Answers to Questions From Senator Hatch
About Various Options for Payroll Taxes and Social Security

Senator Orrin Hatch, Ranking Member of the Senate Finance Committee, asked the Congressional Budget Office (CBO) several questions about the implications of altering the Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) payroll tax rates as well as the taxable maximum (the maximum amount of earnings on which those payroll taxes are imposed). This document provides CBO's answers to those questions.

CBO based its answers on projections in *The 2013 Long-Term Budget Outlook*.[1] In that report, the 75-year projection period for Social Security spans 2013 to 2087. All changes to payroll tax rates and the taxable maximum analyzed in this document would begin in January 2015.

CBO analyzed various options for Social Security payroll taxes and benefits under two scenarios: a scheduled-benefits scenario and a payable-benefits scenario. Benefits as calculated pursuant to the Social Security Act, regardless of the balances in the Social Security trust funds, are called *scheduled benefits*. However, if the trust funds were depleted, the Social Security Administration would no longer have legal authority to pay full benefits when they are due. If that occurred, annual outlays would be limited to annual revenues in the years after the exhaustion of the trust funds. (CBO projects that the trust funds, considered in combination for analytical purposes, will be exhausted in 2031 under current law.)[2] Benefits thus reduced are called *payable benefits*. In such a case, all receipts to the trust funds would be used, and the trust fund balances would remain essentially at zero. When presenting projections of Social Security's finances, CBO generally focuses on scheduled benefits because, by definition, the system would be fully financed if only payable benefits were disbursed. With benefits as scheduled under current law, to bring the Social Security programs as a whole (OASI and DI) into actuarial balance for 75 years by increasing the payroll tax, revenues would have had to increase by 1.2 percent of gross domestic product (GDP) starting in 2013.

Raise the Payroll Tax Rate to Achieve Solvency

Questions: Under the existing taxable payroll base, how much would the DI payroll tax rate have to rise starting in 2015 to balance the DI trust fund over the next 75 years? Similarly, under the existing taxable payroll base, how much would the OASI tax rate have to rise starting in 2015 to balance the OASI trust fund over the next 75 years? And how much would the payroll tax rate for the combined Old-Age, Survivors, and Disability Insurance (OASDI)

---

1. See Congressional Budget Office, *The 2013 Long-Term Budget Outlook* (September 2013), www.cbo.gov /publication/44521.

2. The OASI and DI programs have separate trust funds, but they are often considered together for analytical purposes.

Note: Unless otherwise indicated, all years referred to in this document are calendar years.

system have to rise starting in 2015 to make the combined OASDI trust fund solvent over the next 75 years?[3] If the new DI and OASI payroll tax rates were implemented in 2015, what would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles (or fifths) of lifetime household earnings by 10-year birth cohort?

Answers: The maximum amount of earnings on which payroll taxes are levied is currently $117,000; that amount increases automatically each year at the rate of increase in average wages. Half of those taxes (6.2 percent of taxable earnings) are deducted from employees' paychecks, and half (another 6.2 percent) are paid by employers. People who are self-employed pay the entire amount. Receipts from those taxes are credited to the two trust funds that finance the Social Security programs; about 85 percent of the receipts go to the OASI trust fund and 15 percent to the DI trust fund.

Spending from the DI trust fund currently exceeds its income each year, and by CBO's estimates, that trust fund will be exhausted in fiscal year 2017. To bring the DI program into actuarial balance through 2087 with the taxable maximum set according to current law, the DI payroll tax rate could be permanently increased by 0.7 percentage points in 2015 from its current level of 1.8 percent. (The trust fund is in actuarial balance if the current balance plus future revenues is estimated to be sufficient to pay scheduled benefits and to allow a year's worth of benefits as a reserve at the end of the period; that is, if the value of DI revenues over the 75-year period, discounted to their value in current dollars, plus the current balance in the DI trust fund equals the present value of future DI outlays plus the value of a year's worth of benefits at the end of the period. A present value is a single number that expresses a flow of income or payments over time in terms of an equivalent lump sum received or paid today.)

CBO projects that, even taking into account the interest credited to the fund, the OASI trust fund will start recording annual deficits by fiscal year 2020. To bring the OASI program into actuarial balance through 2087 with the taxable maximum set according to current law, the OASI payroll tax rate could be permanently increased by about 2.8 percentage points in 2015 from its current level of 10.6 percent, CBO estimates.

Considering the two trust funds together, to bring the OASDI program as a whole into actuarial balance through 2087 with the taxable maximum set according to current law (labeled **Option 1** in Tables 1 and 2), the combined OASDI payroll tax rate could be permanently increased by about 3.5 percentage points, by CBO's estimate. Under that option, the combined OASDI payroll tax rate would rise from 12.4 percent to 15.9 percent in 2015. Revenues credited to the Social Security trust funds in 2015 would increase by about 28 percent. An employee earning $50,000 would pay an additional $900 in payroll taxes, and his or her employer would pay an additional $900 in payroll taxes. Under Option 1, a self-employed worker earning the same amount would pay an additional $1,800 in payroll taxes. Lifetime payroll taxes would increase by 6 percent to 9 percent for people born in the 1960s and by 27 percent for people born in the 2000s (see Table 2).

Social Security benefits are intended to replace only a percentage of a worker's career-average earnings. That percentage (referred to as the replacement rate) is higher for workers with low career earnings than for workers with higher earnings. Replacement rates under the scheduled-benefits scenario would not change if the OASDI payroll tax rate was increased to

---

3. OASDI is a label for the Social Security program as a whole, including both OASI and DI.

15.9 percent in 2015, because the benefits received would not change. (The replacement rate is currently about 40 percent for workers who claim their benefits at age 65 and have earnings over their career that were equal to the average earnings of all workers in the country.) However, that same rise in the OASDI payroll tax rate would increase replacement rates under the payable-benefits scenario because, under current law, benefits would have to be reduced to keep annual outlays equal to annual revenues in the years after the trust funds were depleted. Under the payable-benefits scenario, Option 1 would increase the median replacement rate by 12 percent for people in the lowest quintile of lifetime household earnings who were born in the 1960s; it would increase that rate by 6 percent for people in the highest quintile of lifetime household earnings in that birth cohort, CBO estimates. Median replacement rates for people in all lifetime household earnings quintiles who were born in the 2000s would increase by 42 percent (see Table 2).

