

# **“Social Security and Public Servants: Ensuring Equal Treatment”**

**Testimony by Stephen C. Goss, Chief Actuary, Social Security Administration**

**House Committee on Ways and Means, Subcommittee on Social Security**

**March 22, 2016**

Chairman Johnson, Ranking Member Becerra, and members of the subcommittee, thank you very much for the opportunity to speak to you today about the way Social Security benefits are adjusted currently for workers with earnings not covered under the program, and recent proposals to modify this adjustment. I will focus on the effects on Social Security beneficiaries of H.R. 711, introduced by Chairman Brady with Representative Neal on February 4, 2015, and the proposal included in the President's Fiscal Year 2017 Budget. Each of these proposals included modifications of the Windfall Elimination Provision (WEP) that applies to primary benefits for retired-worker and disabled-worker beneficiaries, as well as to auxiliary benefits for their spouses and children. Please refer to our enclosed letters providing estimates of the implications of these proposals for Social Security actuarial status, which are also available at <https://www.ssa.gov/oact/solvency/index.html>.

## Present Law Windfall Elimination Provision (WEP)

Under current law, retired-worker and disabled-worker beneficiaries have their primary insurance amount (PIA) computed with a three-segment formula, which applies a 90 percent factor to the lowest portion of their average earnings, 32 percent to a substantial “middle” portion of their average earnings, and 15 percent to the highest portion of earnings for high earners. Average earnings are computed reflecting the highest 35 years of covered earnings for most retirees, and fewer years included for most disabled workers. Career-average *covered* earnings for workers who have some non-covered earnings are generally lower than career-average covered earnings for similar workers who worked solely in covered employment. Therefore, a higher proportion of average covered earnings are in the lower PIA formula bracket, and in turn, the PIA formula provides a higher “replacement rate,” (that is, the ratio of PIA to career-average indexed earnings) for these workers than for similar workers who worked solely in covered employment.

In order to offset the advantage, or windfall, provided in the PIA formula for workers with non-covered earnings, the WEP gradually reduces the 90 percent PIA factor used for beneficiaries with 30 or more years of substantial covered earnings to 40 percent for those with 20 or fewer years of substantial covered earnings.. A similar adjustment is applied for disabled worker beneficiaries with non-covered earnings.

The WEP is limited in application so that it does not reduce the PIA by more than one-half of the amount of the retirement or disability pension (periodic payment) received by the worker based on non-covered employment. Worker beneficiaries who are not known to be receiving periodic payments based on their non-covered earnings do not have their PIA reduced by the WEP.

### Proposed Change in WEP for Worker Beneficiaries Newly Eligible in the Future

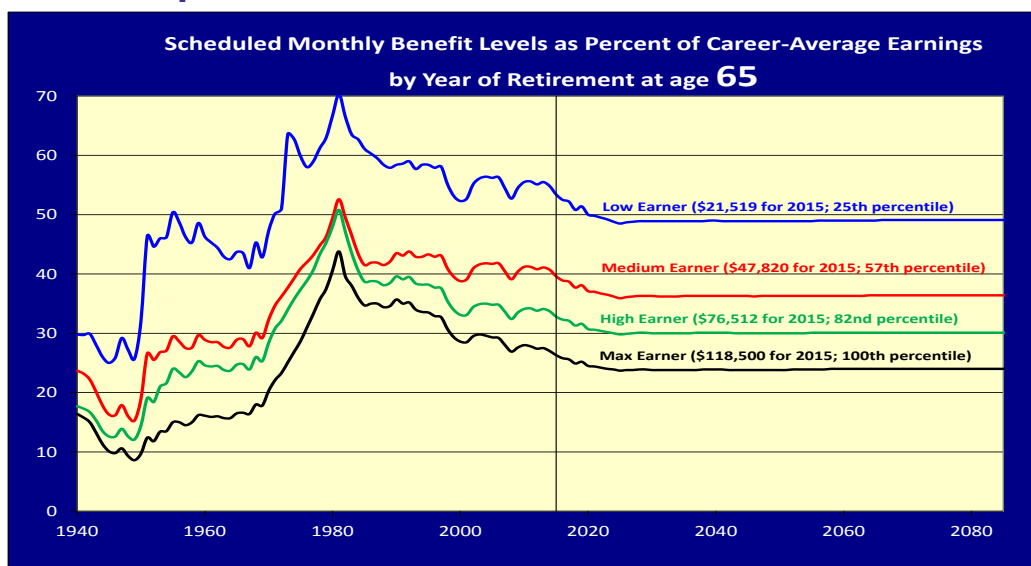
The proposal introduced by Chairman Brady and Representative Neal (H.R. 711) and the proposal included in the President's Fiscal Year 2017 Budget would ultimately alter the adjustment of worker primary benefits in the same way, starting with those newly eligible for worker benefits in 2017 for H.R. 711 and in 2027 for the President's proposal. This new adjustment would effectively apply the benefit replacement rate the worker would have had if all of his or her earnings had been covered under the Social Security program, to the worker's average indexed monthly earnings (AIME) using only covered earnings on which payroll taxes were paid.

