



## SOCIAL SECURITY

### MEMORANDUM

**Date:** October 30, 2009 **Refer To:** TCC

**To:** Virginia Reno, Vice President for Income Security  
National Academy of Social Insurance

**From:** Stephen Goss, Chief Actuary  
Alice Wade, Deputy Chief Actuary  
Chris Chaplain, Supervisory Actuary

**Subject:** Estimated Financial Effects of Several Social Security Reform Options Requested by the National Academy of Social Insurance --INFORMATION

This memorandum provides long-range estimates of the financial effects for several options that would change the current-law OASDI (combined Old-Age and Survivors and Disability Insurance) program. You requested these estimates and provided specifications for the options. Much of the information in this memorandum is included in your publication, *Fixing Social Security: Adequate Benefits, Adequate Financing*.

The two tables below provide a brief description of each of the options and the associated estimated effect on the long-range OASDI actuarial balance and the annual balance in the 75<sup>th</sup> year of the projection period. Table 1 provides estimates based on the intermediate assumptions of the 2009 Trustees Report. Under present law using these assumptions, the OASDI actuarial deficit is estimated at 2.00 percent of taxable payroll and the annual deficit (excess of program scheduled cost over scheduled tax revenue) for 2083 is estimated at 4.34 percent of payroll. Table 2 gives estimates for all other options, which are:

- Based on the intermediate assumptions of a prior Trustees Report or
- Preliminary, as time has not permitted full modeling of all aspects of the option.

In addition, the options in each section of the table are grouped into the following categories:

- A. Reducing the cost-of-living adjustment,
- B. Provisions affecting the level of monthly benefits (PIA),
- C. Changing the retirement age,
- D. Changing benefits for family members,
- E. Increasing the payroll tax rate or revise the taxable maximum (benefit and contribution base),
- F. Extending OASDI program coverage, and

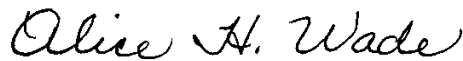
**G. Changing the investment requirements for the combined Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds.**

It is important to note that the estimates provided are for each option separately, that is, as if each option were enacted alone. Due to the effects of interaction among options, the combined effect on the long-range actuarial balance of two or more options cannot be determined accurately by simply adding the effect of the individual options. Thus, considering the effects on an additive basis should only be done with an understanding that the result will not be the same as the effect of the combination of options including interactions among the options.

We will add the options in Table 1 indicated as *New* to our internet site, <http://www.ssa.gov/OACT/solvency/provisions/index.html>. This site contains about 50 individual changes that modify the Social Security program. These changes have been suggested by various policymakers as options to consider when addressing long-range solvency. Many of these options are part of comprehensive proposals intended to restore Trust Fund solvency.



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**Table 1: Estimated Long-Range OASDI Financial Effects of Individual Options<sup>1</sup>**  
**Requested by the National Academy of Social Insurance**  
*Based on the Intermediate Assumptions of the 2009 Trustees Report*

NASI Option Number <sup>2</sup>	Office of the Chief Actuary Internet Option <sup>3</sup>	Provision (Option)	Estimated Change in Long-Range	
			Actuarial Balance <sup>4</sup> (as a percent of payroll)	Annual Balance in 75 <sup>th</sup> Year <sup>5</sup> (as a percent of payroll)
<b><i>A. Reducing the Cost-of-Living Adjustment</i></b>				
15a	A1	Beginning December 2010, reduce the COLA for OASDI benefits by 1 percentage points .....	1.55	2.19
15b	A2	Beginning December 2010, reduce the COLA for OASDI benefits by 0.5 percentage point.....	0.81	1.15
15c	A3	Beginning December 2010, use the “superlative” (or “chained”) CPI for COLAs beginning December 2010, estimated to reduce the COLA by 0.3 percentage point.....	0.49	0.70
<b><i>B. Provisions Affecting Level of Monthly Benefits (PIA)</i></b>				
19	B1.2	Progressive price indexing of PIA formula factors beginning with individuals newly eligible for OASDI benefits in 2016. Create new bend point at the 30th percentile of earners. Maintain current-law benefits for earners at the 30th percentile and below and reduce upper 2 formula factors (32% and 15%) such that maximum worker benefit grows by inflation rather than the growth in average wages. ....	1.31	3.97
17a	B4.1	Increase the number of years used to calculate benefits for retirees and survivors (but not for disabled workers) from 35 to 38 (phased in 2010-2014); i.e., 36 for 2010-11, 37 for 2012-13, and 38 for 2014 and later .....	0.29	0.43
17b	B4.2	Increase the number of years used to calculate benefits for retirees and survivors (but not for disabled workers) from 35 to 40 (phased in 2010-2018); i.e., 36 for 2010-11, 37 for 2012-13, 38 for 2014-15, 39 for 2016-17, and 40 for 2018 and later .....	0.46	0.72
3	(NEW)	Give parents earnings credits for up to five years if they have a child under 6. The earnings credited for a childcare year would be such that the resulting earnings assigned to the parents would equal one-half of the Social Security average-wage index – about \$21,021 in 2009. The credits would be available for all past years to newly eligible retired-worker and disabled-worker beneficiaries in 2010 and later. The 5 most advantageous years would be used if more than 5 childcare credit years are possible; that is, the 5 years that make the biggest difference in indexed earnings. ....	-0.24	-0.35

