted 2018 dollars and rounded to the nearest \$100. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Johnson's plan, in contrast, would reduce Social Security benefits. In 2065, the average annual Social Security benefit would be \$17,800, 30 percent less than under Larson's plan, 26 percent less than under the current-law-scheduled scenario, and 5 percent less than under the current-law-payable scenario.

Under both plans and the current-law-scheduled scenario, inflation-adjusted benefits would grow over time. Between 2025 and 2065, the average annual benefit would increase 51 percent under Larson's plan, 14 percent under Johnson's plan, and 50 percent under the scheduled scenario.

Distribution of Annual Benefits

Johnson's plan, which would make Social Security's benefit formula more progressive and include a significant minimum benefit for beneficiaries with substantial work histories, would shift payments from beneficiaries with high income and lifetime earnings to those with lower income and lifetime earnings (table 2). Compared with the current-law-payable scenario, projected median Social Security benefits in 2065 under Johnson's plan would be 13 percent higher for beneficiaries in the bottom fifth of the lifetime earnings distribution, 16 percent higher for beneficiaries in the second fifth, and 28 percent lower for beneficiaries in the top fifth. We project that relative to the current-law-payable scenario, these changes would increase payments to Black and Hispanic beneficiaries and beneficiaries with limited education and would reduce payments to white beneficiaries and college graduates. Compared with the current-law-scheduled scenario, median benefits would fall under Johnson's plan for all the demographic and economic groups we consider, but the declines would be smaller for lower-income groups.

Larson's plan would increase median Social Security benefits for all demographic groups, even relative to what the current benefit formula would provide if adequate funds were available. Larson's plan would generate larger percent increases for beneficiaries with lower incomes and limited lifetime earnings than for other beneficiaries, but unlike Johnson's plan, it would not reduce median benefits for higher-income beneficiaries. Larson's plan would not lower the replacement rate in the benefit formula for beneficiaries with high lifetime earnings, and it would provide some limited additional benefits to very high earners in exchange for the additional contributions they would be required to make under the plan. Relative to the current-law-scheduled scenario, Larson's plan would increase median Social Security benefits in 2065 10 percent for beneficiaries in the bottom fifth of the lifetime earnings distribution and 6 percent for beneficiaries in the top fifth of the distribution. Relative to the current-law-payable scenario, his plan would increase median benefits 43 percent for the bottom fifth of lifetime of lifetime earnings and 37 percent for the top fifth.

TABLE 2

Median Annual Social Security Benefits by Personal Characteristics, 2065

Under current law and the Larson and Johnson plans

	Current-law amount (2018 dollars)		Change relative to current-law scheduled (%)		Change relative to current-law payable (%)	
	Scheduled	Payable	Larson	Johnson	Larson	Johnson
All	23,400	18,100	4	-24	35	-1
Sex						
Male	24,900	19,300	4	-25	34	-3
Female	21,900	17,000	6	-21	36	1
Race and Hispanic origin						
White	25,400	19,700	6	-27	36	-6
Black	20,400	15,800	7	-14	38	11
Hispanic	19,800	15,300	4	-16	34	8
Other	24,300	18,800	3	-27	34	-5
Marital status						
Married	23,000	17,800	4	-23	35	-1
Widowed	26,800	20,800	6	-31	37	-11
Divorced	22,200	17,100	5	-21	36	3
Never married	21,600	16,700	4	-16	35	8
Education						
Not high school graduate	14,400	11,100	7	-19	39	5
High school graduate	19,700	15,200	6	-13	38	13
Some college	22,800	17,600	6	-20	37	4
College graduate	29,000	22,500	5	-34	35	-16
Lifetime earnings quintile						
Bottom	14,500	11,200	10	-12	43	13
Second	18,900	14,600	6	-11	38	16
Third	23,500	18,200	5	-20	35	3
Fourth	28,500	22,100	5	-31	36	-11
Тор	33,800	26,200	6	-44	37	-28
Family income quintile						
Bottom	14,700	11,600	11	-14	41	9
Second	22,900	18,200	6	-15	34	7
Third	26,200	20,000	6	-25	39	-2
Fourth	26,900	20,700	5	-30	36	-9
Тор	29,100	22,300	5	-37	37	-18

Source: DYNASIM4, ID980.