$$\text{Adjusted PIA} = (\text{PIA using all earnings} / \text{AIME using all earnings}) * \text{AIME using covered earnings only}$$

This adjustment would be applied whether or not the worker is eligible for or receiving a pension based on non-covered earnings, and does not include a limitation based directly on the number of years of substantial covered earnings (in other words, the 30-years-of-coverage exclusion is eliminated). Because the Social Security Administration has records of non-covered earnings for years after 1977, but does not have universal access to records for receipt of non-covered pensions, this new adjustment would be much easier to apply, and would be applied much more uniformly to all workers with some years of non-covered earnings.

The figure below illustrates how the benefit replacement rate varies for retired-worker beneficiaries (retirees starting benefits at age 65) depending on the level of their career-average *covered* earnings.

### Replacement Rates based on the 2015TR



Source: Annual Recurring Actuarial Note #9 at [www.ssa.gov/oact/NOTES/ran9/index.html](http://www.ssa.gov/oact/NOTES/ran9/index.html)

For example, a worker with career-average earnings of \$47,820, our “medium earner,” receives a retirement benefit of about 40 percent of their career-average earnings. However, if the same worker happens to have worked in non-covered employment for a little over half their career, such that their career-average *covered* earnings are only at \$21,519, the level for our “low earner,” then the benefit will be about 53 percent of the career-average *covered* earnings. While the current WEP attempts to adjust for this disparity, the variability in pensions based on non-covered earnings and the reporting of these pensions leads to inconsistent adjustments in benefit levels.

The change proposed in H.R. 711 and in the Fiscal Year 2017 Budget makes a direct adjustment to the replacement rate such that the worker described above (overall career-average earnings at the medium-earner level, with a little over half of the earnings in non-covered employment, so that their career-average covered earnings would be at the low-earner level) would receive a benefit replacement rate of 40 percent, instead of 53 percent. This adjustment would occur uniformly and consistently for individuals with split careers between covered and non-covered earnings. Differences in pension levels and reporting by various non-covered employers would no longer influence the adjustment to Social Security worker benefits. The implicit rationale for this approach may be characterized as: for years of non-covered earnings, where neither the employer nor the employee paid Social Security payroll tax, the employee and employer should be responsible for providing pension coverage and disability protection.

#### Ultimate Effects on Beneficiaries of the New WEP Adjustment

In order to meaningfully illustrate the effects of the new adjustment on workers who will become eligible starting in 2017 and 2027, respectively, under these proposals, we provide estimates of the effects of the new adjustments on all current beneficiaries in 2016, as though the new approach applied to them. The average monthly WEP reduction for workers in 2016 with the current approach is about \$270.

For the roughly 1.5 million retired-worker and disabled-worker beneficiaries in 2016 whose primary benefit is reduced under the current WEP, the new adjustment would result in an increased primary benefit for about 1.25 million beneficiaries (about 84 percent of all currently-affected beneficiaries). The average reduction would be about \$77 less on average, from \$274 per month under the current WEP to about \$198 per month under the new adjustment. The remaining 0.25 million beneficiaries (about 16 percent of all currently-affected beneficiaries) would see a further small reduction in their primary benefit. Their average reduction would be about \$13 more on average, from \$190 per month under the current WEP to about \$203 per month under the new adjustment.

For 2016, we estimate that there are roughly 15 million retired-worker and disabled-worker beneficiaries with some non-covered earnings after 1977 who are not reduced under the current WEP. We estimate that for about 1 million (about 7 percent) of these beneficiaries, the new adjustment (if it were in place in 2016) would not change their primary benefit. For the other 14

million beneficiaries, the average reduction in benefit would be about \$27 per month for 2016. For the half of this 15 million least affected by the new adjustment, the average primary benefit reduction would be just \$3 per month. For the half most affected, the reduction would average \$46 per month. About 55 percent of the 15 million, or roughly 8 million beneficiaries, qualify for exemption from the current WEP because they have 30 or more years of substantial covered earnings. Because these 8 million retired-worker or disabled-worker beneficiaries have relatively few years of non-covered earnings, their reduction under the new approach would be relatively small. In addition, more than 75 percent of these 15 million workers have fewer than 5 years with any non-covered earnings.