Raise the Taxable Maximum to Cover 90 Percent of Earnings and Include Additional Earnings in the Computation of Benefits

Questions: If the taxable maximum increased such that 90 percent of covered earnings were subject to the payroll tax beginning in 2015, the taxable maximum was indexed to the national average wage index (AWI) thereafter, and the newly taxed earnings above the current-law taxable maximum counted in the benefit calculation, how much would the DI payroll tax rate have to rise to balance the DI trust fund over the next 75 years? How much would the OASI tax rate have to rise to balance the OASI trust fund over the next 75 years? And how much would the OASDI tax rate have to rise to balance the OASDI trust fund over the next 75 years?

In addition, what would happen to payroll taxes paid by a worker with earnings at the current taxable maximum and by a worker with earnings at the new taxable maximum? If the new DI and OASI payroll tax rates were implemented in 2015, what would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort?

Answers: Currently, about 83 percent of covered earnings are subject to the payroll tax. To subject 90 percent of covered earnings to the payroll tax in 2015, the taxable maximum would have to rise from $119,400 projected under current law to about $241,600, according to the staff of the Joint Committee on Taxation (**Option 2**).

Only workers with earnings above the current-law taxable maximum would pay more payroll taxes. Payroll taxes for a worker earning no more than $119,400 in 2015 would remain unchanged; a worker earning $241,600 would pay $7,600 (or 102 percent) more in payroll taxes in 2015 (see Table 1). Revenues credited to the Social Security trust funds in 2015 would increase by about 10 percent. For people in the highest quintile of lifetime household earnings, lifetime payroll taxes would increase by about 9 percent for people born in the 1960s and by about 18 percent for people born in the 2000s (see Table 2).

Increasing the taxable maximum would not, by itself, eliminate the actuarial imbalance, but it would reduce the size of the payroll tax increase that would be needed to bring the Social Security program into actuarial balance. With such an increase (with the taxable maximum indexed to the AWI and earnings included in the computation of benefits), a permanent increase of 0.5 percentage points in the DI payroll tax rate would bring the DI program into actuarial balance through 2087, CBO estimates. To bring the OASI program into actuarial

balance through 2087 under that scenario, the OASI payroll tax rate could be permanently increased by 1.8 percentage points starting in 2015. For the OASDI program as a whole, permanently raising the OASDI payroll tax rate by 2.3 percentage points starting in 2015 (**Option 3**) would attain actuarial balance.

Under Option 3—an increase in the combined OASDI payroll tax rate from 12.4 percent to 14.7 percent and an increase in the taxable maximum to $241,600, both in 2015—all covered workers would pay more payroll taxes. Workers with annual earnings less than or equal to $119,400 (the taxable maximum under current law) in 2015 would pay 18 percent more in payroll taxes. Workers earning $241,600 (the new taxable maximum) in 2015 would pay $10,300 (or 140 percent) more in payroll taxes (see Table 1). Revenues credited to the Social Security trust funds in 2015 would increase by about 30 percent. Lifetime payroll taxes would increase more for people in younger (more recent) birth cohorts and for people with higher lifetime earnings. Lifetime payroll taxes for people in the lowest quintile of lifetime household earnings who were born in the 1960s would increase by 6 percent, but lifetime payroll taxes for people in the highest quintile of lifetime household earnings who were born in the 2000s would increase by 36 percent (see Table 2).

Under Option 3, replacement rates under the scheduled-benefits scenario would increase noticeably only for people in the highest quintile of lifetime household earnings. Among people in that quintile, the median replacement rates would increase by about 3 percent for people born in the 1960s and by about 6 percent for people born in the 2000s, CBO estimates. In contrast, under the payable-benefits scenario, the increase in revenues generated by the higher taxable maximum and tax rate would extend the solvency of the OASDI trust funds and therefore raise replacement rates for people in all quintiles of lifetime household earnings. The median replacement rate for people in the lowest quintile of lifetime household earnings who were born in the 1960s would increase by about 12 percent and for those in the highest quintile it would increase by about 9 percent. For the 2000s birth cohort, the median replacement rate for people in the lowest quintile would increase by about 42 percent and for those in the highest quintile, it would increase by about 51 percent, by CBO's estimate (see Table 2).

Eliminate the Taxable Maximum and Include Additional Earnings in the Computation of Benefits

Questions: If the taxable maximum was eliminated and workers received credit toward benefits on the newly taxed earnings, how much would the DI tax rate have to rise to balance the DI trust fund over the next 75 years? How much would the OASI tax rate have to rise to balance the OASI trust fund over the next 75 years? And how much would the OASDI tax rate have to rise to balance the OASDI trust fund over the next 75 years?

For workers with earnings above the current-law taxable maximum of $119,400 in 2015, how much would their payroll taxes change if their earnings increased to $150,000, $200,000, or $250,000? What would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort?

And what would happen to replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort if benefits were calculated on earnings up to the current-law taxable maximum as under current law and additional benefits were calculated on earnings above the current taxable maximum using a 5 percent replacement rate?

Answers: If the taxable maximum was eliminated and the newly taxed earnings were counted in the benefit calculation (**Option** 4), the DI payroll tax rate could be permanently increased by 0.3 percentage points starting in 2015 to bring the DI program into actuarial balance through 2087. To bring the OASI program into actuarial balance through 2087 under that option, the OASI payroll tax rate could be permanently increased by 1.3 percentage points starting in 2015. To make the corresponding change to the OASDI program as a whole, the OASDI payroll tax rate could be permanently increased by 1.6 percentage points starting in 2015 (**Option 5**).