Notes: Table reports median own annual Social Security benefits, net of any income tax paid on them, received by all adult Social Security beneficiaries, expressed in inflation-adjusted 2018 dollars. During years in which a worker is married, the lifetime earnings and benefit measures include the average of each spouse's amounts. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Despite its progressive elements, Larson's plan would not direct a larger share of aggregate Social Security payments to beneficiaries with low lifetime earnings or a smaller share of aggregate payments to beneficiaries with high lifetime earnings than the current-law-payable scenario (figure 7). Although Larson's plan would provide more gains to low lifetime earners than to high lifetime earners on a percent basis, it would provide more gains to high lifetime earners on a dollar basis. Moreover, by eliminating Social Security's long-term funding gap, Larson's plan prevents the program's trust funds from running out and prompting the across-the-board benefit cuts we assume would occur under the current-law-payable scenario. Because beneficiaries with higher lifetime earnings would lose more than beneficiaries with lower lifetime earnings if proportionate benefit cuts were implemented, preventing those cuts would direct more payments to high lifetime earners than to low lifetime earners.

FIGURE 7

Percentage of Total Social Security Payments Going to Beneficiaries in Each Quintile of the Lifetime Earnings Distribution, 2065

Under current law and the Larson and Johnson plans



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Source: DYNASIM4, ID980.

Notes: Social Security benefit estimates subtract any income tax paid on those benefits. During years in which a worker is married, the lifetime earnings and benefit measures include the average of each spouse's amounts. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates.

Johnson's plan would also avoid solvency-related benefit cuts, but relative to the current-lawpayable scenario, it would direct a larger share of aggregate Social Security payments to beneficiaries with low lifetime earnings and a smaller share to beneficiaries with high lifetime earnings. Low and moderate lifetime earners (but not the lowest lifetime earners) would gain most from the minimum benefit provisions in Johnson's plan; those provisions provide the largest minimum benefit to workers with at least 35 years of covered employment. We project that in 2065, the share of aggregate payments going to beneficiaries in the second quintile of the lifetime earnings distribution would reach 21.7 percent under Johnson's plan compared with 19.8 percent under the current-law-payable scenario.

Lifetime Benefits

The distribution of lifetime Social Security benefits, which depends on how long beneficiaries receive payments as well as how much they receive each year, often differs from the distribution of annual benefits. Although Social Security's progressive benefit formula replaces a larger share of earnings for workers with low lifetime earnings than for workers with high lifetime earnings, projected lifetime Social Security benefits for low lifetime earners as a share of lifetime earnings will fall over time under the current-law-payable scenario, especially for people born after 1970 (figure 8). Social Security's trust funds are projected to run out before or just around the time these workers retire, which will necessitate benefit cuts unless policymakers take action to close the program's financing gap. Benefits would also be cut for moderate- and high-earning workers born after 1970 under this scenario, but their lifetime benefits relative to earnings would not change much because they are projected to experience strong longevity gains that would largely offset those cuts.

Larson's plan would raise lifetime benefits for all earning groups, especially beneficiaries with limited earnings. For the bottom fifth of earners born in the 1990s, lifetime benefits relative to earnings would be nearly 50 percent higher under Larson's plan than what could be paid under current law with available revenues and about 15 percent higher than what Social Security would pay under the current benefit formula even if the program lacked sufficient revenues to finance them. For the top fifth of earners born in the 1990s, Larson's plan would pay lifetime benefits relative to earnings that would be about 40 percent higher than what could be paid under current law with available revenues and about 28 percent higher than what could be paid under current law with available revenues and about 8 percent higher than what could be paid under current law with available revenues and about 8 percent higher than what they would receive if Social Security continued to pay the full benefits specified by the current benefit formula regardless of available revenue.

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FIGURE 8

Median Ratio of Lifetime Social Security Benefits to Lifetime Earnings by Birth Cohort and Earnings Quintile

Under current law and the Larson and Johnson plans



Source: DYNASIM4, ID980.