#### Proposed Change in WEP for Worker Beneficiaries Newly Eligible in the Past or Near Future

Both proposals would expand the application of the current WEP to worker beneficiaries first eligible before the implementation of the new adjustment formula.

Under H.R. 711, all individuals eligible for retired-worker or disabled-worker benefits for December 2016 who: (1) have any recorded non-covered earnings after 1977, (2) are not currently affected by the WEP, and (3) have less than 30 years of substantial covered earnings, would be required to obtain by the end of 2016 certification from any employer who paid him or her non-covered earnings. This certification would indicate whether the worker is vested for a pension, and when and how much pension has been received. A WEP reduction would be applied if it is determined to be warranted for past or future benefits. If the WEP reduction is applicable for past benefits, an overpayment would be established to be repaid by the beneficiary, principally through recovery from his or her future benefits. If an individual does not obtain certification, then the WEP would be applied for past and future benefits limited only by the number of substantial years of covered earnings.

Under H.R. 711, a “rebate” would be applied for all benefits reduced by the current WEP based on entitlement for months in 2017 and later. The rebate would be determined to be as high as possible, but not in excess of 50 percent of the WEP reduction, and limited to assure that the net effect of the Bill on Social Security program cost through 2025 would be neutral or positive. We estimate that the maximum permissible rebate percentage of 50 percent would be applicable.

Under the President's proposal in the 2017 Budget, employers would be required to report all periodic payments (pensions) based on non-covered earnings for past and future years, for workers who were or will be first eligible for a retired-worker or disabled-worker benefit before 2027. This additional reporting, particularly from state and local governments, will lead to additional workers being subject to WEP reduction for past and future benefits.

#### Effects on Beneficiaries of the Increased Application of the Current WEP

Under H.R. 711, we estimate that up to 10 percent of the 7 million worker beneficiaries in December 2016 with some past non-covered earnings, fewer than 30 years of substantial covered earnings, and no current WEP reduction would be determined to warrant a WEP reduction on

some past or future benefits. This assumption is very uncertain, and the actual number would depend substantially on the efforts made by beneficiaries and their former employers to produce and obtain valid certification of their pension vesting and payments received. We estimate that for this group, the average amount of overpayment made before 2017 that would be recovered in 2017 through 2025 will be roughly \$8,000. For future benefits to this group, the average total benefit reduction through 2025, net of the 50-percent rebate, will also be roughly \$8,000. Recovery of overpayments for prior months would be limited by the financial status of the beneficiaries and the remaining duration of their benefit receipt. Thus, the number of individuals with recovery and reduction of benefits is very uncertain.

Under the President's proposal, we estimate that establishing systems for reporting of pension payments based on non-covered earnings would require about 3 to 6 years to fully develop and would ultimately capture most but not all non-covered pension recipients. We estimate that the percentage of the 7 million worker beneficiaries in December 2016 with past non-covered earnings, fewer than 30 years of substantial covered earnings, and no current WEP reduction who would be determined to warrant a WEP reduction on some past or future benefits under the President's proposal would be significantly lower than for the process under H.R. 711. In addition, because reductions and recoveries would be applied only for months with verified receipt of pension payments and would be limited based on the size of the pension payments, the average reduction or recovery might be smaller per month than under H.R. 711. Overall, we estimate that program savings through 2025 for benefit reductions and recoveries under the President's proposal for worker beneficiaries entitled for December 2016 would be less than half the amount expected under the provisions of H.R. 711. Under the President's proposal, however, additional workers becoming newly eligible for retired-worker or disabled-worker benefits after December 2016, through 2026, would also be found to have non-covered pension payments requiring application of the WEP adjustment.

#### Government Pension Offset (GPO)

The President's proposal would utilize the additional reported pension data to improve application of the current law GPO. The proposal would also change the GPO provision for those eligible after 2026, limiting the offset to spouse benefits (including divorced and surviving spouses) at age 62 or older and to spouse benefits for those also receiving any Social Security benefit based on their own disability (including disabled worker, disabled widow, and disabled adult child beneficiaries under age 62). The offset would be applied to these auxiliary benefits more consistently, based on their past earnings in non-covered employment. The new offset would reduce the amount of the auxiliary benefit by the excess of (1) the auxiliary beneficiary's own potential retired-worker or disabled-worker benefit based on all of his or her earnings over (2) the auxiliary beneficiary's potential worker benefit based on covered earnings only. This excess amount would be calculated and applied regardless of the insured status of the auxiliary beneficiary. This provision contributes to the program savings under the President's proposal as indicated in our letter to the Director of OMB. It is our understanding that the intent of this

hearing is to explore proposals affecting the WEP adjustments on primary benefits for workers, so I will not cover the details of the GPO provisions in this testimony.