Under Option 4, if the taxable maximum was eliminated in 2015, payroll taxes would increase only for workers with earnings above the taxable maximum under current law. Those workers would pay payroll taxes at a rate of 12.4 percent on earnings above the current-law taxable maximum. A worker earning $150,000 in 2015 would pay $1,900 (or 26 percent) more in payroll taxes, a worker earning $200,000 would pay $5,000 (or 68 percent) more in payroll taxes, and a worker earning $250,000 would pay $8,100 (or 109 percent) more in payroll taxes (see Table 1). Revenues credited to the Social Security trust funds in 2015 would increase by about 19 percent.

Under Option 4, lifetime payroll taxes would increase by about 12 percent for people in the highest quintile of lifetime household earnings who were born in the 1960s and by about 18 percent for people in the highest quintile who were born in the 2000s (see Table 2). Lifetime payroll taxes for most people in the top quintile would not be larger under Option 4 than under Option 2 because only a small percentage of workers have earnings above the taxable maximum that covers 90 percent of earnings. Nevertheless, substantial additional payroll taxes would be paid by the very top earners under Option 4.

Replacement rates under Option 4 would increase noticeably under the scheduled-benefits scenario only for people in the highest quintile of lifetime household earnings. Among people in that quintile, the median replacement rate would increase by about 3 percent for people born in the 1960s and by about 6 percent for people born in the 2000s, CBO estimates. The increase in revenues generated by the higher taxable maximum would extend the solvency of the OASDI trust funds and therefore raise replacement rates for people in all quintiles of lifetime household earnings under the payable-benefits scenario. For people born in the 1960s, the median replacement rate would rise by about 12 percent for those in the lowest quintile and by 9 percent for those in the highest quintile. For people born in the 2000s, the median replacement rate would rise by about 12 percent for those in the lowest and middle quintiles and by about 21 percent for those in the highest quintile (see Table 2).

If the taxable maximum was eliminated and the payroll tax rate was increased by 1.6 percentage points in 2015 (Option 5), all covered workers would pay more in payroll taxes. An employee earning $150,000 and his or her employer would pay an additional $3,100 (or 42 percent) in payroll taxes. Workers earning $200,000 in 2015 would pay $6,600 (or 89 percent) more. Lifetime payroll taxes would increase more for people with higher lifetime earnings and for people in younger birth cohorts. Median lifetime payroll taxes for people in the lowest quintile of lifetime household earnings who were born in the 1960s would increase by 3 percent, but median lifetime payroll taxes for people in the highest quintile of lifetime household earnings who were born in the 2000s would increase by 33 percent (see Table 2).

Under Option 5, replacement rates under the scheduled-benefits scenario would increase noticeably only for people in the highest quintile of lifetime household earnings. Among people in that quintile, the median replacement rate would increase by about 3 percent for people who were born in the 1960s and by about 6 percent for people who were born in the 2000s, CBO estimates. However, that same rise in the OASDI payroll tax rate would boost replacement rates for all quintiles under the payable-benefits scenario because it would eliminate the entire actuarial imbalance in the OASDI program as a whole and would extend the solvency of the trust funds. For people born in the 1960s, the median replacement rate would increase by about 12 percent for those in the lowest quintile of lifetime household earnings and by about 9 percent for those in the highest quintile. For people born in the 2000s, the median replacement rate for people in all quintiles would increase by 42 percent or more.

As another variant of Option 4, CBO analyzed an option in which the taxable maximum would be eliminated and the newly taxed earnings would be counted in the benefit calculation—but the additional benefits on earnings above the current taxable maximum would be calculated using a 5 percent replacement rate (**Option 6**). Under that option, replacement rates under the scheduled-benefits scenario would increase noticeably only for people in the highest quintile of lifetime household earnings. The median replacement rate would increase by about 3 percent for people in that quintile in all birth cohorts. In contrast, under the payable-benefits scenario, the increase in revenues generated by the higher taxable maximum would extend the solvency of the OASDI trust funds and therefore raise replacement rates for people in all quintiles of lifetime household earnings. For people born in the 1960s, the median replacement rate would increase by about 12 percent for those in the lowest quintile of lifetime household earnings and by about 6 percent for those in the highest quintile, CBO estimates. For people born in the 2000s, the median replacement rate would increase by about 18 percent for those in the lowest quintile and by about 21 percent for those in the highest quintile (see Table 2). That option would eliminate about two-thirds of the actuarial imbalance in the OASDI program as a whole.

Raise the Payroll Tax Rate to 14.4 Percent

Questions: If the payroll tax rate was increased to 14.4 percent, what would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort under the current-law taxable maximum (appropriately indexed using projected growth in the AWI)?

If the payroll tax rate was increased to 14.4 percent and the taxable maximum was changed so that 90 percent of earnings were subject to the payroll tax in 2015 and the maximum was indexed to the AWI thereafter, what would the effects on payroll taxes be relative to current law for people with earnings at the current-law taxable maximum and at the new taxable maximum? What about for people with earnings at $200,000 and at $250,000? What would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort?

And if the payroll tax rate was increased to 14.4 percent and the taxable maximum was eliminated, what would the effects be on payroll taxes paid by workers with earnings above the current-law taxable maximum relative to current law? What would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort?