Notes: Figures show, for each quintile of lifetime earnings, the present value of lifetime Social Security benefits net of any income tax paid on them divided by the present value of lifetime earnings, both discounted to age 65 and expressed in inflation-adjusted dollars. During years in which a worker is married, the lifetime earnings and benefit measures include the average of each spouse's amounts. Estimates include adults who die before they begin collecting benefits. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Johnson's plan would provide much lower lifetime benefits than Larson's plan. For beneficiaries in the bottom fifth of the lifetime earnings distribution born in the 1990s, Johnson's plan would increase lifetime benefits relative to earnings 14 percent compared with the current-law-payable scenario, and it would reduce lifetime benefits 11 percent compared with the current-law-scheduled scenario. Compared with the current-law-payable scenario, Johnson's plan would provide about the same level of lifetime benefits for moderate lifetime earners and substantially lower benefits for high lifetime earners. For the top fifth of earners born in the 1990s, Johnson's plan would pay about 24 percent lower lifetime benefits relative to earnings than what could be paid under current law with available program revenue and about 41 percent lower than what they would receive if Social Security continued to pay the full benefits specified by the current benefit formula regardless of available revenue.

Projected Impact on Social Security Payroll Taxes

Larson's plan would significantly increase Social Security payroll taxes (figure 9). The tax hikes would phase in because the payroll tax rate gradually increases, and the share of earnings subject to the payroll tax grows because the threshold for the second contribution and benefit base would not be indexed. Relative to current law, Larson's plan would increase median payroll tax payments 4 percent in 2025, 17 percent in 2045, and 18 percent in 2065. Median annual Social Security payroll taxes in 2065, including the portions levied on employers and employees, would reach \$10,300 in 2018 inflation-adjusted dollars. In 2020, less than 1 percent of workers would receive enough earnings to be covered by Larson's second contribution base. This share would increase to 2 percent in 2030 and to 5.4 percent in 2065 as wage growth pushes more earnings above the second-tier threshold. Johnson's plan would not change the amount of payroll taxes that Social Security collects.

Under current law, workers with low and moderate lifetime earnings pay an average of about 12 percent of their earnings toward Social Security taxes. This is slightly below the 12.4 percent payroll tax rate because some beneficiaries spend time in jobs that are not covered by Social Security.¹³ Workers with high lifetime earnings have a lower average payroll tax rate because some of their earnings exceed Social Security's taxable maximum and thus are not taxable. Average rates are especially low for highwage workers born in the 1980s and beyond because we project that strong future earnings growth for high-wage workers will push more of their earnings above the taxable maximum.

Under Larson's plan, lifetime Social Security payroll taxes would increase for all workers, but they would increase more for workers near the top of the lifetime earnings distribution than for those near the bottom of the distribution (figure 10). The impact would increase with each successive birth cohort as more of their earnings become subject to the plan's higher tax rate and the taxable maximum gradually disappears. For workers born in the 1990s, the median ratio of lifetime Social Security payroll taxes to lifetime earnings would increase 24 percent relative to current law for the top fifth of lifetime earners, 12 percent for the middle fifth of lifetime earners, and 7 percent for the bottom fifth of lifetime earners.

FIGURE 9

Median Annual Social Security Payroll Taxes, 2025, 2045, and 2065

Under current law and the Larson and Johnson plans, 2018 inflation adjusted dollars



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Source: DYNASIM4, ID980.

Notes: Figure shows payroll taxes, including payments by employees and their employers, for workers ages 20 to 64 expressed in inflation-adjusted 2018 dollars and rounded to the nearest \$100. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

FIGURE 10

Median Ratio of Lifetime Social Security Payroll Taxes to Lifetime Earnings by Birth Cohort and Lifetime Earnings

Under current law and the Larson and Johnson plans



Source: DYNASIM4, ID980.

Notes: Figures report, for each quintile of lifetime earnings, the present value of lifetime Social Security payroll taxes divided by the present value of lifetime earnings, both discounted to age 65 and expressed in inflation-adjusted dollars. Taxes include both the employee and employer share of the payroll tax. During years in which a worker is married, the lifetime earnings and taxes measures include the average of each spouse's amounts. Estimates include adults who die before they begin collecting benefits. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula. The median ratios are identical under the Johnson plan and the two current-law scenarios.

Projected Impact on Beneficiaries' Return on Their Taxes

Under the current-law-payable scenario, people born in the 1950s who earn moderate wages over their lifetime can expect to receive 84 cents for every dollar they pay in Social Security taxes (figure 11). Because of the system's progressive benefit structure, those with low lifetime earnings can expect to

receive \$1.38 in benefits for every dollar in taxes; those with high lifetime earnings can expect to receive only 61 cents. Later generations will receive less under this scenario because Social Security benefits will be cut when the trust fund runs out. Also, because payment thresholds are not indexed for inflation, a larger share of beneficiaries must pay federal income taxes on their benefits every year. Because Social Security insures people against economic hardship if they receive low lifetime earnings or develop disabilities, people whose taxes exceed their payments still benefit from that protection.

