

February 5, 2005

MEMORANDUM

FOR: Interested Parties

FROM: Jason Furman, Center on Budget and Policy Priorities

SUBJECT: How Large a Benefit Reduction Do You Need for the New Individual Accounts?

The White House has released very little information on the individual accounts proposed in the President's State of the Union Address. The Social Security actuaries memo only covers 10 years, not the traditional 75 years. And the memo does not include the traditional examples that would show wealth accumulation at retirement, the size of the individual account annuity, and the size of the benefit offset.

On February 3<sup>rd</sup> the White House released a fact sheet that contained a simple numerical example to explain the offset:

“For example, a worker who decides against taking a personal account might, in the future, get \$15,000 annually in benefits from the traditional system, reformed to be permanently sustainable. Another young worker could choose to invest in a personal retirement account. In exchange for the right to get the account, he gives up benefits from the traditional system. *For example, he might give up one-third of those future government benefits, and be entitled to receive \$10,000 annually from the traditional system...* If the account earns a 3% real rate of return – the worker would be right back where he started – at \$15,000 of combined benefits per year.” [emphasis added]<sup>1</sup>

The problem is that the numbers in this example are wrong or at least very misleading.<sup>2</sup> Under the President's plan the worker would have to give up about *two-thirds* of future government benefits and be entitled to receive about \$5,000 annually from the traditional system – that is only enough to replace 8 percent of one's pre-retirement income. In addition, the person would get an individual account from the new system and if the individual account earns a 3 percent real rate of return then the account would make up for this benefit offset.

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<sup>1</sup> White House Office of the Press Secretary, “Setting the Record Straight,” 2/3/05.

<sup>2</sup> The White House example could be technically correct if it represents a worker who contributes to the individual accounts for less than their full career, for example someone who is currently 40 years old and thus has only about 20 years to contribute to the account before his retirement. But the Bush administration has generally done all of its numerical examples of the amount of money you could accumulate in an individual account assuming that a worker contributes for his or her entire career. Furthermore, the relevant question for policy is what happens when the plan is fully in effect.

But, the issue discussed here is not what whether your eventual traditional benefit is reduced: the White House admits that it is. Nor is it whether your individual account will more than make up for the benefit cut: both sides of the debate agree that it depends on your returns and that with CBO's risk-adjusted rates of return the transaction will not leave you better off.

The issue is what fraction of your retirement income is coming from a safe, traditional Social Security benefit (the core tier of retirement security) and what fraction is coming from a new and potentially risky account.<sup>3</sup>

The White House example makes it appear as though a much larger fraction (and dollar amount) of retirement income would continue to come from the traditional Social Security benefit than would actually be the case. I don't know if this is deliberate deception to make the new plan appear to be safer than it is. But I do know that this never would have happened if the White House had asked the Social Security actuaries to do the standard tables that show the individual account balance at retirement, the value of these accounts, and the benefit offset. At the very least, the White House should not put out numerical examples without putting the time and effort into ensuring that they are at least approximately correct.

### **Why You Will Have to Give Up More than One-third of Your Benefit to Get an Individual Account in the President's Plan**

A table at the end of this memo provides a detailed example that explains the numbers. But first, the concept. The White House plan allows people to choose to direct 4 percent of payroll (up to a maximum amount) into individual accounts. Any individual who chooses this option would be subject to a reduction in his or her traditional Social Security benefit. This reduction would be the amount required to ensure that the individual account exactly netted out the benefit cut if the account accumulated at a 3 percent real rate of return (the risk-adjusted rate of return under CBO assumptions).

The White House fact sheet assumes that this plan will mean a one-third reduction in your traditional benefit. It appears to be based on the following faulty logic: "you can choose to redirect one-third of your payroll taxes into an individual account, but then you have to accept a one-third benefit cut. That way long-run solvency is unaffected and if you get a 3 percent real rate of return on your individual account, your benefits are back where they started."

Here's the problem with the statement: right now you get an internal rate of return on your payroll tax contributions of about 2 percent above inflation. The offset,

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<sup>3</sup> There are other important issues that I do not discuss in this memo, like the magnitude of the other benefit cuts required to restore solvency in the absence of any revenue measures, the administrative costs, potential problems with survivors and disability benefits, the additional up-front borrowing required for the accounts, the fact that the accounts appear to be designed in a way that reduces long-term solvency, and the political risk that the benefit offset would be reversed by a future Congress which would cause the plan to unravel.

however, is based on a 3 percent rate of return. Thus the offset amount accumulates more quickly than your benefit. And, as a matter of logic, it will end up adding up to more than one-third of your Social Security benefit.

If this is confusing, consider a simple example. A person lives for two periods. In the first period he pays \$200 in payroll taxes. In the second period he gets back \$200 in Social Security benefits. He thus has an internal rate of return of zero.

Now someone comes along and says that you can invest half of your payroll taxes. They also tell you that you are going to get your traditional benefit reduced by your individual account contribution plus 3 percent. As a result, your traditional benefit would be reduced by \$103 – a 50 percent contribution to your individual account would grow to a 52 percent reduction in your benefit. (If your individual account returned 3 percent, then you would get an additional \$103 in your individual account and see no net change in your benefit.)

The next section shows, however, that the real numbers are considerably worse than this simple example.