Answers: If the combined OASDI payroll tax rate was increased from 12.4 percent to 14.4 percent (**Option 7**), revenues credited to the Social Security trust funds would rise by 16 percent in 2015. An employee earning $50,000 would pay an additional $500 in payroll taxes, and his or her employer would also pay an additional $500 in payroll taxes. A self-employed worker earning $50,000 would pay an additional $1,000 in payroll taxes because self-employed workers pay both portions of the payroll tax (see Table 1). Median lifetime payroll taxes would increase by about 6 percent for people in the lowest and highest quintiles of lifetime household earnings who were born in the 1960s and by about 15 percent for people in all quintiles who were born in the 2000s (see Table 2). Under the scheduled-benefits scenario, median replacement rates for people in all quintiles of lifetime household earnings and birth cohorts would not change if the OASDI payroll tax rate increased to 14.4 percent in 2015. However, that same rise in the OASDI payroll tax rate would boost replacement rates under the payable-benefits scenario. For people born in the 1960s, the median replacement rate would increase by about 12 percent for those in the lowest quintile of lifetime household earnings and by about 6 percent for those in the highest quintile. For people born in the 2000s, the median replacement rate for those in all quintiles would increase by about 18 percent. Option 7 would eliminate about 60 percent of the actuarial imbalance in the OASDI program as a whole, CBO estimates.

If the combined OASDI payroll tax rate was increased from 12.4 percent to 14.4 percent and the taxable maximum was changed so that 90 percent of earnings were subject to the payroll tax (**Option 8**), all covered workers would pay more in payroll taxes. Workers with annual earnings less than or equal to $119,400 (the projected taxable maximum in 2015 under current law) would pay 16 percent more in payroll taxes in 2015. Workers earning $241,600 (the new taxable maximum in 2015) would pay $10,000 (or 135 percent) more in payroll taxes in 2015 (see Table 1). Although workers with earnings of $250,000 or more would not pay payroll taxes on their earnings above the new taxable maximum of $241,600 in 2015, all workers with earnings at or above that new maximum would pay 135 percent more in payroll taxes. Revenues credited to the Social Security trust funds in 2015 would increase by about 28 percent. Lifetime payroll taxes would increase more for people with higher lifetime earnings and for those who were in younger birth cohorts. Median lifetime payroll taxes for people in the lowest quintile of lifetime household earnings who were born in the 1960s would increase by about 6 percent. Median lifetime payroll taxes for people in the highest quintile who were born in the 2000s would increase by about 36 percent (see Table 2).

Under Option 8, replacement rates under the scheduled-benefits scenario would rise noticeably only for people in the highest quintile of lifetime household earnings. Among people in that quintile, the median replacement rate would rise by about 3 percent for people born in the 1960s and by about 6 percent for people born in the 2000s. The increase in revenues generated by the higher taxable maximum and tax rate would eliminate about 90 percent of the actuarial imbalance in the OASDI trust funds, thereby extending their solvency. It would therefore raise replacement rates under the payable-benefits scenario for people in all quintiles of lifetime household earnings. The median replacement rate for people in the lowest quintile who were born in the 1960s would increase by about 12 percent; for those in the highest quintile, it would increase by about 9 percent, CBO estimates. For people born in the 2000s, the median replacement rate for those in the lowest quintile would increase by about 42 percent and for those in the highest quintile, by about 51 percent.

If the combined OASDI payroll tax rate was increased from 12.4 percent to 14.4 percent in 2015 and the taxable maximum was eliminated (**Option 9**), all covered workers would pay

more in payroll taxes. Workers with annual earnings less than or equal to $119,400 would pay 16 percent more in payroll taxes. A worker earning $150,000 would pay $3,400 (or 46 percent) more in payroll taxes, a worker earning $200,000 would pay $7,000 (or 95 percent) more in payroll taxes, and a worker earning $250,000 would pay $10,600 (or 143 percent) more in payroll taxes (see Table 1). Revenues credited to the Social Security trust funds in 2015 would increase by about 37 percent. Lifetime taxes would increase more for people with higher lifetime earnings and for people in younger birth cohorts. Median lifetime taxes for people in the lowest quintile of lifetime household earnings who were born in the 1960s would increase by about 6 percent. Median lifetime taxes for people in the highest quintile who were born in the 2000s would increase by about 36 percent (see Table 2).

Under Option 9, replacement rates under the scheduled-benefits scenario would increase noticeably only for people in the highest quintile of lifetime household earnings. Among people in the highest quintile, the median replacement rate would increase by about 3 percent for people born in the 1960s and by about 6 percent for people born in the 2000s. Option 9 would more than eliminate the actuarial imbalance in the OASDI trust funds as a whole, and it would therefore raise replacement rates for people in all quintiles of lifetime household earnings under the payable-benefits scenario. The median replacement rate for people in the lowest quintile born in the 1960s would increase by about 12 percent; the median rate for those in the highest quintile would increase by about 9 percent. For people born in the 2000s, the median replacement rate would increase by about 42 percent for those in the lowest quintile and by about 51 percent for those in the highest quintile, CBO estimates (see Table 2).

Raise the Payroll Tax Rate to 16.4 Percent

Questions: If the payroll tax rate was increased to 16.4 percent and the current-law taxable maximum was indexed to 2015 using projected growth in the AWI, what would happen to payroll taxes paid by employers, payroll taxes paid by workers, and replacement rates for people in the lowest, middle, and highest quintiles of lifetime household earnings by 10-year birth cohort? What about if the payroll tax rate was increased to 16.4 percent and the taxable maximum was raised so that 90 percent of covered earnings were subject to the payroll tax and the maximum was indexed to the AWI thereafter? What about if the payroll tax rate was increased to 16.4 percent and the taxable maximum was eliminated?