FIGURE 11

Median Ratio of Lifetime Social Security Benefits to Lifetime Social Security Taxes by Birth Cohort and Lifetime Earnings

Under current law and the Larson and Johnson plans



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Source: DYNASIM4, ID980.

Notes: Figures report, for each quintile of lifetime earnings, the present value of lifetime Social Security benefits net of any income tax paid on them divided by the present value of lifetime Social Security payroll taxes, both discounted to age 65 and expressed in inflation-adjusted dollars. Taxes include both the employee and employer share of payroll taxes. During years in which a worker is married, the lifetime benefits, earnings and taxes measures include the average of each spouse's amounts. Estimates include adults who die before they begin collecting benefits. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Larson's plan would substantially increase benefits received for every tax dollar paid, especially for beneficiaries with limited lifetime earnings. However, the gains fall for later generations as tax increases fully phase in. Johnson's plan would raise the benefits-to-tax ratio relative to the current-law-payable scenario for beneficiaries with low lifetime earnings but reduce it for those with high lifetime earnings. Among beneficiaries born in the 1990s, we project that those in the top fifth of the lifetime earnings distribution would average only 40 cents in benefits for every dollar of taxes paid.

Projected Impact on Poverty Rates

The share of adult Social Security beneficiaries with incomes below the FPL is slowly declining as productivity growth raises earnings and subsequent retirement incomes (figure 12). But if federal policymakers allow the program's trust funds to run out as the current-law-payable scenario assumes, the projected poverty rate for beneficiaries will spike in about 15 years. By 2050, though, economic growth will reduce the poverty rate for adult Social Security beneficiaries below its current level.

Both Larson's and Johnson's plans would reduce the poverty rate for Social Security beneficiaries below the rate that would prevail if future benefits were limited to what the program could afford to pay under current law. In 2065, the projected poverty rate for adult beneficiaries would fall to 2.2 percent under Larson's plan and 4.0 percent under Johnson's plan, compared with 5.0 percent under the current-law-payable scenario. We project that relative to the current-law-payable scenario, Larson's plan would lift 2.6 million adult beneficiaries out of poverty in 2065 and Johnson's plan would lift 800,000 adult beneficiaries out of poverty in the same year.

FIGURE 12

Percentage of Adult Social Security Beneficiaries with Incomes below 100 Percent of the FPL, 2020–75

Under current law and the Larson and Johnson plans



Source: DYNASIM4, ID980.

Notes: FPL = federal poverty level. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Although economic growth is projected to reduce poverty rates, we project that more Social Security beneficiaries will fall behind working adults. Figure 13 shows the share of adult beneficiaries with income below 25 percent of the average national wage, which is an indicator of having limited income. In 2019, that threshold was \$13,439, while the FPL for single adults ages 65 and older was \$12,261. The projected share of adult beneficiaries with income below 25 percent of average earnings will nearly double over the next 25 years if the Social Security trust funds run out and federal policymakers do not take steps to shore up the program's funding, and that share will continue to increase afterward. Even under Larson's plan, which significantly expands Social Security, the projected share of beneficiaries with low incomes under this measure would grow slowly over time.

FIGURE 13

Percentage of Adult Social Security Beneficiaries with Incomes below 25 Percent of the Average Wage, 2020–75

Under current law and the Larson and Johnson plans



Source: DYNASIM4, ID980.

Notes: The analysis adjusts income for family size and composition using the equivalence measures calculated for the US Census Bureau's supplemental poverty measure (Short 2013). The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula.

Conclusions

Although the congressional bills introduced by Larson and Johnson would each eliminate Social Security's long-term financing gap, they would take different paths to that goal. Democrats and Republicans have proposed several Social Security plans over the past two decades, but these two bills include many elements commonly found in both parties' approaches to Social Security.