### Conclusion

Both H.R. 711 and the President's proposal in the Fiscal Year 2017 Budget would ultimately result in a more consistent and logical adjustment to the primary benefit amounts for workers with career earnings split between covered and non-covered employment. The analysis offered here reflects intense analytical work by several people in our office, but particularly Jacqueline Walsh and Bert Kestenbaum (now retired). We appreciate the opportunity to share the results of our analysis and our estimates for the effects of these proposals. They are, as always, a work in progress. I will be happy to attempt to answer any questions you may have.



**SOCIAL SECURITY**  
Office of the Chief Actuary

March 17, 2016

The Honorable Kevin Brady  
House of Representatives  
Washington, D.C. 20515

Dear Chairman Brady:

I am writing in response to your request for our estimate of the financial effects on the Social Security Trust Funds of H.R. 711, the “*Equal Treatment of Public Servants Act of 2015*,” which you introduced on February 4, 2015 with Representative Neal. This proposal would replace the windfall elimination provision (WEP) with a new formula that you have referred to as the “Public Servant Fairness Formula” (PSF).

The proposal reflects your prior bills in concept, replacing the current complex WEP with a more straightforward approach designed to provide retired-worker and disabled-worker beneficiaries (and their dependents) with a benefit computed with all past earnings included (including earnings in employment that was not covered under the OASDI program in our records starting with 1978), then multiplied by the ratio of the average indexed monthly earnings (AIME) computed without non-covered earnings to a modified average indexed monthly earnings (AIME') that includes both covered and non-covered earnings in our records. Another way to describe the new approach is that beneficiaries will receive a benefit that reflects the replacement rate applicable for a worker with the same career earnings, where all earnings had been covered. Effectively, the PSF formula would compute the worker's PIA as the ratio of PIA based on all earnings (covered and non-covered) to the average indexed monthly earnings (AIME) computed based on all earnings, multiplied by the AIME based on covered earnings only. These two ways of describing the new approach are mathematically equivalent.

Importantly, for workers becoming eligible for OASDI benefits after 2016, the proposal would eliminate the requirement for receipt of a pension based on earnings not covered by the OASDI program in order to apply the new PSF reduction. We have enjoyed working with Aindriu Colgan and Amy Stuart of your staff in the development of this proposal. Estimates provided for this proposal reflect the efforts of many in the Office of the Chief Actuary, but particularly Jacqueline Walsh, Chris Chaplain, and Karen Glenn.

The new PSF would be applied for all retired-worker and disabled-worker beneficiaries who are newly eligible for benefits after December 2016. For workers who (1) were eligible for a Social Security retired-worker or disabled-worker benefit as of December 2016, (2) have at least one year with non-covered earnings in SSA records, (3) have no old WEP reduction under current law for December 2016, and (4) have less than 30 “years of coverage” (YOCs), certification would be required before the end of calendar year 2016 from each employer who paid the worker any non-covered wages since 1978. This certification would specify whether the worker is

entitled to a periodic payment based on his or her non-covered earnings. In the absence of this certification from such employers, the WEP would be applied to all OASDI benefits paid on the worker's account starting in 2017, and would also be assessed on all past benefits paid on the worker's account, with any "overpayment" withheld from future benefits. Reductions to benefits paid in 2017 and later on the basis of these overpayments would be subject to the SSA's use of waiver authority/payment plans where appropriate.

For the purpose of this estimate, we are assuming that the employer certification would indicate: (1) whether the worker is eligible to receive (vested for) a benefit based on the non-covered earnings; (2) whether the worker is currently receiving a periodic payment based on the non-covered earnings and, if so, when payments started; (3) whether future payments are expected in the absence of a current payment; and (4) the amount of any current and past periodic payments based on non-covered earnings. If the worker is certified to have no pension eligibility based on any past non-covered earnings, then no WEP will be applied. If certification indicates current payments and the duration of past payments, then the WEP will be applied to current, future, and past benefits after the periodic payments started, with due consideration of the limit based on pension amount. If current payment is certified without indication of when payments started, then the current WEP will be applied to all current, past, and future benefits on the worker's account. If certification indicates eligibility for a pension based on non-covered earnings with no current payment, then SSA will develop procedures for determining when such payments will commence in the future, at which time the WEP would apply.