Answers: If the combined OASDI payroll tax rate was increased from 12.4 percent to 16.4 percent (**Option 10**), revenues credited to the Social Security trust funds would increase by 31 percent in 2015. An employee earning $50,000 in 2015 would pay an additional $1,000 in payroll taxes, and his or her employer would also pay an additional $1,000 in payroll taxes. A self-employed worker earning the same amount would pay an additional $2,000 in payroll taxes (see Table 1). Median lifetime payroll taxes would increase by about 9 percent for people in all quintiles of lifetime household earnings who were born in the 1960s; they would increase by about 30 percent for people born in the 2000s (see Table 2). Under the scheduled-benefits scenario, replacement rates for people in all birth cohorts and in all quintiles of lifetime household earnings would not change if the OASDI payroll tax rate was increased to 16.4 percent in 2015. However, that same rise in the OASDI payroll tax rate would more than eliminate the actuarial imbalance in the OASDI trust funds as a whole, and it would increase replacement rates under the payable-benefits scenario. Among people born in the 1960s, the median replacement rate would increase by 12 percent for those in the lowest quintile of lifetime household earnings and by about 6 percent for people in the highest quintile, CBO estimates. The median replacement rate for people in all quintiles who were born in the 2000s would increase by about 42 percent.

If the combined OASDI payroll tax rate was raised from 12.4 percent to 16.4 percent in 2015 and the taxable maximum was increased so that 90 percent of covered earnings fell under that maximum (**Option 11**), all covered workers would pay more in payroll taxes. Workers with annual earnings less than or equal to $119,400 would pay 32 percent more in payroll taxes. Workers earning $241,600, the new taxable maximum in 2015, would pay $12,400 (or 168 percent) more in payroll taxes (see Table 1). Revenues credited to the Social Security trust funds in 2015 would increase by about 45 percent. Lifetime payroll taxes would increase more for people in younger birth cohorts and for people with higher lifetime earnings. Median lifetime payroll taxes for people in the lowest quintile of lifetime household earnings who were born in the 1960s would increase by about 9 percent. Median lifetime payroll taxes for people in the highest quintile who were born in the 2000s would increase by about 54 percent (see Table 2). Under the scheduled-benefits scenario, replacement rates would increase noticeably only for people in the highest quintile of lifetime household earnings—by about 3 percent for people born in the 1960s and by about 6 percent for people born in the 2000s. The increase in revenues under this option would more than eliminate the actuarial imbalance in the OASDI trust funds as a whole, and it would therefore raise replacement rates under the payable-benefits scenario for people in all quintiles of lifetime household earnings. For people born in the 1960s, the median replacement rate would increase by about 12 percent for those in the lowest quintile and by about 9 percent for those in the highest quintile, CBO estimates. For people born in the 2000s, the median replacement rate would increase by about 42 percent for those in the lowest quintile and by about 51 percent for those in the highest quintile.

If the combined OASDI payroll tax rate was increased from 12.4 percent to 16.4 percent in 2015 and the taxable maximum was eliminated (**Option 12**), all covered workers would pay more in payroll taxes. Workers with annual earnings less than or equal to $119,400 in 2015 would pay 32 percent more in payroll taxes. A worker earning $150,000 would pay $4,900 (or 66 percent) more in payroll taxes, a worker earning $200,000 would pay $9,000 (or 122 percent) more in payroll taxes, and a worker earning $250,000 would pay $13,100 (or 177 percent) more in payroll taxes in 2015 (see Table 1). Revenues credited to the Social Security trust funds in 2015 would increase by about 56 percent. Lifetime payroll taxes would rise more for people in younger birth cohorts and for people with higher lifetime earnings. Median lifetime payroll taxes for those in the lowest quintile of lifetime household earnings would rise by about 9 percent. For people born in the 2000s, median lifetime payroll taxes for those in the highest quintile would rise by about 54 percent (see Table 2). Replacement rates under the scheduled-benefits scenario would increase noticeably only for people in the highest quintile of lifetime household earnings. Among people in that quintile, the median rate would increase by about 3 percent for those born in the 1960s and by about 6 percent for those born in the 2000s. The increase in revenues under Option 12 would replace the projected actuarial imbalance under current law—1.2 percentage points of GDP—with a positive actuarial balance equal to 1.0 percentage point of GDP, CBO estimates. It would therefore raise replacement rates under the payable-benefits scenario for people in all quintiles of lifetime household earnings. For people born in the 1960s, the median replacement rate would increase by about 12 percent for those in the lowest quintile and by about 9 percent for those in the highest quintile, CBO estimates. For people born in the 2000s, the median replacement rate would increase by about 42 percent for those in the lowest quintile and by about 51 percent for those in the highest quintile.

Table 1.

Payroll Taxes Paid by Employees and Employers in 2015 Under Current Law and Under Various Policy Options for Social Security

Dollars

| | | Payroll Taxes | | | | | |
	Covered Earnings in 2015	Amount Paid Separately by Employee and Employer	Total Amount Paid[a]	Change From Current Law in Amount Paid by Employee and Employer	Change From Current Law in Total Amount Paid	Percentage Change From Current Law in Total Amount Paid[b]	Total Payroll Taxes as a Share of Total Earnings (Percent)
				Current Law[c]			
	50,000	3,100	6,200	n.a.	n.a.	n.a.	12.4
	119,400	7,400	14,800	n.a.	n.a.	n.a.	12.4
	150,000	7,400	14,800	n.a.	n.a.	n.a.	9.9
	200,000	7,400	14,800	n.a.	n.a.	n.a.	7.4
	241,600	7,400	14,800	n.a.	n.a.	n.a.	6.1
	250,000	7,400	14,800	n.a.	n.a.	n.a.	5.9
				Policy Options Beginning in 2015			
				Raise the Payroll Tax Rate to Achieve OASDI Solvency Over 75 Years			
1. Raise the payroll tax rate by	50,000	4,000	8,000	900	1,800	29	15.9
3.54 percentage points	119,400	9,500	19,000	2,100	4,200	29	15.9
	150,000	9,500	19,000	2,100	4,200	29	12.7
	200,000	9,500	19,000	2,100	4,200	29	9.5
	241,600	9,500	19,000	2,100	4,200	29	7.9
	250,000	9,500	19,000	2,100	4,200	29	7.6
				Raise the Taxable Maximum to Cover 90 Percent of Earnings and Include Additional Earnings in the Computation of Benefits			
2. Raise the taxable maximum to	50,000	3,100	6,200	0	0	0	12.4
cover 90 percent of earnings	119,400	7,400	14,800	0	0	0	12.4
	150,000	9,300	18,600	1,900	3,800	26	12.4
	200,000	12,400	24,800	5,000	10,000	68	12.4
	241,600	15,000	30,000	7,600	15,200	102	12.4
	250,000	15,000	30,000	7,600	15,200	102	12.0
3. Raise the taxable maximum to	50,000	3,700	7,300	600	1,100	18	14.7
cover 90 percent of earnings	119,400	8,800	17,500	1,400	2,700	18	14.7
and increase the payroll tax	150,000	11,000	22,000	3,600	7,200	49	14.7
rate by 2.29 percentage points	200,000	14,700	29,400	7,300	14,600	98	14.7
	241,600	17,700	35,500	10,300	20,700	140	14.7
	250,000	17,700	35,500	10,300	20,700	140	14.2
				Eliminate the Taxable Maximum and Include Additional Earnings in the Computation of Benefits			
4. Eliminate the taxable maximum	50,000	3,100	6,200	0	0	0	12.4
	119,400	7,400	14,800	0	0	0	12.4
	150,000	9,300	18,600	1,900	3,800	26	12.4
	200,000	12,400	24,800	5,000	10,000	68	12.4
	241,600	15,000	30,000	7,600	15,200	102	12.4
	250,000	15,500	31,000	8,100	16,200	109	12.4