Larson's plan, which was cosponsored by more than 200 Democrats in 2019, would substantially expand Social Security. It would increase program revenues by raising the Social Security payroll tax rate and extending the tax to annual earnings above \$400,000. By 2065, these changes would increase annual program revenues 37 percent over current law. The plan would devote some of those additional revenues to enhancing benefits, altering the benefit formula to increase benefits about 3 percent for beneficiaries with limited lifetime earnings and about 1 percent for beneficiaries with high lifetime earnings. Other changes, such as creating a minimum benefit equal to 125 percent of the FPL for beneficiaries with long employment histories, boosting COLAs, and reducing the share of beneficiaries who must pay federal income taxes on their benefits, would further increase future after-tax Social Security payments. Under Larson's plan, projected median annual Social Security benefits in 2065 would be 35 percent higher than what the system could pay under current tax rates and 4 percent higher than what current benefit rules would provide if adequate funds were available. Although benefits would increase for all major demographic and economic groups, beneficiaries with lower incomes and lifetime earnings would gain more on a percentage basis than beneficiaries with higher incomes and lifetime earnings. In 2065, Larson's plan would reduce the poverty rate for adult Social Security beneficiaries about 50 percent, lifting about 2.6 million adults out of poverty, relative to the rate that would prevail if the trust funds ran out and Social Security benefits were cut.

Johnson's plan, which was introduced by the Republican chair of the House and Ways Committee in 2016, would shrink total Social Security spending while increasing payments to low-income beneficiaries above what could be paid with existing tax rates. It would change the benefit formula to shift payments from beneficiaries to substantial lifetime earnings to beneficiaries with limited lifetime earnings, reduce COLAs, increase the retirement age, cap spouse and child benefits, and eliminate the income taxation of Social Security benefits. In 2065, these changes would reduce projected median annual Social Security benefits 1 percent below what the system could pay under current tax rates and 24 percent below what current benefit rules would provide if adequate funds were available. The impact of Johnson's plan on beneficiaries would vary sharply with lifetime earnings. We project that compared with the current-law-payable scenario, Johnson's plan in 2065 would lift about 800,000 adult Social Security beneficiaries out of poverty and increase median Social Security payments 13 percent for beneficiaries in the bottom fifth of the lifetime earnings distribution and 16 percent for beneficiaries in the second fifth of the distribution. However, the plan would reduce projected median benefits 28 percent for beneficiaries in the top fifth of the lifetime earnings distribution in 2065. Such a large cut for beneficiaries with significant lifetime earnings could erode political support for Social Security.

The decision about how to address Social Security's long-term financing challenges must be made within a larger budgetary context. By expanding Social Security and increasing average benefit payments, Larson's plan would significantly improve Social Security beneficiaries' financial security. But tackling Social Security's long-term financing challenges solely by increasing revenues, without reducing benefits for any beneficiaries, would leave federal policymakers with fewer resources to address other budgetary shortfalls, such as Medicare's long-term deficit and the broader federal debt. Larson's plan could also complicate efforts to meet other public priorities, such as rebuilding the nation's infrastructure, tackling climate change, and confronting the aftermath of the COVID-19 pandemic.

The differences between Larson's and Johnson's plans may make consensus difficult. But much rides on Congress's decision: in October 2020, more than 64 million adults and children received more \$90 billion in monthly Social Security benefits. Many older adults and people with disabilities struggle financially, and Social Security's long-term financing deficit threatens future benefit cuts. Acting sooner rather than later to address these problems would ease the pain of any benefit cuts or tax increases by spreading them among more beneficiaries and taxpayers and would provide some peace of mind to current and future generations of older adults and people with disabilities.

Appendix: Methods

We simulate how Larson's and Johnson's plans would affect beneficiaries' payments, payroll tax liabilities, and program finances. For each plan, we compare outcomes to each other and to current law. The analysis includes two versions of current law, payable and scheduled. The current-law-payable scenario shows benefits that could be paid with revenue collected under current tax rates, regardless of program finances. The current-law-scheduled scenario shows benefit payments as set by the current benefit formula. Social Security studies sometimes make other assumptions about how the program's financing gap would be closed after the trust funds are depleted, such as increasing payroll taxes to fund scheduled benefits (Clingman, Burkhalter, and Chaplain 2020) or combining a payroll tax increase with an equal reduction in benefits (Bosworth, Burtless, and Keys 2003), but we limit the number of comparisons here to keep the analyses tractable. We report all amounts in inflation-adjusted 2018 dollars.