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4a	(NEW)	Beginning in 2010, increase the special minimum benefit by making the following changes: (a) A year of coverage is defined as a year in which 4 quarters of coverage are earned. (b) At implementation, set the PIA for 30 years of coverage equal to 125 percent of the monthly poverty level (about \$1,128 in 2009). The PIA per year of coverage (after the first 10 years) would be $\$1,128/20 = \$56.40$ . (c) Index the initial PIA per year of coverage by wage growth for successive cohorts, so that the special minimum keeps up with the wage-indexed benefit formula. ....	-0.13	-0.19
4b	(NEW)	Beginning in 2010, increase the special minimum benefit by making the following changes: (a) A year of coverage is defined to be either a childcare year or a year in which 4 quarters of coverage are earned. Childcare years are granted to parents who have a child under 5, with a limit of 8 such years. (b) At implementation, set the PIA for 30 years of coverage equal to 125 percent of the monthly poverty level (about \$1,128 in 2009). The PIA per year of coverage (after the first 10 years) would be $\$1,128/20 = \$56.40$ . (c) Index the initial PIA per year of coverage by wage growth for successive cohorts, so that the special minimum keeps up with the wage-indexed benefit formula. ....	-0.26	-0.36
18a	B6.1	Reduce benefits by 3 percent for those newly eligible for benefits in 2010 and later .....	0.36	0.50
18b	B6.2	Reduce benefits by 5 percent for those newly eligible for benefits in 2010 and later .....	0.61	0.84
1a	(NEW)	Provide a 5 percent increase to the benefit level of any beneficiary who is 85 or older at the beginning of 2010 and who reaches their 85th birthday after the beginning of 2010. ....	-0.09	-0.13
1b	(NEW)	Provide the same dollar amount increase to the benefit level of any beneficiary who is 85 or older at the beginning of 2010 and who reaches their 85th birthday after the beginning of 2010. The dollar amount of increase equals 5 percent of the average retired worker benefit in the prior year .....	-0.09	-0.14
6a	(NEW)	Increase benefits by 20 percent for all beneficiaries as of the beginning of 2010 and for those newly eligible for benefits after the beginning of 2010.....	-2.98	-3.34
6b	(NEW)	Increase benefits by 5 percent for all beneficiaries as of the beginning of 2010 and for those newly eligible for benefits after the beginning of 2010.....	-0.75	-0.83

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			Actuarial Balance <sup>4</sup> (as a percent of payroll)	Annual Balance in 75 <sup>th</sup> Year <sup>5</sup> (as a percent of payroll)
6c	(NEW)	Increase benefits by 2 percent for all beneficiaries as of the beginning of 2010 and for those newly eligible for benefits after the beginning of 2010.....	-0.30	-0.33
<b><i>D. Changing Benefits for Family Members</i></b>				
5	(NEW)	Beginning in 2010, continue benefits for children of disabled or deceased workers until age 22 if the child is in high school, college or vocational school. ....	-0.07	-0.07
20	(NEW)	The current spouse benefit is based on 50 percent of the PIA of the other spouse. Reduce this percent each year by 1 percentage point beginning with newly eligible spouses in 2010, until the percent reaches 33. Thus, the spouse benefit would be based on 33 percent of PIA for newly eligible spouses in 2026 and later. ....	0.12	0.17
<b><i>E. Increasing Payroll Tax Rate or Revising Taxable Maximum (Benefit and Contribution Base)</i></b>				
7a	E1.1	Raise payroll tax rates (for employees and employers combined) by 2.2 percentage points in 2010 and later .....	2.09	2.19
7b	E1.2	Raise payroll tax rates (for employees and employers combined) by 2.0 percentage points in 2022 (to 14.4 percent combined) and by an additional 2.0 percentage points in 2052 (to 16.4 percent combined) ....	2.06	3.92
7c	(NEW)	Raise the payroll tax rates gradually (for employees and employers combined) by 0.1 percentage points in 2015; continue this increase each year for 20 years. By 2034, the combined employee and employer payroll tax rate would be 14.4 percent.....	1.39	1.98
8a	E2.1	Beginning in 2010, make all earnings subject to the OASDI payroll tax (but retain the cap for benefit calculations) .....	2.32	2.49
8b	E2.2	Beginning in 2010, make all earnings subject to the OASDI payroll tax and credit them for benefit purposes.....	1.89	1.65
8c	(NEW)	Beginning in 2010, make all earnings subject to the OASDI payroll tax and give benefit credit using an PIA formula that is extended to provide less credit for those with AIMEs higher than the current-law maximum AIME level. The high end of the benefit formula, applied to 2009, would be: 15 percent of AIME between \$4,482 and \$8,900 (\$106,800 divided by 12), plus 3 percent of AIME over \$8,900 .....	2.17	2.19
12	E2.6	Impose a 3 percent payroll tax on OASDI covered earnings above the current taxable maximum starting in 2010. Benefit computations would not reflect any earnings above the taxable maximum amount. ....	0.57	0.61
8d	(NEW)	Beginning in 2010, raise the taxable maximum each year by an additional 2 percent over the current-law, wage-indexed amount until total earnings subject to payroll taxes equals 90 percent of all covered earnings. Credit the earnings for benefit purposes.....	0.60	0.65