Continued

Table 1.   **Continued**

Payroll Taxes Paid by Employees and Employers in 2015 Under Current Law and Under Various Policy Options for Social Security

Dollars

| | Covered Earnings in 2015 | Payroll Taxes | | | | | Total Payroll Taxes as a Share of Total Earnings (Percent) |
		Amount Paid Separately by Employee and Employer	Total Amount Paid[a]	Change From Current Law in Amount Paid by Employee and Employer	Change From Current Law in Total Amount Paid	Percentage Change From Current Law in Total Amount Paid[b]	
			Policy Options Beginning in 2015 (Continued)				
			Eliminate the Taxable Maximum and Include Additional Earnings in the Computation of Benefits (Continued)				
5. Eliminate the taxable maximum	50,000	3,500	7,000	400	800	13	14.0
and increase	119,400	8,400	16,700	1,000	1,900	13	14.0
the payroll tax rate by	150,000	10,500	21,000	3,100	6,200	42	14.0
1.61 percentage points	200,000	14,000	28,000	6,600	13,200	89	14.0
	241,600	16,900	33,800	9,500	19,000	129	14.0
	250,000	17,500	35,000	10,100	20,200	137	14.0
6. Eliminate the taxable maximum	50,000	3,100	6,200	0	0	0	12.4
and calculate benefits on	119,400	7,400	14,800	0	0	0	12.4
earnings above the current-	150,000	9,300	18,600	1,900	3,800	26	12.4
law taxable maximum using a	200,000	12,400	24,800	5,000	10,000	68	12.4
5 percent replacement rate	241,600	15,000	30,000	7,600	15,200	102	12.4
	250,000	15,500	31,000	8,100	16,200	109	12.4
			Raise the Payroll Tax Rate to 14.4 Percent				
7. Raise the payroll tax rate to	50,000	3,600	7,200	500	1,000	16	14.4
14.4 percent	119,400	8,600	17,200	1,200	2,400	16	14.4
	150,000	8,600	17,200	1,200	2,400	16	11.5
	200,000	8,600	17,200	1,200	2,400	16	8.6
	241,600	8,600	17,200	1,200	2,400	16	7.1
	250,000	8,600	17,200	1,200	2,400	16	6.9
8. Increase the payroll	50,000	3,600	7,200	500	1,000	16	14.4
tax rate to 14.4 percent, raise	119,400	8,600	17,200	1,200	2,400	16	14.4
the taxable maximum to cover	150,000	10,800	21,600	3,400	6,800	46	14.4
90 percent of earnings, and	200,000	14,400	28,800	7,000	14,000	95	14.4
include additional earnings in	241,600	17,400	34,800	10,000	20,000	135	14.4
benefit computations	250,000	17,400	34,800	10,000	20,000	135	13.9
9. Increase the payroll	50,000	3,600	7,200	500	1,000	16	14.4
tax rate to 14.4 percent,	119,400	8,600	17,200	1,200	2,400	16	14.4
eliminate the taxable	150,000	10,800	21,600	3,400	6,800	46	14.4
maximum, and include	200,000	14,400	28,800	7,000	14,000	95	14.4
additional earnings in benefit	241,600	17,400	34,800	10,000	20,000	135	14.4
computations	250,000	18,000	36,000	10,600	21,200	143	14.4

Continued

Table 1.   **Continued**

Payroll Taxes Paid by Employees and Employers in 2015 Under Current Law and Under Various Policy Options for Social Security