Much of the analysis focuses on how Johnson's and Larson's plans would affect workers and beneficiaries, showing the impact of each plan on Social Security benefits, payroll tax payments, and the share of beneficiaries with low incomes. We report payments to adults receiving disability or retirement benefits, and we often focus on outcomes in 2065, when each plan's provisions would be fully phased in. When measuring Social Security benefits, we subtract any federal income taxes paid on those benefits, following Congressional Budget Office conventions. We show how income varies by demographic and economic characteristics, including race and Hispanic origin, educational attainment, marital status, age, income, and lifetime earnings quintiles. During years in which a worker is married, the lifetime earnings and benefit measures include the average of each spouse's amounts.

We use two alternative measures to classify beneficiaries as having low income. The first measure indicates whether family income falls below 100 percent of the FPL. The second measure indicates whether family income, adjusted for family size, falls below 25 percent of the average earnings of workers. In 2019, that threshold was \$13,439 for single adults, while the FPL for single adults ages 65 and older was \$12,261. Because poverty thresholds increase over time with prices and incomes tend to grow faster than prices, poverty rates generally fall over time. Comparing beneficiaries' income to the average wage shows whether beneficiaries are falling behind workers. The analysis adjusts income for family size and composition using the equivalence measures calculated for the US Census Bureau's supplemental poverty measure (Short 2013).

Our analysis also examines lifetime outcomes. We compute lifetime measures of Social Security taxes and benefits relative to lifetime earnings by 10-year birth cohorts and compare benefits with taxes. Lifetime taxes include both worker and employer payroll taxes. We calculate the present value of lifetime benefits, taxes, and earnings at age 65 using a 2.6 percent annual real discount rate. Projected lifetime benefits account for the age at which each person claims benefits and include disabled-worker benefits, retired worker benefits, and spouse and survivor benefits. Estimates include adults who die before they begin collecting benefits to account for the relatively high mortality rates among lower-income adults.

To assess the impact of Larson's and Johnson's plans on program finances, we simulate Social Security's noninterest income and costs and the program's trust fund ratio. We project these outcomes for 75 years, the horizon Social Security uses to assess the program's financial condition. Although Social Security maintains two trust funds, one for Old Age and Survivors Insurance and another for Disability Insurance, we follow the common practice of combining these trust funds in our projections. The trust fund ratio is defined as the combined Social Security trust fund reserves expressed as a percentage of annual program cost.

DYNASIM4

Our analysis of Larson's and Johnson's plans uses DYNASIM4. The model starts with a nationally representative sample of individuals and families in 2006 and ages them year by year, simulating key demographic, economic, and health events. For example, DYNASIM4 projects that each year, some people in the sample get married, have a child, or find a job. The model projects that other people become divorced or widowed, stop working, begin collecting Social Security, become disabled, or die. These transitions are based on probabilities generated by carefully calibrated equations estimated from national household survey data. The equations account for important differences in how likely various experiences are depending on gender, education, earnings, and other characteristics. Other equations in DYNASIM4 project annual earnings, savings, and home equity. The model includes detailed Social Security, Supplemental Security Income, health insurance, and federal and state income tax calculators that combine historical and projected program rules with projections of lifetime earnings, disability and health status, and household income and wealth to project Social Security retirement and disability benefits, Medicare benefits, Supplemental Security Income, other benefits, and tax liabilities.

The baseline model projects current-law program rules into the future, including the sunset of tax provisions in the Tax Cut and Jobs Act of 2017. We also assume that current indexing of income tax

parameters and government benefits continue indefinitely. For consistency with Social Security's projections about system revenues and payments, we generally use the same assumptions that the Social Security and Medicare trustees used in their 2019 projections (Board of Trustees 2019). These assumptions do not incorporate the potential effects of the COVID-19 pandemic.

DYNASIM4 has been rigorously validated, and its projections align closely with those developed by the Social Security actuaries (Smith et al. 2018). One area in which we deviate from the actuaries, however, is our projection of revenues generated by the income taxation of Social Security benefits. Because we assume that current law continues indefinitely, we hold the income thresholds for the taxation of Social Security benefits, which have not changed since they were created in 1983, at their current levels throughout the projection period. Consequently, we project that revenue from taxing Social Security benefits increases as inflation and productivity growth raises income. Our projections show that between 2027 and 2095, this revenue as a share of total benefits paid will grow from 5 percent to 8.5 percent. By contrast, the Social Security actuaries project that income tax collections as a share of benefits paid will increase over the same period, from 5 percent to 5.6 percent (Social Security Administration 2019).¹⁴