Finally, a rebate, in the form of a percentage reduction in the amount of the WEP offset, will be provided for all WEP offsets applicable to benefits paid for 2017 and later. The size of the rebate percentage will be promulgated by the Commissioner of Social Security based on a calculation made by the Social Security Administration's Chief Actuary in November 2016. The Chief Actuary will use the best available data at the time to determine the rebate percentage to be as high as possible, but not in excess of 50 percent of the WEP reduction, and limited to assure that the net effect of the Bill on Social Security program cost through 2025 would be neutral or positive. At this time, we estimate that the maximum permissible rebate percentage of 50 percent would be applicable, resulting in a roughly \$3.5 billion net reduction in cost through calendar year 2025.

The proposal will result in added program cost for workers newly eligible for an OASDI benefit after 2016 whose benefit amount would be reduced less by the PSF than by the WEP. However, because this proposal does not require receipt of a pension based on non-covered earnings, and eliminates most exemptions from adjustments based on non-covered earnings for workers becoming newly eligible for OASDI benefits after December 2016, our estimate reflects small benefit reductions from the PSF for a relatively large number of workers who would not be reduced by the WEP. The net OASDI program benefit savings are estimated at \$13.6 billion total for years 2017 through 2025 for those newly eligible for OASDI benefits after 2016.

We estimate additional savings from benefit reductions for application of the WEP under this proposal to worker beneficiaries eligible for OASDI benefits in December 2016 who do not have a reduction for the WEP but are not certified to be exempt. The combination of the expected savings for the workers becoming newly eligible both before and after the end of 2016 are



estimated to be sufficient to allow for a 50-percent reduction (rebate) for all workers eligible as of December 2016, in the amount of the WEP reduction applied for their benefits for entitlement in January 2017 and later. Over the long-range period, the net effect on the 75-year actuarial balance would be an increase (improvement) of 0.05 percent of payroll. All estimates are based on the intermediate assumptions of the 2015 Trustees Report.

Our estimates for the proposal reflect extensive innovative analysis of data for individuals born in 1950 with experience through June of 2013, including SSA records of earnings not covered by OASDI back to 1978. This analysis has allowed us to model the potential effect of the proposal for 2013 as if it were fully in effect for all retired and disabled workers at that time. Based on these results, we were able to model the expected effects of the proposal for benefit payments starting in 2017. Initially, the proposal would affect substantial numbers of current and former Federal, state, and local government employees, plus certain other individuals receiving payments counted as wages that are not covered. Over the long-range period, the implications of the proposal would progress because the closed group of Federal government employees who are not covered by OASDI were all hired before 1984. Eventually, the group affected by the proposal will be limited principally to the roughly 25 percent of all state and local government employees who are not covered by OASDI.

Sincerely,

A handwritten signature in black ink that reads "Stephen C. Goss". The signature is written in a cursive style with a large, stylized 'S' at the beginning.

Stephen C. Goss  
Chief Actuary



# SOCIAL SECURITY

February 10, 2016

The Honorable Shaun Donovan  
Director, Office of Management and Budget  
Washington, D.C. 20503

Dear Director Donovan:

The President’s Fiscal Year 2017 Budget, released yesterday, included a proposal for enhancing and modifying the approach taken to adjust benefits for Federal Old-Age and Survivors Insurance (OASI) and Federal Disability Insurance (DI) beneficiaries who had earnings that were not covered under the Social Security program. Under the intermediate assumptions of the 2015 Trustees Report, we project that enactment of this proposal would reduce OASDI program cost by about \$8 billion total through Fiscal Year 2026, and that the long-range actuarial balance for the OASDI program would be improved by about 0.08 percent of taxable payroll. Table 1, enclosed, provides annual and summarized long-range estimates of the effects of this proposal on OASDI actuarial status. We have enjoyed working with your staff in the Income Maintenance Branch in the development of this proposal. Many in our office contributed to the development of the proposal and the estimates provided here, principally Jacqueline Walsh and Christopher Chaplain.

Two changes related to OASDI beneficiaries with non-covered earnings are included in the FY 2017 Budget. The first provision would make \$70 million available to State and local governments to facilitate development of systems to provide SSA with complete records of employees who have worked in employment not covered under OASDI, where a vested pension (periodic payment) has been earned based on the non-covered earnings. This information will be required for all individuals attaining vested status before January 1, 2027, and will include the timing and amounts of any periodic or lump-sum payments received based on the non-covered earnings: past, present, and expected future. This information will continue to be updated for the lifetime of included workers and will assure accurate and full application of the Windfall Elimination Provision (WEP) and the Government Pension Offset (GPO) applicable in current law for all workers who become eligible for any OASDI benefit prior to January 1, 2027. We estimate that additional application of WEP and GPO as a result of this enhanced reporting will result in reductions in OASDI benefit payments totaling about \$8 billion through FY 2026.