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			Actuarial Balance <sup>4</sup> (as a percent of payroll)	Annual Balance in 75 <sup>th</sup> Year <sup>5</sup> (as a percent of payroll)
8e	(NEW)	Make all earnings subject to the employer OASDI payroll tax beginning in 2010. For the employee OASDI payroll tax and for benefit calculation purposes, the taxable maximum would equal the present-law taxable maximum for years 2009 and earlier. Beginning in 2010, the taxable maximum would be raised each year by an additional 2 percent over the current-law, wage-indexed amount until earnings subject to payroll taxes equals 90 percent of all covered earnings.....	1.41	1.39
<b>F. Extending OASDI program coverage</b>				
9	F1	Cover newly hired State and local government employees beginning in 2010.....	0.17	-0.17
<b>G. Changing the investment requirements for the combined OASI and DI Trust Funds</b>				
14b	G1	Invest 40% of the Trust Funds in equities (phased in 2010-2024), assuming a 6.4-percent real rate of return on equities .....	0.67	0.00
14b	G2	Invest 40% of the Trust Funds in equities (phased in 2010-2024), assuming a 5.4-percent real rate of return on equities .....	0.48	0.00
14b	G3	Invest 40% of the Trust Funds in equities (phased in 2010-2024), assuming an ultimate 2.9 percent real rate of return on equities, the same as the special-issue yield on Social Security trust fund bonds.....	0.00	0.00
14a	G4	Invest 15% of the Trust Funds in equities (phased in 2010-2019), assuming a 6.4-percent real rate of return on equities .....	0.27	0.00
<p><sup>1</sup>All estimates are for individual provisions, as if each were enacted alone. The combined effect of several provisions together would result in quite different effects from those implied by simply adding the effect of the individual provisions, as complex interactions may be involved.. For an example, see the Office of the Chief Actuary's internet site: <a href="http://www.ssa.gov/OACT/solvency/provisions/interaction.html">http://www.ssa.gov/OACT/solvency/provisions/interaction.html</a>.</p> <p><sup>2</sup>Option labeling is consistent with the labeling in the NASI report: <i>Fixing Social Security: Adequate Benefits, Adequate Financing</i>.</p> <p><sup>3</sup>Option labeling is consistent with the labeling on the Office of the Chief Actuary's internet site: <a href="http://www.ssa.gov/OACT/solvency/provisions/index.html">http://www.ssa.gov/OACT/solvency/provisions/index.html</a></p> <p><sup>4</sup>Under the intermediate assumptions of the 2009 Trustees Report, the 75-year actuarial balance is -2.00 percent of taxable payroll.</p> <p><sup>5</sup>Under the intermediate assumptions of the 2009 Trustees Report, the annual balance in the 75<sup>th</sup> year of the projection period is -4.34 percent of the taxable payroll for that year.</p>				
Social Security Administration Office of the Chief Actuary October 30, 2009				

**Table 2: Estimated Long-Range OASDI Financial Effects of Individual Options<sup>1</sup>  
Requested by the National Academy of Social Insurance**

*Based on the Intermediate Assumptions of the 2009 Trustees Report, Unless Otherwise Stated*