### **A Real Numerical Example: You Have to Give Up Two-thirds of Your Benefit**

The White House fact sheet does not specify the age or earnings or work history of the worker, just that the worker would “get \$15,000 annually in benefits from the traditional system, reformed to be permanently sustainable.” For my example, I will use an average earner born in 1990. This is the first person who can fully participate in the President’s plan – he turns 21 in 2011 and starts contributing to his individual account in that year and retires at age 65 in 2055. Under the current benefit schedule, this worker would get a retirement benefit of \$21,700 according to the Social Security Trustees (this number, like all numbers in this memo, is in inflation-adjusted 2004 dollars). The benefits payable through Social Security revenues under a system that, in the White House’s words, has been “reformed to be permanently sustainable” would be 73 percent of total benefits in 2055, or \$15,934. So far this is pretty close to the White House example.<sup>4</sup>

If this person contributes 4 percent of payroll to an individual account, then at retirement, this account would have \$152,000 of assets assuming if it accumulated at 3 percent annually above inflation, the offset rate specified in the President’s policy.<sup>5</sup> This

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<sup>4</sup> This memo uses the payable benefit to be comparable the White House fact sheet, which also appears to be using the payable benefit. Furthermore, the White House has acknowledged that the accounts themselves do not extend solvency and ruled out any revenue increases, therefore this is a reasonable approximation of what benefits would be when they propose additional benefit reductions to restore solvency. By way of comparison, the benefit under price indexing – one of the proposals the White House is considering – would be even lower, \$13,596.

<sup>5</sup> This is not very different from illustrative numbers Vice President Cheney used in a speech on January 13<sup>th</sup>, where he stated “But if she invested the money in the stock market, earning even its lowest historical rate of return, she would earn more than double that amount – \$160,000.” The Vice President, of course, was not using a 3 percent rate of return and did not specify the size of the accounts that would generate the \$160,000.

money would buy you an inflation-adjusted annuity of about \$11,000 annually, assuming an annuity rate of 7.2 percent, which is close to the annuity rate that the Social Security actuaries use for their calculations.

As a result, the person would be left with a traditional benefit of about \$5,000 annually – \$15,934 minus the \$11,000 offset for having opted for an individual account. This is about *two-thirds* lower than the person’s Social Security benefit otherwise would be – \$5,000 rather than \$15,934. So, the diversion of 4 percent of payroll into an individual account is accomplished by an offset that reduces traditional Social Security benefits by two-thirds, *not* one-third.

The \$5,000 would replace only about 8 percent of the worker’s pre-retirement wages. By the use of faulty numbers that inaccurately present the offset as reducing Social Security benefits by only one-third, the White House dodges one of the important questions we should be debating: Is it sufficient to have the risk-free tier of retirement security replace only 8 percent of prior wages? Is \$5,000 annually from a Social Security benefit enough for a person whose other assets may be invested in a more risky form?

But you cannot even start to have this debate when the White House will not provide the data (because the actuaries’ analysis stops after ten years) and the White House inaccurately claims that you get to keep \$10,000 – or two-thirds – of your Social Security benefit.

**APPENDIX: INDIVIDUAL ACCOUNT BALANCES FOR A SCALED  
MEDIUM EARNER (in constant 2004 dollars)**

Age	Year	Earnings	Account Contribution (4% of earnings)	Account Balance
21	2011	13,446	538	546
22	2012	16,205	648	1,220
23	2013	20,082	803	2,072
24	2014	23,753	950	3,099
25	2015	26,835	1,073	4,281
26	2016	29,531	1,181	5,609
27	2017	32,114	1,285	7,081
28	2018	34,316	1,373	8,686
29	2019	36,323	1,453	10,422
30	2020	38,035	1,521	12,278
31	2021	39,569	1,583	14,253
32	2022	41,079	1,643	16,349
33	2023	42,418	1,697	18,561
34	2024	43,668	1,747	20,891
35	2025	44,957	1,798	23,343
36	2026	46,032	1,841	25,912
37	2027	47,351	1,894	28,612
38	2028	48,535	1,941	31,441
39	2029	49,616	1,985	34,399
40	2030	50,593	2,024	37,485
41	2031	51,626	2,065	40,705
42	2032	52,767	2,111	44,069
43	2033	53,861	2,154	47,578
44	2034	54,942	2,198	51,235
45	2035	55,807	2,232	55,038
46	2036	56,525	2,261	58,984
47	2037	57,389	2,296	63,084
48	2038	58,104	2,324	67,335
49	2039	58,595	2,344	71,734
50	2040	58,725	2,349	76,271
51	2041	58,782	2,351	80,945
52	2042	58,745	2,350	85,759
53	2043	58,376	2,335	90,702
54	2044	57,815	2,313	95,770
55	2045	56,908	2,276	100,954
56	2046	55,452	2,218	106,234
57	2047	54,185	2,167	111,620
58	2048	52,595	2,104	117,104
59	2049	50,952	2,038	122,686
60	2050	48,759	1,950	128,346
61	2051	46,148	1,846	134,070
62	2052	44,907	1,796	139,916
63	2053	43,698	1,748	145,887
64	2054	42,514	1,701	151,990

Note: This is based on a “scaled medium earner,” a hypothetical earnings pattern developed by the Social Security actuaries to represent a realistic lifetime earnings and employment pattern that is low at first, then rises, and falls off slightly before retirement. These same earnings histories are used to generate the hypothetical benefits and replacement rates that appear in the Trustees reports and the individual accounts examples that have appeared in previous actuaries memos. The White House has not formally specified the maximum account size after 2015. This table assumes that the procedure for setting the maximum balance from 2010 through 2015 – starting at \$1,000 annually and increasing with \$100 plus wage inflation – will continue after 2015. Under this assumption, the scaled medium earner would be able to contribute 4 percent of payroll to the accounts annually, unconstrained by the cap on annual contributions.