Dollars

| | | Payroll Taxes | | | | | |
	Covered Earnings in 2015	Amount Paid Separately by Employee and Employer	Total Amount Paid[a]	Change From Current Law in Amount Paid by Employee and Employer	Change From Current Law in Total Amount Paid	Percentage Change From Current Law in Total Amount Paid[b]	Total Payroll Taxes as a Share of Total Earnings (Percent)
				Policy Options Beginning in 2015 (Continued)			
				Raise the Payroll Tax Rate to 16.4 Percent			
10. Raise the payroll tax rate to	50,000	4,100	8,200	1,000	2,000	32	16.4
16.4 percent	119,400	9,800	19,600	2,400	4,800	32	16.4
	150,000	9,800	19,600	2,400	4,800	32	13.1
	200,000	9,800	19,600	2,400	4,800	32	9.8
	241,600	9,800	19,600	2,400	4,800	32	8.1
	250,000	9,800	19,600	2,400	4,800	32	7.8
11. Increase the payroll tax rate	50,000	4,100	8,200	1,000	2,000	32	16.4
to 16.4 percent, raise the	119,400	9,800	19,600	2,400	4,800	32	16.4
taxable maximum to cover	150,000	12,300	24,600	4,900	9,800	66	16.4
90 percent of earnings, and	200,000	16,400	32,800	9,000	18,000	122	16.4
include additional earnings in	241,600	19,800	39,600	12,400	24,800	168	16.4
benefit computations	250,000	19,800	39,600	12,400	24,800	168	15.8
12. Increase the payroll tax rate	50,000	4,100	8,200	1,000	2,000	32	16.4
to 16.4 percent, eliminate the	119,400	9,800	19,600	2,400	4,800	32	16.4
taxable maximum, and include	150,000	12,300	24,600	4,900	9,800	66	16.4
additional earnings in benefit	200,000	16,400	32,800	9,000	18,000	122	16.4
computations	241,600	19,800	39,600	12,400	24,800	168	16.4
	250,000	20,500	41,000	13,100	26,200	177	16.4

Source: Congressional Budget Office.

Notes: CBO estimates that the taxable maximum in 2015 under current law will be $119,400. See Congressional Budget Office, "Social Security Old-Age and Survivors Insurance—Baseline Projections" (April 14, 2014), www.cbo.gov/publication/43889. The staff of the Joint Committee on Taxation provided the estimate of the taxable maximum required to cover 90 percent of earnings ($241,600) in 2015.

OASDI = Old-Age, Survivors, and Disability Insurance; n.a. = not applicable.

a.   Total amount paid consists of the employee's and employer's payroll taxes combined.

b.   Increases in payroll taxes do not reflect any change in wages following the change in payroll taxes and are assumed to be split evenly between employer and employee. Therefore, the percentage change in payroll taxes paid is the same for employees, employers, and total payroll taxes.

c.   "Current law" refers to current statutes that govern Social Security benefits and payroll taxes. See Congressional Budget Office, *The Long-Term Budget Outlook* (September 2013), www.cbo.gov/publication/44521.

Table 2.

Changes to Lifetime Payroll Taxes, Initial Replacement Rates, and Solvency Measures Under Various Policy Options for Social Security

	Lifetime Household Earnings Quintile[a]	Assuming Scheduled Benefits						Assuming Payable Benefits						75-Year Actuarial Balance[d]
		Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] (Thousands of 2013 dollars)			Median Initial Replacement Rates by 10-Year Birth Cohort[c] (Percent)			Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] (Thousands of 2013 dollars)			Median Initial Replacement Rates by 10-Year Birth Cohort[c] (Percent)			
		1960	1980	2000	1960	1980	2000	1960	1980	2000	1960	1980	2000	
		Current Law[e]												
	Lowest	79	99	134	71	74	73	79	99	134	65	57	51	
	Middle	343	359	512	42	44	43	343	359	512	40	33	30	–1.2 percent of GDP
	Highest	711	811	1,127	27	28	26	711	811	1,127	26	22	19	

Changes Under Policy Options Beginning in 2015 (Percentage change from current law)

Raise the Payroll Tax Rate to Achieve OASDI Solvency Over 75 Years

		1960	1980	2000	1960	1980	2000	1960	1980	2000	1960	1980	2000	
1. Raise the payroll tax rate by 3.54 percentage points	Lowest	9	18	27	0	0	0	9	18	27	12	33	42	100
	Middle	6	21	27	0	0	0	6	21	27	3	33	42	
	Highest	9	24	27	0	0	0	9	24	27	6	30	42	

Raise the Taxable Maximum to Cover 90 Percent of Earnings and Include Additional Earnings in the Computation of Benefits

		1960	1980	2000	1960	1980	2000	1960	1980	2000	1960	1980	2000	
2. Raise the taxable maximum to cover 90 percent of earnings	Lowest	*	*	*	*	*	*	*	*	*	12	9	6	30
	Middle	*	*	*	*	*	*	*	*	*	3	9	9	
	Highest	9	15	18	3	6	6	9	15	18	9	15	15	
3. Raise the taxable maximum to cover 90 percent of earnings and increase the payroll tax rate by 2.29 percentage points	Lowest	6	12	15	*	*	*	6	12	15	12	33	42	100
	Middle	6	15	18	*	*	*	6	15	18	3	33	42	
	Highest	15	33	36	3	6	6	15	33	36	9	39	51	

Eliminate the Taxable Maximum and Include Additional Earnings in the Computation of Benefits

		1960	1980	2000	1960	1980	2000	1960	1980	2000	1960	1980	2000	
4. Eliminate the taxable maximum	Lowest	*	*	*	*	*	*	*	*	*	12	18	12	45
	Middle	*	*	*	*	*	*	*	*	*	3	21	12	
	Highest	12	15	18	3	6	6	12	15	18	9	27	21	
5. Eliminate the taxable maximum and increase the payroll tax rate by 1.61 percentage points	Lowest	3	9	9	*	*	*	3	9	9	12	33	42	100
	Middle	3	9	12	*	*	*	3	9	12	3	33	42	
	Highest	15	27	33	3	6	6	15	27	33	9	39	51	
6. Eliminate the taxable maximum and calculate benefits on earnings above the current-law taxable maximum using a 5 percent replacement rate	Lowest	*	*	*	*	*	*	*	*	*	12	33	18	65
	Middle	*	*	*	*	*	*	*	*	*	3	33	18	
	Highest	12	15	18	3	3	3	12	15	18	6	33	21	

Continued

Table 2.   **Continued**

Changes to Lifetime Payroll Taxes, Initial Replacement Rates, and Solvency Measures Under Various Policy Options for Social Security