NASI Option Number <sup>2</sup>	Office of the Chief Actuary Internet Option <sup>3</sup>	Provision (Option)	Estimated Change in Long-Range	
			Actuarial Balance <sup>4</sup> (as a percent of payroll)	Annual Balance in 75 <sup>th</sup> Year <sup>5</sup> (as a percent of payroll)
<b><i>C. Changing the Retirement Age (based on the intermediate assumptions of the 2008 Report)</i></b>				
16a	C1.2	Shorten the hiatus in the normal retirement age (start increasing to age 67 for those age 62 in 2010, rather than those age 62 in 2017) and then index the normal retirement age (by 1 month every 2 years) until the normal retirement age reaches age 68. ....	0.46	0.73
16b	C1.3	Shorten the hiatus in the normal retirement age (start increasing to age 67 for those age 62 in 2010, rather than those age 62 in 2017) and then index the normal retirement age (by 1 month every 2 years) until the NRA reaches age 70. ....	0.62	1.43
16c	C1.7	Index benefits to longevity after the normal retirement age (NRA) reaches age 67 under current law. Under current law, the NRA reaches 67 for individuals who attain age 62 in 2022 and later. Under this provision, the NRA would be further increased by one month for those attaining age 62 in every other year after 2022. ....	0.37	1.09
<b><i>D. Changing Benefits for Family Members (preliminary and approximate, subject to change)</i></b>				
2a	(NEW)	Establish an alternative benefit for a surviving spouse where both husband and wife established insured status as retired-workers. For the surviving spouse, the alternative benefit would equal 75 percent of the sum of the survivor's own worker benefit and the worker PIA (including any DRC's) of the deceased spouse. The alternative benefit would not exceed the benefit of an earner who is born and becomes eligible for retired-worker benefits in the same years as the surviving spouse, and who earns the SSA average wage every year. The alternative benefit would be paid only if more than the current-law benefit. This benefit would be available to surviving spouses on the rolls at the beginning of 2010 and those becoming eligible after 2010. ....	-0.06	
2b	(NEW)	Establish an alternative benefit for a surviving spouse where both husband and wife established insured status as retired-workers. For the surviving spouse, the alternative benefit would equal 75 percent of the sum of the survivor's own worker benefit and the worker PIA (including any DRC's) of the deceased spouse. The alternative benefit would not exceed the benefit of an earner who is born and becomes eligible for retired-worker benefits in the same years as the surviving spouse, and who earns the taxable maximum amount ever year. The alternative benefit would be paid only if more than the current-law benefit. This benefit would be available to surviving spouses on the rolls at the beginning of 2010 and those becoming eligible after 2010. ....	-0.30	

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<b><i>F. Extending OASDI program coverage (preliminary and approximate, subject to change)</i></b>				
10	(New)	Under current tax law, employee contributions to 401(k), 403(b) and related retirement plans <i>are not</i> subject to personal income tax, but <i>are</i> subject to OASDI payroll tax. Employee contributions to salary reduction plans for other, non-retirement purposes (such as health and dependent care flexible spending accounts) are <i>not</i> subject to FICA taxes. Beginning in 2010, provide OASDI payroll tax coverage of such salary reductions plans for non-retirement purposes.....	0.25	
11a	(New)	Beginning in 2010, dedicate the inheritance tax to the OASDI Trust Funds and preserve the inheritance tax in the future at 2009 levels. In 2009, the estate tax rate of 45 percent applies to the estate's value in excess of \$3.5 million for individuals (\$7.0 million for couples). This additional income is not credited toward benefits. ....	0.51	
11b	(New)	Beginning in 2010, dedicate the inheritance tax to the OASDI Trust Funds. Maintain the estate tax rate at 45 percent above the estate thresholds, but allow the estate income tax thresholds (\$3.5 million for individuals and \$7.0 million for couples) to increase each year with inflation. This additional income is not credited toward benefits...	0.40	
13a	(New)	For federal personal income tax, introduce an additional tax rate of 3 percent of adjusted gross income (AGI) above \$250,000 for couples and \$125,000 for individuals and dedicate this revenue to the OASDI Trust Funds. This additional income is not credited toward benefits .....	0.74	
13b	(New)	For federal personal income tax, introduce an additional tax rate of 5 percent of adjusted gross income (AGI) above \$250,000 for couples and \$125,000 for individuals and dedicate this revenue to the OASDI Trust Funds. This additional income is not credited toward benefits .....	1.23	

<sup>1</sup>All estimates are for individual provisions, as if each were enacted alone. The combined effect of several provisions together would result in quite different effects from those implied by simply adding the effect of the individual provisions, as complex interactions may be involved. For an example, see the Office of the Chief Actuary's internet site: <http://www.ssa.gov/OACT/solvency/provisions/interaction.html>.

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<sup>4</sup>Under the intermediate assumptions of the 2009 Trustees Report, the 75-year actuarial balance is -2.00 percent of taxable payroll.

<sup>5</sup>Under the intermediate assumptions of the 2009 Trustees Report, the annual balance in the 75<sup>th</sup> year of the projection period is -4.34 percent of the taxable payroll for that year.