Urban Institute researchers have used DYNASIM extensively to evaluate programs and policies affecting older adults, including Social Security, Medicare, long-term services and supports, and employer-provided pensions, and to assess the potential impact of reforms. Studies have examined Social Security and pension reform proposals from several 2020 Democratic presidential candidates (Smith, Johnson, and Favreault 2020a, 2020b), the Bipartisan Policy Center's Commission on Retirement Security and Personal Savings (Bipartisan Policy Center 2016), the National Commission on Fiscal Responsibility and Reform (Favreault and Karamcheva 2011), and the President's Commission to Strengthen Social Security (Favreault et al. 2004).¹⁵

Behavioral Assumptions

Our analysis incorporates various assumptions about how employers and workers would respond to the tax changes included in Larson's plan. Following most other analysts, including the Congressional Budget Office (2015), Tax Policy Center, ¹⁶ Social Security Administration (2009), Tax Foundation (Watson and Miller 2020), Joint Committee on Taxation, and US Treasury's Office of Tax Analysis, we assume that workers bear the full burden of the Social Security payroll tax, including the employer portion. As a result, any increase in the employer payroll tax would lead employers to reduce by an equivalent amount the wages and salaries they pay workers so employer payroll costs do not change.

We also assume that an increase in the payroll tax rate would lead workers and their employers to shift some employee compensation from taxable salaries to tax-exempt fringe benefits to reduce tax burdens, especially for high-wage earners who would be more willing to accept that trade-off.¹⁷ For workers with earnings above the threshold for the second tier of the contribution base, we shift between 1 and 10 percent of newly taxed earnings into tax-exempt compensation, depending on how much additional payroll tax workers would pay.¹⁸

Changes to Social Security benefits and taxes would affect economic growth by shifting work and savings incentives and hence work, spending, and saving decisions. Workers, especially those near retirement, may consider the longer-term impacts of Social Security reforms on future retirement income as well as the immediate impact on take-home pay. Aggregating the work, savings, and consumption choices of all families in the economy could significantly raise or lower prices for labor and returns to capital and shift the macroeconomy. Using a complex overlapping generations model, the Penn Wharton Budget Model team projects that the economy would grow faster under most Social Security proposals that increase program revenue than under current policy (Penn Wharton Budget Model 2019a). They find that reforms that combine progressive benefit reductions with tax increases (i.e., unlike Larson's plan) would spur the most economic growth. They also conclude that reforms that introduce "donut holes" without increasing benefits for higher-income individuals would reduce growth more than reforms that simply increase the existing payroll tax rate.

We do not integrate macroeconomic effects into our analysis. These effects, which are difficult to incorporate into a complex dynamic microsimulation model, are unlikely to significantly change the projected distributional impact of potential policy reforms (Leiserson 2017), which is the focus of our analysis.