	Lifetime Household Earnings Quintile[a]	Assuming Scheduled Benefits						Assuming Payable Benefits						75-Year Actuarial Balance[d]
		Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] (Thousands of 2013 dollars)			Median Initial Replacement Rates by 10-Year Birth Cohort[c] (Percent)			Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] (Thousands of 2013 dollars)			Median Initial Replacement Rates by 10-Year Birth Cohort[c] (Percent)			
		1960	1980	2000	1960	1980	2000	1960	1980	2000	1960	1980	2000	

Changes Under Policy Options Beginning in 2015, Continued (Percentage change from current law)

Raise the Payroll Tax Rate to 14.4 Percent

7. Raise the payroll tax rate to 14.4 percent	Lowest	6	9	15	0	0	0	6	9	15	12	18	18	60
	Middle	3	12	15	0	0	0	3	12	15	3	21	18	
	Highest	6	12	15	0	0	0	6	12	15	6	21	18	
8. Increase the payroll tax rate to 14.4 percent, raise the taxable maximum to cover 90 percent of earnings, and include additional earnings in benefit computations	Lowest	6	9	15	*	*	*	6	9	15	12	30	42	90
	Middle	3	12	15	*	*	*	3	12	15	3	33	42	
	Highest	15	30	36	3	6	6	15	30	36	9	39	51	
9. Increase the payroll tax rate to 14.4 percent, eliminate the taxable maximum, and include additional earnings in benefit computations	Lowest	6	9	15	*	*	*	6	9	15	12	33	42	115
	Middle	3	12	15	*	*	*	3	12	15	3	33	42	
	Highest	15	30	36	3	6	6	15	30	36	9	39	51	

Raise the Payroll Tax Rate to 16.4 Percent

10. Raise the payroll tax rate to 16.4 percent	Lowest	9	21	30	0	0	0	9	21	30	12	33	42	115
	Middle	9	24	30	0	0	0	9	24	30	3	33	42	
	Highest	9	27	30	0	0	0	9	27	30	6	30	42	
11. Increase the payroll tax rate to 16.4 percent, raise the taxable maximum to cover 90 percent of earnings, and include additional earnings in benefit computations	Lowest	9	21	30	*	*	*	9	21	30	12	33	42	155
	Middle	9	24	30	*	*	*	9	24	30	3	33	42	
	Highest	21	45	54	3	6	6	21	45	54	9	39	51	

Continued

Table 2.   **Continued**

Changes to Lifetime Payroll Taxes, Initial Replacement Rates, and Solvency Measures Under Various Policy Options for Social Security

		Assuming Scheduled Benefits						Assuming Payable Benefits						
	Lifetime Household Earnings Quintile[a]	Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] (Thousands of 2013 dollars)			Median Initial Replacement Rates by 10-Year Birth Cohort[c] (Percent)			Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] (Thousands of 2013 dollars)			Median Initial Replacement Rates by 10-Year Birth Cohort[c] (Percent)			75-Year Actuarial Balance[d]
		1960	1980	2000	1960	1980	2000	1960	1980	2000	1960	1980	2000	
		Changes Under Policy Options Beginning in 2015, Continued (Percentage change from current law)												
		Raise the Payroll Tax Rate to 16.4 Percent (Continued)												
12. Increase the payroll tax rate to 16.4 percent, eliminate the taxable maximum, and include additional earnings in benefit computations	Lowest	9	21	30	*	*	*	9	21	30	12	33	42	**180**
	Middle	9	24	30	*	*	*	9	24	30	3	33	42	
	Highest	21	45	54	3	6	6	21	45	54	9	39	51	

Source: Congressional Budget Office.

Notes: The 75-year projection period in this analysis spans calendar years 2013 to 2087. Median values are within a group; half of the people in each group (defined by lifetime household earnings category and birth cohort) would have a lower value and half would have a higher value. Percentage changes in payroll taxes and replacement rates are rounded to 3 percentage points. Percentage improvements in the 75-year actuarial balance are rounded to 5 percentage points.

Scheduled benefits are full benefits as calculated under the Social Security Act, regardless of the balances in the Social Security trust funds. Payable benefits are benefits as calculated under current law, reduced as necessary to make annual outlays equal the Social Security system's annual revenues in the years after the exhaustion of the trust funds.

GDP = gross domestic product; OASDI = Old-Age, Survivors, and Disability Insurance; 0 = exactly zero, with no rounding; * = between -1.5 percent and 1.5 percent, but not exactly zero.

a. The lowest fifth, middle fifth, and highest fifth of people ranked by lifetime household earnings, within a 10-year birth cohort.

b. Lifetime payroll taxes are present values discounted to age 62. A present value is a single number that expresses a flow of current, past, and future income or payments in terms of an equivalent lump sum received or paid today. Lifetime payroll taxes consist of the employee's and employer's payroll taxes combined and reflect changes in wages because of changes in payroll taxes.

c. Initial annual benefits as a percentage of average annual lifetime earnings. Replacement rates are computed for all individuals who are eligible to claim retirement benefits at age 62 and who have not yet claimed any other benefit. All workers are assumed to claim benefits at age 65. All values are net of income taxes paid on benefits and credited to the Social Security trust funds.

d. The actuarial balance is the difference between the income rate and cost rate. The income rate is the present value of annual tax revenues plus the initial trust fund balance, and the cost rate is the present value of annual outlays plus the present value of a year's worth of benefits as a reserve at the end of the period, each divided by the present value of GDP. Under current law, the 75-year actuarial imbalance is 1.2 percent of GDP; that is, the cost rate exceeds the income rate by 1.2 percentage points of GDP. The bar represents the percentage improvement in the actuarial balance. If the actuarial balance is improved at least 100 percent, the combined OASDI trust fund will not be exhausted within the 75-year period.

e. "Current law" refers to current statutes that govern Social Security benefits and payroll taxes. See Congressional Budget Office, *The Long-Term Budget Outlook* (September 2013), www.cbo.gov/publication/44521.