**Estimated Reductions in OASDI Benefits from Requiring State and Local Governments to Report Pensions Based on Non-Covered Employment Starting 2017**

| FY   | 2017 | 2018 | 2019 | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  | Total |
|--|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <i>(billions)</i>                          |      |      |      |       |       |       |       |       |       |       |       |
| 2015 Trustees Report Intermediate Baseline | \$0  | \$0  | \$0  | \$0.4 | \$1.0 | \$1.4 | \$1.5 | \$1.4 | \$1.3 | \$1.2 | \$8.3 |

The second provision would apply to all individuals first becoming eligible for any OASDI benefit on or after January 1, 2027. New computations, replacing the former WEP and GPO provisions, will apply to worker and auxiliary beneficiaries for the WEP, and to spousal

beneficiaries for the GPO, when the worker or spouse has any non-covered earnings. The requirement to be in receipt of a pension based on non-covered earnings will be eliminated along with the WEP guarantee and all exemptions.

WEP Replacement

The new computation involves three components: (1) a “Super AIME” computed considering all earnings in SSA records (both OASDI covered and non-covered) up to the annual taxable maximum, (2) a “Super PIA” based on the “Super AIME”, and (3) the standard AIME based only on OASDI covered earnings, or “Covered AIME.” The governing PIA for a worker (also applicable for his/her auxiliaries) is then calculated as the Covered AIME multiplied by the ratio of the Super PIA to the Super AIME.

The new computation will be effective for all payments on the record of a retired or disabled worker beneficiary becoming newly eligible for benefits on or after January 1, 2027. As under current law, upon the death of the worker, the governing PIA will revert to the standard PIA based solely on covered earnings.

GPO Replacement

Again, three components are used in the computation: (1) a “Super PIA” computed using both OASDI covered and non-covered earnings, (2) a standard PIA (“Covered PIA”) based only on OASDI covered earnings, and (3) an age reduction factor. Each component is calculated using the beneficiary’s own earnings record, without regard to insured status, as if entitlement to worker benefits begins at the same time as application of the offset. If the beneficiary is entitled to any benefit on the basis of a disability, the PIAs will be computed as for a disabled worker and no age reduction factor will apply. The new offset amount will be the difference between the Super PIA and Covered PIA, multiplied by the age reduction factor, if applicable. If the beneficiary is dually entitled, the offset will be deducted from the excess benefit payable as a spouse.

The new offset will apply to benefits paid to a spouse, former spouse, or surviving spouse of an insured worker when the spouse is age 62 and older, or is entitled to any benefit on the basis of disability. The provision is effective for those attaining 62 or becoming newly eligible for a disability benefit on or after January 1, 2027.

We hope these estimates will be helpful. Please let us know if we may provide further assistance.

Sincerely,



Stephen C. Goss  
Chief Actuary

Enclosure

**Table 1 - OASDI Cost Rate, Income Rate, Annual Balance, and Trust Fund Ratio**

**Replace Current-Law WEP and GPO with PIA Calculation Reflecting Covered Earnings and Total Earnings, Effective for New Eligibles in 2027 and Later.  
Provide Funding to State/Local Governments to Enforce Current-Law WEP and GPO for Individuals Eligible Before 2027.**