Notes

- ¹ The Social Security 2100 Act, H.R. 860, 116th Cong. (2019). The Senate version of the bill is S. 269, 116th Cong. (2019).
- ² Social Security Reform Act of 2016, H.R. 6489, 114th Cong. (2016).
- ³ "Estimates of the Financial Effects on Social Security of Social Security 2100 Act," Social Security Administration, September 2019, https://www.ssa.gov/OACT/solvency/LarsonBlumenthalVanHollen_20190918.pdf;
 "Estimates of the Financial Effects on Social Security of H.R. 6489, the 'Social Security Reform Act of 2016'," Social Security Administration, December 2016, https://www.ssa.gov/OACT/solvency/SJohnson_20161208.pdf.
- ⁴ In 2023, 90 percent of the benefit would be set by the old formula and 10 percent by the new formula. The share of the total benefit set by the new formula would increase 10 percentage points a year, until the entre benefit was set by the new formula for beneficiaries becoming newly eligible in 2032 and later.
- ⁵ For workers with disabilities, Johnson's plan would adjust the work years requirement for years without a work disability.
- ⁶ "Description of Proposed Provision: A6: Starting December 2021, Compute the COLA Using the Consumer Price Index for the Elderly (CPI-E)," Social Security Administration, accessed November 6, 2020, https://www.ssa.gov/oact/solvency/provisions/charts/chart_run092.html.
- ⁷ Authors' calculations.
- ⁸ For beneficiaries born earlier, the full retirement age ranges from 65 years to 66 years and 10 months, depending on a beneficiary's birth year.
- ⁹ The average worker's PIA is the PIA assigned to a worker who earned the national average wage throughout their career.
- ¹⁰ Johnson's plan would increase the income threshold for levying federal income taxes on Social Security benefits for single filers to \$32,500 in 2045, and it would increase that threshold \$7,500 per year until it reaches \$92,500 in 2053. The plan would set the threshold for couples at twice the single threshold. His plan would eliminate income taxes on Social Security benefits allocated to the Social Security trust funds in 2054. Taxes allocated to the Medicare trust fund would not change.
- ¹¹ In 2020, the Social Security trustees project that the combined trust fund will run out in 2035 under their intermediate assumptions (Board of Trustees 2020). The Congressional Budget Office (2020) projects it will run out in 2031. DYNASIM projects slightly more income tax on Social Security benefits than the Social Security trustees, extending the trust fund exhaustion date 13 months.
- ¹² The Social Security actuaries and Penn Wharton Budget Model (2019b) also project that Larson's plan would eliminate Social Security's 75-year deficit, and the Congressional Budget Office (2019) projects that it would close all but 9 percent of the program's long-term deficit.
- ¹³ Railroad workers, some public-sector workers, and some employed students are not covered by Social Security.
- ¹⁴ The Social Security Advisory Board's Technical Panel on Assumptions and Methods has highlighted the potential importance of this assumption (2011 Technical Panel on Assumptions and Methods 2011; 2019 Technical Panel on Assumptions and Methods 2019).
- ¹⁵ More information about DYNASIM4, including documentation, reports, and interactive validation tools, is available on Urban's website. See "DYNASIM: Projecting Older Americans' Future Well-Being | Program on

Retirement Policy," Urban Institute, accessed December 1, 2020, https://www.urban.org/policy-centers/cross-center-initiatives/program-retirement-policy/projects/dynasim-projecting-older-americans-future-well-being.

- ¹⁶ "Brief Description of the Tax Model," Urban-Brookings Tax Policy Center, last updated August 23, 2018, https://www.taxpolicycenter.org/resources/brief-description-tax-model.
- ¹⁷ Self-employed workers, who pay both halves of the payroll tax, may be especially responsive.
- ¹⁸ For workers facing a payroll tax increase of less than \$10,000, we shift 1 percent of their earnings above the second-tier threshold to tax-exempt compensation. The rate increases by 1 percentage point for each additional \$5,000 of payroll tax liability until it reaches 10 percent for payroll tax increases of \$55,000 or more.

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Richard W. Johnson is a senior fellow in the Income and Benefits Policy Center at the Urban Institute, where he directs the Program on Retirement Policy. An expert on financial security at older ages, he has authored or coauthored more than 200 journal articles, book chapters, research reports, and policy briefs and testified before Congress and federal commissions. His current research focuses on older Americans' employment and retirement decisions, long-term services and supports for older adults with disabilities, reform options for federal retirement programs, and state and local pensions. Recent studies have examined job loss at older ages, occupational change after age 50, the financial and health risks people face as they approach retirement, and the Social Security plans released during the 2020 Democratic presidential primary. Johnson earned his AB from Princeton University and his PhD from the University of Pennsylvania, both in economics.

Karen E. Smith is a senior fellow in the Income and Benefits Policy Center, where she is an internationally recognized expert in microsimulation. Over the past 30 years, she has developed microsimulation models for evaluating Social Security, pensions, taxation, wealth and savings, labor supply, charitable giving, health expenditure, student aid, and welfare reform. Smith has played a lead role in the development of the Social Security Administration's Modeling Income in the Near Term microsimulation model, Urban's Dynamic Simulation of Income microsimulation model, and the Social Security Administration's Modeling Income in the Near Term microsimulation security Simulation Model. Her recent work includes analyzing the Social Security plans released during the 2020 Democratic presidential primary; estimating the impact of the Great Recession on retirement well-being; analyzing income and asset accumulation patterns of the adult population; analyzing the retirement decision; evaluating the effect of disability on earnings and mortality; and using statistical matching to impute earnings, taxes, and spouse characteristics. Smith also has written extensively on demographic and economic trends, and their implications for the retirement well-being of current and future cohorts.

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