| Year | Proposal   |             |                | Trust Fund Ratio<br>1-1-year | Change from Present Law                                  |             |                |
|------|--|-------------|----------------|------------------------------|--|-------------|----------------|
|      | Expressed as a percentage of present-law taxable payroll |             |                |                              | Expressed as a percentage of present-law taxable payroll |             |                |
|      | Cost Rate  | Income Rate | Annual Balance |                              | Cost Rate  | Income Rate | Annual Balance |
| 2015 | 14.13  | 12.82       | -1.31          | 308                          | 0.00   | 0.00        | 0.00           |
| 2016 | 13.88  | 12.88       | -1.00          | 298                          | 0.00   | 0.00        | 0.00           |
| 2017 | 13.89  | 12.91       | -0.98          | 280                          | 0.00   | 0.00        | 0.00           |
| 2018 | 13.97  | 12.94       | -1.03          | 264                          | 0.00   | 0.00        | 0.00           |
| 2019 | 14.09  | 12.95       | -1.14          | 248                          | 0.00   | 0.00        | 0.00           |
| 2020 | 14.22  | 12.96       | -1.26          | 233                          | -0.01  | 0.00        | 0.01           |
| 2021 | 14.33  | 12.98       | -1.35          | 219                          | -0.01  | 0.00        | 0.01           |
| 2022 | 14.50  | 13.01       | -1.49          | 204                          | -0.02  | 0.00        | 0.01           |
| 2023 | 14.71  | 13.03       | -1.68          | 189                          | -0.01  | 0.00        | 0.01           |
| 2024 | 14.94  | 13.06       | -1.88          | 173                          | -0.01  | 0.00        | 0.01           |
| 2025 | 15.15  | 13.08       | -2.07          | 158                          | -0.01  | 0.00        | 0.01           |
| 2026 | 15.35  | 13.10       | -2.26          | 142                          | -0.01  | 0.00        | 0.01           |
| 2027 | 15.55  | 13.11       | -2.44          | 127                          | -0.01  | 0.00        | 0.01           |
| 2028 | 15.74  | 13.13       | -2.61          | 111                          | -0.01  | 0.00        | 0.01           |
| 2029 | 15.91  | 13.14       | -2.77          | 95                           | -0.02  | 0.00        | 0.02           |
| 2030 | 16.07  | 13.15       | -2.92          | 78                           | -0.02  | 0.00        | 0.02           |
| 2031 | 16.21  | 13.16       | -3.05          | 61                           | -0.03  | 0.00        | 0.03           |
| 2032 | 16.33  | 13.17       | -3.16          | 43                           | -0.04  | 0.00        | 0.04           |
| 2033 | 16.43  | 13.18       | -3.25          | 24                           | -0.05  | 0.00        | 0.04           |
| 2034 | 16.50  | 13.19       | -3.31          | 5                            | -0.05  | 0.00        | 0.05           |
| 2035 | 16.56  | 13.19       | -3.36          | ----                         | -0.06  | 0.00        | 0.06           |
| 2036 | 16.61  | 13.20       | -3.41          | ----                         | -0.07  | 0.00        | 0.06           |
| 2037 | 16.64  | 13.20       | -3.44          | ----                         | -0.07  | 0.00        | 0.07           |
| 2038 | 16.65  | 13.21       | -3.44          | ----                         | -0.08  | 0.00        | 0.08           |
| 2039 | 16.64  | 13.21       | -3.43          | ----                         | -0.08  | 0.00        | 0.08           |
| 2040 | 16.62  | 13.21       | -3.41          | ----                         | -0.09  | 0.00        | 0.08           |
| 2041 | 16.59  | 13.21       | -3.38          | ----                         | -0.09  | 0.00        | 0.09           |
| 2042 | 16.57  | 13.21       | -3.36          | ----                         | -0.10  | 0.00        | 0.09           |
| 2043 | 16.54  | 13.21       | -3.33          | ----                         | -0.10  | -0.01       | 0.10           |
| 2044 | 16.51  | 13.21       | -3.30          | ----                         | -0.10  | -0.01       | 0.10           |
| 2045 | 16.49  | 13.21       | -3.28          | ----                         | -0.11  | -0.01       | 0.10           |
| 2046 | 16.46  | 13.21       | -3.25          | ----                         | -0.11  | -0.01       | 0.11           |
| 2047 | 16.45  | 13.21       | -3.23          | ----                         | -0.11  | -0.01       | 0.11           |
| 2048 | 16.43  | 13.21       | -3.22          | ----                         | -0.12  | -0.01       | 0.11           |
| 2049 | 16.42  | 13.21       | -3.21          | ----                         | -0.12  | -0.01       | 0.11           |
| 2050 | 16.42  | 13.21       | -3.21          | ----                         | -0.12  | -0.01       | 0.11           |
| 2051 | 16.43  | 13.22       | -3.21          | ----                         | -0.12  | -0.01       | 0.12           |
| 2052 | 16.45  | 13.22       | -3.23          | ----                         | -0.13  | -0.01       | 0.12           |
| 2053 | 16.48  | 13.22       | -3.26          | ----                         | -0.13  | -0.01       | 0.12           |
| 2054 | 16.51  | 13.22       | -3.29          | ----                         | -0.13  | -0.01       | 0.12           |
| 2055 | 16.56  | 13.23       | -3.33          | ----                         | -0.13  | -0.01       | 0.12           |
| 2056 | 16.61  | 13.23       | -3.38          | ----                         | -0.13  | -0.01       | 0.13           |
| 2057 | 16.66  | 13.23       | -3.42          | ----                         | -0.13  | -0.01       | 0.13           |
| 2058 | 16.71  | 13.24       | -3.47          | ----                         | -0.14  | -0.01       | 0.13           |
| 2059 | 16.76  | 13.24       | -3.52          | ----                         | -0.14  | -0.01       | 0.13           |
| 2060 | 16.81  | 13.25       | -3.57          | ----                         | -0.14  | -0.01       | 0.13           |
| 2061 | 16.87  | 13.25       | -3.62          | ----                         | -0.14  | -0.01       | 0.13           |
| 2062 | 16.92  | 13.25       | -3.67          | ----                         | -0.14  | -0.01       | 0.13           |
| 2063 | 16.97  | 13.26       | -3.71          | ----                         | -0.14  | -0.01       | 0.13           |
| 2064 | 17.02  | 13.26       | -3.76          | ----                         | -0.14  | -0.01       | 0.13           |
| 2065 | 17.07  | 13.26       | -3.81          | ----                         | -0.14  | -0.01       | 0.13           |
| 2066 | 17.13  | 13.27       | -3.86          | ----                         | -0.14  | -0.01       | 0.13           |
| 2067 | 17.19  | 13.27       | -3.92          | ----                         | -0.14  | -0.01       | 0.14           |
| 2068 | 17.25  | 13.27       | -3.97          | ----                         | -0.14  | -0.01       | 0.14           |
| 2069 | 17.30  | 13.28       | -4.03          | ----                         | -0.14  | -0.01       | 0.14           |
| 2070 | 17.36  | 13.28       | -4.08          | ----                         | -0.14  | -0.01       | 0.14           |
| 2071 | 17.41  | 13.28       | -4.12          | ----                         | -0.14  | -0.01       | 0.14           |
| 2072 | 17.45  | 13.29       | -4.16          | ----                         | -0.15  | -0.01       | 0.14           |
| 2073 | 17.49  | 13.29       | -4.20          | ----                         | -0.15  | -0.01       | 0.14           |
| 2074 | 17.52  | 13.29       | -4.23          | ----                         | -0.15  | -0.01       | 0.14           |
| 2075 | 17.54  | 13.29       | -4.25          | ----                         | -0.15  | -0.01       | 0.14           |
| 2076 | 17.55  | 13.29       | -4.26          | ----                         | -0.15  | -0.01       | 0.14           |
| 2077 | 17.56  | 13.29       | -4.26          | ----                         | -0.15  | -0.01       | 0.14           |
| 2078 | 17.56  | 13.30       | -4.27          | ----                         | -0.15  | -0.01       | 0.14           |
| 2079 | 17.56  | 13.30       | -4.27          | ----                         | -0.15  | -0.01       | 0.14           |
| 2080 | 17.56  | 13.30       | -4.27          | ----                         | -0.15  | -0.01       | 0.14           |
| 2081 | 17.57  | 13.30       | -4.27          | ----                         | -0.15  | -0.01       | 0.14           |
| 2082 | 17.58  | 13.30       | -4.28          | ----                         | -0.15  | -0.01       | 0.14           |
| 2083 | 17.60  | 13.30       | -4.30          | ----                         | -0.15  | -0.01       | 0.14           |
| 2084 | 17.63  | 13.30       | -4.33          | ----                         | -0.15  | -0.01       | 0.14           |
| 2085 | 17.66  | 13.30       | -4.36          | ----                         | -0.15  | -0.01       | 0.14           |
| 2086 | 17.70  | 13.30       | -4.40          | ----                         | -0.15  | -0.01       | 0.14           |
| 2087 | 17.74  | 13.31       | -4.43          | ----                         | -0.15  | -0.01       | 0.14           |
| 2088 | 17.78  | 13.31       | -4.47          | ----                         | -0.15  | -0.01       | 0.14           |
| 2089 | 17.82  | 13.31       | -4.51          | ----                         | -0.15  | -0.01       | 0.14           |
| 2090 | 17.87  | 13.31       | -4.55          | ----                         | -0.15  | -0.01       | 0.14           |

| Summarized Rates: OASDI |           |             |  |
|-------------------------|-----------|-------------|--|
|                         | Cost Rate | Income Rate | Actuarial Year of reserve depletion <sup>1</sup> |
| 2015 - 2089             | 16.46%    | 13.86%      | -2.60% 2034                                      |

| Summarized Rates: OASDI |                       |                             |
|-------------------------|-----------------------|-----------------------------|
| Change in Cost rate     | Change in Income Rate | Change in Actuarial Balance |
| -0.09%                  | 0.00%                 | 0.08%                       |

Based on Intermediate Assumptions of the 2015 Trustees Report

<sup>1</sup> Under present law the year of Trust Fund reserve depletion is 2034